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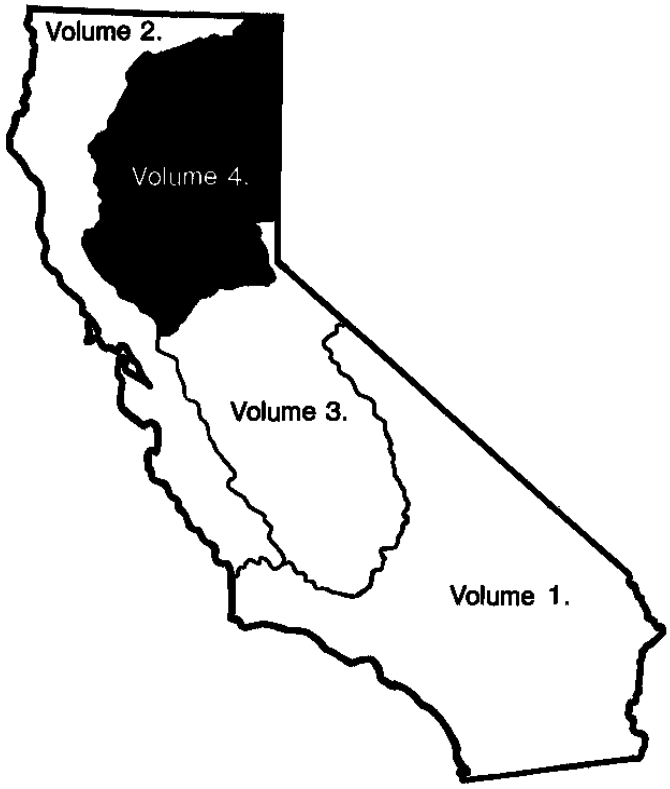
Water Resources Data California Water Year 2004

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



Water-Data Report CA-04-4

U.S. Department of the Interior
U.S. Geological Survey

Calendar for Water Year 2004

2003

October

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Water Resources Data
California
Water Year 2004

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

By M.D. Webster, G.L. Rockwell, M.F. Friebel, and S.J. Brockner

Water-Data Report CA-04-4

Prepared in cooperation with the
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2005

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PREFACE

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

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

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

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

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13. ABSTRACT *(Maximum 200 words)*
Water-resources data for the 2004 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 4 contains discharge records for 188 gaging stations, stage and contents for 62 lakes and reservoirs, gage-height records for 1 station, water quality for 20 streamflow-gaging stations and 1 partial-record stations. Also included are 4 miscellaneous partial-record sites. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State and Federal agencies in California.

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CONTENTS

Preface iii
Surface-Water and Water-Quality Stations in Downstream Order for which records are Published in this Volume viii
Discontinued Gaging Stations xv
Discontinued Lakes and Reservoirs xx
Discontinued Continuous Water-Quality Stations xx
Introduction 1
Cooperation 2
Downstream Order and Station Number 2
Numbering System for Wells and Miscellaneous Sites 2
Special Networks and Programs 3
Explanation of Stage- and Water-Discharge Records 4
  Data Collection and Computation 4
  Data Presentation 5
    Station Manuscript 5
    Peak Discharge Greater than Base Discharge 6
    Data Table of Daily Mean Values 6
    Statistics of Monthly Mean Data 6
    Summary Statistics 7
  Identifying Estimated Daily Discharge 8
  Accuracy of Field Data and Computed Results 8
  Other Data Records Available 8
Explanation of Precipitation Records 9
  Data Collection and Computation 9
  Data Presentation 9
Explanation of Water-Quality Records 9
  Collection and Examination of Data 9
  Water Analysis 9
Surface-Water-Quaity Records 10
  Classification of Records 10
  Accuracy of the Records 10
  Arrangement of Records 10
  On-Site Measurements and Sample Collection 11
  Water Temperature 11
  Sediment 11
  Laboratory Measurements 11
  Data Presentation 12
  Remark Codes 13
  Water-Quality Control Data 13
  Blank Samples 13
  Reference Samples 14
  Replicate Samples 14
  Spike Samples 14
Access to USGS Water Data 14
Definition of Terms 14
Surface-Water-Discharge and Surface-Water-Quality Records 38
  Remark Codes—Continued 38
    Dissolved Trace-Element Concentrations 38
    Data Precision 38
Discharge at Partial-Record Stations and Miscellaneous Sites 447
  Special study and miscellaneous sites 447
Analyses of Samples Collected at Water-Quality Partial-Record Sites 450
Index 451

ILLUSTRATIONS

Figure 1. System for numbering wells and miscellaneous sites (latitude and longitude). 3
Figure 2. Location of discharge and water-qualtiy stations in Alpine County. 16
Figure 3. Location of discharge stations in Amador County. 17
Figure 4. Location of discharge and water-quality stations in Butte County. 18
Figure 5. Location of discharge and water-quality stations in Colusa County. 19
Figure 6. Location of discharge and water-quality stations in El Dorado County. 20
Figure 7. Location of discharge station in Glenn County. 21
Figure 8. Location of discharge and water-quality stations in Lake County. 22
Figure 9. Location of discharge and water-quality stations in Lassen County. 23
Figure 10. Location of discharge and water-quality stations in Modoc County. 24
Figure 11. Location of discharge stations in Napa County. 25
Figure 12. Location of discharge and water-quality stations in Nevada County. 26
Figure 13. Location of discharge and water-quality stations in Placer County. 27
Figure 14. Location of discharge stations in Plumas County. 28
Figure 15. Location of discharge, stage, and water-quality stations in Sacramento County. 29
Figure 16. Location of discharge stations in Shasta County. 30
Figure 17. Location of discharge stations in Sierra County. 31
Figure 18. Location of discharge and water-quality stations in Siskiyou County. 32
Figure 19. Location of discharge and water-quality stations in Solano County. 33
Figure 20. Location of discharge and water-quality stations in Sutter County. 34
Figure 21. Location of discharge and water-quality stations in Tehama County. 35
Figure 22. Location of discharge and water-quality stations in Yolo County. 36
Figure 23. Location of discharge and water-quality stations in Yuba County. 37
Figure 24. Diversions and storage in Pit and McCloud River Basins. 43
Figure 25. Diversions and storage in upper Sacramento River Basin. 81
Figure 26. Diversions and storage in Battle Creek and Cow Creek Basins. 90
Figure 27. Diversions and storage in lower Sacramento River Basin. 124
Figure 28. Diversions and storage in South Fork Feather River Basin. 146
Figure 29. Diversions and storage in North Fork Feather River Basin. 162
Figure 30. Diversions and storage from Feather River at Lake Oroville. 191
Figure 31. Diversions and storage in North and Middle Yuba River Basins. 205
Figure 32. Diversions and storage in South Yuba River Basin. 238
Figure 33. Diversions and storage in Bear River Basin. 244
Figure 34. Diversions and storage in Middle Fork American and Rubicon River Basins. 323
Figure 35. Diversions and storage in South Fork American River Basin. 355
Figure 36. Principal inflows and diversions, Sacramento–San Joaquin Delta. 446

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), lake or reservoir elevation, gage heights, or contents; (g) gage height; (p), precipitation; (c), chemical; (b), biological; (t), water temperature; (u), turbidity; and (s), sediment]

	Station No.	Page
THE GREAT BASIN		
HONEY LAKE BASIN		
Susan River above Willard Creek, near Susanville (cs)	10356380	39
Susan River near Litchfield (cs)	10359040	40
MIDDLE ALKALI LAKE BASIN		
Cedar Creek near Cedarville (cs)	413220120102101	450
UPPER LAKE BASIN		
Bidwell Creek:		
Mill Creek at Upper Lake, near Lake City (cs)	10360401	41
Bidwell Creek below Mill Creek, near Fort Bidwell (cs)	10360900	42
PACIFIC SLOPE BASINS IN CALIFORNIA		
SACRAMENTO RIVER BASIN		
Sacramento River:		
Dog Creek at Delta (d)	11341900	447
Sacramento River at Delta (d)	11342000	44
Shasta Lake:		
Pit River:		
North Fork Pit River (head of Pit River):		
South Fork Pit River near Likely (d)	11345500	46
Pit River near Canby (d)	11348500	48
Collett Reservoir near Little Valley (l)	11351600	50
Pit River below diversion to Muck Valley Powerplant, near Bieber (d)	11351950	51
Pit No. 1 Powerplant near Fall River Mills (d)	11354200	52
Pit River below Pit No. 1 Powerplant, near Fall River Mills (d)	11355010	53
Hat Creek:		
Lost Creek below diversion to Lost Creek Powerplant No. 1, near Old Station (d)	11358020	55
Hat Creek below Hat No. 1 Diversion Dam, near Burney (d)	11358700	56
Hat Creek Powerplant No. 1 near Burney (d)	11358800	57
Hat No. 2 Power Canal Diversion to Hat Creek, near Burney (d)	11359100	58
Burney Creek at Burney Falls, near Burney (d)	11361000	59
Lake Britton near Burney (l)	11361400	60
Pit River below Pit No. 4 Dam (d)	11362500	62
Nelson Creek below diversion to Nelson Creek Powerplant, near Big Bend (d)	11362900	64
East Fork Nelson Creek below diversion to Nelson Creek, near Big Bend (d)	11362950	65
Pit River at Big Bend (d)	11363000	66
Iron Canyon Creek:		
James B. Black Powerplant near Big Bend (d)	11363910	68
Iron Canyon Reservoir near Big Bend (l)	11363920	60
Iron Canyon Creek below Iron Canyon Dam, near Big Bend (d)	11363930	69
Pit River near Montgomery Creek (d)	11365000	70
McCloud River near McCloud (d)	11367500	72
McCloud–Iron Canyon Diversion Tunnel near McCloud (d)	11367720	74
Lake McCloud near McCloud (l)	11367740	60
McCloud River below McCloud Dam, near McCloud (d)	11367760	75
McCloud River at Ah-Di-Na, near McCloud (d)	11367800	76
McCloud River above Shasta Lake (d)	11368000	78
Shasta Lake near Redding (l)	11370000	80
Sacramento River at Keswick (d)	11370500	82
Anderson–Cottonwood Irrigation District Canal at Sharon Street, at Redding (d)	11370700	84
Clear Creek:		
Whiskeytown Lake:		
Judge Francis Carr Powerplant near French Gulch (d)	11525430	85
Spring Creek Powerplant at Keswick (d)	11371600	86

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

	Station No.	Page
PACIFIC SLOPE BASINS IN CALIFORNIA—Continued:		
SACRAMENTO RIVER BASIN—Continued:		
Sacramento River—Continued:		
Whiskeytown Lake near Igo (l)	11371700	87
Clear Creek near Igo (d)	11372000	88
South Cow Creek (head of Cow Creek):		
South Cow Creek Canal:		
South Cow Creek Canal Diversion to South Cow Creek, near Whitmore (d)	11372080	91
Old Cow Creek:		
Kilarc Canal:		
Kilarc Canal Diversion to Old Cow Creek, near Whitmore (d)	11372325	92
Cow Creek near Millville (d)	11374000	93
Middle Fork Cottonwood Creek below diversion to Arbuckle Mountain Powerplant, near Platina (d)	11374305	95
Cottonwood Creek near Cottonwood (d)	11376000	96
North Fork Battle Creek (head of Battle Creek):		
North Fork Battle Creek below North Battle Creek Dam, near Manzanita Lake (d)	11376015	98
North Fork Battle Creek below McCumber Dam, near Manzanita Lake (d)	11376025	99
Volta No. 1 Powerplant near Manton (d)	11376043	100
Volta No. 2 Powerplant near Manton (d)	11376046	100
North Fork Battle Creek below diversion to Keswick Canal, near Manton (d)	11376050	101
Bailey Creek below diversion to Ponderosa–Bailey Creek Powerplant, near Manton (d)	11376120	102
North Fork Battle Creek below diversion to Cross Country Canal, near Manton (d)	11376140	103
North Fork Battle Creek below diversion to Eagle Canyon Canal, near Manton (d)	11376150	104
North Fork Battle Creek below diversion to Wildcat Canal, near Manton (d)	11376160	105
South Fork Battle Creek:		
South Powerplant near Manton (d)	11376410	100
South Fork Battle Creek below diversion to South Battle Creek Canal, near Manton (d)	11376420	106
Inskip Powerplant near Manton (d)	11376430	100
South Fork Battle Creek below diversion to Inskip Canal, near Manton (d)	11376440	107
Coleman Powerplant near Cottonwood (d)	11376458	100
South Fork Battle Creek below diversion to Coleman Canal, near Manton (d)	11376460	108
Battle Creek below Coleman Fish Hatchery, near Cottonwood (d)	11376550	109
Sacramento River above Bend Bridge, near Red Bluff (d)	11377100	111
Elder Creek near Paskenta (d)	11379500	113
Mill Creek near Los Molinos (dt)	11381500	115
Deer Creek near Vina (dtu)	11383500	119
East Park Reservoir near Stonyford (l)	11385100	125
Stony Gorge Reservoir near Elk Creek (l)	11386100	126
Sacramento River at Colusa (d)	11389500	127
Butte Creek below diversion dam, near Stirling City (d)	11389720	129
Butte Creek below forks of Butte Diversion Dam, near De Sabla (d)	11389740	130
Butte Creek below Centerville Diversion Dam, near Paradise (d)	11389780	131
Toadtown Canal above Butte Canal, near Stirling City (d)	11389800	132
Butte Creek near Chico (dtu)	11390000	133
Sacramento River below Wilkins Slough, near Grimes (dt)	11390500	138
Sacramento Slough near Knights Landing (cs)	11391100	141
Middle Fork Feather River (head of Feather River):		
Lake Oroville:		
South Fork Feather River:		
Little Grass Valley Reservoir near La Porte (l)	11395020	147
South Fork Feather River below Little Grass Valley Dam (d)	11395030	148
South Fork Tunnel near Strawberry Valley (d)	11395150	150
South Fork Feather River below diversion dam, near Strawberry Valley (d)	11395200	151
Lost Creek:		
Sly Creek Reservoir near Strawberry Valley (l)	11395400	153

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

	Station No.	Page
PACIFIC SLOPE BASINS IN CALIFORNIA—Continued:		
SACRAMENTO RIVER BASIN—Continued:		
Sacramento River—Continued:		
Lake Oroville—Continued:		
South Fork Feather River—Continued:		
Lost Creek—Continued:		
Oroville–Wyandotte Canal near Clipper Mills (d)	11395500	154
Lost Creek near Clipper Mills (d)	11396000	155
South Fork Feather River below Forbestown Dam (d)	11396200	157
Miners Ranch Canal below Ponderosa Dam, near Forbestown (d)	11396310	159
Bangor Canal below Miners Ranch Reservoir, near Oroville (d)	11396330	160
Sucker Run at Kanaka Diversion, near Feather Feather Falls (d)	11396395	161
North Fork Feather River:		
Lake Almanor at Prattville (l)	11399000	163
North Fork Feather River near Prattville (d)	11399500	164
Butt Creek below Almanor–Butt Creek Tunnel, near Prattville (d)	11400500	166
Butt Valley Reservoir near Caribou (l)	11401050	168
North Fork Feather River below Belden Dam (d)	11401112	169
Indian Creek (head of East Branch North Fork Feather River):		
Ward Creek:		
South Branch Ward Creek below diversion dam, near Genesee (d)	11401165	171
Spanish Creek above Blackhawk Creek, at Keddie (d)	11402000	172
North Fork Feather River below Rock Creek Diversion Dam (d)	11403200	174
Milk Ranch Creek:		
Three Lakes Reservoir:		
Milk Ranch Conduit at outlet, near Bucks Lodge (d)	11403450	176
Bucks Creek:		
Bucks Lake near Bucks Lodge (l)	11403500	177
Lower Bucks Lake near Bucks Lodge (l)	11403520	178
Bucks Creek below diversion dam, near Bucks Lodge (d)	11403530	179
Grizzly Forebay near Storrie (l)	11404250	181
Grizzly Creek below diversion dam, near Storrie (d)	11404300	182
North Fork Feather River below Grizzley Creek (d)	11404330	184
North Fork Feather River below Poe Dam (d)	11404400	186
North Fork Feather River at Pulga (d)	11404500	187
West Branch Feather River:		
Philbrook Creek below Philbrook Dam, near Butte Meadows (d)	11405120	189
West Branch Feather River below Hendricks Diversion Dam, near Stirling (d)	11405200	190
Lake Oroville near Oroville (l)	11406800	192
Palermo Canal near Oroville (d)	11406810	194
Power Canal:		
Thermalito Afterbay near Oroville (1)	11406870	195
Western Canal at Intake, near Oroville (d)	11406880	197
Richvale Canal at Intake, near Oroville (d)	11406890	198
Pacific Gas and Electric Co. Lateral at Intake, near Oroville (d)	11406900	199
Sutter–Butte Canal at Intake, near Oroville (d)	11406910	200
Thermalito Afterbay Release to Feather River, near Oroville (d)	11406920	201
Feather River at Oroville (d)	11407000	202
Jackson Meadows Reservoir near Sierra City (l)	11407800	206
Middle Yuba River controlled release at Jackson Meadows Dam, near Sierra City (d)	11407815	207
Milton–Bowman Tunnel Outlet near Graniteville (d)	11408000	208
Middle Yuba River below Milton Dam, near Sierra City (d)	11408550	210
Lohman Ridge Tunnel at intake, near Camptonville (d)	11408870	212
Middle Yuba River below Our House Dam, near Camptonville (d)	11408880	213

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

	Station No.	Page
PACIFIC SLOPE BASINS IN CALIFORNIA—Continued:		
SACRAMENTO RIVER BASIN—Continued:		
Sacramento River—Continued:		
Feather River—Continued:		
Middle Yuba River—Continued:		
Oregon Creek:		
Camptonville Tunnel at intake, near Camptonville (d)	11409350	214
Oregon Creek below Log Cabin Dam, near Camptonville (d)	11409400	215
Middle Yuba River near North San Juan (dcts)	11410000	217
North Yuba River below Goodyears Bar (d)	11413000	225
Slate Creek Tunnel near Strawberry Valley (d)	11413250	227
Slate Creek below diversion dam, near Strawberry Valley (d)	11413300	228
Deadwood Creek near Strawberry Valley (d)	11413320	229
Owl Gulch near Strawberry Valley (d)	11413323	230
New Colgate Powerplant near French Corral (d)	11413510	231
New Bullards Bar Reservoir near North San Juan (l)	11413515	232
North Yuba River below New Bullards Bar Dam, near North San Juan (d)	11413520	233
South Yuba River:		
Kidd Lake near Soda Springs (l)	11413940	235
Upper Cascade Lake near Soda Springs (l)	11413943	236
Lower Cascade Lake near Soda Springs (l)	11413945	237
Lake Spaulding:		
White Rock Lake near Soda Springs (l)	11414050	239
Meadow Lake near Cisco (l)	11414070	240
Lake Sterling near Cisco (l)	11414080	241
Fordyce Lake near Cisco (l)	11414090	242
Fordyce Creek below Fordyce Dam, near Cisco (d)	11414100	243
Lake Spaulding near Emigrant Gap (l)	11414140	245
Drum Canal at tunnel outlet, near Emigrant Gap (d)	11414170	246
South Yuba Canal near Emigrant Gap (d)	11414200	248
South Yuba River controlled release at Lake Spaulding, near Emigrant Gap (d)	11414210	249
South Yuba River at Langs Crossing, near Emigrant Gap (d)	11414250	250
Blue Lake near Emigrant Gap (l)	11414260	251
Rucker Creek below Blue Lake, near Emigrant Gap (d)	11414265	252
Rucker Lake near Emigrant Gap (l)	11414275	253
Rucker Creek below Rucker Lake, near Emigrant Gap (d)	11414280	254
Canyon Creek:		
Feeley Lake near Graniteville (l)	11414345	255
Lake Creek below Feeley Lake, near Graniteville (d)	11414350	256
Carr Lake near Graniteville (l)	11414355	257
Lake Creek below Carr Lake, near Graniteville (d)	11414360	258
French Lake near Cisco (l)	11414400	259
Canyon Creek below French Lake, near Cisco (d)	11414410	260
Faucherie Lake near Cisco (l)	11414440	261
Canyon Creek below Faucherie Lake, near Cisco (d)	11414450	262
Sawmill Lake near Graniteville (l)	11414465	263
Canyon Creek below Sawmill Lake, near Graniteville (d)	11414470	264
Jackson Lake near Sierra City (l)	11414690	265
Jackson Creek below Jackson Lake, near Sierra City (d)	11414700	266
Bowman Lake near Graniteville (l)	11415500	267
Bowman–Spaulding Canal at Jordan Creek Siphon Venturi, near Emigrant Gap (d)	11416100	268
Canyon Creek below Bowman Lake (d)	11416500	269
Rock Lake near Graniteville (l)	11416580	271
Texas Creek below Rock Lake (d)	11416585	272
Lower Rock Lake near Graniteville (l)	11416590	273

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

	Station No.	Page
PACIFIC SLOPE BASINS IN CALIFORNIA—Continued:		
SACRAMENTO RIVER BASIN—Continued:		
Sacramento River—Continued::		
Feather River—Continued:		
Yuba River (continuation of Middle Yuba River):		
Rucker Creek—Continued:		
Canyon Creek—Continued:		
Texas Creek below Lower Rock Lake, near Graniteville (d)	11416610	274
Culbertson Lake near Graniteville (l)	11416618	275
Texas Creek Tributary below Culbertson Lake, near Graniteville (d)	11416620	276
Middle Lindsey Lake near Graniteville (l)	11416660	277
Lindsey Creek below Middle Lindsey Lake (d)	11416670	278
Lower Lindsey Lake near Graniteville (l)	11416680	279
Lindsey Creek below Lower Lindsey Lake, near Graniteville (d)	11416700	280
South Yuba River at Jones Bar, near Grass Valley (dcts)	11417500	281
Harry L. Englebright Lake near Smartville (l)	11417950	289
Yuba River below Engelbright Dam, near Smartville (dts)	11418000	290
Deer Creek near Smartville (d)	11418500	297
Yuba River near Marysville (d)	11421000	299
Bear River near Emigrant Gap (d)	11421710	301
Bear River below Drum Afterbay, near Blue Canyon (d)	11421770	302
Bear River below Dutch Flat Afterbay, near Dutch Flat (d)	11421790	303
Rollins Reservoir near Colfax (l)	11421800	305
Bear River Canal Intake near Colfax (d)	11422000	306
Bear River below Rollins Dam, near Colfax (d)	11422500	308
Bear River fish release below Camp Far West Reservoir, near Wheatland (d)	11423800	310
Bear River near Wheatland (d)	11424000	311
Mormon Ravine near Newcastle (d)	11425418	313
Sacramento River at Verona (d)	11425500	314
Sacramento Weir Spill to Yolo Bypass, near Sacramento (d)	11426000	316
North Fork American River (head of American River):		
North Fork of North Fork American River:		
Lake Valley Reservoir near Cisco (l)	11426170	317
Sixmile Valley:		
Kelly Lake near Cisco (l)	11426180	318
Canyon Creek near Blue Canyon (d)	11426195	319
Canyon Creek below Towle Diversion Dam, near Blue Canyon (d)	11426196	320
North Fork American River (head of American River) at North Fork Dam (d)	11427000	321
Middle Fork American River:		
French Meadows Reservoir near Foresthill (l)	11427400	324
Middle Fork American River at French Meadows (d)	11427500	325
Duncan Canyon Creek near French Meadows (d)	11427700	327
Duncan Creek below diversion dam, near French Meadows (d)	11427750	329
Middle Fork American River above Middle Fork Powerplant, near Foresthill (d)	11427760	330
Middle Fork American River below Interbay Dam, near Foresthill (d)	11427770	331
Rubicon River:		
Rubicon–Rockbound Tunnel near Meeks Bay (d)	11427940	332
Rubicon River below Rubicon Dam, near Meeks Bay (d)	11427960	333
Little Rubicon River:		
Buck Island Lake:		
Buck–Loon Tunnel near Meeks Bay (d)	11428300	334
Little Rubicon River below Buck Island Dam, near Meeks Bay (d)	11428400	335
Hell Hole Reservoir near Meeks Bay (l)	11428700	336
Rubicon River below Hell Hole Dam, near Meeks Bay (d)	11428800	337

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

	Station No.	Page
PACIFIC SLOPE BASINS IN CALIFORNIA—Continued:		
SACRAMENTO RIVER BASIN—Continued:		
Sacramento River—Continued:		
North Fork American River (head of American River)—Continued:		
Middle Fork American River—Continued:		
Rubicon River—Continued:		
South Fork Rubicon River:		
Gerle Creek:		
Loon Lake near Meek Bay (l)	11429350	339
Gerle Creek below Loon Lake Dam, near Meeks Bay (d)	11429500	340
Gerle Reservoir near Meek Bay (l)	11429600	342
South Fork Rubicon River below Gerle Creek, near Georgetown (d)	11430000	343
Pilot Creek above Stumpy Meadows Lake (d)	11431800	345
Pilot Creek below Mutton Canyon, near Georgetown (d)	11433040	346
South Fork Long Canyon Creek (head of Long Canyon Creek):		
South Fork Long Canyon Creek Diversion Tunnel near Volcanoville (d)	11433060	347
South Fork Long Canyon Creek below diversion dam, near Volcanoville (d)	11433065	348
North Fork Long Canyon Creek:		
North Fork Long Canyon Creek Diversion Tunnel near Volcanoville (d)	11433080	349
North Fork Long Canyon Creek below diversion dam, near Volcanoville (d)	11433085	350
Middle Fork American River near Foresthill (d)	11433300	351
Folsom Lake:		
North Fork American River at Auburn Dam Site, near Auburn (t)	11433790	353
South Fork American River:		
Lake Aloha near Phillips (l)	11434900	356
Pyramid Creek at Twin Bridges (d)	11435100	357
Silver Lake (head of Silver Fork of South Fork American River)		
Silver Lake near Kirkwood (l)	11435900	358
Silver Lake Outlet near Kirkwood (d)	11436000	359
Caples Lake near Kirkwood (l)	11436950	361
Caples Creek Release below Caples Dam, near Kirkwood (d)	11436999	362
South Fork American River near Kyburz (d)	11439500	364
Silver Creek:		
Union Valley Reservoir near Riverton (l)	11441001	367
Junction Reservoir:		
South Fork Silver Creek:		
Ice House Reservoir near Kyburz (l)	11441100	368
South Fork Silver Creek near Ice House (d)	11441500	369
Junction Reservoir near Pollock Pines (l)	11441760	371
Silver Creek below Junction Dam, near Pollock Pines (d)	11441800	372
Camino Reservoir near Pollock Pines (l)	11441890	373
Silver Creek below Camino Diversion Dam (d)	11441900	374
Slab Creek Reservoir:		
Brush Creek Reservoir near Pollock Pines (l)	11442690	376
Brush Creek below Brush Creek Dam, near Pollock Pines (d)	11442700	377
Slab Creek Reservoir near Camino (l)	11443450	378
South Fork American River near Camino (d)	11443500	379
Rock Creek near Placerville (d)	11444201	381
South Fork American River near Placerville (d)	11444500	383
South Fork American River near Pilot Hill (t)	11446030	384
Folsom Lake near Folsom (l)	11446200	386
American River below Folsom Dam, near Folsom (t)	11446220	387
American River at Fair Oaks (dt)	11446500	389
American River at William B. Pond Park, at Carmichael (t)	11446700	393
American River below Watt Avenue Bridge, near Carmichael (t)	11446980	395

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

	Station No.	Page
PACIFIC SLOPE BASINS IN CALIFORNIA—Continued:		
SACRAMENTO RIVER BASIN—Continued:		
Sacramento River—Continued:		
American River—Continued:		
Natomas East Main Drainage Canal:		
Dry Creek at Vernon Street Bridge, at Roseville (d)	11447293	397
Arcade Creek near Del Paso Heights (dcts)	11447360	398
Sacramento River at Sacramento (g)	11447500	405
Sacramento River at Freeport (dcts)	11447650	407
Yolo Bypass:		
Clear Lake (head of Cache Creek):		
Kelsey Creek near Kelseyville (d)	11449500	419
Clear Lake at Lakeport (l)	11450000	421
Cache Creek near Lower Lake (d)	11451000	422
North Fork Cache Creek at Hough Springs, near Clearlake Oaks (d)	11451100	424
Indian Valley Reservoir near Clearlake Oaks (l)	11451290	426
North Fork Cache Creek near Clearlake Oaks (d)	11451300	428
Harley Gulch near Wilbur Springs (d)	11451540	430
Davis Creek at dam, near Knoxville (d)	11451600	432
Sulphur Creek at Wilbur Springs (d)	11451690	433
Bear Creek above Holsten Chimney Canyon, near Rumsey (d)	11451715	435
Cache Creek at Yolo (d)	11452500	437
Yolo Bypass near Woodland (d)	11453000	439
Dry Slough near Davis (d)	383601121461601	447
Willow Slough near Woodland (d)	383749121433701	448
Willow Slough Bypass near Davis (d)	383525121434601	449
Yolo Bypass:		
Putah Creek near Guenoc (d)	11453500	440
Lake Berryessa near Winters (l)	11453900	442
Putah Creek near Winters (d)	11454000	443
Putah South Canal near Winters (d)	11454210	445

DISCONTINUED GAGING STATIONS

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

Station No.	Station name	Drainage area (mi^2)	Period of record (Water Year)
10354000	Long Valley Creek near Scotts	125	1917, 1919, 1989–94
10354700	Mill Creek at Milford	2.26	1963–69
10355000	Baxter Creek near Janesville	19.6	1913–16, 1918–19
10355500	Schloss Creek at Janesville	1.05	1915, 1918–19
10356500	Susan River at Susanville	184	1900–05, 1913, 1917–21, 1951–94
10357000	Gold Run Creek near Susanville	15.1	1915–16
10358470	Willow Creek Tributary near Susanville	3.08	1966–71
10358500	Willow Creek near Susanville	90.4	1951–94
10359100	Shaffer Creek near Litchfield	5.63	1970–73
10359250	Pine Creek near Westwood	24.8	1951–61
10359300	Pine Creek near Susanville	226	1961–66, 1968, 1970–82
10359350	Eagle Lake Tributary near Susanville	.91	1963–65
10360230	Eagle Creek at Eagleville	6.36	1962–64, 1966–68, 1970
10360900	Bidwell Creek below Mill Creek, near Fort Bidwell	25.6	1961–82
10361000	Bidwell Creek at Fort Bidwell	—	1912, 1918–19
11341400	Sacramento River near Mount Shasta	135	1960–87
11341500	Sacramento River at Castella	256	1911–17, 1920–23
11342500	Sacramento River at Antler	460	1911, 1920–41
11343000	Parker Creek near Alturas	80.9	1931
11343500	North Fork Pit River near Alturas	203	1930–32, 1958–67
11344000	North Fork Pit River at Alturas	212	1929–31, 1972–85
11344500	South Fork Pit River at Jess Valley	100	1929–31
11346000	Crooks Canyon Creek near Likely	33.8	1929–31
11346500	Fitzhugh Creek near Alturas	36.7	1930–31
11347500	Pine Creek near Alturas	23.5	1919–31
11348000	Pit River at Alturas	857	1929–31
11348200	Pit River near Alturas	1,080	1966–71
11349000	Pit River near Lookout	1,585	1929–31, 1958–71, 1978–80
11349500	Ash Creek at Ash Valley	136	1929–31
11350500	Ash Creek at Adin	258	1904–06, 1929–33, 1958–70, 1972–82
11351000	Willow Creek near Adin	—	1930–31
11351500	Widow Valley Creek near Lookout	27.7	1930–31
11352000	Pit River near Bieber	2,475	1904–08, 1922–26, 1929–31, 1952–70, 1972–75
11352500	Horse Creek at Little Valley, near Pittville	237	1929–31, 1960–67
11352900	Beaver Creek near Hat Creek	23.2	1970–73
11353500	Bear Creek near Dana	84	1921–26
11353600	Dry Creek near Dana	6.46	1967–70
11353700	Fall River near Dana	123	1959–67
11354500	Fall River at Fall River Mills	—	1912–13, 1922
11355000	Pit River at Fall River Mills	3,651	1921–51, 1981
11355500	Hat Creek near Hat Creek	162	1926–94
11356500	Hat Creek at Hawkins Ranch, near Hat Creek	190	1912–13
11357000	Hat Creek at Wilcox Ranch, near Cassel	193	1922
11358000	Lost Creek near Bald Mountain	7.51	1930
11358500	Rising River near Cassel	22.2	1912–13, 1921–22
11359500	Hat Creek at Carbon	364	1922

DISCONTINUED GAGING STATIONS—CONTINUED

Station No.	Station name	Drainage area (mi^2)	Period of record (Water Year)
11360000	Burney Creek above Burney	60.1	1922
11360500	Burney Creek at Park Avenue, near Burney	94.6	1912–13, 1921–22, 1958–64, 1966–75, 1977–80
11363500	Kosk Creek near Henderson	54.8	1911–13, 1915–16
11364000	Pit River above Hatchet Creek	4,819	1926–37
11365500	Squaw Creek above Shasta Lake	64	1945–66
11366000	Squaw Creek at Ydalpom	99.5	1912–13
11366500	Pit River near Ydalpom	5,030	1911–43
11367000	Mud Creek near McCloud	—	1927–32
11367200	McCloud River below Big Springs, near McCloud	322	1956–59
11367300	Angel Creek near McCloud	17.1	1955–59
11367700	McCloud River above Panther Creek, near McCloud	401	1955–59
11368500	McCloud River near Gregory	633	1903–08
11369000	McCloud River at Baird	673	1911–43
11369500	Sacramento River at Kennett	6,355	1926–42
11371000	Clear Creek at French Gulch	115	1950–93
11371500	Clear Creek near Shasta	172	1912–13
11372050	Churn Creek near Redding	9.35	1961–66
11372060	Churn Creek below Newton Creek, near Redding	11.9	1966–72
11372200	South Cow Creek near Millville	77.3	1957–72
11372700	Clover Creek near Oak Run	19	1957–59
11373200	Oak Run Creek near Oak Run	11.0	1957–66
11373300	Little Cow Creek near Ingot	60.8	1958–65
11374060	Shingle Creek near Shingletown	3.25	1964–67
11374100	Bear Creek near Millville	75.7	1960–67
11374400	Middle Fork Cottonwood Creek near Ono	244	1957–75
11375500	North Fork Cottonwood Creek at Ono	58.8	1908–13
11375700	North Fork Cottonwood Creek near Igo	88.7	1957–80
11375810	Cottonwood Creek near Olinda	395	1971–86
11375815	Cottonwood Creek above South Fork, near Cottonwood	478	1982–85
11375820	South Fork Cottonwood Creek near Cottonwood	217	1963–78
11375870	South Fork Cottonwood Creek near Olinda	371	1977–86
11375900	South Fork Cottonwood Creek at Evergreen Road, near Cottonwood	397	1982–85
11376038	Manzanita Creek at park boundary, near Manzanita Lake	11.6	1979–81
11376450	Coleman Canal above Coleman Forebay, near Cottonwood	—	1979–85
11376490	Battle Creek above Coleman Powerhouse, near Cottonwood	355	1979
11376500	Battle Creek near Cottonwood	356	1941–61
11377200	Sacramento River at Bend Bridge	8,900	1968–70
11377500	Paynes Creek near Red Bluff	92.8	1950–66
11378500	Sacramento River at Red Bluff	9,077	1957–66
11378800	Red Bank Creek near Red Bluff	89.6	1960–82
11378860	Red Bank Creek at Rawson Road Bridge, near Red Bluff	109	1965–67
11379000	Antelope Creek near Red Bluff	123	1941–82
11380000	Elder Creek near Henleyville	130	1931–41
11380500	Elder Creek at Gerber	136	1941–69, 1977–79
11381000	Mill Creek near Mineral	21.2	1929–32
11381595	Mill Creek at Sherwood Bridge, near Los Molinos	133	1977–78
11381990	Thomes Creek tributary at Paskenta	.65	1968–70
11382000	Thomes Creek at Paskenta	203	1921–97
11382090	Thomes Creek at Rawson Road Bridge, near Richfield	284	1978–80
11382500	Deer Creek at Deer Creek Meadows	50.5	1929–32
11382550	Deer Creek below Slate Creek, near Deer Creek Meadows	69.4	1961–70
11383000	Deer Creek at Polk Springs	134	1929–31
11383600	Deer Creek at Red Bridge, near Vina	210	1977

DISCONTINUED GAGING STATIONS—CONTINUED

Station No.	Station name	Drainage area (mi^2)	Period of record (Water Year)
11383730	Sacramento River at Vina Bridge, near Corning	—	1945–78
11383800	Sacramento River near Hamilton City	10,833	1945–80
11384000	Big Chico Creek near Chico	72.4	1931–86
11384340	Mud Creek at Cohasset Road, near Chico	21.9	1968–69
11384350	Mud Creek near Chico	48.9	1966–74
11384500	Stony Creek near Stonyford	102	1914–15, 1919–34
11384600	Little Stony Creek above East Park Reservoir, near Lodoga	45.6	1967–82
11385000	Little Stony Creek near Lodoga	98.2	1909–34
11385500	Stony Creek above Stony Gorge Reservoir	281	1934–41
11386500	Grindstone Creek near Elk Creek	157	1936–37, 1940, 1966–72
11387000	Stony Creek near Fruto	597	1901–12, 1961–78
11387200	Stony Creek above Black Butte Lake, near Orland	623	1909, 1981–83
11387500	Stony Creek near Orland	635	1920–34
11387800	North Fork Stony Creek near Newville	63.4	1963–73
11387990	South Diverson Canal near Orland	—	1955–90
11388000	Stony Creek below Black Butte Dam, near Orland	738	1955–90
11388500	Stony Creek near Hamilton City	773	1941–73
11389000	Sacramento River at Butte City	12,080	1921–95
11389700	Butte Creek at Butte Meadows	44.4	1960–74
11389950	Little Butte Creek at Magalia	11.4	1969–85
11390200	Gold Run Creek Tributary near Nelson	1.31	1961
11390210	Cherokee Canal near Nelson	—	1970–74
11390655	South Fork Willow Creek near Fruto	38.9	1963–78
11390660	Walker Creek at Artois	60.4	1965–81
11390672	Stone Corral Creek near Sites	38.2	1958–64, 1966–85
11390890	Colusa Basin Drain at Road 99E, near Knights Landing	—	1996
11391000	Sacramento River at Knights Landing	14,535	1941–80
11391100	Sacramento Slough near Knights Landing	—	1996
11391400	Little Last Chance Creek below Frenchman Dam, near Chilcoot	81.1	1959–80
11391460	Berry Creek near Sattley	7.54	1973–81
11391500	Big Grizzly Creek at Grizzly Valley Dam, near Portola	44	1926–32, 1951–53, 1955–67, 1969–80
11392100	Middle Fork Feather River near Portola	586	1969–76, 1978–80
11392500	Middle Fork Feather River near Clio	686	1926–79
11393000	Middle Fork Feather River at Sloat	775	1911–27
11393500	Middle Fork Feather River below Sloat	819	1941–62
11394000	Middle Fork Feather River near Nelson Point	883	1924–32
11394500	Middle Fork Feather River near Merrimac	1,062	1952–86
11394620	Fall River near Feather Falls	9.89	1963–79
11394800	South Fork Feather River above Little Grass Valley Reservoir	8.09	1961–79
11395300	Lost Creek above Sly Creek Reservoir, near Strawberry Valley	14.1	1961–70
11396300	South Fork Feather River near Forbestown	105	1958–61
11396350	South Fork Feather River at Ponderosa Dam	108	1962–87, 1990
11396400	Sucker Run near Forbestown	18.7	1965–87
11396500	Palmero Canal at Enterprise	—	1912–65
11397000	South Fork Feather River at Enterprise	132	1912–66
11397500	Feather River at Bidwell Bar	1,341	1912–64
11400000	Butt Creek above Almanor–Butt Creek Tunnel, near Prattville	69.0	1937–64
11401000	Butt Creek at Butt Valley	81.3	1905–21
11401100	Butt Creek near Caribou	85.5	1970, 1976–81
11401125	Indian Creek near Boulder Creek Guard Station, near Taylorsville	68.6	1966–80
11401150	Red Clover Creek near Genesee	122	1959–65
11401180	Little Grizzly Creek near Genesee	29.6	1964–79

DISCONTINUED GAGING STATIONS—CONTINUED

Station No.	Station name	Drainage area (mi^2)	Period of record (Water Year)
11401200	Indian Creek near Taylorsville	526	1958–73, 1975–76, 1979–80
11401300	Lights Creek near Taylorsville	57.6	1958–62
11401500	Indian Creek near Crescent Mills	739	1906–09, 1911–18, 1930–93
11401900	Spanish Creek near Quincy	69.1	1959–63
11401940	Mill Creek near Quincy	6.72	1966–71
11402500	Spanish Creek at Keddie	194	1912–33
11403000	East Branch of North Fork Feather River near Rich Bar	1,025	1951–61, 1968–82
11403510	Bucks Creek Tunnel inlet near Storrie	—	1970, 1976
11404000	Grizzly Creek near Storrie	5.20	1930–44
11404100	Bucks Creek Tunnel Outlet near Storrie	—	1986–94
11405000	North Fork Feather River at Big Bend	1,965	1905–11
11405300	West Branch Feather River near Paradise	—	1958–86
11405500	Spring Valley Diversion near Yankee Hill	—	1926–52
11406000	Concow Creek near Yankee Hill	15.1	1928–30, 1932–52
11406500	West Branch Feather River near Yankee Hill	146	1931–63
11407150	Feather River near Gridley	3,676	1965–98
11407300	North Honcut Creek near Bangor	47.1	1961–81
11407500	South Honcut Creek near Bangor	30.6	1951–86
11407700	Feather River at Yuba City	3,974	1965–84
11407810	Middle Yuba River at Jackson Meadows Dam, near Sierra City	37.6	1989–94
11407900	Middle Yuba River below Jackson Meadows Dam, near Sierra City	38.3	1965–87
11408500	Middle Yuba River at Milton	39.8	1926–64
11408700	Middle Yuba River near Alleghany	96.6	1958–66
11408850	Middle Yuba River near Camptonville	136	1967–89
11409000	Middle Yuba River above Oregon Creek, near North San Juan	162	1941–69
11409300	Oregon Creek at Camptonville	23	1967–2000
11409500	Oregon Creek near North San Juan	34.4	1912–69
11410400	Haypress Creek near Sierra City	18.2	1961–66
11410500	North Yuba River near Sierra City	94.7	1924–44
11411000	Downie River at Downieville	72.7	1911–26
11411500	North Yuba River at Goodyears Bar	221	1911–31
11412000	Rock Creek at Goodyears Bar	8.98	1911–33
11412500	Goodyears Creek at Goodyears Bar	12.9	1911–33
11413100	North Yuba River above Slate Creek, near Strawberry Valley	351	1968–87
11413500	North Yuba River below Bullards Bar Dam	487	1941–66
11413600	Sweetland Creek near North San Juan	2.68	1969–73
11413700	Yuba River below New Colgate Powerplant, near French Corral	717	2001–02
11413900	Upper Castle Creek at Soda Springs	3.96	1958–63
11413950	South Yuba River Tributary near Soda Springs	.92	1972–73
11414000	South Yuba River near Cisco	51.8	1942–94
11414190	Drum Canal above Drum Forebay, near Blue Canyon	—	1964–91
11414500	Canyon Creek above Jackson Creek	16.6	1926–30
11415000	Jackson Creek at Mouth	5.45	1926–30
11417000	South Yuba River near Washington	198	1942–53, 1957–72
11417100	Poorman Creek near Washington	23.1	1961–71
11419000	Yuba River at Smartville	1,200	1904–41
11420000	Dry Creek near Brownsville	20.4	1949–60
11420500	Dry Creek at Virginia Ranch	71.3	1949–61
11420700	Dry Creek near Browns Valley	87.1	1964–80
11421500	Yuba River at Marysville	1,344	1944–57
11421700	Feather River below Shanghai Bend, near Olivehurst	5,334	1970–80
11421720	Boardman Canal near Emigrant Gap	—	1965–86
11421730	Bear River below Boardman Diversion Dam, near Emigrant Gap	4.01	1979–85

DISCONTINUED GAGING STATIONS—CONTINUED

Station No.	Station name	Drainage area (mi^2)	Period of record (Water Year)
11423000	Bear River near Auburn	140	1941–67
11423500	Bear River at Van Trent	265	1905–27
11424500	Dry Creek near Wheatland	99.9	1947–62
11424600	Wellman Creek near Smartville	.59	1968–73
11425100	Feather River at pump stand, near Nicolaus	5,920	1942, 1944–83,
11426110	Onion Creek Tributary No. 3 near Soda Springs	.65	1959–64, 1966–67
11426120	Onion Creek Tributary No. 5A near Soda Springs	.39	1959–64, 1966
11426130	Onion Creek Tributary No. 2 near Soda Springs	.48	1958–64, 1966–67
11426140	Onion Creek Tributary No. 1 near Soda Springs	.19	1958–64, 1966–67
11426150	Onion Creek near Soda Springs	3.58	1960–79
11426160	Onion Creek Tributary No. 7 near Soda Springs	.80	1959–64
11426200	North Fork Forbes Creek near Dutch Flat	1.68	1956–85
11426400	North Shirttail Creek near Dutch Flat	9.10	1957–85
11426500	North Fork American River near Colfax	308	1912–41
11428000	Rubicon River at Rubicon Springs, near Meeks Bay	31.4	1910–13, 1957–86
11429000	South Fork Rubicon River at sawmill, near Quintette	16.1	1910–14
11429800	Robbs Peak Tunnel near Riverton	—	1963–67
11430500	South Fork Rubicon River at Mouth, near Georgetown	56.9	1956–62
11431000	Rubicon River near Georgetown	195	1910–14, 1944–65
11431500	Georgetown Divide Ditch above Pilot Creek, near Georgetown	—	1951–62
11432000	Georgetown Divide Ditch near Georgetown	—	1947–60
11432500	Pilot Creek near Georgetown	15.1	1946–60
11433100	Long Canyon Creek near French Meadows	18.0	1960–92
11433200	Rubicon River near Foresthill	315	1959–84
11433260	North Fork of Middle Fork American River, near Foresthill	88.9	1965–85
11433400	Canyon Creek near Georgetown	12.7	1966–79
11433420	Maine Bar Canyon Creek near Greenwood	.75	1973–86
11433500	Middle Fork American River near Auburn	614	1912–86
11433800	North Fork American River below Auburn Dam site, near Auburn	973	1972–86
11434000	North Fork American River at Rattlesnake Bridge	996	1931–37, 1939–55
11435000	Pyramid Creek near Phillips	3.73	1961–64, 1966–70
11435500	South Fork American River at Kyburz	73.2	1924
11437000	Caples Lake Outlet near Kirkwood	13.5	1922–92
11438000	Silver Fork of South Fork American River, near Kyburz	107	1925–44
11439950	Alder Creek Pipeline Diversion near Whitehall	—	1976–82
11440000	Alder Creek near Whitehall	22.1	1923–81
11440500	Plum Creek near Riverton	7.32	1923–39
11440850	Picket Pen Creek near Kyburz	.49	1964–68
11441000	Silver Creek at Union Valley	83.0	1925–60
11442000	Silver Creek near Placerville	177	1922–61
11442500	South Fork American River below Silver Creek, near Pollock Pines	449	1923, 1970–93
11443000	American River Flume near Camino	—	1923–57
11445000	South Fork American River at Coloma	631	1930–41
11445500	South Fork American River near Lotus	673	1951–95
11446000	Weber Creek near Salmon Falls	97.6	1943–59
11447000	American River at Sacramento	1,936	1944–59
11447030	Strong Ranch Slough at Sacramento	5.02	1972–75
11447300	Dry Creek Tributary near Roseville	.39	1964–67
11447330	Magpie Creek near Del Paso Heights	2.03	1996–97
11448500	Adobe Creek near Kelseyville	6.36	1955–78
11448900	Highland Creek above Highland Creek Dam	11.9	1963–78
11449000	Highland Creek near Kelseyville	12.6	1955–62
11449010	Highland Creek below Highland Creek Dam, near Kelseyville	14.2	1966–77
11449100	Scotts Creek near Lakeport	55.2	1961–80
11449350	Burns Valley Creek near Clearlake Highlands	4.37	1963–69

DISCONTINUED GAGING STATIONS—CONTINUED

Station No.	Station name	Drainage area (mi^2)	Period of record (Water Year)
11449450	Copsey Creek near Lower Lake	13.2	1961–68
11449460	Seigler Creek at Lower Lake	12.5	1966–73
11450500	Cache Creek at Lower Lake	488	1901–15
11451500	North Fork Cache Creek near Lower Lake	197	1931–81
11451600	Davis Creek at dam, near Knoxville	10.2	2000–04
11451690	Sulphur Creek at Wilbur Springs	9.87	2000–04
11451700	Bear Creek Tributary near Wilbur Springs	4.49	1962–63
11451720	Bear Creek near Rumsey	100	1959–80
11451760	Cache Creek above Rumsey	955	1961–62, 1965–73, 1976–82, 1984–86
11451950	Cache Creek near Brooks	1,041	1983–86
11452000	Cache Creek near Capay	1,044	1943–77
11453170	Dry Creek above Appletree Creek, near Middletown	.83	1978
11453200	Dry Creek near Middletown	8.35	1960–72, 1979–80
11453550	Hunting Creek near Knoxville	37.8	1969–76
11453570	Adams Creek near Knoxville	7.42	1970–76
11453580	Nevada Creek near Knoxville	7.06	1969–76
11453600	Pope Creek near Pope Valley	78.3	1961–80
11453700	Capell Creek Tributary near Wooden Valley	.87	1962–65
11454100	Pleasants Creek near Winters	15.9	1960–68
11454500	Putah Creek at Winters	635	1906–31
11455000	Putah Creek near Davis	638	1949–63

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 (Water Year)
11362650	Pit no. 5 Powerplant Forebay near Big Bend	—	1986–89
11387995	Black Butte Lake near Orland	738	1964–90
11403300	Three Lakes Reservoir near Bucks Lake	1.0	1984–87
11416650	Upper Lindsey Lake near Graniteville	.06	1999–2002
11423700	Camp Far West Reservoir near Wheatland	283	1967–83
11425300	Halsey Forebay near Auburn	—	1980–86
11425320	Lake Arthur near Auburn	.86	1982–83
11425330	Halsey Afterbay near Auburn	—	1980–85
11425410	Rock Creek Lake near Auburn	—	1999–2000

DISCONTINUED CONTINUOUS WATER-QUALITY STATIONS

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

Station No.	Station name	Drainage area (mi^2)	Type of record	Period of record (Water Year)
10356500	Susan River at Susanville	184	WQ,B,S	1952–93
11341400	Sacramento River near Mount Shasta	135	T	1966–71, 1973–87
11342000	Sacramento River at Delta	425	WQ,T	1951–81
11345500	South Fork Pit River near Likely	247	WQ,S,T	1951–79
11348500	Pit River near Canby	1,431	WQ,S,T	1951–79
11365000	Pit River near Montgomery Creek	4,952	WQ,T	1951, 1953–81
11368000	McCloud River above Shasta Lake	604	T	1957–59

DISCONTINUED CONTINUOUS WATER-QUALITY STATIONS—CONTINUED

Station No.	Station name	Drainage area (mi^2)	Type of record	Period of record (Water Year)
11370000	Shasta Lake near Redding	6,421	WQ	1978–80
11370500	Sacramento River at Keswick	6,468	WQ,B,C, S,T	1951–94
11371000	Clear Creek at French Gulch	115	S	1966–67
11372000	Clear Creek near Igo	228	WQ,T	1958–79
11372200	South Cow Creek near Millville	77.3	T	1966–71
11374000	Cow Creek near Millville	425	WQ,T,S	1959–71, 1973–76, 1978–79
11374400	Middle Fork Cottonwood Creek near Ono	244	S,T	1965, 1968–73 1977–79
11375700	North Fork Cottonwood Creek near Igo	88.7	T	1977–79
11375810	Cottonwood Creek near Olinda	395	S,T	1973–80
11375820	South Fork Cottonwood Creek near Cottonwood	217	T	1977–79
11375870	South Fork Cottownood Creek near Olinda	371	S,T	1878, 1977–80
11376000	Cottonwood Creek near Cottonwood	927	WQ,S,T	1957–67, 1977–85
11376038	Manzanita Creek at park boundary, near Manzanita Lake	11.6	C,T	1980–81
11376550	Battle Creek below Coleman Fish Hatchery, near Cottonwood	357	WQ,S,T	1962–79
11377100	Sacramento River above Bend Bridge, near Red Bluff	8,900	WQ,C,S,T	1955–81, 1996–98
11377200	Sacramento River at Bend Bridge	8,900	S,T	1959–63, 1967, 1969–70
11378000	Sacramento River near Red Bluff	9,020	S,T	1961–68
11378500	Sacramento River at Red Bluff	9,077	S,T	1958–66
11379500	Elder Creek near Paskenta	92.4	WQ,S,T	1959–70
11380500	Elder Creek at Gerber	136	S,T	1972–79
11381595	Mill Creek at Sherwood Bridge, near Los Molinos	133	S,T	1977–79
11382000	Thomes Creek at Paskenta	203	WQ,S,T	1959–83
11382090	Thomes Creek at Rawson Road Bridge, near Richfield	284	S,T	1978–80
11383500	Deer Creek near Vina	—	U	2001–04
11383600	Deer Creek at Red Bridge, near Vina	210	S,T	1977
11383800	Sacramento River near Hamilton City	10,833	S,T	1977–80
11384600	Little Stony Creek above East Park Reservoir, near Lodoga	45.6	T	1967–79
11387000	Stony Creek near Fruto	597	T	1971–78
11387200	Stony Creek above Black Butte Lake, near Orland	623	S,T	1981–83
11387900	Masterson Hollow Creek near Newville	.96	T	1982
11388000	Stony Creek below Black Butte Dam, near Orland	738	WQ,S,T	1958–94
11389000	Sacramento River at Butte City	12,080	S,T	1960–67,1969–71, 1973–81
11389470	Colusa Weir Spill, Butte Basin, near Colusa	—	S,T	1973–75, 1977–80
11389500	Sacramento River at Colusa	12,090	C,S,T	1973, 1975, 1977–80, 1996–98
11390000	Butte Creek near Chico	147	WQ,U	1953–79, 2001–04
11390210	Cherokee Canal near Nelson	—	S,T	1970–74
11390425	Sutter Bypass at Long Bridge, near Meridian	—	S,T	1979–80
11390480	Tisdale Weir near Grimes	—	S	1978–80
11390600	Sacramento River at Boyers Bend, near Dunnig	—	T	1960–63
11390890	Colusa Basin Drain at Road 99E, near Knights Landing	—	C,T	1996–98
11391000	Sacramento River at Knights Landing	14,535	S,T	1959–60, 1978–80
11391050	Sutter Bypass near Nicolaus	—	S,T	1980–81
11391100	Sacramento Slough near Knights Landing	—	C,T	1996
11391500	Big Grizzly Creek at Grizzly Valley Dam, near Portola	44	T	1963–67
11392500	Middle Fork Feather River near Clio	686	T	1964–82
11394500	Middle Fork Feather River near Merrimac	1,062	T	1963–83
11396350	South Fork Feather River at Ponderosa Dam	108	T	1963–67
11401180	Little Grizzly Creek near Genesee	29.6	T	1964–79
11401500	Indian Creek near Crescent Mills	739	WQ,S,T	1951–79

DISCONTINUED CONTINUOUS WATER-QUALITY STATIONS—CONTINUED

Station No.	Station name	Drainage area (mi^2)	Type of record	Period of record (Water Year)
11404500	North Fork Feather River at Pulga	1,953	WQ,T	1963–83
11405300	West Branch Feather River near Paradise	—	T	1963–80
11406870	Thermolito Afterbay at river outlet	—	T	1968
11406920	Thermolito Afterbay Release to Feather River near Oroville	—	T	1969–92
11407000	Feather River at Oroville	3,624	C,S,T	1957–67, 1969–92
11407150	Feather River near Gridley	3,676	T,S	1965–93
11407700	Feather River at Yuba City	3,974	S,T	1964–76
11409000	Middle Yuba River above Oregon Creek, near North San Juan	162	T	1965–69
11409400	Oregon Creek below Log Cabin Dam, near Camptonville	29.1	T	1971–79
11409500	Oregon Creek near North San Juan	34.4	T	1965–69
11413100	North Yuba River above Slate Creek, near Strawberry Valley	351	T	1968–69, 1974–78
11413520	North Yuba River below New Bullards Bar Dam, near North San Juan	490	T	1967–68, 1971–79
11413700	Yuba River below New Colgate Powerplant, near French Corral	717	S,T	1975–78, 2001–02
11418500	Deer Creek near Smartville	84.6	S,T	1974–79
11420800	Yuba River at Daquerra Point Dam, near Browns Valley	1,330	T	1975–78
11421000	Yuba River near Marysville	1,339	T	1965–68, 1973–79, 1990–2003
11421500	Yuba River at Marysville	1,344	T	1964, 1966, 1969–70
11425000	Feather River near Nicolaus	5,921	S,T	1960–68, 1973, 1975–84
11425100	Feather River at pump stand, near Nicolaus	—	T	1969–72, 1974
11425500	Sacramento River at Verona	21,251	C,S,T	1980, 1996–98
11427000	North Fork American River at North Fork Dam	342	T	1960–83
11429350	Loon Lake near Meeks Bay	—	WQ	1996
11433400	Canyon Creek near Georgetown	12.7	T	1966–71, 1973–79
11433800	North Fork American River below Auburn Dam site, near Auburn	973	T	1983–86
11439500	South Fork American River near Kyburz	193	WQ,B,S,T	1966–80
11441001	Union Valley Reservoir near Riverton	—	WQ	1996
11441100	Ice House Reservoir near Kyburz	27.2	WQ	1996
11445500	South Fork American River near Lotus	673	T	1960–68, 1970–95
11447030	Strong Ranch Slough at Sacramento	5.02	C	1973
11447500	Sacramento River at Sacramento	23,502	S,T	1957–79
11447650	Sacramento River at Freeport	—	C	1974–75, 1989–94 1996–98
11447810	Sacramento River at Greens Landing	—	C	1974–81
11449010	Highland Creek below Highland Creek Dam, near Kelseyville	14.2	S,T	1967–77
11451760	Cache Creek above Rumsey	955	S,T	1960–70, 1976, 1984–86
11451950	Cache Creek near Brooks	1,041	S,T	1984–86
11452500	Cache Creek at Yolo	1,139	S,T	1959–65, 1967
11453000	Yolo Bypass near Woodland	—	S,T	1980
11453170	Dry Creek above Appletree Creek, near Middletown	.83	C,T	1978
11453500	Putah Creek near Guenoc	113	S,T	1960–73
11453550	Hunting Creek near Knoxville	37.8	S,T	1973–74
11454000	Putah Creek near Winters	574	T	1966–81

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

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2004 VOLUME 4—NORTHERN CENTRAL VALLEY BASINS AND THE GREAT BASIN FROM HONEY LAKE BASIN TO OREGON STATE LINE

By M.D. Webster, G.L. Pope, G.L. Rockwell, M.F. Friebel, *and* S.J. Brockner

INTRODUCTION

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

This volume of the report includes records on surface water in the State. Specifically, it contains: (1) discharge records for 188 streamflow-gaging stations and 4 partial-record station; (2) stage and content records for 62 lakes and reservoirs; (3) gage-height records for 1 station; and (4) water-quality records for 21 streamflow-gaging stations. Records included for stream stages are only a small fraction of those obtained during the water year.

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

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

Publications similar to this report are published annually by the U.S. Geological Survey for all States. Each report has an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report CA-04-1." For archiving and general distribution, the reports for 1971–74 water years also are identified as water-data reports. These water-data reports are for sale, in paper copy or on microfiche, by the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161. For further ordering information, the Customer Inquiries telephone number is (703) 487-4650, between 8:30 a.m. and 5:30 p.m. Eastern Standard Time.

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

COOPERATION

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

California Department of Water Resources, Thomas M. Hannigan, Director.

Georgetown Divide Public Utility District, Marie E. Davis, General Manager.

Hidden Valley Lake Community Services District, Mel Aust, General Manager.

Placer County, Edward McCarthy, Senior Civil Engineer.

Rock Creek Limited Partnership, Victor Engle, Vice President.

Sacramento County Department of Water Resources, Keith DeVore, Director.

Shasta Valley Resource Conservation District, Pete Talley, General Manager.

South Feather Water and Power Agency, Michael Glaze, General Manager.

STS Hydro Power, Ltd., Chuck Ahlrichs, Vice President.

Yolo County Flood Control and Water Conservation District, Tim O'Halloran, General Manager.

Yuba County Water Agency, Curt Aikens, Engineer-Administrator.

Assistance in the form of funds or services was given by the Bureau of Reclamation, U.S. Department of Interior.

The following organizations aided in collecting records: Arbuckle Mountain Project; California Department of Water Resources; El Dorado Irrigation District; Energy Growth Partnership I; Five Bears Hydro, Inc.; Malacha Power Project, Inc.; Nelson Creek Power Co.; Nevada and South Feather Water and Power Agency; Pacific Gas and Electric Co.; Placer and Yuba County Water Agencies; Sacramento Municipal Utility District; Shasta Hydroelectric; Enel North America, Inc.; Snow Mountain Hydroelectric; South Sutter Water District; STS Hydropower; and Synergics, Inc.

DOWNSTREAM ORDER AND STATION NUMBER

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

As an added means of identification, each hydrologic station and partial-record station has been assigned a station number. These station numbers are in the same downstream order used in this report. In assigning a station number, 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 composed of both types of stations. Gaps are consecutive. The complete 8-digit (or 10-digit) number for each station such as 09004100, which appears just to the left of the station name, includes a 2-digit part number “09” plus the 6-digit (or 8-digit) downstream order number “004100.” In areas of high station density, an additional two digits may be added to the station identification number to yield a 10-digit number. The stations are numbered in downstream order as described above between stations of consecutive 8-digit numbers.

NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES

The USGS well and miscellaneous site-numbering system is based on the grid system of latitude and longitude. The system provides the geographic location of the well or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, and the next 7 digits denote degrees, minutes, and seconds of longitude; the last 2 digits are a sequential number for wells within a 1-second grid. In the event that the latitude-longitude coordinates for a well and miscellaneous site are the same, a

sequential number such as “01,” “02,” and so forth, would be assigned as one would for wells (see fig. 1). The 8-digit, downstream order station numbers are not assigned to wells and miscellaneous sites where only random water-quality samples or discharge measurements are taken.

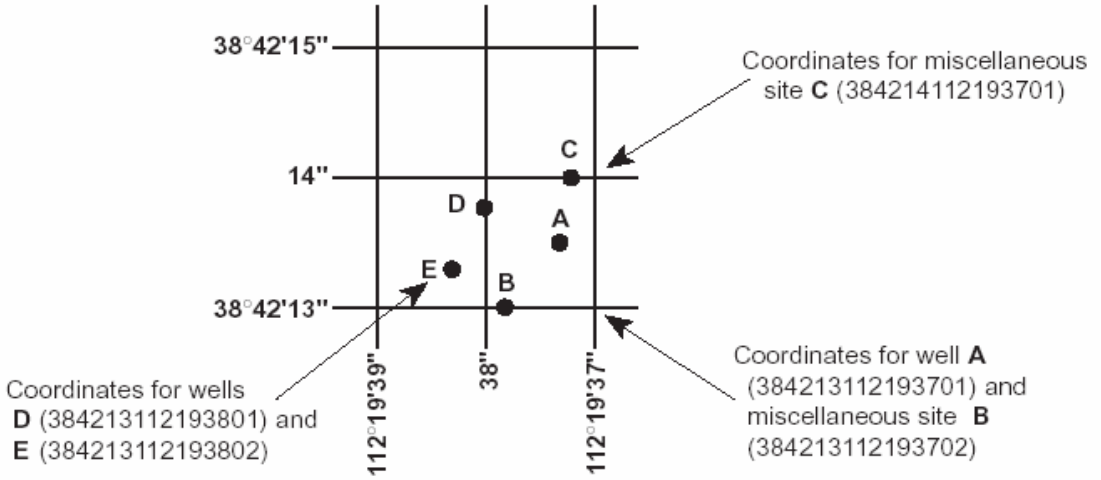


Figure 1. System for numbering wells and miscellaneous sites (latitude and longitude).

SPECIAL NETWORKS AND PROGRAMS

Hydrologic Benchmark Network is a network of 61 sites in small drainage basins in 39 States that was established in 1963 to provide consistent streamflow data representative of undeveloped watersheds nationwide, and from which data could be analyzed on a continuing basis for use in comparison and contrast with conditions observed in basins more obviously affected by human activities. At selected 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 Hydrologic Benchmark Program may be accessed from *http://water.usgs.gov/hbn/*.

National Stream-Quality Accounting Network (NASQAN) is a network of sites used to monitor 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 River basins. For the period 2000 through 2004, sampling was reduced to a few index stations on the Colorado and Columbia Rivers 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 (NAWQA) Program; (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 may be accessed from *http://water.usgs.gov/nasqan/*.

The National Atmospheric Deposition Program/National Trends Network (NADP/NTN) is a network of monitoring sites that 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 this network of 250 precipitation-chemistry monitoring sites. The USGS supports 74 of these 250 sites. This long-term, nationally consistent monitoring program, coupled 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 data from the individual sites, may be accessed from *http://bqs.usgs.gov/acidrain/*.

The USGS National Water-Quality Assessment (NAWQA) Program 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; to provide an improved understanding of the primary natural and human factors affecting these observed conditions and trends; and to provide information that supports development and evaluation of management, regulatory, and monitoring decisions by other agencies.

Assessment activities are being conducted in 42 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 is 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 water-resources managers to use in making decisions 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 may be accessed from *http://water.usgs.gov/nawqa/*.

The USGS National Streamflow Information Program (NSIP) is a long-term program with goals to provide framework streamflow data across the Nation. Included in the program are creation of a permanent Federally funded streamflow network, research on the nature of streamflow, regional assessments of streamflow data and databases, and upgrades in the streamflow information delivery systems. Additional information about NSIP may be accessed from *http://water.usgs.gov/nsip/*.

EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS

Data Collection and Computation

The base data collected at gaging stations consist of records of stage and measurements of discharge of streams or canals, and stage, surface area, and volume of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from a water-stage recorder that is either downloaded electronically in the field to a laptop computer or similar device or is transmitted using telemetry such as GOES satellite, land-line or cellular-phone modems, or by radio transmission. Measurements of discharge are made with a current meter or acoustic Doppler current profiler, using the general methods adopted by the USGS. These methods are described in standard textbooks, USGS Water-Supply Paper 2175, and the Techniques of Water-Resources Investigations of the United States Geological Survey (TWRIs), Book 3, Chapters A1 through A19 and Book 8, Chapters A2 and B2, which may be accessed from *http://water.usgs.gov/pubs/twri/*. The methods are consistent with the American Society for Testing and Materials (ASTM) standards and generally follow the standards of the International Organization for Standardization (ISO).

For stream-gaging stations, discharge-rating tables for any stage are prepared from stage-discharge curves. If extensions to the rating curves are necessary to express discharge greater than measured, the extensions are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, or computation of flow over dams and weirs), step-backwater techniques, velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating tables, then the monthly and yearly mean discharges are computed from the daily values. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features of the stream channel, the daily mean discharge is computed by the shifting-control method in which correction factors based on individual discharge measurements and notes by engineers and observers are used when applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the controlling section, the daily mean discharge is computed by the shifting-control method.

The stage-discharge relation at some stream-gaging stations is affected by backwater from reservoirs, tributary streams, or other sources. Such an occurrence 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 at some distance from the base gage.

An index velocity is measured using ultrasonic or acoustic instruments at some stream-gaging stations and this index velocity is used to calculate an average velocity for the flow in the stream. This average velocity along with a stage-area relation is then used to calculate average discharge.

At some stations, stage-discharge relation is affected by changing stage. At these stations, the rate of change in stage is used as a factor in computing discharge.

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

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

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

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

Data Presentation

The records published for each continuous-record surface-water discharge station (stream-gaging station) consist of five parts: (1) the station manuscript or description; (2) the data table of daily mean values of discharge for the current water year with summary data; (3) a tabular statistical summary of monthly mean flow data for a designated period, by water year; (4) 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; and (5) a hydrograph of discharge.

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 that clarify information presented under the various headings of the station description.

LOCATION.—Location information is obtained from the most accurate maps available. The location of the gaging station with respect to the cultural and physical features in the vicinity and with respect to the reference place mentioned in the station name is given. 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 term indicates the time period for which records have been published for the station or for an equivalent station. An equivalent station is one that was in operation at a time that the present station was not and whose location was such that its flow reasonably can be considered equivalent to flow at the present station.

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

GAGE.—The type of gage in current use, the datum of the current gage referred to a standard datum, and a condensed history of the types, locations, and datums of previous gages are given under this heading.

REMARKS.—All periods of estimated daily discharge either will be identified by date in this paragraph of the station description for water-discharge stations or flagged in the daily discharge table. (See section titled Identifying Estimated Daily Discharge.) Information is presented relative to the accuracy of the records, to special methods of computation, and to conditions that affect natural flow at the station. In addition, information may be presented pertaining to average discharge data for the period of record; to extremes data for the period of record and the current year; and, possibly, to other pertinent items. For reservoir stations, information is given on the dam forming the reservoir, the capacity, the outlet works and spillway, and the purpose and use of the reservoir.

COOPERATION.—Records provided by a cooperating organization or obtained for the USGS by a cooperating organization are identified here.

EXTREMES OUTSIDE PERIOD OF RECORD.—Information here documents 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 USGS.

REVISIONS.—Records are revised if errors in published records are discovered. Appropriate updates are made in the USGS distributed data system, NWIS, and subsequently to its Web-based National data system, NWISWeb (*http://water.usgs.gov/nwis/nwis*). Users are encouraged to obtain all required data from NWIS or NWISWeb to ensure that they have the most recent data updates. Updates to NWISWeb are made on an annual basis.

Although rare, occasionally the records of a discontinued gaging station may need revision. Because no current or, possibly, future station manuscript would be published for these stations 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 (address given on the back of the title page of this report) to determine if the published records were revised after the station was discontinued. If, however, the data for a discontinued station were obtained by computer retrieval, the data would be current. Any published revision of data is always accompanied by revision of the corresponding data in computer storage.

Manuscript information for lake or reservoir stations differs from that for stream stations in the nature of the REMARKS and in the inclusion of a stage-capacity table when daily volumes are given.

Peak Discharge Greater than Base Discharge

Tables of peak discharge above base discharge are included for some stations where secondary instantaneous peak discharge data are used in flood-frequency studies of highway and bridge design, flood-control structures, and other flood-related projects. The base discharge value is selected so an average of three peaks a year will be reported. This base discharge value has a recurrence interval of approximately 1.1 years or a 91-percent chance of exceedence in any 1 year.

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 arithmetic 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 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). Values for cubic feet per second per square mile and runoff in inches or in acre-feet may be omitted if extensive regulation or diversion is in effect 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 volumes are given. These values are identified by a symbol and a corresponding footnote.

Statistics of Monthly Mean Data

A tabular summary of the mean (line headed MEAN), maximum (MAX), and minimum (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 values. 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.

The designated period will consist of all of the station record within the specified water years, including complete months of record for partial water years, and may coincide with the period of record for the station. The water years for which the statistics are computed are consecutive, unless a break in the station record is indicated in the manuscript.

Summary Statistics

A table titled SUMMARY STATISTICS follows the statistics of monthly mean data tabulation. This table consists of four columns with the first column containing the line headings of the statistics being reported. The table provides a statistical summary of yearly, daily, and instantaneous flows, not only for the current water year but also for the previous calendar year and for a designated period, as appropriate. The designated period selected, WATER YEARS __-__, will consist of all of the station records within the specified water years, including complete months of record for partial water years, and may coincide with the period of record for the station. The water years for which the statistics are computed are 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 the dates of occurrence do not fall within the selected water years listed in the heading, 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 extensive regulation or diversion of flow is in effect in the drainage basin.

The following summary statistics data are provided with each continuous record of discharge. Comments that follow clarify information presented under the various line headings of the SUMMARY STATISTICS table.

ANNUAL TOTAL.—The sum of the daily mean values of discharge for the year.

ANNUAL MEAN.—The arithmetic mean for the individual daily mean discharges for the year noted or for the designated period.

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

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

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

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

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

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 REMARKS paragraph in the manuscript.

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 paragraph in the manuscript or a footnote may be used to provide further information.

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

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

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

Cubic feet per square mile (CFSM) 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.

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

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

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

90 PERCENT EXCEEDS.—The discharge that has been 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 table lists annual maximum stage and discharge at crest-stage stations, and the second table lists 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 are often made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for a 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. This identification is shown either by flagging individual daily values with the letter "e" and noting in a table footnote, "e–Estimated," or by listing the dates of the estimated record in the REMARKS paragraph of the station description.

Accuracy of Field Data and Computed Results

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

The degree of accuracy of the records is stated in the REMARKS in the station description. "Excellent" indicates that about 95 percent of the daily discharges are within 5 percent of the true value; "good" within 10 percent; and "fair," within 15 percent. "Poor" indicates that daily discharges have less than "fair" accuracy. Different accuracies may be attributed to different parts of a given record.

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

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, values 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 observed discharge.

Other Data Records Available

Information of a more detailed nature than that published for most of the stream-gaging stations such as discharge measurements, gage-height records, and rating tables is available from the District office. Also, most stream-gaging station records are available in computer-usable form and many statistical analyses have been made.

Information on the availability of unpublished data or statistical analyses may be obtained from the District office (see address that is shown on the back of the title page of this report).

EXPLANATION OF PRECIPITATION RECORDS

Data Collection and Computation

Rainfall data generally are collected using electronic data loggers that measure the rainfall in 0.01-inch increments every 15 minutes using either a tipping-bucket rain gage or a collection well gage. Twenty-four hour rainfall totals are tabulated and presented. A 24-hour period extends from just past midnight of the previous day to midnight of the current day. Snowfall-affected data can result during cold weather when snow fills the rain-gage funnel and then melts as temperatures rise. Snowfall-affected data are subject to errors. Missing values are indicated by this symbol "---" in the table.

Data Presentation

Precipitation records collected at surface-water gaging stations are identified with the same station number and name as the stream-gaging station. Where a surface-water daily-record station is not available, the precipitation record is published with its own name and latitude-longitude identification number.

Information pertinent to the history of a precipitation station is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, period of record, and general remarks.

The following information is provided with each precipitation station. Comments that follow clarify information presented under the various headings of the station description.

LOCATION.—See Data Presentation in the EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS section of this report (same comments apply).

PERIOD OF RECORD.—See Data Presentation in the EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS section of this report (same comments apply).

INSTRUMENTATION.—Information on the type of rainfall collection system is given.

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

EXPLANATION OF WATER-QUALITY RECORDS

Collection and Examination of Data

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

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

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

Water Analysis

Most of the methods used for collecting and analyzing water samples are described in the TWRIs, which may be accessed from *http://water.usgs.gov/pubs/twri/*.

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

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent

inconsistency exists between 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 (and sometimes mean or median values) for each constituent measured, and are based on 15-minute or 1-hour intervals of recorded data beginning at 0000 hours and ending at 2400 hours for the day of record.

SURFACE-WATER-QUAITY RECORDS

Records of surface-water quality ordinarily are obtained at or near stream-gaging stations because discharge data are useful in the interpretation of surface-water quality. Records of surface-water quality in this report involve a variety of types of data and measurement frequencies.

Classification of Records

Water-quality data for surface-water sites are grouped into one of three classifications. A *continuous-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 continuous- or partial-record station, where 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 *continuous records* as used in this report and *continuous recordings* that refer to a continuous graph or a series of discrete values recorded at short intervals. 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 and 12.

Accuracy of the Records

One of four accuracy classifications is applied for measured physical properties at continuous-record stations on a scale ranging from poor to excellent. The accuracy rating is based on data values recorded before any shifts or corrections are made. Additional consideration also is given to the amount of publishable record and to the amount of data that have been corrected or shifted.

Measured physical property	Rating			
	Excellent	Good	Fair	Poor
Water temperature	≤ ±0.2 °C	> ±0.2 to 0.5 °C	> ±0.5 to 0.8 °C	> ±0.8 °C
Specific conductance	≤ ±3%	> ±3 to 10%	> ±10 to 15%	> ±15%
Dissolved oxygen	≤ ±0.3 mg/L	> ±0.3 to 0.5 mg/L	> ±0.5 to 0.8 mg/L	> ±0.8 mg/L
pH	≤ ±0.2 unit	> ±0.2 to 0.5 unit	> ±0.5 to 0.8 unit	> ±0.8 unit
Turbidity	≤ ±5%	> ±5 to 10%	> ±10 to 15%	> ±15%

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.

On-Site Measurements and Sample Collection

In obtaining water-quality data, a major concern is assuring that the data obtained represent the naturally occurring quality of the water. To ensure this, certain measurements, such as water temperature, pH, and dissolved oxygen, must be made on site when the samples are taken. To assure that measurements made in the laboratory also represent the naturally occurring water, carefully prescribed procedures must be 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 on-site measurements and for collecting, treating, and shipping samples are given in TWRIs Book 1, Chapter D2; Book 5, Chapters A1, A3, and A4; and Book 9, Chapters A1-A6. These TWRIs are listed in this report. Also, detailed information on collecting, treating, and shipping samples can be obtained from the USGS District office (see address that is shown on the back of title page in this report).

Water Temperature

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

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

Sediment

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

During periods of rapidly changing flow or rapidly changing concentration, samples may be 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 observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

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

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

Laboratory Measurements

Samples for biochemical oxygen demand (BOD) and indicator bacteria are analyzed locally. All other samples are analyzed in the USGS laboratory in Lakewood, Colorado, unless otherwise noted. Methods used in analyzing sediment samples and computing sediment records are given in TWRI, Book 5, Chapter C1. Methods used by the USGS laboratories are given in the TWRIs, Book 1, Chapter D2; and Book 5, Chapters A1, A3, and A4. The TWRI

publications may be accessed from http://water.usgs.gov/pubs/twri/. These methods are consistent with ASTM standards and generally follow ISO standards.

Data Presentation

For continuing-record stations, information pertinent to the history of station operation is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, drainage area, period of record, type of data available, instrumentation, general remarks, cooperation, and extremes for parameters currently measured daily. Tables of chemical, physical, biological, radiochemical data, and so forth, 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 then 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 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 information in the EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS section of this report (same comments apply).

DRAINAGE AREA.—See Data Presentation information in the EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS section of this report (same comments apply).

PERIOD OF RECORD.—This indicates the time periods for which published water-quality records for the station are available. 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 parameters individually.

INSTRUMENTATION.—Information on instrumentation is given only if a water-quality monitor temperature record, 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 USGS by a cooperating organization are identified here.

EXTREMES.—Maximums and minimums are given only for parameters measured daily or more frequently. For parameters measured weekly or less frequently, true maximums or minimums may not have been obtained. Extremes, when given, are provided for both the period of record and for the current water year.

REVISIONS.—Records are revised if errors in published water-quality records are discovered. Appropriate updates are made in the USGS distributed data system, NWIS, and subsequently to its Web-based National data system, NWISWeb (http://waterdata.usgs.gov/nwis). Users of USGS water-quality data are encouraged to obtain all required data from NWIS or NWISWeb to ensure that they have the most recent updates. Updates to the NWISWeb are made on an annual basis.

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.

Remark Codes

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

Printed Output	Remark
e	Value is estimated.
>	Actual value is known to be greater than value shown.
<	Actual value is known to be less than 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.

Water-Quality Control Data

The USGS National Water Quality Laboratory collects quality-control data on a continuing basis to evaluate selected analytical methods to determine long-term method detection levels (LT-MDLs) and laboratory reporting levels (LRLs). These values are re-evaluated each year on the basis of the most recent quality-control data and, consequently, may change from year to year.

This reporting procedure limits the occurrence of false positive error. Falsely reporting a concentration greater than the LT-MDL for a sample in which the analyte is not present is 1 percent or less. Application of the LRL limits the occurrence of false negative error. The chance of falsely reporting a non-detection for a sample in which the analyte is present at a concentration equal to or greater than the LRL is 1 percent or less.

Accordingly, concentrations are reported as less than LRL for samples in which the analyte was either not detected or did not pass identification. Analytes detected at concentrations between the LT-MDL and the LRL and that pass identification criteria are estimated. Estimated concentrations will be noted with a remark code of “E.” These data should be used with the understanding that their uncertainty is greater than that of data reported without the E remark code.

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 office are described in the following section. Procedures have been established for the storage of water-quality-control data within the USGS. These procedures allow for storage of all derived QC data and are identified so that they can be related to corresponding environmental samples. These data are not presented in this report but are available from the District office.

Blank Samples

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

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.

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.

Reference Samples

Reference material is a solution or material prepared by a laboratory. The reference material 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. Many types of replicate samples are 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 samples—A type of replicate sample in which the samples are collected simultaneously with two or more samplers or by using one sampler and alternating the collection of samples into two or more compositing containers.

Sequential samples—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, each subsample 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.

ACCESS TO USGS WATER DATA

The USGS 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 from *http://water.usgs.gov*.

Water-quality data and ground-water data also are available through the WWW. In addition, data can be provided in various machine-readable formats on various media. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each Water Discipline District Office (See address that is shown on the back of the title page of this report.)

DEFINITION OF TERMS

Specialized technical terms related to streamflow, water-quality, and other hydrologic data, as used in this report, may be accessed from *http://water.usgs.gov/ADR_Defs_2004.pdf*. Terms such as algae, water level, and precipitation are used in their common everyday meanings, definitions of which are given in standard dictionaries. Not all terms defined in this alphabetical list apply to every State. See also table for converting English units to International System (SI) Units. Other glossaries that also define water-related terms are accessible from *http://water.usgs.gov/glossaries.html*.

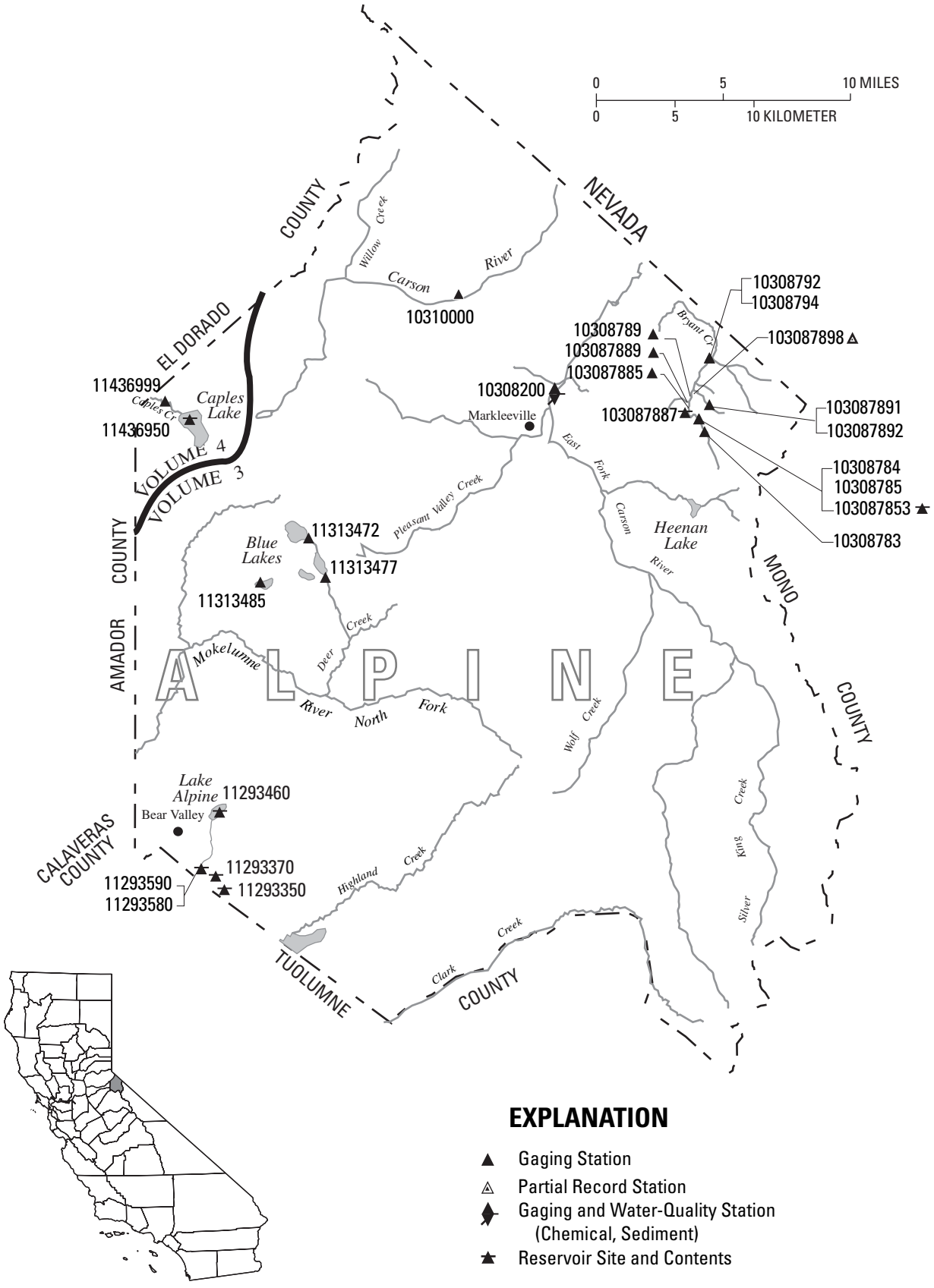


Figure 2. Location of discharge and water-qualtiy stations in Alpine County.
(NOTE: Records for stations 10308200 through 10310000 and 11293350 through 11313485 published in volume 3.)

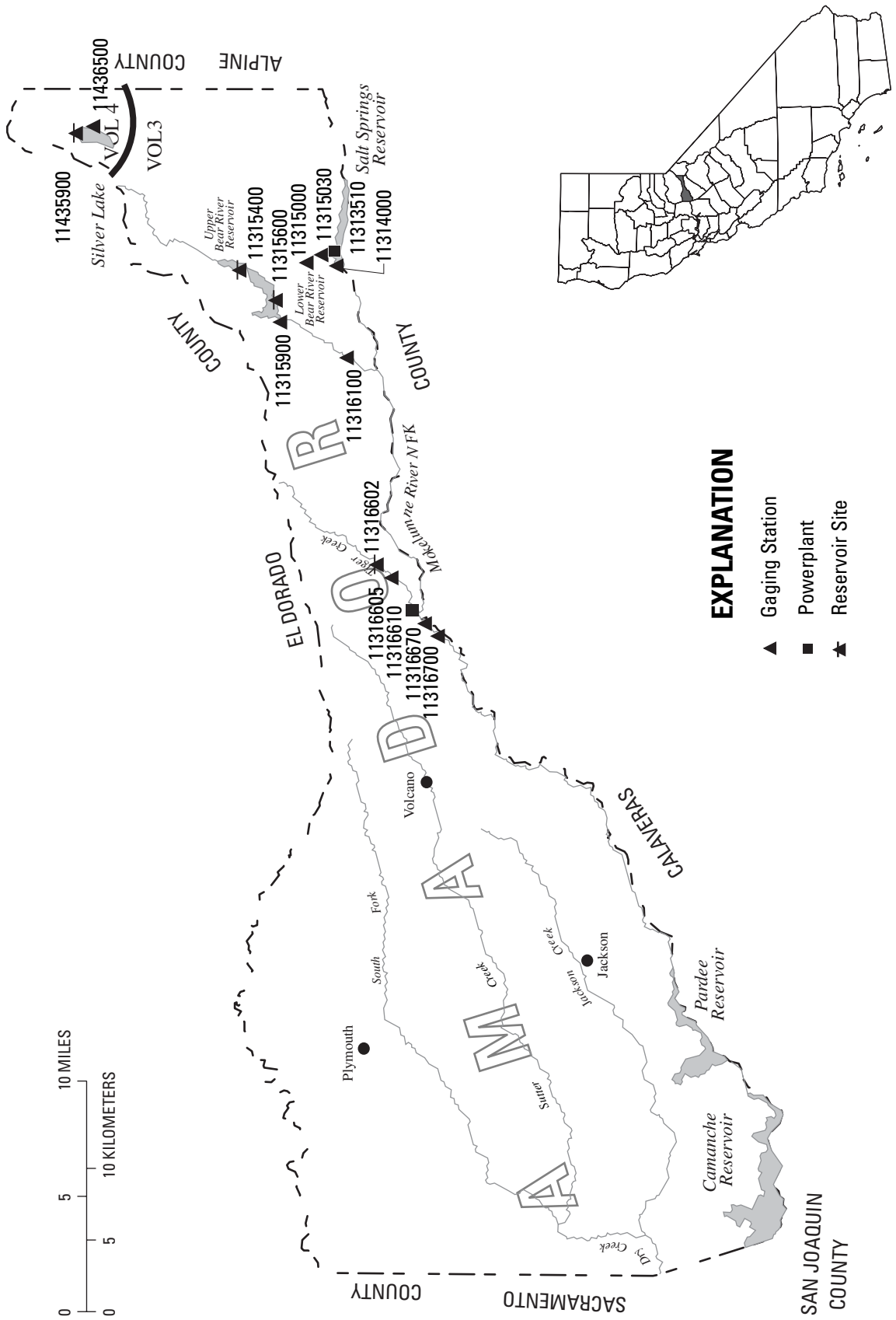


Figure 3. Location of discharge stations in Amador County.
(NOTE: Records for stations 11313510 through 11316700 published in volume 3.)

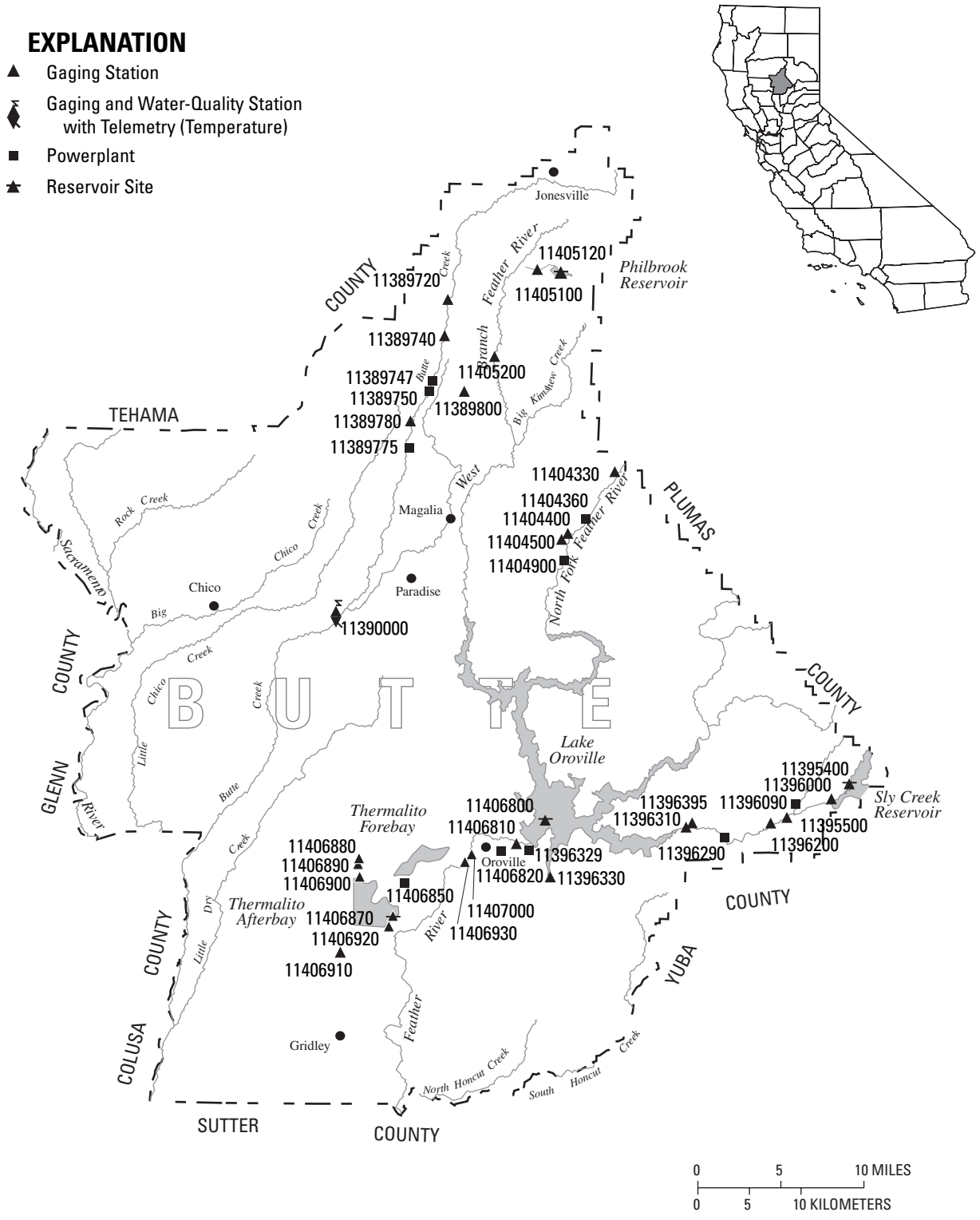


Figure 4. Location of discharge and water-quality stations in Butte County.

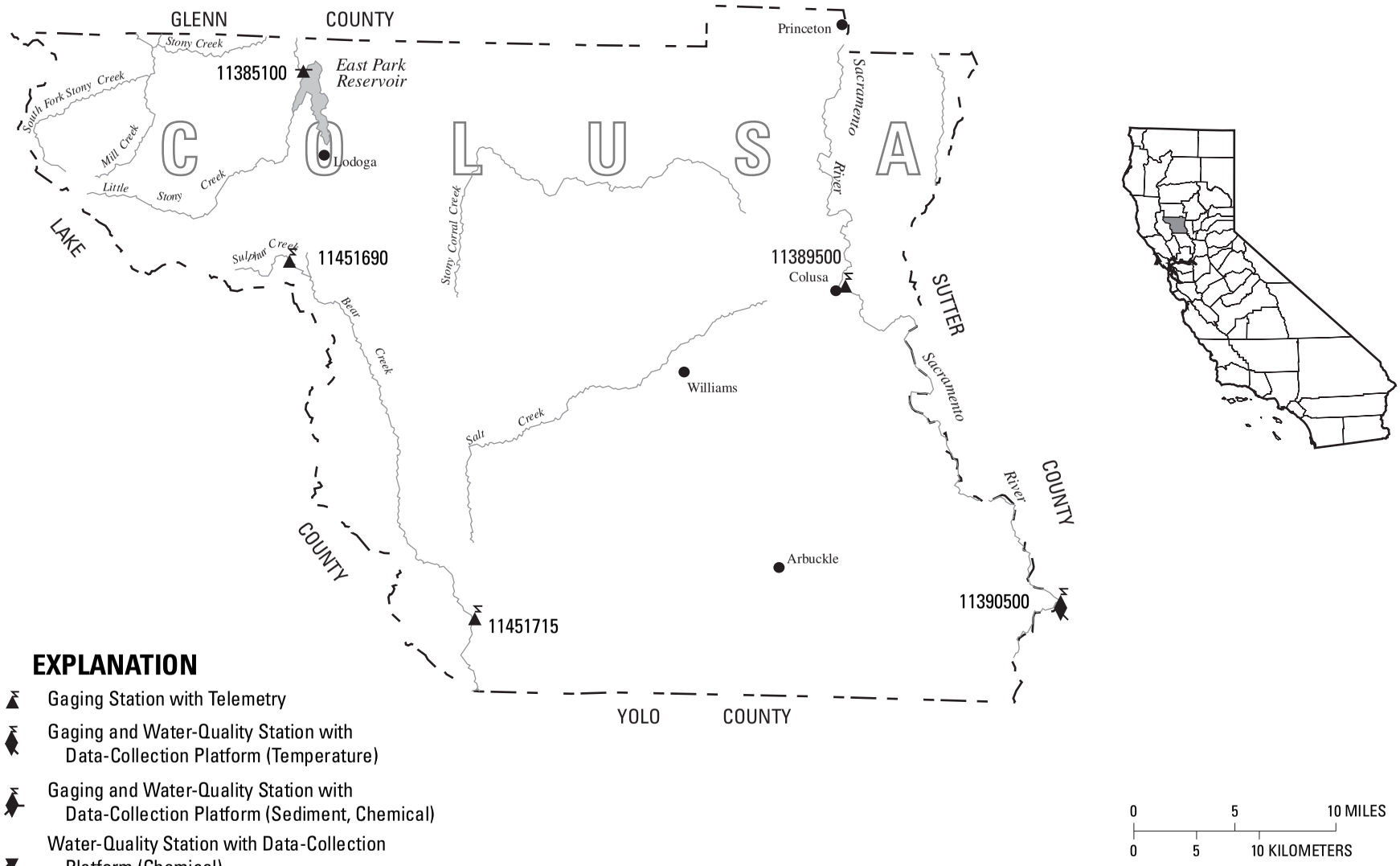
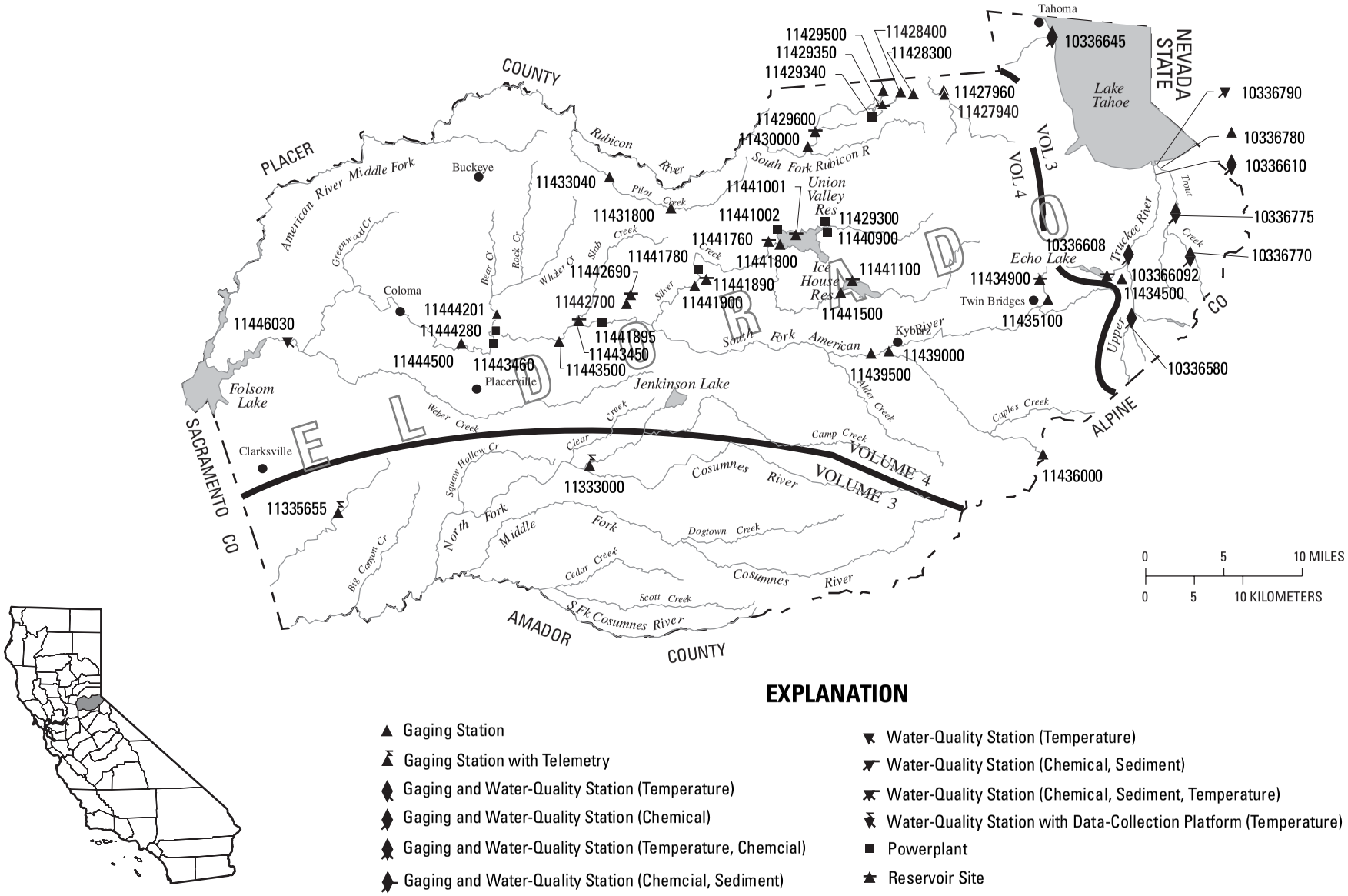


Figure 5. Location of discharge and water-quality stations in Colusa County.



EXPLANATION

- ▲ Gaging Station
- Gaging Station with Telemetry
- Gaging and Water-Quality Station (Temperature)
- Gaging and Water-Quality Station (Chemical)
- Gaging and Water-Quality Station (Temperature, Chemcial)
- Gaging and Water-Quality Station (Chemcial, Sediment)
- Water-Quality Station (Temperature)
- Water-Quality Station (Chemical, Sediment)
- Water-Quality Station (Chemical, Sediment, Temperature)
- Water-Quality Station with Data-Collection Platform (Temperature)
- ■ Powerplant
- Reservoir Site

Figure 6. Location of discharge and water-quality stations in El Dorado County.
(NOTE: Records for stations 10336580, 11333000, and 11335655 published in volume 3.)

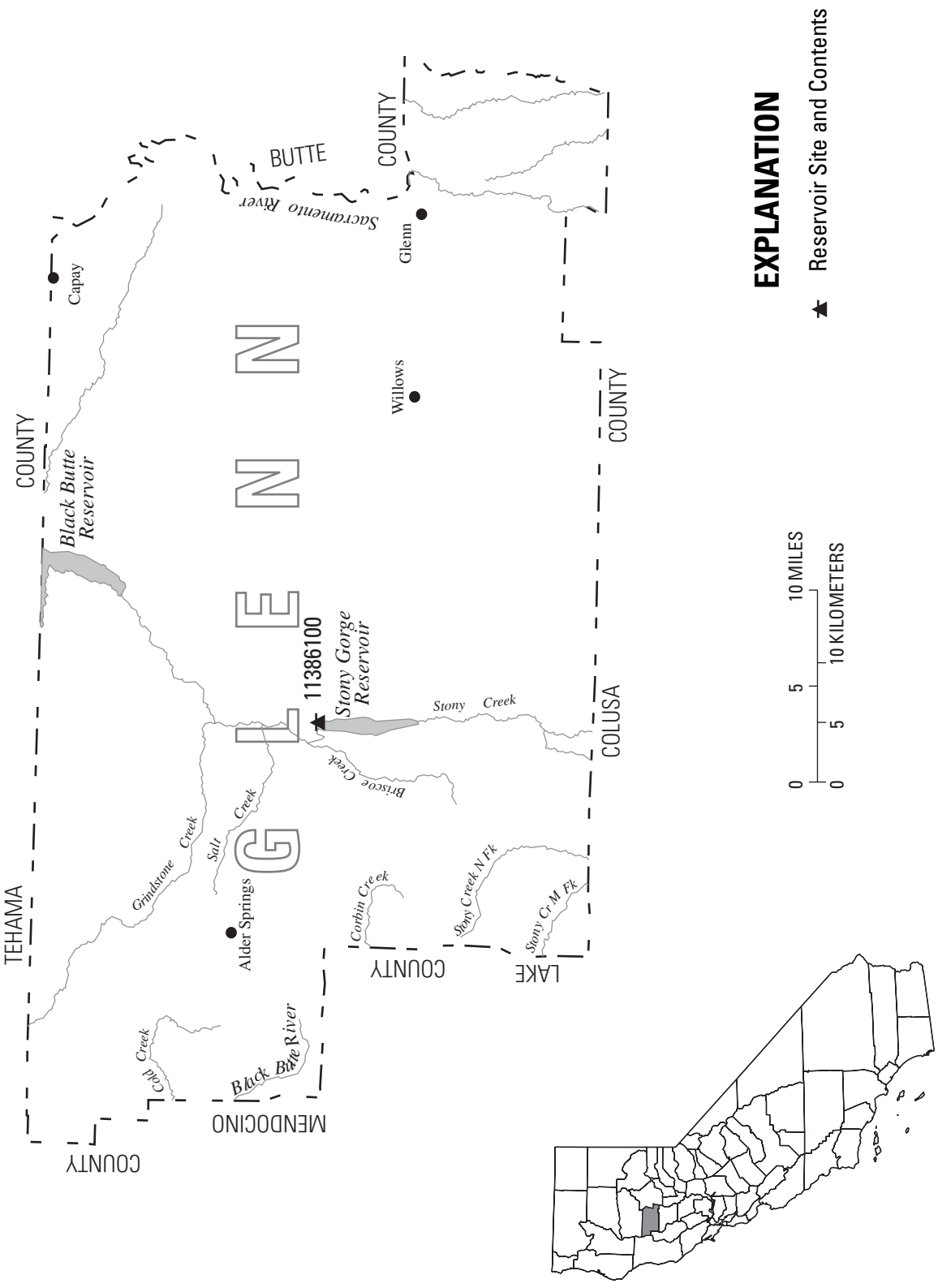


Figure 7. Location of discharge station in Glenn County.

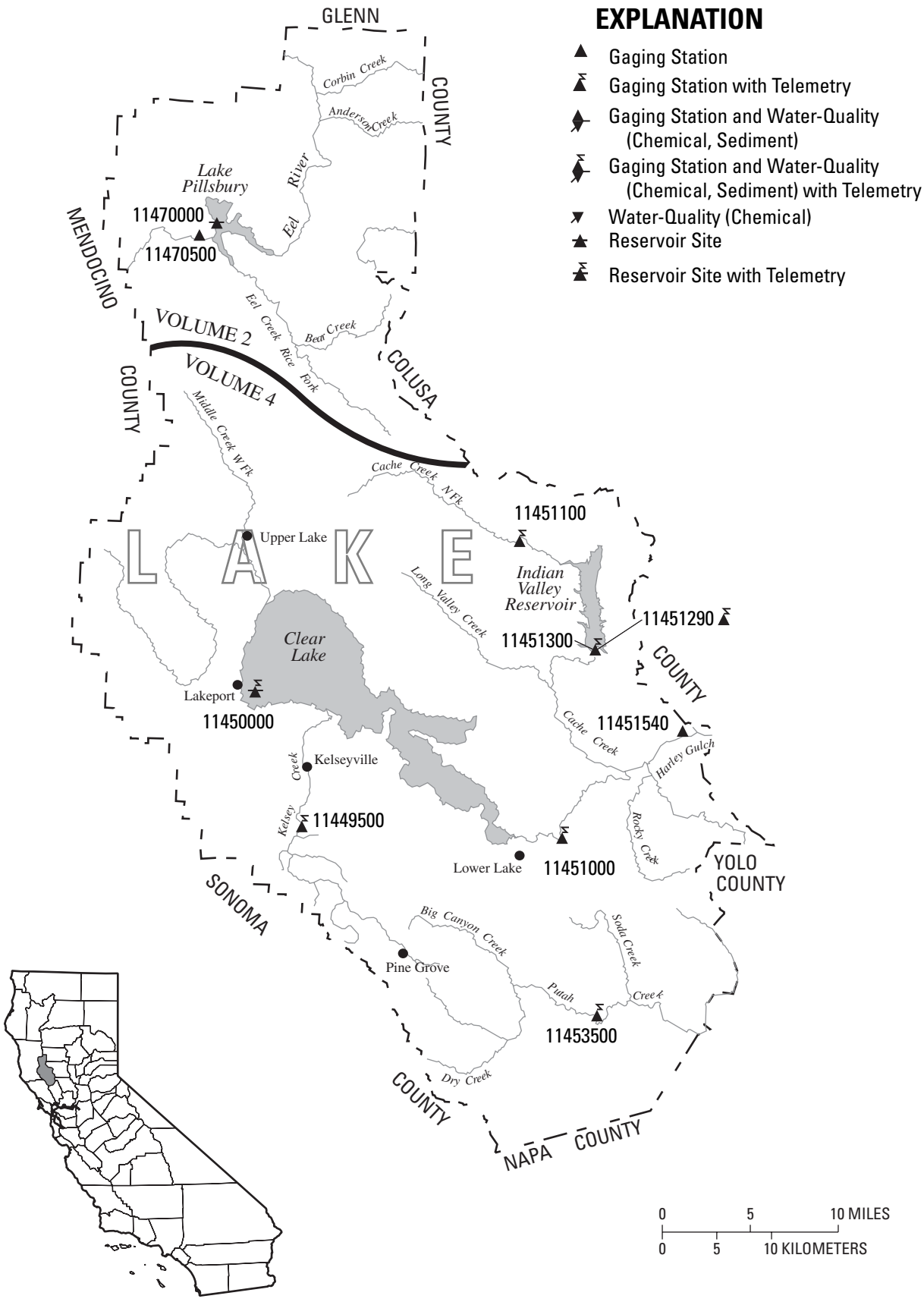


Figure 8. Location of discharge and water-quality stations in Lake County.
(NOTE: Records for stations 11470000 and 11470500 published in volume 2.)

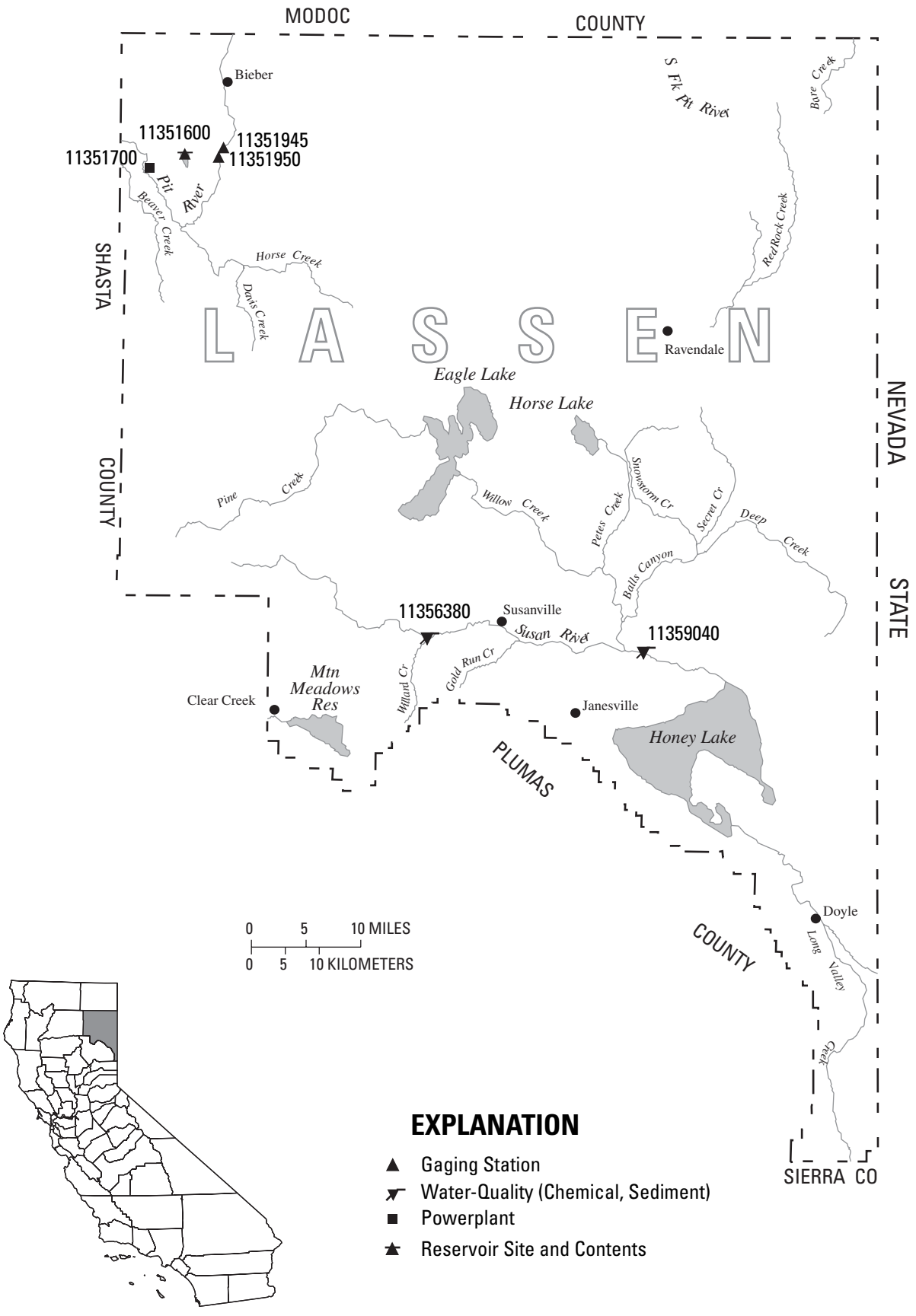
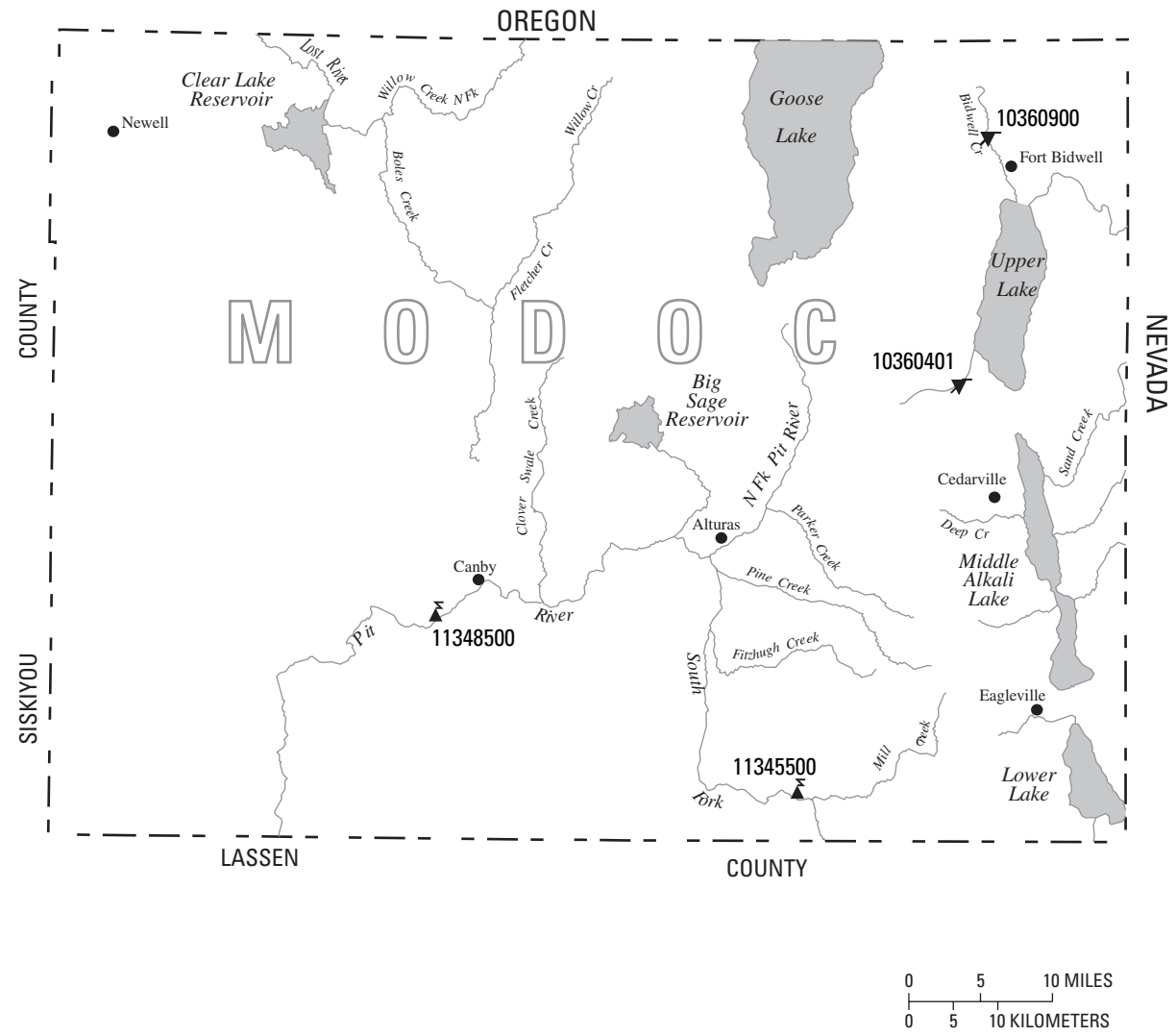


Figure 9. Location of discharge and water-quality stations in Lassen County.



EXPLANATION

- ▲ Gaging Station
- ▲ Gaging Station with Telemetry
- ▼ Water-Quality (Chemical)
- ▼ Water-Quality (Chemical, Sediment)

Figure 10. Location of discharge and water-quality stations in Modoc County.

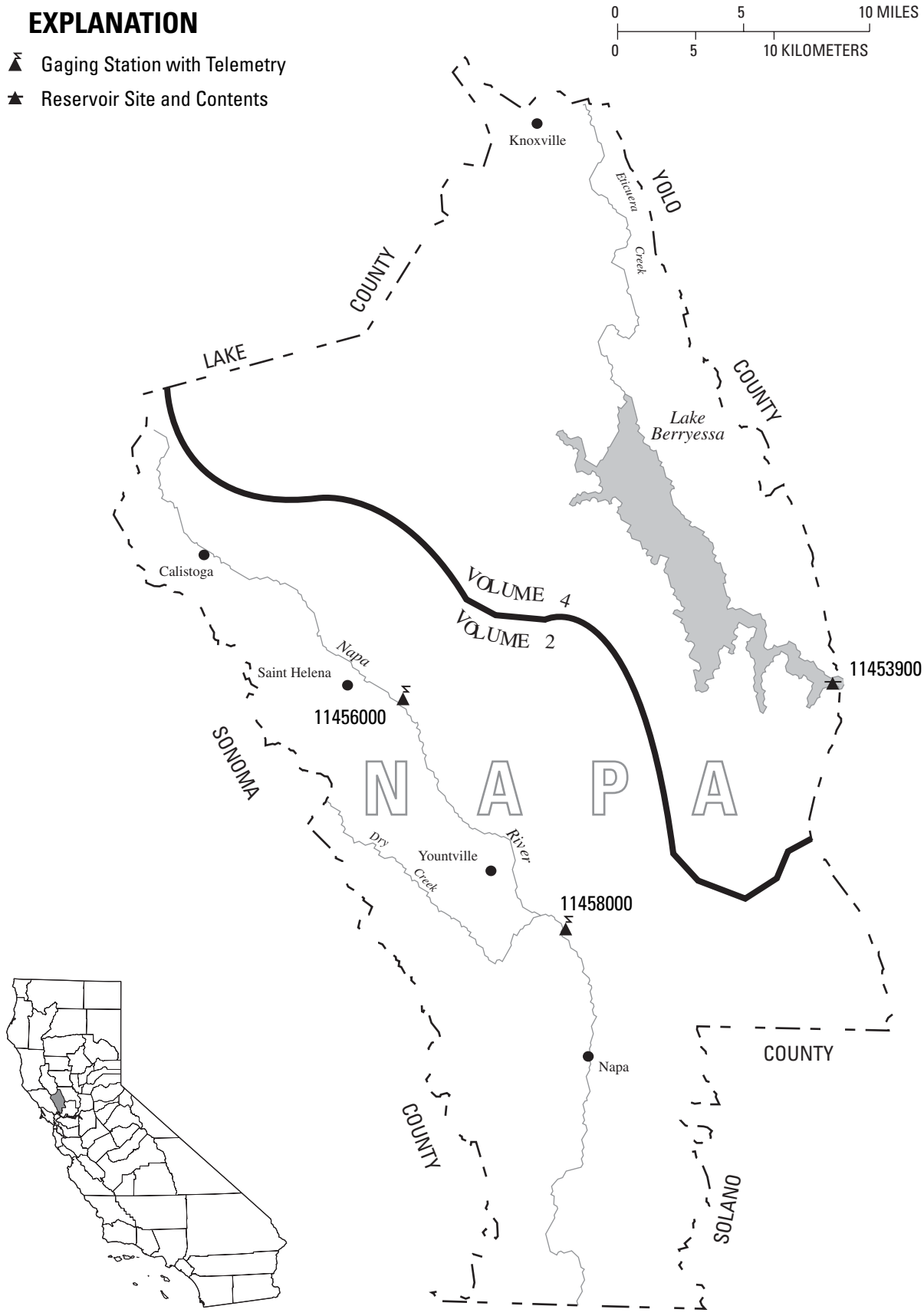


Figure 11. Location of discharge stations in Napa County.
(NOTE: Records for stations 11456000 and 11458000 published in volume 2.)

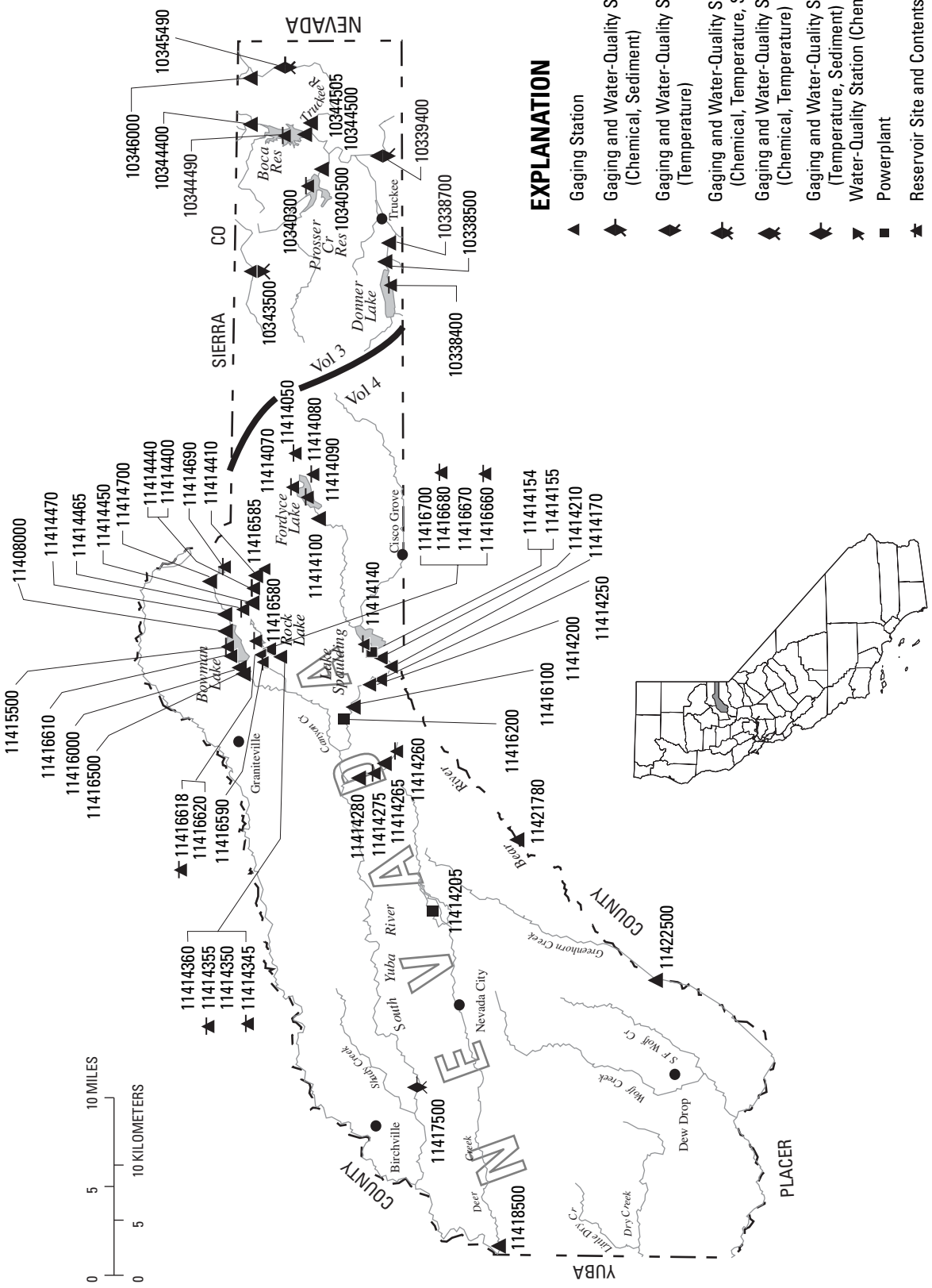


Figure 12. Location of discharge and water-quality stations in Nevada County.
(NOTE: Records for stations 10338400 through 10346000 published in volume 3.)

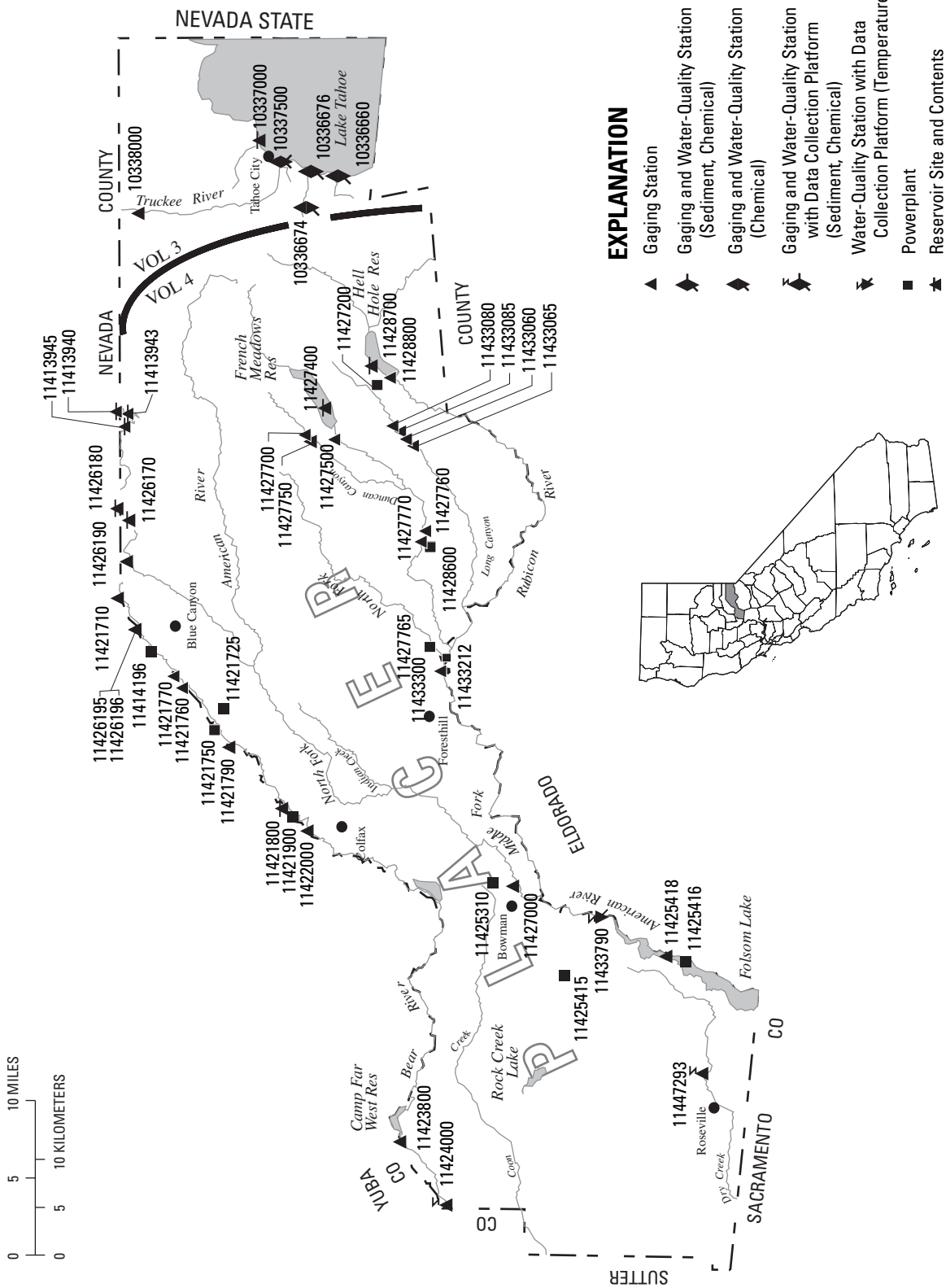


Figure 13. Location of discharge and water-quality stations in Placer County.
(NOTE: Records for stations 10336660 through 10338000 published in volume 3.)

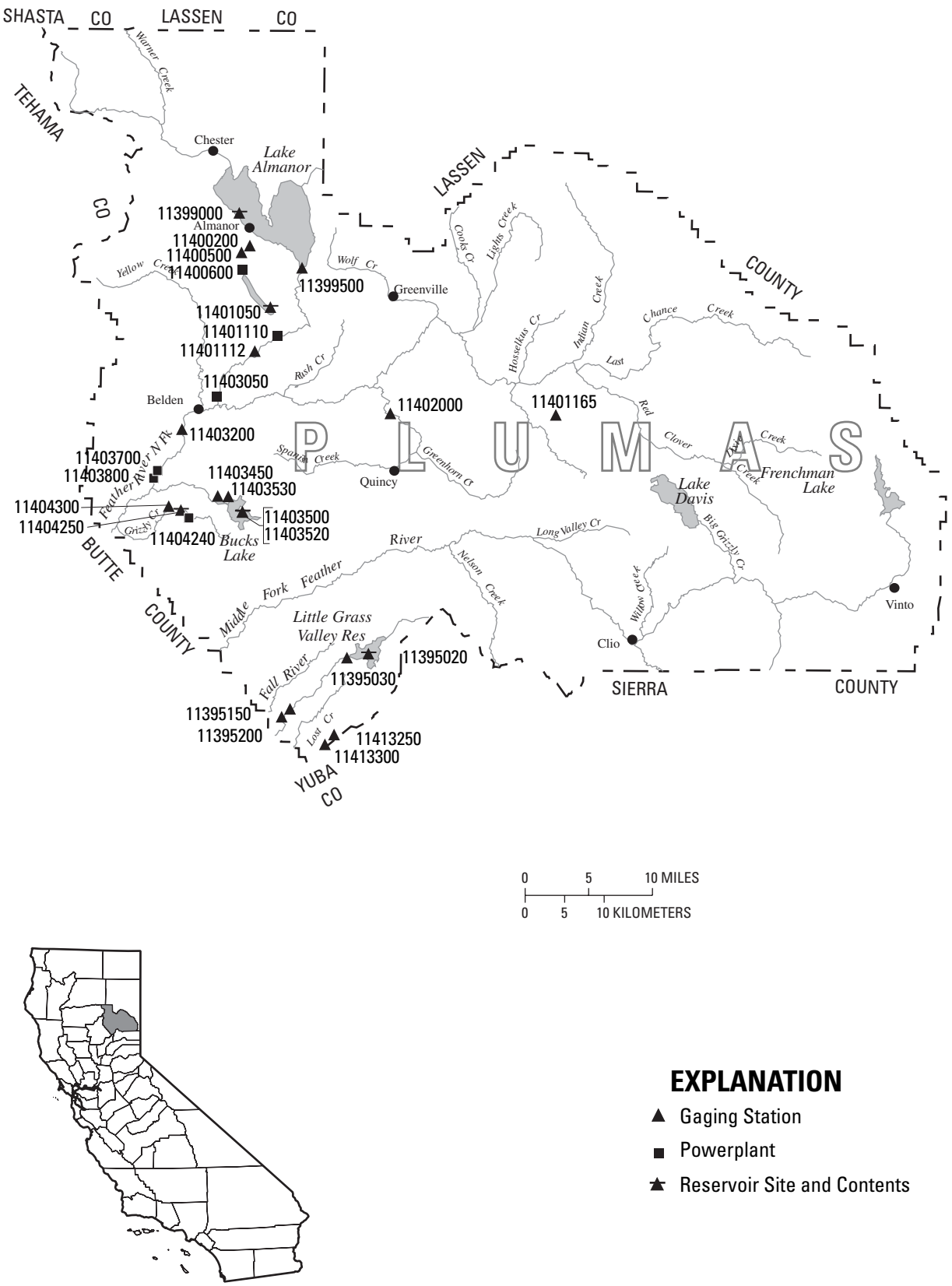


Figure 14. Location of discharge stations in Plumas County.

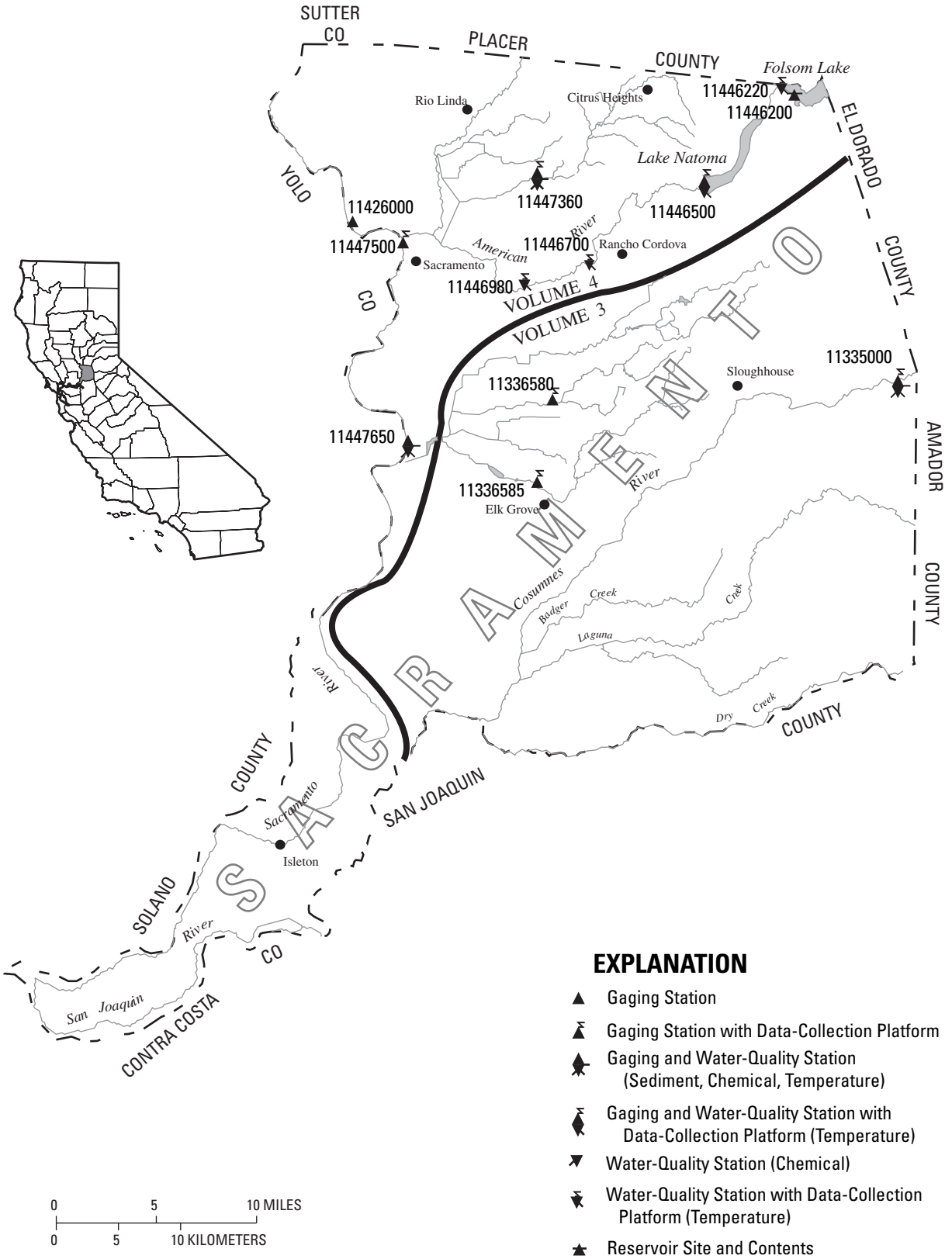


Figure 15. Location of discharge, stage, and water-quality stations in Sacramento County.
(NOTE: Records for stations 11335000 through 11336585 published in volume 3.)

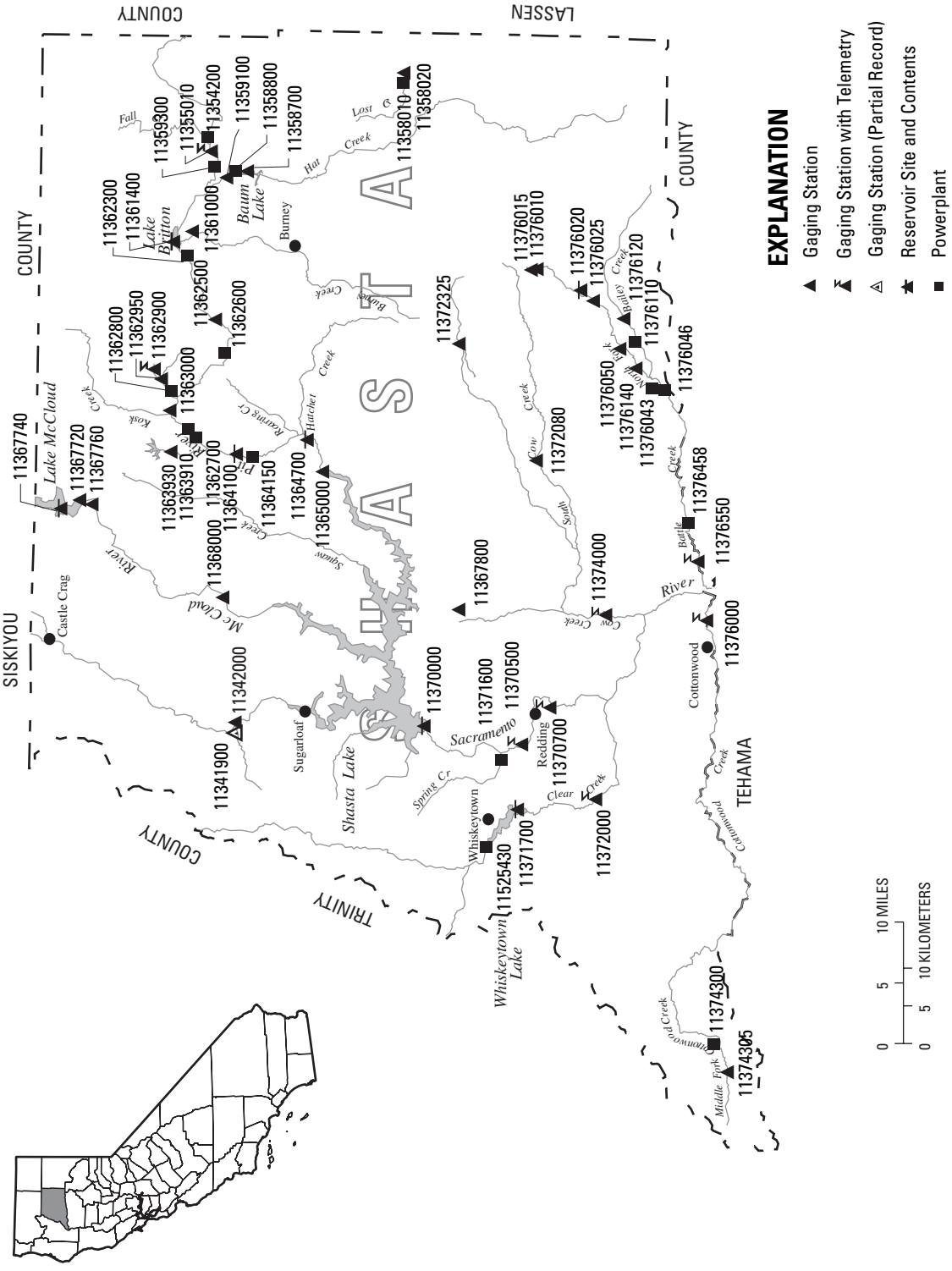


Figure 16. Location of discharge stations in Shasta County.

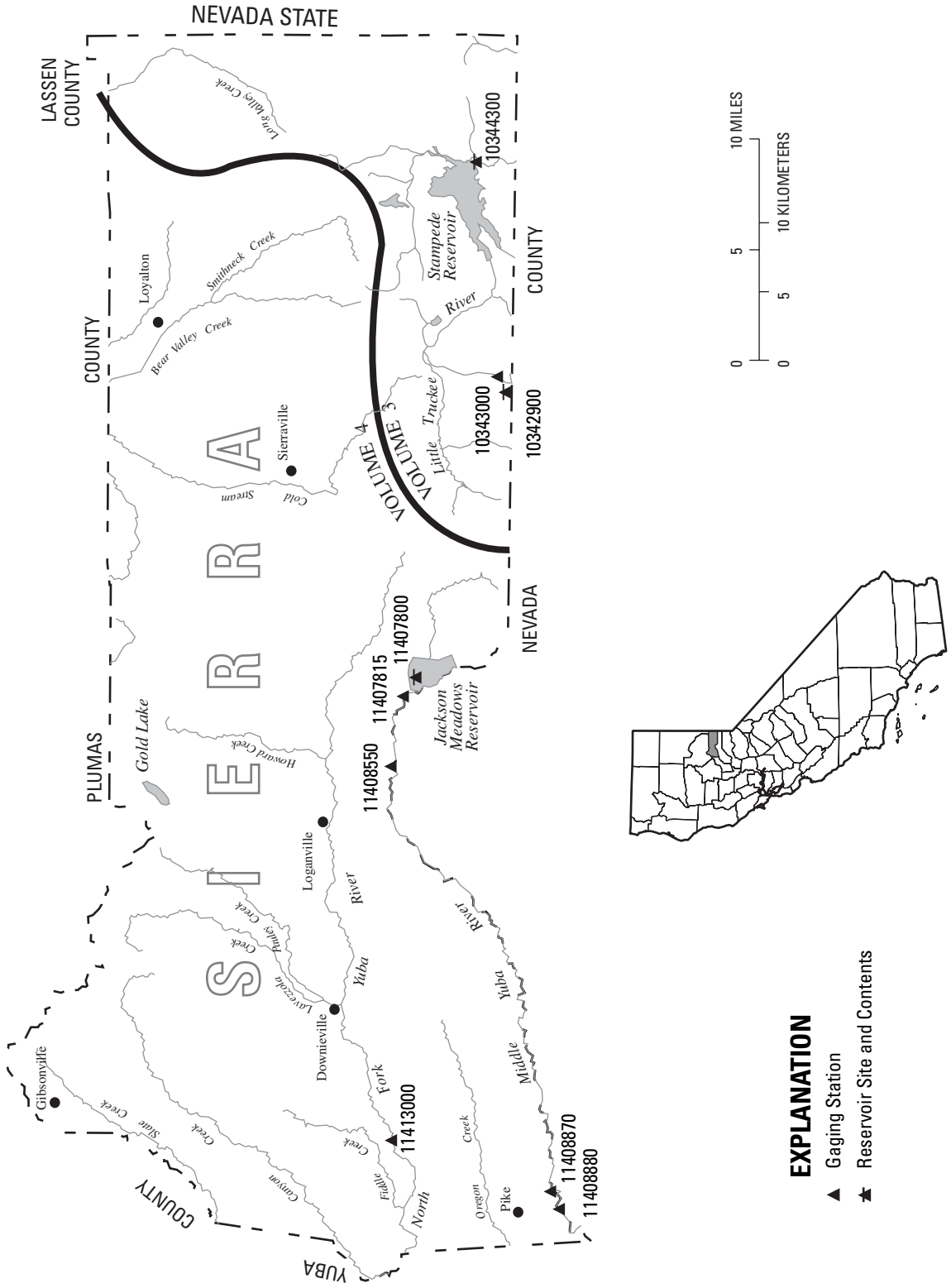


Figure 17. Location of discharge stations in Sierra County.
(NOTE: Records for stations 10342900 through 10344300 published in volume 3.)

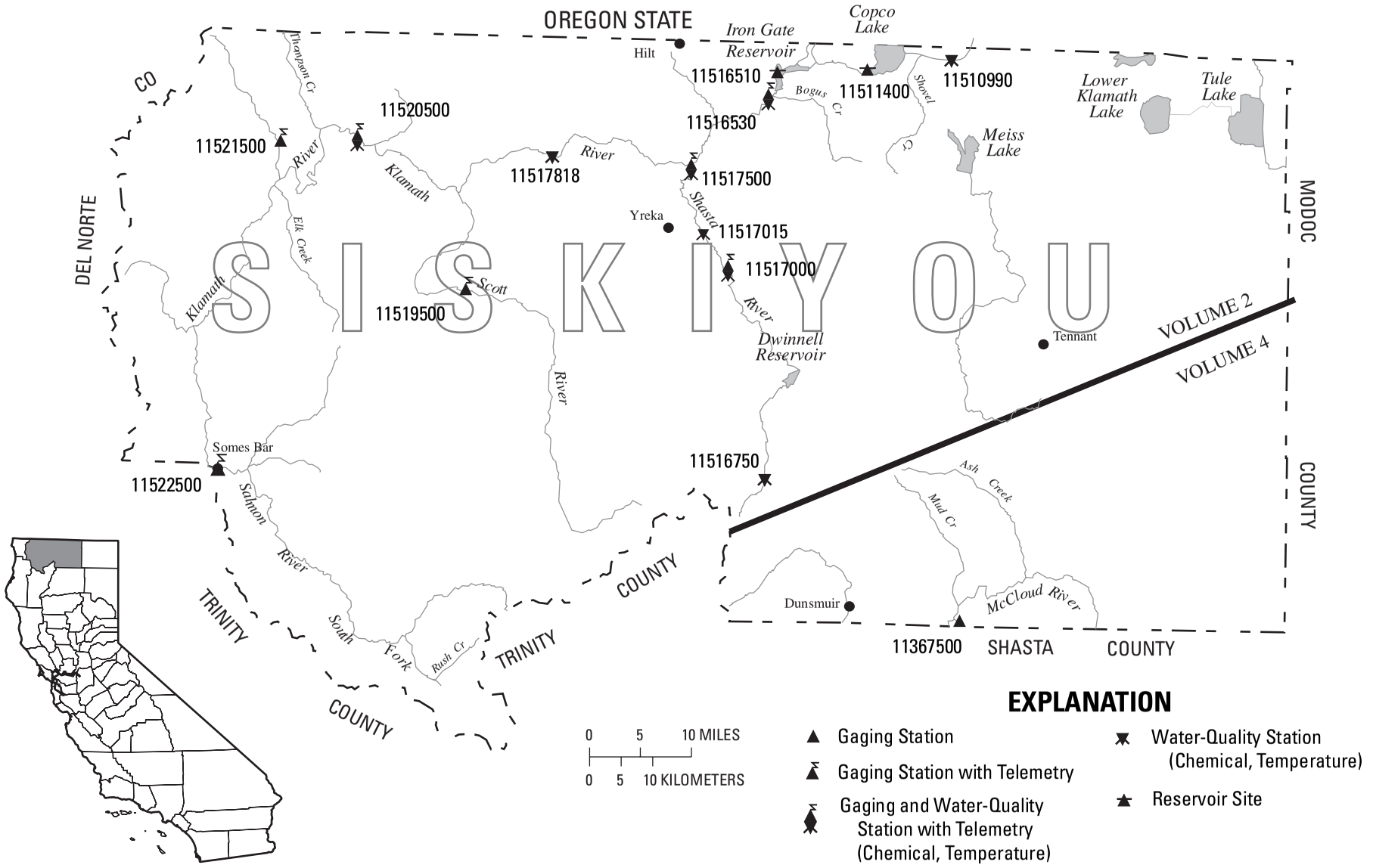


Figure 18. Location of discharge and water-quality stations in Siskiyou County.
(NOTE: Records for stations 11511400 through 11522500 published in volume 2.)

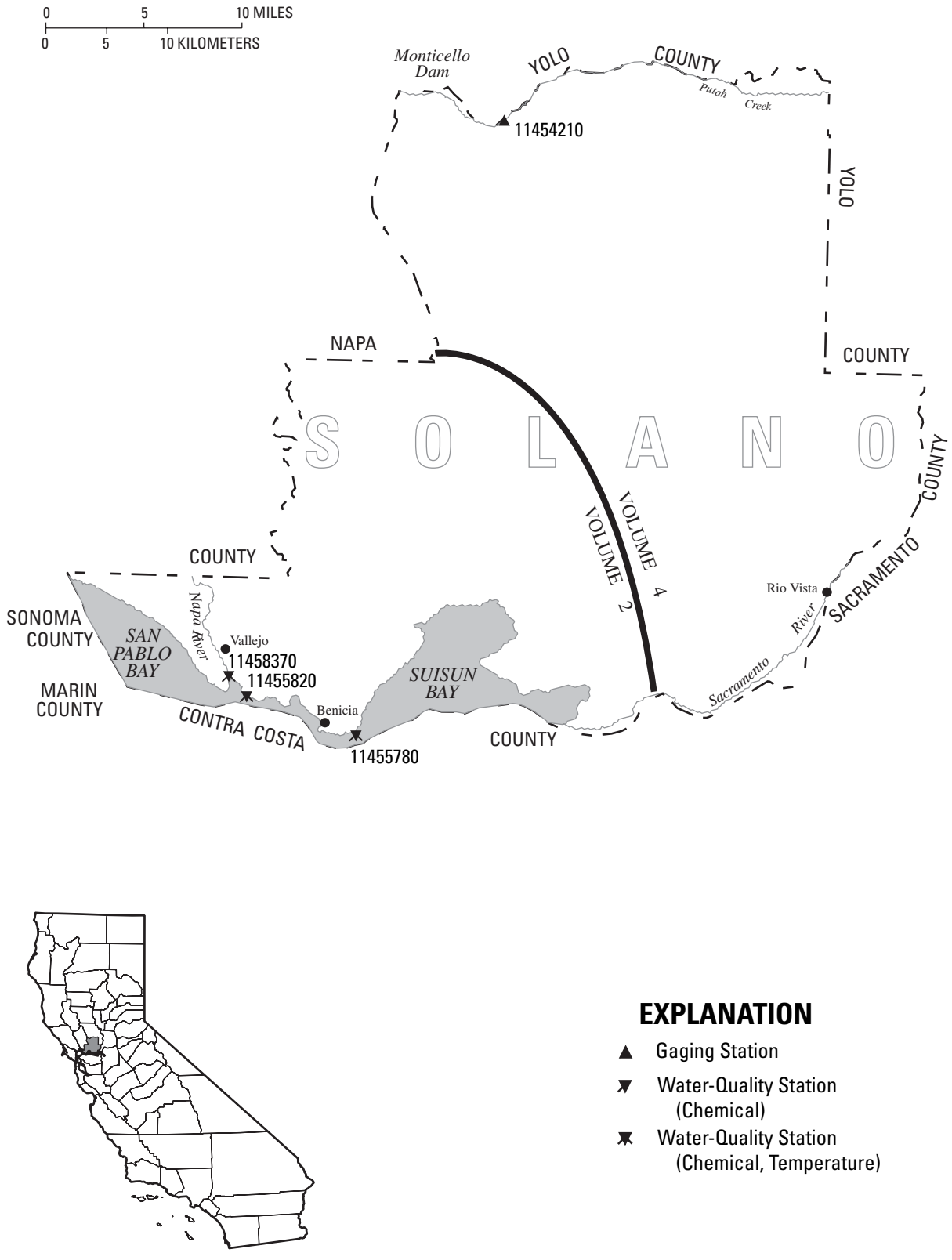


Figure 19. Location of discharge and water-quality stations in Solano County.
(NOTE: Records for station 11455780 through 11458370 published in volume 2.)

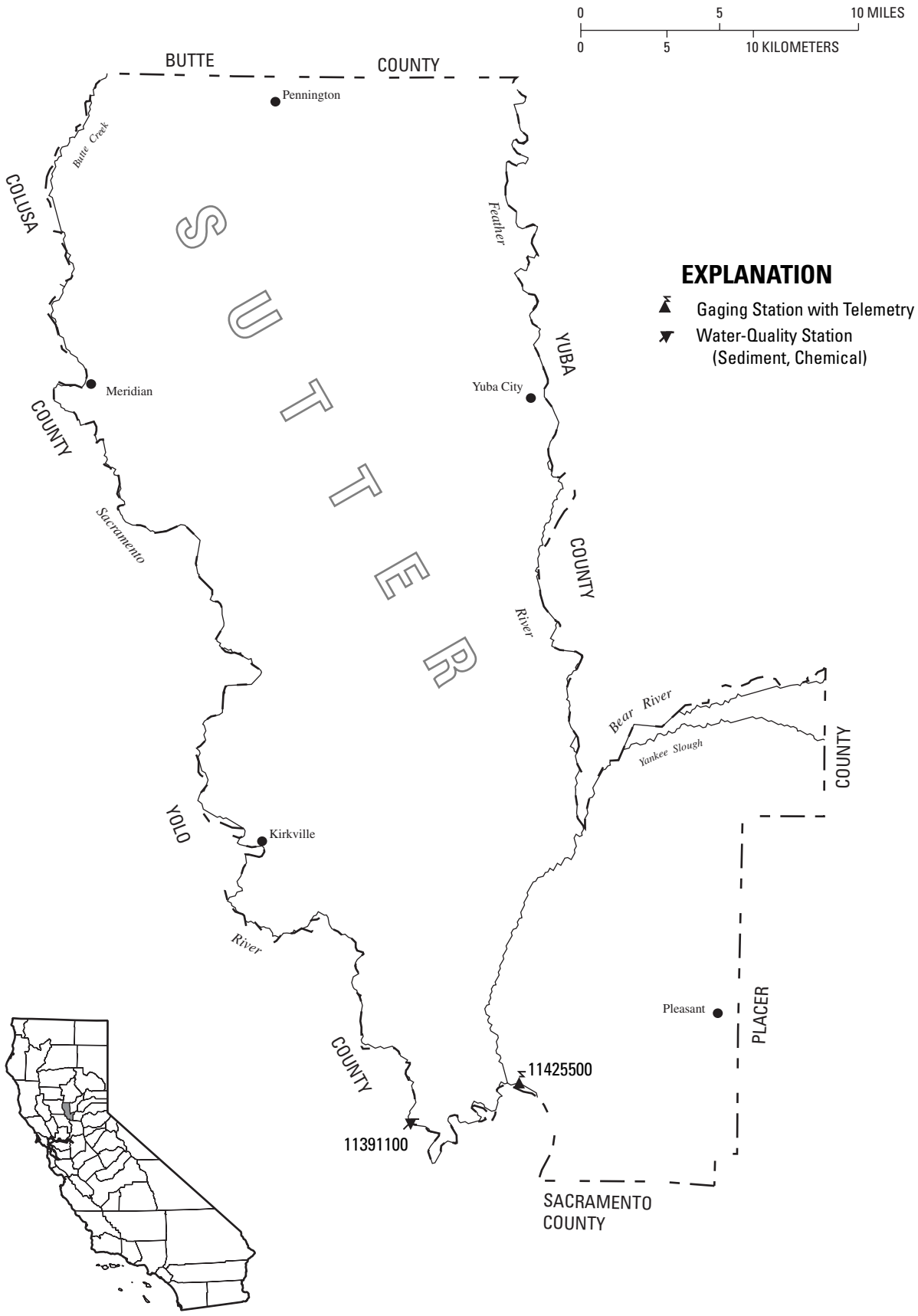


Figure 20. Location of discharge and water-quality stations in Sutter County.

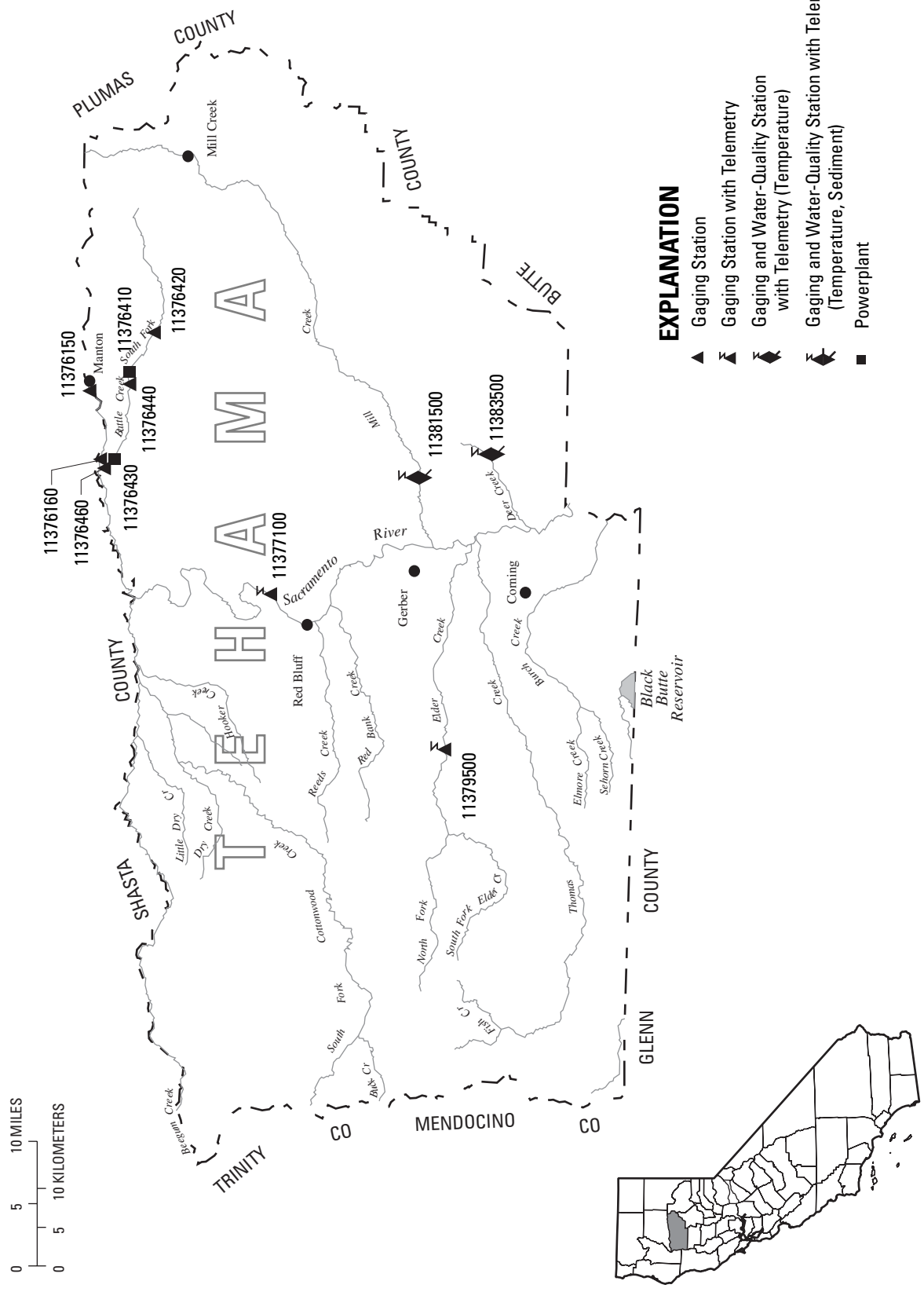


Figure 21. Location of discharge and water-quality stations in Tehama County.

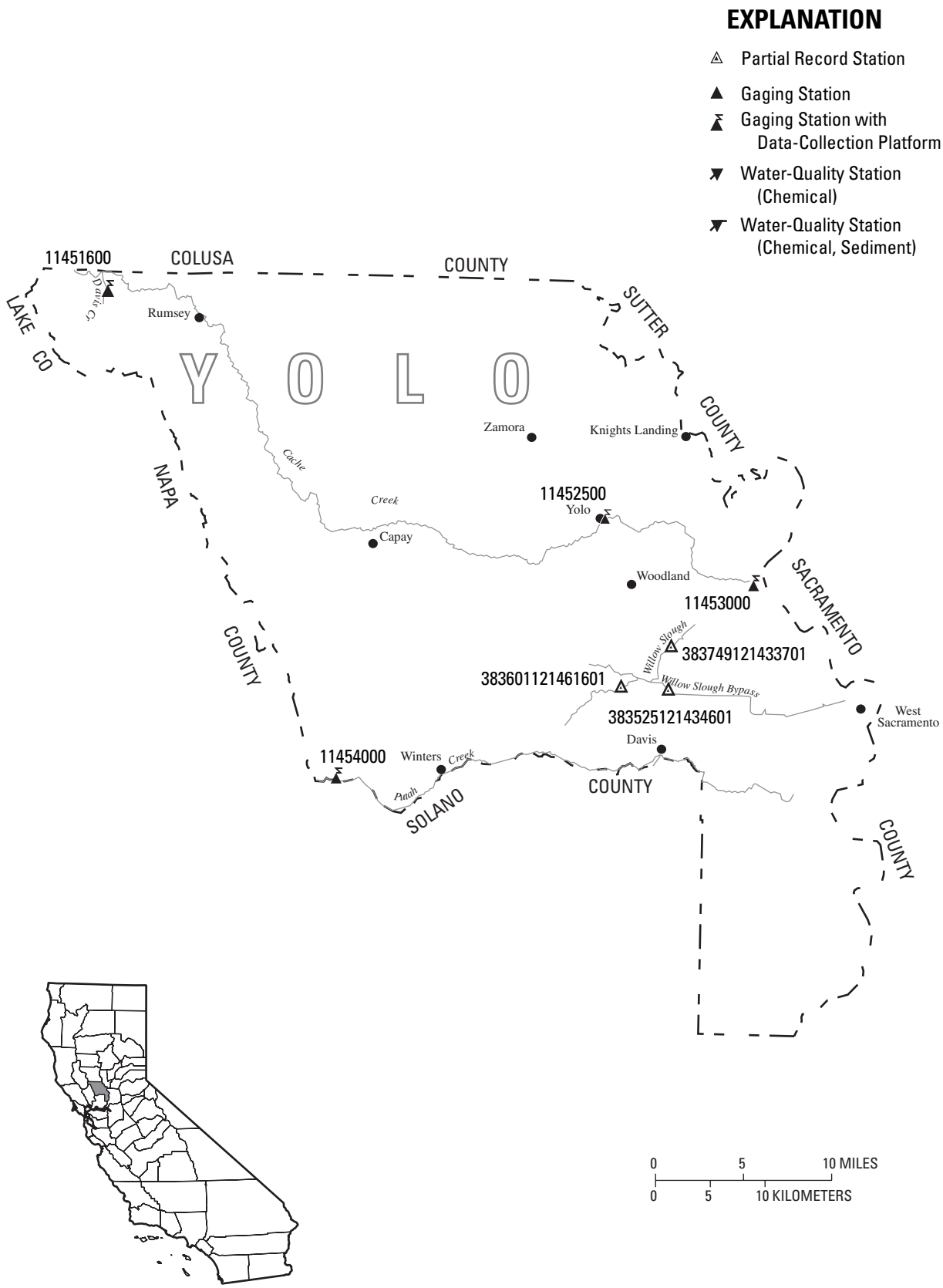


Figure 22. Location of discharge and water-quality stations in Yolo County.

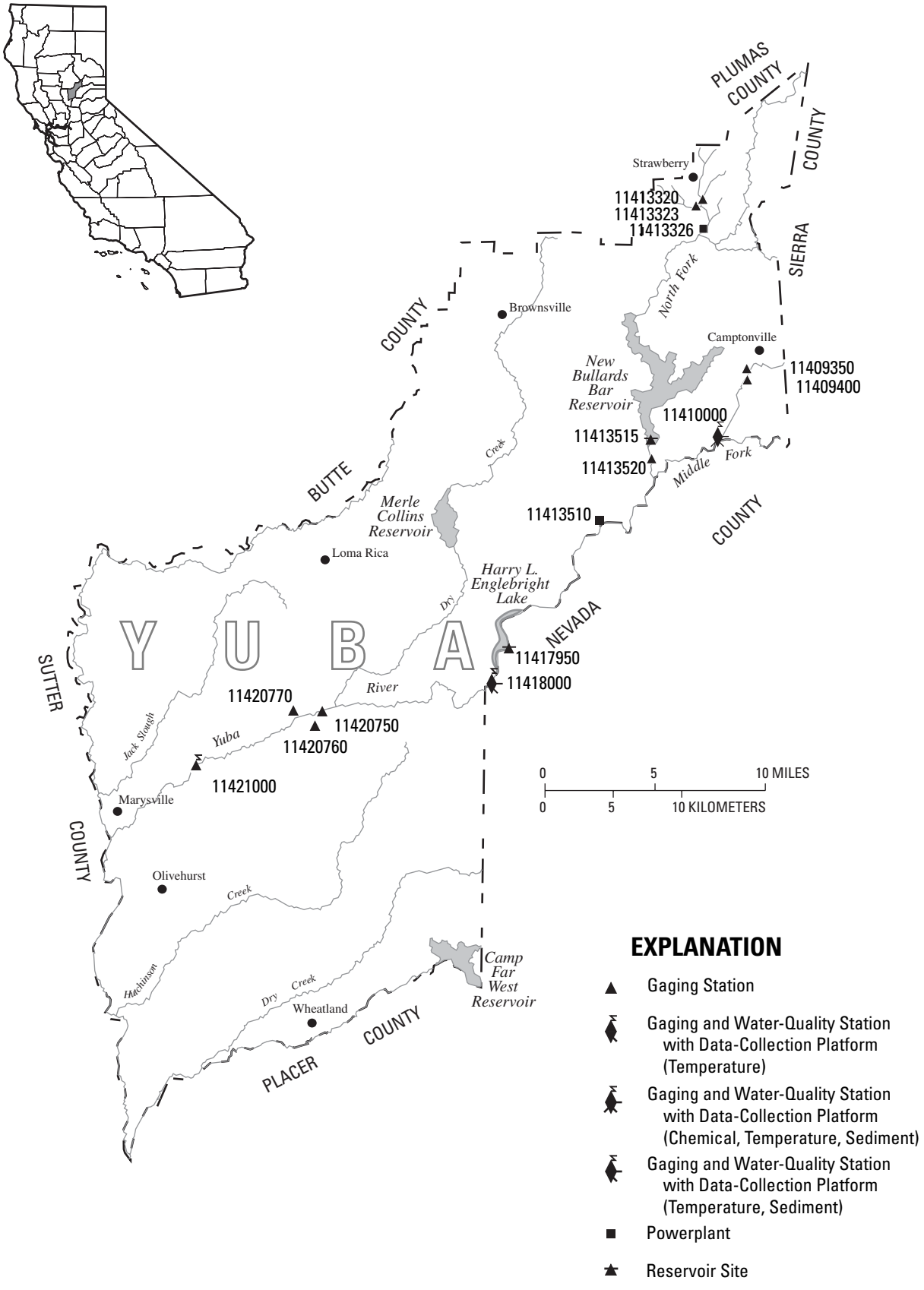


Figure 23. Location of discharge and water-quality stations in Yuba County.

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

Remark Codes—Continued

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

PRINTED OUTPUT	REMARK
D	Biological organism count equal to or greater than 15 percent (dominant).
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).
ND	Not detected.
SS	Suspended-sediment data determined from a sample collected and processed according to National Water-Quality Assessment (NAWQA) program 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 (µg/L) level. Recent evidence, mostly from large rivers, indicates that actual dissolved-phase concentrations for a number of trace elements are within the range of 10's to 100's of nanograms per liter (ng/L). Data above the µg/L level should be viewed with caution. Such data may actually represent elevated environmental concentrations from natural or human causes; however, these data could reflect contamination introduced during sampling, processing, or analysis. To confidently produce dissolved trace-element data with insignificant contamination, the U.S. Geological Survey began using new trace-element protocols at some stations in water year 1994.

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.

10356380 SUSAN RIVER ABOVE WILLARD CREEK, NEAR SUSANVILLE, CA

LOCATION.—Lat 40°23'45", long 120°46'51", in NE 1/4 NE 1/4 sec.7, T.29 N., R.11 E., Lassen County, Hydrologic Unit 18080003, 6.2 mi southwest of Susanville, and 7.1 mi southeast of Hogflat Reservoir at State Highway 36.

DRAINAGE AREA.—128 mi^2.

PERIOD OF RECORD.—June 2001 to current year.
CHEMICAL DATA: June 2001 to current year.
SEDIMENT DATA: July 2002 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Turbidity, wat unf lab, Hach 2100AN NTU (99872)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)
DEC									
16...	1100	12	2.6	--	--	--	8.2	139	2.0
MAR									
23...	1030	103	4.8	640	11.2	105	8.8	76	5.0
JUN									
29...	1105	70	12	643	8.4	104	8.0	63	17.5

Date	Chloride, water, fltrd, mg/L (00940)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Fecal coliform, M-FC 0.7u MF col/ 100 mL (31625)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)
DEC									
16...	.89	119	.18	.177	--	.061	K2	5	.16
MAR									
23...	.80	73	.20	.045	.011	.036	K2	17	4.7
JUN									
29...	.69	52	.38	.009	--	.047	K24	14	2.6

CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Depth at sample location, feet (81903)	Sampling depth, feet (00003)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Location in X-sect. looking dwnstrm ft from l bank (00009)
MAR										
23...*	1040	1.50	1.00	640	11.2	106	8.5	77	5.5	3.00
23...*	1041	3.04	1.00	640	11.2	106	8.5	76	5.5	8.00
23...*	1042	2.50	1.00	640	11.2	106	8.4	76	5.5	13.0
23...*	1043	2.24	1.00	640	11.2	106	8.4	76	5.5	18.0
23...*	1044	1.40	1.00	640	11.2	106	8.5	76	5.5	23.0

K Results based on colony count outside the acceptance range (non-ideal colony count).
* Instantaneous discharge at time of cross-sectional measurements: Mar. 23, 103 ft^3/s.

10359040 SUSAN RIVER NEAR LITCHFIELD, CA

LOCATION.—Lat 40°22'40", long 120°23'38", in NW 1/4 NW 1/4 sec.15, T.29 N., R.14 E., Lassen County, Hydrologic Unit 18080003, 0.5 mi south of Litchfield, and 13.3 mi east of Susanville.

DRAINAGE AREA.—Not determined.

PERIOD OF RECORD.—June 2001 to current year.
CHEMICAL DATA: June 2001 to current year.
SEDIMENT DATA: July 2002 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Turbidity, wat unf lab, Hach 2100AN NTU (99872)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)
DEC									
16...	1450	15	5.8	--	--	--	8.7	359	3.0
MAR									
23...	1330	253	33	653	10.4	108	7.6	133	10.0
JUN									
29...	1325	8.6	6.7	655	11.8	169	8.8	545	25.5

Date	Chloride, water, fltrd, mg/L (00940)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Fecal coliform, M-FC 0.7u MF col/ 100 mL (31625)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)
DEC									
16...	7.54	247	.30	.017	--	.082	<1	18	.75
MAR									
23...	1.92	103	.42	.073	.038	.147	K19	91	62
JUN									
29...	8.96	361	.58	.002	--	.184	58	15	.35

CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Depth at sample location, feet (81903)	Sampling depth, feet (00003)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Location in X-sect. looking dwnstrm ft from l bank (00009)
MAR										
23...*	1300	2.80	1.00	653	10.4	108	7.7	133	10.0	93.0
23...*	1301	3.46	1.00	653	10.4	108	7.7	133	10.0	73.0
23...*	1302	1.40	1.00	653	10.4	108	7.7	133	10.0	53.0
23...*	1303	1.50	1.00	653	10.4	108	7.7	133	10.0	33.0
23...*	1304	2.04	1.00	653	10.4	108	7.7	133	10.0	13.0

< Actual value is known to be less than the value shown.
K Results based on colony count outside the acceptance range (non-ideal colony count).
* Instantaneous discharge at time of cross-sectional measurement: Mar. 23, 253 ft^3/s.

10360401 MILL CREEK AT UPPER LAKE, NEAR LAKE CITY, CA

LOCATION.—Lat 41°38'44", long 120°12'45", in SE 1/4 NW 1/4 sec.36, T.44 N., R.15 E., Modoc County, Hydrologic Unit 18080001, 9.1 mi north of Cedarville, 0.1 mi north of Lake City, on the Surprise Valley Road.

DRAINAGE AREA.—8.83 mi^2.

PERIOD OF RECORD.—June 2001 to current year.
CHEMICAL DATA: June 2001 to current year.
SEDIMENT DATA: September 2001 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Turbidity, wat unf lab, Hach 2100AN NTU (99872)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)
DEC									
17...	1210	.54	<2.0	--	--	--	8.4	117	.0
MAR									
24...	1035	15	12	640	10.7	102	7.8	92	6.0
JUN									
30...	1115	2.9	2.5	643	9.1	104	8.0	84	13.5

Date	Chloride, water, fltrd, mg/L (00940)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Fecal coliform, M-FC 0.7u MF col/ 100 mL (31625)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)
DEC									
17...	2.05	96	.10	.001	--	.042	K2	4	.01
MAR									
24...	.68	85	.24	.025	.030	.033	<2	56	2.3
JUN									
30...	.27	77	.10	.002	--	.052	68	70	.55

CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Depth at sample location, feet (81903)	Sampling depth, feet (00003)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Location in X-sect. looking dwnstrm ft from l bank (00009)
MAR										
24...*	1040	.80	.50	640	10.7	102	7.8	92	6.0	6.00
24...*	1041	1.10	.50	640	10.7	102	7.8	92	6.0	4.00
24...*	1042	.80	.50	640	10.7	102	7.8	92	6.0	2.00

< Actual value is known to be less than the value shown.
K Results based on colony count outside the acceptance range (non-ideal colony count).
* Instantaneous discharge at the time of cross-sectional measurement: Mar. 24, 15 ft^3/s.

10360900 BIDWELL CREEK BELOW MILL CREEK, NEAR FORT BIDWELL, CA

LOCATION.—Lat 41°52'57", long 120°10'26", in NE 1/4 SE 1/4 sec.6, T.46 N., R.16 E., Modoc County, Hydrologic Unit 18080001, 23.1 mi north of Cedarville, and 2.5 mi northwest of Fort Bidwell.

DRAINAGE AREA.—25.6 mi^2.

PERIOD OF RECORD.—Water years 1960–1982, June 2001 to current year.
WATER DISCHARGE.—Water years 1960–1982.
CHEMICAL DATA: June 2001 to current year.
SEDIMENT DATA: July 2002 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Turbidity, wat unf lab, Hach 2100AN NTU (99872)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)
DEC									
17...	0955	5.5	<2.0	--	--	--	8.1	85	.5
MAR									
24...	0855	58	7.1	634	10.7	101	8.5	63	5.0
JUN									
30...	0945	18	2.1	636	9.4	102	7.8	61	11.0

Date	Chloride, water, fltrd, mg/L (00940)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Fecal coliform, M-FC 0.7u MF col/ 100 mL (31625)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)
DEC									
17...	.94	68	.10	.003	--	.032	K4	2	.03
MAR									
24...	.60	69	.23	.052	.020	.054	K3	8	1.2
JUN									
30...	.34	59	.13	.004	--	.038	K10	5	.24

CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Depth at sample location, feet (81903)	Sampling depth, feet (00003)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Location in X-sect. looking dwnstrm ft from l bank (00009)
MAR										
24...*	0905	.80	.50	634	10.7	101	8.5	63	5.0	3.00
24...*	0906	.50	.30	634	10.7	101	8.4	63	5.0	8.00
24...*	0907	1.00	.50	634	10.7	101	8.4	63	5.0	13.0
24...*	0908	.70	.70	634	10.7	101	8.4	63	5.0	18.0
24...*	0909	1.00	.50	634	10.7	101	8.4	63	5.0	23.0

< Actual value is known to be less than the value shown.
K Results based on colony count outside the acceptance range (non-ideal colony count).
* Instantaneous discharge at the time of cross-sectional measurement: Mar. 24, 58 ft^3/s.

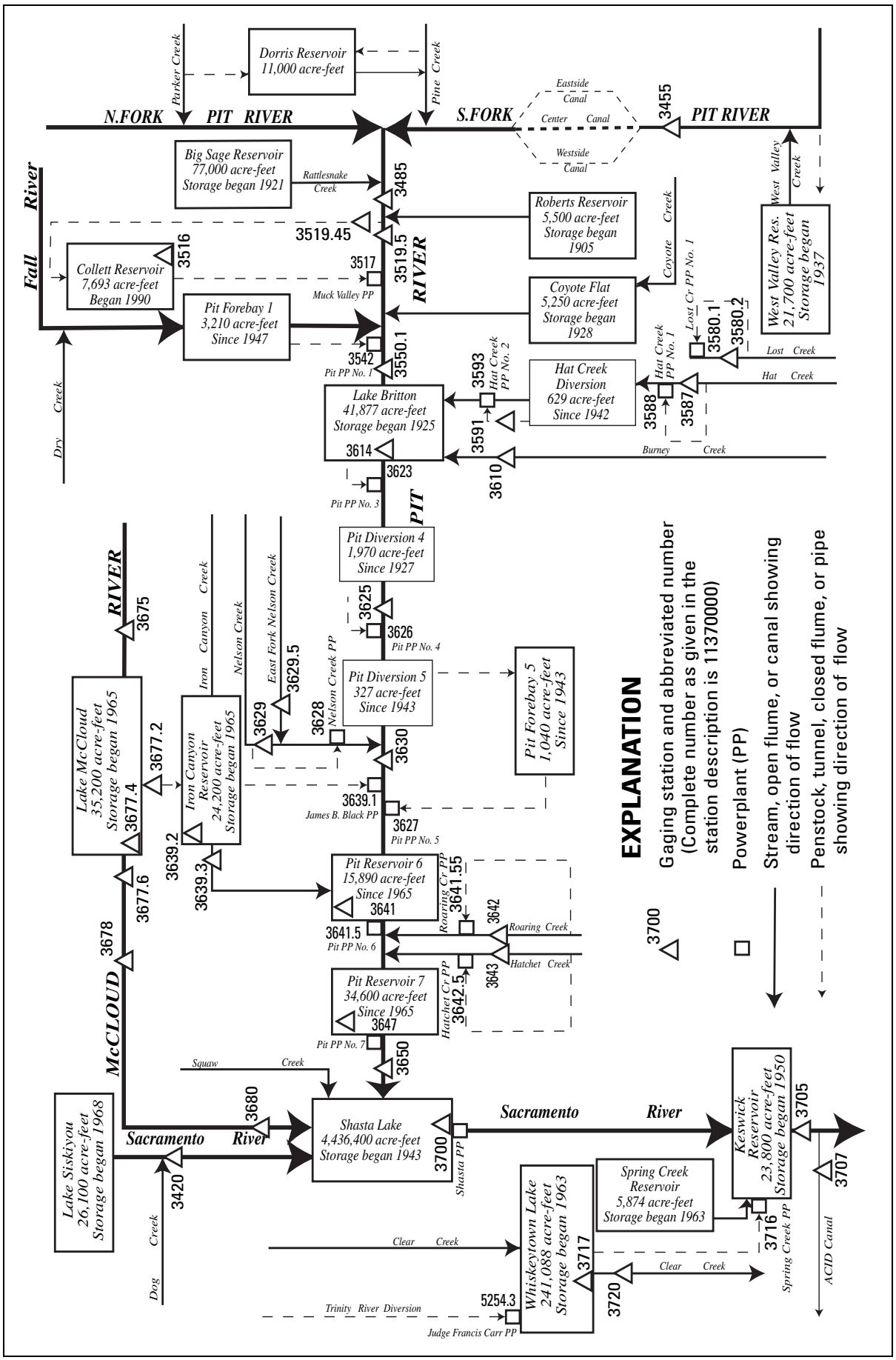


Figure 24. Diversions and storage in Pit and McCloud River Basins.

11342000 SACRAMENTO RIVER AT DELTA, CA

LOCATION.—Lat 40°56'23", long 122°24'58", in SW 1/4 NW 1/4 sec.35, T.36 N., R.5 W., Shasta County, Hydrologic Unit 18020005, U.S. Bureau of Reclamation property, on left bank, 0.2 mi downstream from Dog Creek, 0.6 mi southeast of Delta, 2.8 mi south of Lamoine, and 29 mi downstream from Lake Siskiyou.

DRAINAGE AREA.—425 mi^2.

PERIOD OF RECORD.—October 1944 to current year. Monthly discharge only for some periods, published in WSP 1315-A.
CHEMICAL DATA: Water years 1951–81.
WATER TEMPERATURE: Water years 1951, 1954–57, 1963–79.

REVISED RECORDS.—WSP 1395: 1951(M). WDR-CA-94-4: 1993(P).

GAGE.—Water-stage recorder. Datum of gage is 1,075.00 ft above NGVD of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.—Records good. Some regulation by Lake Siskiyou, capacity, 26,100 acre-ft, since December 1968. Some minor diversions for irrigation upstream from station. See schematic diagram of Pit and McCloud River Basins.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 69,800 ft^3/s, Jan. 16, 1974, gage height, 27.20 ft in gage well, 28.7 ft from floodmarks, from rating curve extended above 19,000 ft^3/s, on basis of slope-area measurements at gage height 19.50 ft, and of peak flow; minimum daily, 117 ft^3/s, Aug. 5, 6, 12–15, 1977.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 8,000 ft^3/s, or maximum:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 14	0345	9,560	10.56	Feb. 17	1800	33,300	17.25
Dec. 24	0915	9,380	10.50	Feb. 26	0615	11,400	11.40

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	253	250	1090	2950	1080	3850	1820	1740	800	351	249	228
2	253	257	1140	2170	1150	3270	1620	1880	808	343	249	e227
3	252	273	877	1530	1190	2810	1610	2090	791	331	249	e223
4	252	265	707	1250	1230	2480	1760	2200	780	325	249	e222
5	253	265	1440	1100	1160	2310	1850	2080	756	318	249	e219
6	250	265	5920	1030	1150	2080	1850	1850	719	310	249	e218
7	248	315	3140	1070	1180	2110	1830	1710	678	295	249	e216
8	248	1230	1870	2140	1110	2170	1820	1590	652	289	249	e215
9	248	1690	1290	3460	1050	2440	1860	1480	619	288	256	e213
10	246	772	1070	3580	986	2740	1860	1450	603	285	247	e211
11	249	485	936	2810	951	2590	1850	1370	580	285	244	e210
12	249	386	975	2490	927	2520	1850	1190	555	283	243	e210
13	248	344	1670	2300	921	2520	1900	1150	537	280	243	e210
14	248	395	5810	2170	992	2530	1850	1180	516	277	238	e210
15	249	842	2470	2110	1190	2580	1730	1220	495	274	237	210
16	250	628	1560	2000	6030	2580	1520	1240	475	273	237	211
17	251	576	1240	1790	26900	2540	1300	1190	463	271	237	211
18	250	483	1050	1630	18900	2580	1240	1220	452	270	237	212
19	248	435	962	1520	7900	2600	1500	1160	439	270	236	217
20	247	413	1080	1430	5240	2370	2530	1110	432	268	234	226
21	247	392	957	1330	3970	2330	1950	1090	413	267	232	221
22	246	361	887	1230	3340	2470	1740	1080	401	263	231	218
23	246	342	1220	1160	2940	2580	1590	1050	392	261	231	216
24	245	327	6600	1140	3360	2450	1510	991	375	259	231	213
25	242	352	3650	1060	7520	2460	1530	955	365	258	231	212
26	242	322	2320	1010	10100	2190	1680	949	359	256	231	211
27	242	308	1630	1070	6370	2080	1890	1020	350	255	231	211
28	243	306	1290	995	4550	1870	2070	1000	347	255	231	210
29	245	392	1380	991	3710	1770	1890	926	347	252	231	211
30	245	634	1140	1170	---	2000	1750	867	349	252	231	213
31	248	---	1070	1150	---	1960	---	837	---	250	228	---
TOTAL	7683	14305	58441	52836	127097	75830	52750	40865	15848	8714	7420	6455
MEAN	248	477	1885	1704	4383	2446	1758	1318	528	281	239	215
MAX	253	1690	6600	3580	26900	3850	2530	2200	808	351	256	228
MIN	242	250	707	991	921	1770	1240	837	347	250	228	210
AC-FT	15240	28370	115900	104800	252100	150400	104600	81060	31430	17280	14720	12800

e Estimated.

11342000 SACRAMENTO RIVER AT DELTA, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	346	762	1377	1914	2353	2253	2026	1695	818	342	237	233
MAX	1837	6075	5770	7162	9557	7957	4264	4216	3741	1198	462	514
(WY)	1951	1974	1997	1995	1958	1983	1963	1983	1998	1998	1983	1957
MIN	150	187	197	214	226	243	264	410	229	145	122	154
(WY)	1945	1992	1977	1991	1977	1977	1977	1977	1977	1977	1977	1991

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1945 - 2004	
ANNUAL TOTAL	548210		468244			
ANNUAL MEAN	1502		1279		1190	
HIGHEST ANNUAL MEAN					2715	1983
LOWEST ANNUAL MEAN					228	1977
HIGHEST DAILY MEAN	11900	Mar 15	26900	Feb 17	53900	Jan 16 1974
LOWEST DAILY MEAN	242	Oct 25	210	Sep 11	117	Aug 5 1977
ANNUAL SEVEN-DAY MINIMUM	243	Oct 24	210	Sep 10	117	Aug 11 1977
MAXIMUM PEAK FLOW			33300	Feb 17	69800	Jan 16 1974
MAXIMUM PEAK STAGE			17.25	Feb 17	27.20	Jan 16 1974
ANNUAL RUNOFF (AC-FT)	1087000		928800		862100	
10 PERCENT EXCEEDS	3250		2520		2670	
50 PERCENT EXCEEDS	962		854		532	
90 PERCENT EXCEEDS	253		231		201	

11345500 SOUTH FORK PIT RIVER NEAR LIKELY, CA

LOCATION.—Lat 41°13'51", long 120°26'10", in NE 1/4 SE 1/4 sec.11, T.39 N., R.13 E., Modoc County, Hydrologic Unit 18020002, on left bank, 250 ft downstream from highway bridge, 1.4 mi downstream from West Valley Creek, and 3.5 mi east of Likely.

DRAINAGE AREA.—247 mi^2.

PERIOD OF RECORD.—October 1928 to current year. Monthly discharge only for some periods, published in WSP 1315-A.
CHEMICAL DATA: Water years 1951–79.
WATER TEMPERATURE: Water years 1965–79.
SEDIMENT DATA: Water years 1957–61, 1967–70.

REVISED RECORDS.—WSP 1931: Drainage area, 1932(M), 1938(M), 1952(M). WDR CA-88-4: 1983(M).

GAGE.—Water-stage recorder. Datum of gage is 4,507.74 ft above NGVD of 1929. Prior to Oct. 1, 1931, at site 1,000 ft downstream at different datum.

REMARKS.—Records fair. Considerable regulation by West Valley Reservoir on West Valley Creek beginning in May 1937, usable capacity, 21,700 acre-ft. Diversions for irrigation of about 3,800 acres upstream from station. See schematic diagram of Pit and McCloud River Basins.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 1,620 ft^3/s, June 2, 1971, gage height, 6.05 ft; minimum daily, 0.80 ft^3/s, Mar. 19, 1940 .

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	29	16	5.7	e12	23	106	137	111	117	109	91
2	30	29	12	5.2	e13	28	95	145	109	109	141	67
3	26	30	10	7.7	e13	24	100	154	107	107	167	59
4	28	29	8.0	11	e12	21	109	160	124	109	161	59
5	27	30	8.8	11	e11	19	118	163	131	103	161	58
6	27	29	16	20	e11	21	120	155	128	94	159	58
7	27	32	e15	11	e10	20	122	142	143	100	155	60
8	26	31	e13	8.4	e8.0	26	129	131	161	104	153	62
9	25	32	e11	40	e6.2	38	133	124	154	120	118	60
10	25	32	e9.4	67	e5.6	46	130	148	164	137	162	48
11	26	25	e8.8	50	e5.2	36	132	165	140	131	161	38
12	28	9.7	e8.4	33	e4.7	36	134	149	128	130	159	38
13	28	8.9	e8.0	26	e4.1	40	117	147	118	125	159	38
14	28	11	e7.7	24	4.5	44	103	130	116	125	159	39
15	28	13	e7.4	24	3.8	47	107	117	114	142	161	40
16	28	15	e8.0	21	17	49	118	112	110	152	147	27
17	29	18	e8.8	20	80	52	110	105	104	149	109	15
18	29	16	e9.5	19	88	57	111	125	107	148	100	19
19	29	17	e8.4	19	55	69	112	139	95	147	100	23
20	29	18	e7.6	18	31	75	105	122	106	143	98	31
21	29	e16	e7.2	18	26	84	106	121	121	138	95	30
22	29	e15	e6.4	e16	23	109	109	117	113	133	123	32
23	29	e14	e6.0	e15	34	124	102	116	106	130	145	30
24	29	e14	e5.6	e14	40	139	90	110	105	131	140	26
25	29	e14	e5.4	e13	37	139	89	101	105	130	139	26
26	28	e15	e5.2	e12	35	117	91	100	108	131	140	24
27	28	e16	e5.2	e12	28	107	97	122	130	128	138	24
28	28	17	e5.2	e11	25	98	131	180	147	126	135	24
29	29	23	e5.2	e11	22	98	145	185	124	124	128	23
30	29	29	e5.2	e11	---	109	139	161	115	112	127	24
31	29	---	e5.2	e12	---	109	---	135	---	110	114	---
TOTAL	876	627.6	263.6	586.0	665.1	2004	3410	4218	3644	3885	4263	1193
MEAN	28.3	20.9	8.50	18.9	22.9	64.6	114	136	121	125	138	39.8
MAX	37	32	16	67	88	139	145	185	164	152	167	91
MIN	25	8.9	5.2	5.2	3.8	19	89	100	95	94	95	15
AC-FT	1740	1240	523	1160	1320	3970	6760	8370	7230	7710	8460	2370

e Estimated.

11345500 SOUTH FORK PIT RIVER NEAR LIKELY, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	31.9	27.6	27.8	30.2	34.0	47.1	106	229	177	93.8	116	57.3
MAX	63.4	57.8	107	98.5	101	219	385	570	643	238	236	159
(WY)	1997	1985	1965	1997	1965	1972	1952	1984	1998	1995	1995	1975
MIN	15.7	5.17	3.28	5.99	4.07	4.63	16.9	25.7	12.1	7.70	9.97	10.5
(WY)	1932	1980	1980	1941	1978	1977	1991	1931	1931	1931	1934	1931

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1929 - 2004	
ANNUAL TOTAL	26328.6		25635.3			
ANNUAL MEAN	72.1		70.0		81.8	
HIGHEST ANNUAL MEAN					183	1984
LOWEST ANNUAL MEAN					27.3	1931
HIGHEST DAILY MEAN	455	May 27	185	May 29	1220	Jun 2 1971
LOWEST DAILY MEAN	3.9	Mar 5	3.8	Feb 15	0.80	Mar 19 1940
ANNUAL SEVEN-DAY MINIMUM	4.0	Mar 1	4.9	Feb 9	1.1	Feb 3 1941
MAXIMUM PEAK FLOW			190	May 28	1620	Jun 2 1971
MAXIMUM PEAK STAGE			3.17	May 28	6.05	Jun 2 1971
ANNUAL RUNOFF (AC-FT)	52220		50850		59240	
10 PERCENT EXCEEDS	183		143		186	
50 PERCENT EXCEEDS	32		48		42	
90 PERCENT EXCEEDS	6.0		9.5		12	

11348500 PIT RIVER NEAR CANBY, CA

LOCATION.—Lat 41°24'22", long 120°55'36", in NW 1/4 SW 1/4 sec.10, T.41 N., R.9 E., Modoc County, Hydrologic Unit 18020002, on right bank, at lower end of Warm Spring Valley, and 3.9 mi southwest of Canby.

DRAINAGE AREA.—1,431 mi^2, excluding Goose Lake Basin.

PERIOD OF RECORD.—January 1904 to December 1905, May 1929 to current year (1929–31 incomplete). Monthly discharge only for February and March 1904 published in WSP 1315-A.
CHEMICAL DATA: Water years 1951–79.
WATER TEMPERATURE: Water years 1965–79.
SEDIMENT DATA: Water years 1957–61, 1967–70.

REVISED RECORDS.—WSP 1445: 1904, 1935(M), 1936, 1937(M). WSP 1931: Drainage area. WSP 1315-A, 1950: Monthly total.

GAGE.—Water-stage recorder. Datum of gage is 4,266.00 ft above NGVD of 1929. January 1904 to December 1905, nonrecording gage and May 6, 1929, to Sept. 30, 1931, water-stage recorder, at site 100 ft upstream at different datum.

REMARKS.—Records good. Low flow regulated by many small reservoirs, total capacity about 144,000 acre-ft. Diversions for irrigation of about 39,000 acres upstream from station. See schematic diagram of Pit and McCloud River Basins.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge observed, 13,000 ft^3/s, Mar. 8, 1904, gage height, 15.0 ft, site and datum then in use; no flow July 18, 19, 2000, July 14, 15, 2002, and several days during 2003.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 800 ft^3/s, or maximum:

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 19	0545	2,910	7.44

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	42	176	e96	223	391	349	2.5	235	8.2	5.5	63
2	11	33	178	e97	214	459	332	1.7	167	7.6	6.3	49
3	14	32	146	e98	254	570	302	0.49	65	6.8	3.8	48
4	22	38	129	e100	273	528	279	0.37	23	5.4	5.6	76
5	27	54	111	e108	239	425	278	4.5	29	12	4.7	90
6	41	58	146	e115	201	472	279	6.0	151	5.8	1.0	56
7	51	69	250	120	186	475	275	17	101	2.2	2.6	28
8	83	114	298	136	178	381	264	11	70	1.9	20	8.7
9	109	126	337	207	164	363	207	93	48	0.89	36	13
10	90	118	252	502	147	386	179	53	74	1.1	7.0	27
11	95	101	185	730	134	401	167	49	85	8.3	14	40
12	83	99	171	670	135	392	150	83	77	19	11	86
13	85	96	165	519	137	378	142	108	105	12	14	54
14	72	89	224	414	131	370	151	81	108	9.7	14	36
15	44	82	345	383	128	365	161	49	80	12	9.6	25
16	46	79	304	382	166	363	164	39	54	14	6.6	28
17	75	90	243	354	1100	353	150	21	18	12	4.0	26
18	52	102	187	316	2820	347	141	60	16	4.7	10	19
19	45	120	185	299	2830	355	131	198	23	2.7	35	14
20	44	95	170	302	2060	380	159	243	23	0.81	42	8.7
21	41	82	189	327	1020	374	166	156	27	1.4	54	7.3
22	47	87	238	243	627	373	179	139	27	31	70	21
23	40	91	259	195	510	379	152	154	28	23	80	20
24	34	89	289	173	466	384	137	159	29	5.3	70	24
25	36	84	e280	155	574	429	56	96	18	3.9	53	19
26	34	74	e190	146	624	479	52	50	11	3.1	55	6.8
27	26	75	e150	143	645	441	58	55	7.7	2.5	49	31
28	47	77	e130	148	569	401	9.2	114	8.3	2.0	55	27
29	63	88	e118	140	440	373	4.5	224	13	2.2	36	20
30	51	115	e108	162	---	363	3.3	200	16	2.2	68	20
31	50	---	e100	225	---	357	---	243	---	2.3	62	---
TOTAL	1586	2499	6253	8005	17195	12507	5077.0	2710.56	1737.0	226.00	904.7	991.5
MEAN	51.2	83.3	202	258	593	403	169	87.4	57.9	7.29	29.2	33.0
MAX	109	126	345	730	2830	570	349	243	235	31	80	90
MIN	11	32	100	96	128	347	3.3	0.37	7.7	0.81	1.0	6.8
AC-FT	3150	4960	12400	15880	34110	24810	10070	5380	3450	448	1790	1970

e Estimated.

11348500 PIT RIVER NEAR CANBY, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1904 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	77.8	104	190	305	424	535	455	462	268	63.5	42.7	63.6
MAX	1068	418	1225	1684	2249	1749	2774	2176	1746	312	125	201
(WY)	1963	1982	1938	1970	1986	1972	1952	1995	1971	1971	1983	1998
MIN	0.26	12.7	31.0	14.7	19.2	5.83	1.29	2.32	3.53	0.78	0.22	0.28
(WY)	1935	1935	1937	1937	1937	1934	1934	1992	1992	2003	1934	1934

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1904 - 2004	
ANNUAL TOTAL	53708.47		59691.76			
ANNUAL MEAN	147		163		248	
HIGHEST ANNUAL MEAN					676	1971
LOWEST ANNUAL MEAN					22.4	1934
HIGHEST DAILY MEAN	1880	May 12	2830	Feb 19	8580	Feb 19 1986
LOWEST DAILY MEAN	0.00	Jun 28	0.37	May 4	0.00	Jul 18 2000
ANNUAL SEVEN-DAY MINIMUM	0.00	Jul 25	2.5	Apr 29	0.00	Jul 25 2003
MAXIMUM PEAK FLOW			2910	Feb 19	13000	Mar 8 1904
MAXIMUM PEAK STAGE			7.44	Feb 19	15.00	Mar 8 1904
ANNUAL RUNOFF (AC-FT)	106500		118400		179600	
10 PERCENT EXCEEDS	320		380		628	
50 PERCENT EXCEEDS	77		88		95	
90 PERCENT EXCEEDS	1.5		6.8		16	

11351600 COLLETT RESERVOIR NEAR LITTLE VALLEY, CA

LOCATION.—Lat 40°58'00", long 121°13'00", unsurveyed, Lassen County, Hydrologic Unit 18020003, on right bank, 1.9 mi east of Muck Valley Powerplant, 5.5 mi northwest of Little Valley, and 9.1 mi southwest of Nubieber.

PERIOD OF RECORD.—October 1991 to September 1992, October 1993 to current year.

GAGE.—Water-stage recorder. Datum of gage is NGVD of 1929.

REMARKS.—Lake is formed by earth and rockfill dam. Storage began Dec. 31, 1990. Water is diverted from the Pit River through a tunnel to the reservoir. Operating pool from elevation 4,030 ft, capacity 155 acre-ft, to 4,065 ft, capacity 7,693 acre-ft. Crest of spillway is at elevation 4,065 ft. Reservoir is used for power generation. Figures given represent total contents. Data not published below the minimum operating level at elevation 4,030 ft, capacity 155 acre-ft. See schematic diagram of Pit and McCloud River Basins.

COOPERATION.—Records were provided by Malacha Hydro Limited Partnership, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 8296.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on table provided by Malacha Hydro Limited Partnership, dated November 1991)

4,030	155	4,035	931	4,050	4,052	4,065	7,693
4,032	395	4,040	1,899				

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	869	3848	5026	6228	4561	7636	3463	382	---	---
2	---	---	891	3487	4950	6015	4693	7620	3211	346	---	---
3	---	---	838	3783	4739	5719	5374	7324	2956	336	---	---
4	---	---	776	4112	4590	5447	6160	7034	2871	326	---	---
5	---	---	673	3718	4385	5189	6307	6743	3531	316	---	---
6	---	---	894	3399	4178	5124	6265	6442	3571	280	---	---
7	---	---	1298	3049	4473	5167	6175	6182	3422	254	---	---
8	---	---	1378	2737	4761	4929	6034	6175	3171	230	---	---
9	---	264	1360	2547	4544	4700	6450	6160	2920	---	---	---
10	---	264	1410	3208	4374	4480	6835	5904	2737	---	---	---
11	---	394	1687	3191	4161	4279	7130	5594	2563	---	---	---
12	---	434	1537	3165	3900	4087	7149	5294	2559	---	---	---
13	---	436	1948	3358	3622	3907	7309	4990	2559	---	---	---
14	---	436	2406	3490	4063	3776	7452	4679	2394	---	---	---
15	---	498	2397	3399	4508	3588	7119	4672	2189	---	---	---
16	---	563	2479	3362	5019	3231	6819	4668	1998	---	---	---
17	---	579	2489	3352	4990	3085	7030	4346	1807	---	---	---
18	---	585	2365	3338	5356	3178	7270	4042	1621	---	---	---
19	---	585	2195	3262	5609	3262	7499	4038	1621	---	---	---
20	---	585	2653	3463	5863	3578	7328	4028	1621	---	---	---
21	---	634	3128	3382	5963	3883	7320	4028	1454	---	---	---
22	---	634	2894	3385	6067	3924	7347	4021	1287	---	---	---
23	---	690	2721	3558	6168	3942	7305	4011	1165	---	---	---
24	---	731	2656	4325	6243	3900	7620	3728	1005	---	---	---
25	---	731	3205	4950	6190	3876	7687	3487	863	---	---	---
26	---	731	3201	4793	6071	3852	7624	3426	857	---	---	---
27	---	731	3268	4554	5948	4150	7691	3348	852	---	---	---
28	---	731	3924	4272	6097	4441	7683	3205	712	---	---	---
29	---	787	3660	3997	6322	4452	7663	3463	568	---	---	---
30	---	852	3524	3793	---	4452	7648	3473	472	---	---	---
31	---	---	3402	4385	---	4438	---	3510	---	---	---	---
MAX	---	---	3924	4950	6322	6228	7691	7636	3571	---	---	---
MIN	---	---	673	2547	3622	3085	4561	3205	472	---	---	---
a	284	2860	14410	22900	23630	36970	7810	5100	4440	194	0	0
b	284	3480	16960	24100	25910	35670	11510	1080	1510	0	0	0

a Discharge, in acre-feet, for Muck Valley Powerplant (station 11351700), provided by Malacha Hydro Limited Partnership.
b Discharge, in acre-feet, for Pit River Tunnel Flow (station 11351945), provided by Malacha Hydro Limited Partnership.

11351950 PIT RIVER BELOW DIVERSION TO MUCK VALLEY POWERPLANT, NEAR BIEBER, CA

LOCATION.—Lat 41°00'55", long 121°09'13", in NE 1/4 SW 1/4 sec.27, T.37 N., R.7 E., Lassen County, Hydrologic Unit 18020003, on right bank, 1.7 mi upstream from North Gulch, 2.2 mi upstream from Spring Gulch, and 7.4 mi south of Bieber.

DRAINAGE AREA.—2,475 mi^2, excluding Goose Lake Basin.

PERIOD OF RECORD.—October 1994 to current year.

GAGE.—Acoustic-velocity meter measures minimum bypass flow; water-stage recorder and Ogee weir for spillway. Elevation of gage is 4,120 ft above NGVD of 1929, from topographic map.

REMARKS.—Flow at this station has two components which are combined for publication: low-flow release (station 11351946) and flow over Ogee weir (station 11351948). Water is diverted upstream of weir through Pit River Tunnel (station 11351945) to Collett Reservoir (station 11351600), for power generation. During powerplant operation, the minimum release is 50 ft^3/s. See schematic diagram of Pit and McCloud River Basins.

COOPERATION.—Records were provided by Malacha Hydro Limited Partnership, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory commission project no. 8296.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 16,800 ft^3/s, Jan. 3, 1997; no flow many days during most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	33	53	53	754	53	14	53	0.00	0.00	0.00
2	0.00	0.00	30	53	53	785	53	10	28	0.00	0.00	0.00
3	0.00	20	53	53	53	861	53	10	37	0.00	0.00	0.00
4	0.00	33	52	53	54	771	53	10	49	0.00	0.00	0.00
5	0.00	29	53	53	54	691	53	8.0	53	0.00	0.00	0.00
6	0.00	31	53	53	54	545	53	6.0	44	0.00	0.00	0.00
7	0.00	22	53	53	54	528	53	13	44	0.00	0.00	0.00
8	0.00	5.0	53	52	54	559	53	9.0	20	0.00	0.00	0.00
9	0.00	5.0	53	52	54	579	53	5.0	33	0.00	0.00	0.00
10	0.00	30	53	52	54	586	54	9.0	51	0.00	0.00	0.00
11	0.00	5.0	53	243	54	678	54	8.0	24	1.0	0.00	0.00
12	0.00	30	52	715	54	641	53	11	15	0.00	0.00	0.00
13	0.00	11	52	879	53	471	54	15	17	0.00	0.00	0.00
14	0.00	20	53	645	54	452	53	9.0	23	0.00	0.00	0.00
15	0.00	6.0	53	427	54	425	53	13	11	0.00	0.00	0.00
16	0.00	16	53	356	54	462	53	10	4.0	0.00	0.00	0.00
17	1.0	28	53	373	986	310	53	8.0	4.0	0.00	0.00	0.00
18	2.0	7.0	53	233	2380	213	53	11	6.0	0.00	0.00	0.00
19	2.0	27	53	186	4260	191	53	12	14	0.00	0.00	0.00
20	2.0	23	53	180	4760	111	53	9.0	5.0	0.00	0.00	0.00
21	2.0	21	53	164	3660	55	53	9.0	3.0	0.00	0.00	0.00
22	1.0	0.00	53	57	1990	83	53	16	2.0	0.00	0.00	0.00
23	0.00	5.0	53	54	1280	58	53	13	19	0.00	0.00	0.00
24	0.00	33	53	53	1050	57	53	19	2.0	0.00	0.00	0.00
25	0.00	23	119	53	1050	84	53	44	0.00	0.00	0.00	0.00
26	0.00	26	139	53	1280	243	53	52	0.00	0.00	4.0	0.00
27	6.0	0.00	111	53	1290	263	53	52	0.00	0.00	0.00	0.00
28	15	33	53	54	1180	169	40	53	0.00	0.00	0.00	0.00
29	22	5.0	54	54	875	151	22	52	0.00	0.00	0.00	0.00
30	13	16	54	54	---	55	14	29	0.00	0.00	0.00	0.00
31	14	---	54	53	---	53	---	41	---	0.00	0.00	---
TOTAL	80.00	510.00	1810	5466	26901	11884	1510	580.0	561.00	1.00	4.00	0.00
MEAN	2.58	17.0	58.4	176	928	383	50.3	18.7	18.7	0.03	0.13	0.00
MAX	22	33	139	879	4760	861	54	53	53	1.0	4.0	0.00
MIN	0.00	0.00	30	52	53	53	14	5.0	0.00	0.00	0.00	0.00
AC-FT	159	1010	3590	10840	53360	23570	3000	1150	1110	2.0	7.9	0.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2004, BY WATER YEAR (WY)

MEAN	27.7	66.5	135	726	906	967	504	844	262	15.2	5.02	13.6
MAX	53.0	325	475	3344	3089	3316	1677	3679	1903	69.1	31.4	43.0
(WY)	1999	1999	1999	1997	1996	1995	1995	1995	1998	1998	1998	1998
MIN	0.00	8.00	24.9	18.4	20.2	18.4	12.9	1.52	0.47	0.00	0.00	0.00
(WY)	2002	2002	2001	2001	2001	2001	2001	2001	2001	2001	2000	2000

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1995 - 2004	
ANNUAL TOTAL	47731.00		49307.00			
ANNUAL MEAN	131		135		370	
HIGHEST ANNUAL MEAN					997	1995
LOWEST ANNUAL MEAN					12.8	2001
HIGHEST DAILY MEAN	2610	May 13	4760	Feb 20	16800	Jan 3 1997
LOWEST DAILY MEAN	0.00	Jul 9	0.00	Oct 1	0.00	Oct 1 1994
ANNUAL SEVEN-DAY MINIMUM	0.00	Jul 9	0.00	Oct 1	0.00	Aug 3 1995
ANNUAL RUNOFF (AC-FT)	94670		97800		268400	
10 PERCENT EXCEEDS	114		277		1130	
50 PERCENT EXCEEDS	52		22		53	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

11354200 PIT NO. 1 POWERPLANT NEAR FALL RIVER MILLS, CA

LOCATION.—Lat 40°59'28", long 121°29'49", in SE 1/4 NE 1/4 sec.10, T.37 N., R.4 E., Shasta County, Hydrologic Unit 18020003, on right bank of Pit River, 2.3 mi downstream from Pit River Falls, and 3.2 mi southwest of Fall River Mills.

PERIOD OF RECORD.—October 1986 to current year. Unpublished records for water years 1973–86 available in files of the U.S. Geological Survey. Fragmentary record for water years 1922–72 available in files of the Pacific Gas & Electric Co.

GAGE.—Discharge computed from powerplant output.

REMARKS.—Water is diverted from Fall River at Pit No. 1 Forebay at NW 1/4 SW 1/4 sec.25, T.37 N., R.4 E., through a tunnel to powerplant and then into Pit River. See schematic diagram of Pit and McCloud River Basins.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2687.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 2,490 ft^3/s, Mar. 13, 1995; no flow several days most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	910	927	887	1090	1030	1130	1340	1060	1060	835	812	814
2	921	999	1020	1100	1100	1130	1360	1070	969	841	810	822
3	938	926	1030	1130	1180	1130	1320	1130	897	848	813	847
4	944	996	1040	1110	1090	1250	1290	1090	923	839	827	824
5	942	811	1040	1080	1110	1320	1300	1100	899	825	802	808
6	929	959	1050	1080	1120	1330	1290	1140	857	825	835	816
7	1010	966	1060	1070	1130	1360	1270	944	835	805	846	806
8	717	973	1060	1040	1110	1360	1210	1070	866	718	767	819
9	913	979	1070	1090	1150	1340	1240	1070	1090	718	842	820
10	925	986	1080	1170	1120	1330	1230	1130	868	719	781	846
11	920	992	1080	1160	1110	1330	1240	1190	940	835	796	845
12	921	999	1090	1110	1100	1320	1150	1120	915	833	800	846
13	923	1010	1090	1120	1090	1400	1190	1110	919	813	804	866
14	925	1000	1050	1150	1100	1330	1170	1190	905	812	789	908
15	934	999	1090	1110	1110	1320	1220	1060	959	716	788	865
16	932	998	1120	1120	1120	1310	1210	1080	853	673	786	857
17	944	999	1160	997	1040	1330	1320	1050	906	155	786	750
18	1010	1000	1110	1090	1120	1310	1200	780	859	294	782	845
19	901	1010	1090	1060	1130	1070	1150	201	844	720	791	866
20	964	1080	1090	1080	1100	1250	1070	57	838	796	791	864
21	902	1070	1090	1100	1130	1280	1330	57	836	831	784	830
22	914	982	1060	1070	1130	1320	1350	57	851	853	786	835
23	870	1040	1100	1070	1130	1340	1410	365	868	780	793	839
24	920	861	1140	1100	1170	1330	1340	1080	861	759	792	845
25	929	1030	1110	1080	1130	1310	1300	1080	854	853	794	858
26	922	946	1260	1050	1130	1430	1280	999	826	802	783	820
27	889	989	1120	983	1120	1430	1260	963	820	795	689	862
28	919	991	1130	1040	1130	1420	1140	1050	751	713	132	905
29	935	975	1090	1050	1130	1370	1250	1050	831	787	281	918
30	788	1060	1100	1090	---	1330	1200	961	847	778	731	882
31	723	---	1100	1100	---	1320	---	1010	---	790	830	---
TOTAL	28234	29553	33607	33690	32360	40530	37630	28314	26547	23361	23443	25328
MEAN	911	985	1084	1087	1116	1307	1254	913	885	754	756	844
MAX	1010	1080	1260	1170	1180	1430	1410	1190	1090	853	846	918
MIN	717	811	887	983	1030	1070	1070	57	751	155	132	750
AC-FT	56000	58620	66660	66820	64190	80390	74640	56160	52660	46340	46500	50240

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2004, BY WATER YEAR (WY)

MEAN	1139	1130	1183	1270	1305	1451	1441	1326	1156	1065	1029	1078
MAX	1394	1527	1533	1720	1871	1972	1927	1939	1698	1412	1379	1278
(WY)	1999	1999	1999	1998	1998	1995	1995	1998	1998	1998	1998	2000
MIN	911	562	987	996	749	1053	1014	913	885	754	447	844
(WY)	2004	2001	1995	1992	1994	1992	1994	2004	2004	2004	2003	2004

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1987 - 2004	
ANNUAL TOTAL	398210.00		362597			
ANNUAL MEAN	1091		991		1214	
HIGHEST ANNUAL MEAN					1572	1998
LOWEST ANNUAL MEAN					955	1994
HIGHEST DAILY MEAN	2090	Mar 16	1430	Mar 26	2490	Mar 13 1995
LOWEST DAILY MEAN	0.00	Aug 5	57	May 20	0.00	Aug 21 1992
ANNUAL SEVEN-DAY MINIMUM	26	Aug 5	367	May 17	0.00	Nov 6 2000
ANNUAL RUNOFF (AC-FT)	789800		719200		879400	
10 PERCENT EXCEEDS	1480		1280		1590	
50 PERCENT EXCEEDS	1030		1000		1170	
90 PERCENT EXCEEDS	743		788		932	

11355010 PIT RIVER BELOW PIT NO. 1 POWERPLANT, NEAR FALL RIVER MILLS, CA

LOCATION.—Lat 40°59'00", long 121°30'39", in NE 1/4 NW 1/4 sec.15, T.36 N., R.4 E., Shasta County, Hydrologic Unit 18020003, on left bank, 0.9 mi downstream from Pit No. 1 Powerplant, and 4 mi southwest of Fall River Mills.

DRAINAGE AREA.—3,761 mi^2, excluding Goose Lake Basin.

PERIOD OF RECORD.—August 1975 to current year.

GAGE.—Water-stage recorder and crest-stage gage. Datum of gage is 2,798.21 ft above NGVD of 1929 (levels by Pacific Gas and Electric Co.).

REMARKS.—Records good. Low flow regulated by many small reservoirs (total usable reservoir capacity, 210,000 acre-ft) and Pit No. 1 Powerplant. Many diversions upstream from station for irrigation. See schematic diagram of Pit and McCloud River Basins.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 30,000 ft^3/s, Feb. 20, 1986, gage height, 17.03 ft; minimum daily, 496 ft^3/s, Aug. 9, 2003.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood of January 1974 reached a stage of 14.8 ft, from floodmarks on right bank, discharge, 22,600 ft^3/s.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 4,000 ft^3/s, or maximum:

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 20	1830	8,260	10.55

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1470	1310	1330	1640	1360	3000	2110	1300	1370	1130	1050	1030
2	1480	1310	1420	1670	1580	3150	2090	1300	1390	1130	1050	1060
3	1500	1240	1360	1920	2000	3100	1940	1390	1270	1110	1040	1080
4	1500	1380	1440	1450	1970	2910	1660	1450	1290	1090	1050	1070
5	1490	1210	1460	1910	2030	2890	1660	1460	1260	1080	1040	1050
6	1460	1320	1410	1740	2030	2720	1920	1490	1120	1060	1080	1050
7	1480	1420	1480	1730	1900	2500	1910	1290	1130	1050	1100	1040
8	1450	1380	1560	1700	1750	2770	1840	1400	1270	968	1010	1060
9	1370	1320	1700	1880	1760	2780	1720	1290	1480	965	1090	1060
10	1360	1330	1660	2030	1820	2750	1510	1400	1250	966	1030	1080
11	1330	1400	1610	2240	1800	2740	1520	1580	1340	1080	1050	1090
12	1330	1340	1600	2510	1780	2700	1480	1510	1270	1080	1050	1080
13	1320	1380	1560	2660	1760	2650	1590	1480	1160	1060	1050	1100
14	1320	1330	1410	2570	1620	2570	1450	1550	1150	1050	1050	1150
15	1330	1360	1580	2460	1420	2510	1610	1390	1280	967	1050	1080
16	1330	1270	1740	2340	1590	2510	1780	1280	1160	971	1040	1040
17	1340	1290	1760	2170	3480	2470	1750	1270	1220	928	1030	919
18	1420	1340	1710	2210	6480	2300	1510	1290	1150	1140	1040	1080
19	1290	1290	1700	2130	6950	2020	1460	1310	1140	1010	1050	1130
20	1350	1420	1570	1990	7780	2110	1480	1320	1060	1060	1060	1110
21	1270	1390	1370	2140	6910	2050	1690	1270	1050	1090	1040	1060
22	1280	1280	1440	2060	5510	2140	1860	1270	1130	1120	1040	1070
23	1230	1270	1660	1760	4130	2200	1880	1400	1160	1020	1040	1070
24	1290	1120	1790	1640	3400	2220	1720	1380	1150	992	1030	1080
25	1290	1340	1830	1390	3290	2220	1610	1460	1140	1100	1030	1100
26	1260	1230	2250	1480	3570	2360	1700	1380	1110	1040	1020	1060
27	1240	1270	2100	1680	3810	2380	1580	1370	1060	1030	964	1080
28	1270	1230	1710	1710	3660	2280	1450	1500	1000	1000	967	1130
29	1280	1290	1570	1730	3170	2240	1540	1430	1100	1000	1160	1130
30	1220	1330	1740	1790	---	2230	1450	1230	1160	999	980	1100
31	1330	---	1740	1640	---	2180	---	1260	---	1020	1060	---
TOTAL	41880	39390	50260	59970	90310	77650	50470	42700	35820	32306	32341	32239
MEAN	1351	1313	1621	1935	3114	2505	1682	1377	1194	1042	1043	1075
MAX	1500	1420	2250	2660	7780	3150	2110	1580	1480	1140	1160	1150
MIN	1220	1120	1330	1390	1360	2020	1450	1230	1000	928	964	919
AC-FT	83070	78130	99690	119000	179100	154000	100100	84700	71050	64080	64150	63950

11355010 PIT RIVER BELOW PIT NO. 1 POWERPLANT, NEAR FALL RIVER MILLS, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1399	1612	1803	2279	2818	3120	2493	2277	1643	1304	1258	1311
MAX	1776	3181	3834	6060	8539	6539	5614	6883	4582	1809	1618	1628
(WY)	1999	1982	1984	1997	1986	1993	1982	1995	1998	1998	1998	1998
MIN	939	1133	1214	1222	1268	1294	1173	1050	1012	954	828	784
(WY)	1995	1993	1993	1991	1994	1992	1992	1992	1992	1994	1994	1994

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1975 - 2004	
ANNUAL TOTAL	610831		585336			
ANNUAL MEAN	1674		1599		1937	
HIGHEST ANNUAL MEAN					2914	1998
LOWEST ANNUAL MEAN					1149	1992
HIGHEST DAILY MEAN	4890	May 12	7780	Feb 20	28800	Feb 20 1986
LOWEST DAILY MEAN	496	Aug 9	919	Sep 17	496	Aug 9 2003
ANNUAL SEVEN-DAY MINIMUM	538	Aug 5	1010	Aug 22	538	Aug 5 2003
MAXIMUM PEAK FLOW			8260	Feb 20	30000	Feb 20 1986
MAXIMUM PEAK STAGE			10.55	Feb 20	17.03	Feb 20 1986
ANNUAL RUNOFF (AC-FT)	1212000		1161000		1403000	
10 PERCENT EXCEEDS	2440		2350		3210	
50 PERCENT EXCEEDS	1480		1380		1510	
90 PERCENT EXCEEDS	1140		1050		1160	

11358020 LOST CREEK BELOW DIVERSION TO LOST CREEK POWERPLANT NO. 1, NEAR OLD STATION, CA

LOCATION.—Lat 40°45'35", long 121°24'46", in NW 1/4 SW 1/4 sec.34, T.34 N., R.5 E., Shasta County, Hydrologic Unit 18020003, on right bank, 0.4 mi downstream from Lost Creek Diversion Dam, 2.5 mi downstream from Porcupine Reservoir, 6.0 mi north of Old Station, and 13.2 mi southeast of Cassel.

DRAINAGE AREA.—7.53 mi^2.

PERIOD OF RECORD.—October 1989 to September 1997, October 1998 to current year (operated as low-flow station only).

GAGE.—Water-stage recorder and sharp-crested weir. Elevation of gage is 3,900 ft above NGVD of 1929, from topographic map.

REMARKS.—During times of powerplant operation, the minimum release requirement is 15 ft^3/s; flow is computed to 80 ft^3/s. See schematic diagram of Pit and McCloud River Basins.

COOPERATION.—Records were collected by Snow Mountain Hydro, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 3863.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	16	25	16	16	17	16	16	16	21	16	16
2	16	16	16	16	18	16	16	16	16	16	16	16
3	16	16	16	16	16	16	19	16	16	16	16	16
4	16	16	16	16	16	16	16	16	16	16	16	16
5	16	16	22	16	16	16	16	16	16	16	16	16
6	16	20	16	16	16	16	19	16	16	16	16	16
7	16	16	16	16	16	16	16	16	16	16	16	16
8	16	16	16	16	16	16	19	16	16	16	16	16
9	16	16	16	16	16	16	16	16	16	16	16	16
10	16	16	16	16	16	16	16	16	16	16	16	16
11	16	16	16	16	16	16	16	16	16	16	17	16
12	16	16	16	16	16	16	16	16	16	16	16	16
13	16	16	16	16	16	17	16	16	16	16	16	18
14	16	16	16	16	16	17	16	16	16	18	19	16
15	16	16	16	16	16	17	16	16	16	16	16	16
16	16	16	16	16	17	17	16	16	16	16	18	16
17	16	16	16	16	47	17	16	16	16	16	17	16
18	16	16	16	16	73	17	16	16	16	16	16	16
19	16	16	16	16	21	17	16	16	16	16	16	16
20	16	16	16	16	22	17	16	16	16	16	16	16
21	16	16	16	16	16	16	16	20	16	16	16	18
22	16	24	16	16	16	16	16	16	16	16	16	16
23	16	16	16	16	16	16	16	16	16	16	16	16
24	16	16	16	16	16	17	16	16	16	16	23	16
25	16	16	16	16	17	17	16	16	16	16	18	16
26	16	16	16	16	16	17	16	16	16	16	16	16
27	19	16	16	16	16	17	16	16	16	16	16	16
28	16	16	16	16	16	16	16	16	16	16	16	16
29	16	16	16	16	e16	16	16	16	16	16	16	16
30	16	16	20	16	---	16	16	16	16	16	16	16
31	16	---	16	16	---	16	---	16	---	16	16	---
TOTAL	499	492	515	496	567	509	489	500	480	503	512	484
MEAN	16.1	16.4	16.6	16.0	19.6	16.4	16.3	16.1	16.0	16.2	16.5	16.1
MAX	19	24	25	16	73	17	19	20	16	21	23	18
MIN	16	16	16	16	16	16	16	16	16	16	16	16
AC-FT	990	976	1020	984	1120	1010	970	992	952	998	1020	960
a	2290	2230	2290	2370	2510	2640	2100	2140	2060	2070	2050	2040

e Estimated.

a Discharge, in acre-feet, for Lost Creek Powerplant No. 1 (station 11358010), provided by Snow Mountain Hydro.

11358700 HAT CREEK BELOW HAT NO. 1 DIVERSION DAM, NEAR BURNEY, CA

LOCATION.—Lat 40°55'08", long 121°33'02", in NW 1/4 SW 1/4 sec.5, T.36 N., R.4 E., Shasta County, Hydrologic Unit 18020003, on right bank, at Hat No. 1 Diversion Dam on Hat Creek, and 6.5 mi northeast of Burney.

DRAINAGE AREA.—347 mi^2.

PERIOD OF RECORD.—Oct. 1 to Dec. 8, 1987 (fragmentary); Dec. 9, 1987, to current year (operated as a low-flow station only). Unpublished fragmentary records for water years 1980–87 available in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder and Cipolletti weir. Elevation of gage is 3,180 ft above NGVD of 1929, from topographic map.

REMARKS.—This station records fishwater release only. The minimum release requirement is 2.0 ft^3/s at all times. Flow is computed to 9.4 ft^3/s. See schematic diagram of Pit and McCloud River Basins.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2661.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.5	8.5	8.4	8.3	8.3	8.3	8.2	8.1	8.3	8.5	8.8	9.1
2	8.4	8.6	8.4	8.0	8.4	8.1	8.4	8.2	8.3	8.6	8.6	8.7
3	8.4	8.7	8.3	8.1	8.4	8.0	8.4	8.2	8.3	8.4	8.6	8.9
4	8.4	8.7	8.4	8.1	8.5	8.0	8.4	8.3	8.3	8.3	8.7	8.9
5	8.4	8.8	8.3	8.1	8.5	8.1	8.3	8.5	8.4	8.4	e8.8	e8.9
6	8.5	8.8	8.4	8.1	8.4	8.2	8.2	8.4	8.4	8.3	8.6	8.8
7	8.5	8.8	8.5	8.1	8.3	8.2	8.2	8.4	8.5	8.3	8.8	---
8	8.6	8.8	8.5	8.1	8.4	8.2	8.2	8.4	8.5	8.3	8.8	---
9	8.6	8.8	8.6	8.1	8.4	8.2	8.2	8.4	8.3	8.2	8.5	---
10	8.7	8.7	8.6	8.1	8.4	e8.2	8.2	8.5	8.3	8.4	8.5	---
11	8.7	8.7	8.6	8.1	8.4	8.2	8.2	8.6	8.2	8.5	8.5	8.8
12	8.8	8.8	8.7	8.1	8.3	8.2	8.3	8.6	8.2	8.5	8.5	8.9
13	8.9	8.9	8.3	8.1	8.4	8.2	8.3	8.6	8.1	8.3	8.6	8.9
14	8.6	8.9	8.3	8.1	8.3	8.2	8.4	8.5	8.0	8.6	8.9	8.9
15	8.4	8.9	8.2	8.0	8.4	8.2	8.3	8.5	8.0	8.7	8.7	8.5
16	8.4	8.9	8.2	8.1	8.5	8.2	8.4	8.5	8.3	9.0	8.5	8.3
17	8.4	8.9	8.2	8.3	8.6	8.2	8.4	8.7	8.4	9.1	8.3	8.3
18	8.4	8.8	8.3	8.3	8.7	8.2	8.4	8.5	8.4	e9.3	e9.1	8.3
19	8.4	8.5	8.3	8.3	8.6	8.2	8.4	8.5	8.3	e8.9	9.1	8.4
20	8.5	8.6	8.3	8.3	8.6	8.2	8.3	8.6	8.2	8.7	8.7	8.4
21	8.4	8.6	8.4	8.3	8.5	8.1	8.3	8.5	8.3	8.8	8.2	8.5
22	8.4	8.6	8.4	8.3	8.6	8.2	8.4	e8.5	8.3	9.1	8.2	8.5
23	8.5	8.6	8.5	8.3	8.5	8.2	8.4	8.4	8.2	9.0	8.4	8.3
24	8.5	8.5	8.4	8.4	8.5	8.2	8.3	8.4	8.1	9.0	9.0	8.3
25	8.4	8.5	8.6	8.3	8.7	8.3	8.3	8.4	8.1	9.1	8.9	8.4
26	8.3	e8.8	8.5	8.4	8.5	8.3	8.2	8.4	8.1	8.7	8.7	8.4
27	8.3	e8.8	8.6	8.4	8.6	8.3	8.1	8.3	8.3	8.7	8.7	8.3
28	8.4	8.6	8.5	8.3	8.6	8.2	8.1	8.3	8.4	8.7	8.6	8.3
29	8.4	8.5	8.6	8.3	8.6	8.2	8.1	8.4	8.3	8.7	8.7	8.2
30	8.3	8.4	8.5	8.3	---	8.2	8.1	8.4	8.4	e8.8	8.9	8.2
31	8.3	---	8.6	8.3	---	8.2	---	8.4	---	8.8	9.0	---
TOTAL	262.7	261.0	261.4	254.4	245.9	253.9	248.4	261.4	248.2	268.7	268.9	---
MEAN	8.47	8.70	8.43	8.21	8.48	8.19	8.28	8.43	8.27	8.67	8.67	---
MAX	8.9	8.9	8.7	8.4	8.7	8.3	8.4	8.7	8.5	9.3	9.1	---
MIN	8.3	8.4	8.2	8.0	8.3	8.0	8.1	8.1	8.0	8.2	8.2	---
AC-FT	521	518	518	505	488	504	493	518	492	533	533	---

e Estimated.
NOTE: Canal out of service Sep. 7-10 and all flow remained in the natural channel.

11358800 HAT CREEK NO. 1 POWERPLANT NEAR BURNEY, CA

LOCATION.—Lat 40°55'45", long 121°32'37", in SW 1/4 SW 1/4 sec.32, T.36 N., R.4 E., Shasta County, Hydrologic Unit 18020003, on right bank of Hat Creek, at the upper end of Baum Lake, and 7.4 mi northeast of Burney.

PERIOD OF RECORD.—October 1986 to current year. Unpublished records for water years 1981–86 available in files of the U.S. Geological Survey. Fragmentary records for water years 1921–80 available in the files of the Pacific Gas & Electric Co.

GAGE.—Discharge computed from powerplant output.

REMARKS.—Water is diverted from left bank of Hat Creek at NW 1/4 SW 1/4 sec.5, T.36 N., R.8 W., through a canal to powerplant and then into Hat Creek. See schematic diagram of Pit and McCloud River Basins.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2661.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 518 ft^3/s, Nov. 2, 1998; no flow several days most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	264	298	336	342	323	365	317	254	316	295	256	256
2	267	309	337	334	330	363	322	258	317	293	255	259
3	268	321	337	330	325	358	324	261	313	295	252	256
4	271	323	337	328	323	354	332	264	320	295	251	257
5	275	330	337	326	319	353	323	270	319	291	254	255
6	274	330	337	327	322	352	287	272	320	291	247	249
7	272	330	338	328	324	350	275	279	321	289	256	85
8	273	330	338	330	321	349	271	277	317	285	259	16
9	272	330	338	333	320	342	272	276	317	283	258	71
10	269	330	340	335	321	330	268	296	314	274	257	212
11	267	331	343	333	320	346	262	310	293	267	256	255
12	267	331	338	332	321	340	262	312	300	273	255	256
13	266	330	338	331	317	345	261	312	295	275	250	257
14	266	329	354	330	320	346	263	310	294	276	252	257
15	266	329	342	329	321	346	268	298	293	273	255	257
16	266	327	337	330	339	348	268	299	294	273	255	257
17	265	327	336	331	376	348	280	302	295	273	256	257
18	264	329	334	330	400	350	279	305	291	277	255	261
19	264	327	334	329	383	347	282	312	286	273	256	258
20	263	327	337	330	368	343	290	314	287	270	249	258
21	264	326	335	327	364	337	300	306	298	270	248	256
22	264	325	333	325	361	337	297	295	300	268	246	256
23	264	323	333	323	361	337	295	292	305	268	249	255
24	264	324	344	326	355	334	298	284	296	264	251	254
25	263	324	348	325	375	338	302	283	292	262	252	253
26	264	288	339	323	379	342	278	285	290	261	253	253
27	263	323	332	327	371	341	261	286	286	262	253	253
28	263	325	329	325	366	345	253	295	284	262	255	251
29	264	334	340	325	362	339	251	299	289	262	256	252
30	266	339	333	327	---	325	250	306	293	263	255	253
31	269	---	331	324	---	322	---	307	---	258	256	---
TOTAL	8267	9749	10465	10195	9987	10672	8491	9019	9035	8521	7858	7025
MEAN	267	325	338	329	344	344	283	291	301	275	253	234
MAX	275	339	354	342	400	365	332	314	321	295	259	261
MIN	263	288	329	323	317	322	250	254	284	258	246	16
AC-FT	16400	19340	20760	20220	19810	21170	16840	17890	17920	16900	15590	13930
a	23460	26420	28090	27580	27000	29750	24610	25650	25240	24050	22720	19670

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2004, BY WATER YEAR (WY)

MEAN	299	323	344	348	332	343	313	289	297	283	266	268
MAX	432	437	433	422	431	408	393	384	430	410	344	349
(WY)	1987	1999	1999	1997	1999	2000	1999	1998	1998	1998	1998	1998
MIN	187	72.5	248	266	69.5	258	203	150	200	195	170	192
(WY)	1993	1990	1995	1993	1996	1992	1992	1991	1994	1994	1992	1994

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1987 - 2004	
ANNUAL TOTAL	112348		109284			
ANNUAL MEAN	308		299		309	
HIGHEST ANNUAL MEAN					383	1999
LOWEST ANNUAL MEAN					225	1992
HIGHEST DAILY MEAN	375	Jan 15	400	Feb 18	518	Nov 2 1998
LOWEST DAILY MEAN	199	Sep 17	16	Sep 8	0.00	Mar 17 1987
ANNUAL SEVEN-DAY MINIMUM	238	Sep 13	163	Sep 5	0.00	Nov 7 1989
ANNUAL RUNOFF (AC-FT)	222800		216800		223700	
10 PERCENT EXCEEDS	348		342		405	
50 PERCENT EXCEEDS	316		298		303	
90 PERCENT EXCEEDS	266		255		221	

a Discharge, in acre-feet, for Hat Creek No. 2 Powerplant (station 11359300), provided by Pacific Gas & Electric Co.

11359100 HAT NO. 2 POWER CANAL DIVERSION TO HAT CREEK, NEAR BURNEY, CA

LOCATION.—Lat 40°57'01", long 121°32'39", in SE 1/4 NW 1/4 sec.29, T.36 N., R.4 E., Shasta County, Hydrologic Unit 18020003, on right bank of Hat No. 2 Power Canal, 75 ft downstream from Hat No. 2 Diversion Dam on Hat Creek, and 7.9 mi northeast of Burney.

PERIOD OF RECORD.—Oct. 1 to Dec. 9, 1987 (fragmentary); Dec. 10, 1987, to current year (operated as a low-flow station only). Unpublished fragmentary records for water years 1979–87 available in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder and Parshall flume. Elevation of gage is 2,980 ft above NGVD of 1929, from topographic map.

REMARKS.—This station records fishwater release only. The minimum release requirement is 8.0 ft^3/s at all times. Flow is computed to 15 ft^3/s. See schematic diagram of Pit and McCloud River Basins.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2661.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.5	8.9	8.8	8.7	8.7	8.8	8.4	8.6	8.9	9.0	8.8	8.9
2	8.5	9.2	8.7	8.5	8.6	8.8	8.6	8.6	9.0	9.0	8.9	8.9
3	8.6	9.0	8.7	8.6	8.4	8.7	8.6	8.8	9.0	8.9	8.8	8.9
4	8.6	8.8	8.6	8.6	8.5	8.6	8.6	8.6	8.9	8.9	8.8	8.9
5	8.6	8.8	8.7	8.6	8.6	8.6	8.8	8.6	8.8	8.9	8.9	8.9
6	8.7	8.8	8.8	8.5	8.6	8.5	8.6	8.5	8.7	9.0	8.8	8.9
7	8.7	8.8	9.1	8.6	8.6	8.4	8.6	8.5	8.8	9.0	8.8	8.8
8	8.6	8.7	8.8	8.6	8.6	8.4	8.6	8.5	8.6	9.1	8.8	8.9
9	8.6	8.7	8.7	8.6	8.7	8.4	8.6	8.4	8.5	8.9	8.8	9.0
10	8.6	8.8	8.7	8.6	8.9	8.9	8.6	8.8	8.5	9.0	8.8	9.1
11	8.6	8.7	8.7	8.6	8.9	9.0	8.6	8.8	8.9	8.8	8.8	9.1
12	8.6	8.7	8.5	8.6	8.9	8.6	8.6	8.6	9.2	8.9	8.7	9.1
13	8.6	8.7	8.5	8.6	8.9	8.6	8.6	8.5	9.1	8.9	8.8	8.9
14	8.6	8.7	8.6	8.6	8.9	8.6	8.6	8.7	9.1	8.9	8.8	8.6
15	8.6	8.7	8.6	8.6	8.9	8.6	8.6	8.7	9.0	8.9	8.8	8.7
16	8.5	8.7	8.5	8.6	8.9	8.6	8.6	8.6	9.0	8.9	8.8	8.9
17	8.5	8.7	8.5	8.6	9.1	8.6	8.6	8.6	8.9	8.9	8.8	9.4
18	8.5	8.7	8.5	8.6	9.2	8.6	8.7	8.7	8.7	8.9	8.8	8.8
19	8.5	8.5	8.5	8.6	9.1	8.6	8.9	8.7	8.6	9.0	8.8	8.8
20	8.6	8.5	8.5	8.6	9.0	8.6	8.9	8.9	8.6	9.0	8.7	8.8
21	8.7	8.5	8.5	8.6	8.9	8.5	8.9	8.8	8.7	8.9	8.7	8.8
22	8.7	8.5	8.5	8.6	8.9	8.5	8.9	8.6	8.8	8.9	8.7	8.7
23	8.6	8.4	8.5	8.6	8.9	8.6	8.8	8.7	8.9	8.9	8.7	8.7
24	8.6	8.5	8.6	8.6	8.9	8.6	8.8	8.6	8.8	8.9	8.7	8.7
25	8.6	8.5	8.7	8.7	9.1	8.6	8.8	8.5	8.7	8.9	8.8	8.7
26	8.6	8.8	8.6	8.7	9.3	8.6	8.6	8.7	8.8	8.9	9.0	8.6
27	8.6	8.8	8.4	8.7	9.2	8.6	8.5	8.7	8.7	8.9	8.9	8.7
28	8.6	8.8	8.4	8.8	9.1	8.6	8.6	8.9	8.7	8.9	8.9	8.7
29	8.6	8.8	8.7	8.7	9.0	8.6	8.6	8.9	8.8	8.9	8.8	8.6
30	8.6	8.8	8.8	8.8	---	8.6	8.6	8.9	8.9	8.9	8.8	8.6
31	8.7	---	8.8	8.8	---	8.5	---	8.9	---	8.9	8.8	---
TOTAL	266.5	261.5	267.5	267.5	257.3	266.8	259.8	268.9	264.6	276.7	272.8	265.1
MEAN	8.60	8.72	8.63	8.63	8.87	8.61	8.66	8.67	8.82	8.93	8.80	8.84
MAX	8.7	9.2	9.1	8.8	9.3	9.0	8.9	8.9	9.2	9.1	9.0	9.4
MIN	8.5	8.4	8.4	8.5	8.4	8.4	8.4	8.4	8.5	8.8	8.7	8.6
AC-FT	529	519	531	531	510	529	515	533	525	549	541	526

11361000 BURNEY CREEK AT BURNEY FALLS, NEAR BURNEY, CA

LOCATION.—Lat 41°01'03", long 121°39'11", unsurveyed, Shasta County, Hydrologic Unit 18020003, on right bank, 0.4 mi downstream from Burney Falls, 0.4 mi upstream from Camp Britton, and 9.0 mi north of Burney.

DRAINAGE AREA.—182 mi^2.

PERIOD OF RECORD.—March 1921 to November 1922, July 2003 to current year (operated as a low-flow station only).

GAGE.—Water-stage recorder. Elevation of gage is 2,750 ft above NGVD of 1929, from topographic map.

REMARKS.—Records excellent. Flow is computed to 665 ft^3/s. See schematic diagram of Pit and McCloud River Basins.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 500 ft^3/s, Feb. 21, 2004; minimum daily, 141 ft^3/s, Sept. 29, 1921.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	168	179	178	242	198	368	322	247	206	169	167	163
2	168	178	177	365	197	360	309	246	200	169	167	162
3	177	177	175	289	198	339	298	246	196	168	167	163
4	174	178	169	247	214	321	292	248	193	169	169	162
5	175	178	168	218	216	321	292	250	190	168	168	162
6	178	178	184	213	211	326	288	247	188	168	177	162
7	179	177	361	206	225	319	289	241	187	168	175	162
8	179	178	288	218	227	321	287	242	186	168	169	162
9	182	180	214	312	213	326	278	246	186	168	168	163
10	185	190	200	354	209	334	274	254	183	167	172	163
11	179	194	218	300	210	341	264	270	182	168	168	163
12	176	187	222	256	208	337	259	252	181	167	164	162
13	177	184	207	233	204	335	260	235	180	167	168	163
14	179	184	312	220	203	326	263	224	179	167	173	163
15	179	184	324	215	208	324	275	218	178	167	168	163
16	179	167	235	211	271	320	279	215	177	167	163	163
17	178	149	212	206	---	318	272	212	179	167	163	165
18	176	151	200	202	---	319	259	222	178	167	163	167
19	175	149	197	198	---	325	263	225	175	167	162	166
20	176	170	197	196	---	342	274	218	172	167	164	166
21	176	175	199	193	500	334	329	219	172	167	169	168
22	175	169	193	191	471	340	391	221	171	167	168	167
23	175	168	188	188	438	348	321	219	171	166	164	169
24	176	173	209	190	384	357	292	213	171	166	163	168
25	175	166	405	189	398	365	276	208	169	166	163	164
26	174	166	286	186	---	398	273	203	170	166	162	163
27	175	169	232	187	---	360	271	201	170	166	162	163
28	177	161	214	190	468	353	271	219	169	167	168	171
29	182	159	196	192	396	337	265	262	170	166	167	171
30	181	170	204	200	---	330	256	237	169	166	164	170
31	182	---	207	212	---	335	---	214	---	166	163	---
TOTAL	5487	5188	6971	7019	---	10479	8542	7174	5398	5182	5168	4939
MEAN	177	173	225	226	---	338	285	231	180	167	167	165
MAX	185	194	405	365	---	398	391	270	206	169	177	171
MIN	168	149	168	186	---	318	256	201	169	166	162	162
AC-FT	10880	10290	13830	13920	---	20790	16940	14230	10710	10280	10250	9800

RESERVOIRS IN PIT AND McCLOUD RIVER BASINS, CA

11361400 LAKE BRITTON NEAR BURNEY.—Lat 41°01'20", long 121°40'32", in SW 1/4 SW 1/4 sec.19, T.37 N., R.3 E., Shasta County, Hydrologic Unit 18020003, Shasta National Forest, at control house on right bank 200 ft upstream from dam on Pit River, 1.1 mi downstream from Clark Creek, 1.3 mi northwest of Burney Falls, and 9 mi north of Burney.

DRAINAGE AREA.—4,607 mi^2, excluding Goose Lake Basin.

PERIOD OF RECORD.—October 1965 to current year (monthend contents only). Fragmentary records for water years 1925–65 in files of the Pacific Gas & Electric Co.

GAGE.—Remote telemark read once daily. Datum of gage is 19.53 ft above NGVD of 1929 (levels by Pacific Gas & Electric Co.). Monthend contents based on capacity table dated Dec. 1, 1976, provided by Pacific Gas & Electric Co.

REMARKS.—Reservoir is formed by gravity-type concrete dam. Storage began July 15, 1925. Usable capacity, 41,877 acre-ft, between elevations 2,665.0 ft, invert of sluice gate, and 2,758.0 ft, top of flash boards. Dead storage, 30 acre-ft. Normal operating pool is from elevation 2,744.0 ft, capacity, 26,183 acre-ft, to 2,757.0 ft, capacity, 40,626 acre-ft. Figures given represent total contents. Lake is used for power generation and recreation. See schematic diagram of Pit and McCloud River Basins. Records prior to water year 1977 reported usable contents only.

COOPERATION.—Record of contents 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. 233. Contents not rounded to U.S. Geological Survey standards prior to water year 2003.

EXTREMES (AT 2400) FOR PERIOD OF RECORD.—Maximum total contents, 47,922 acre-ft, Feb. 20, 1986, elevation, 2,762.50 ft; minimum total contents, 26,755 acre-ft, Oct. 9, 1976, elevation, 2,744.60 ft.

EXTREMES (AT 2400) FOR CURRENT YEAR.—Maximum contents, 40,200 acre-ft, Feb. 20, Mar. 13, elevation, 2,756.66 ft; minimum, 30,600 acre-ft, Jan. 5, elevation, 2,748.40 ft.

11363920 IRON CANYON RESERVOIR NEAR BIG BEND.—Lat 41°02'41", long 121°58'52", in SW 1/4 SE 1/4 sec.21, T.37 N., R.1 W., Shasta County, Hydrologic Unit 18020003, Shasta National Forest, in control house on left bank 500 ft upstream from Iron Canyon Dam on Iron Canyon Creek, and 3.7 mi northwest of Big Bend.

DRAINAGE AREA.—11.1 mi^2.

PERIOD OF RECORD.—December 1965 to current year (monthend contents only).

GAGE.—Water-stage recorder. Datum of gage is 2,680 ft above NGVD of 1929 (levels by Pacific Gas & Electric Co.). Monthend contents based on capacity table dated May 17, 1965, provided by Pacific Gas & Electric Co.

REMARKS.—Reservoir is formed by a rockfill dam completed in 1965. Usable capacity, 24,197 acre-ft, between elevations 2,525.00 ft, invert of sluice pipe, and 2,665.00 ft, crest of spillway. Dead storage, 44 acre-ft. Normal operating pool is from elevation 2,565.0 ft, capacity, 990 acre-ft, to 2,664.0 ft, capacity, 23,738 acre-ft. Water is diverted from Lake McCloud (station 11367740) through a tunnel to Iron Canyon Reservoir and then into the Pit River via James B. Black Powerplant (station 11363910). Figures given represent total contents. Water is used for power generation and recreation. See schematic diagram of Pit and McCloud River Basins.

COOPERATION.—Record of contents 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. 2106. Contents not rounded to U.S. Geological Survey standards prior to water year 2003.

EXTREMES (AT 2400) FOR PERIOD OF RECORD.—Maximum contents, 23,539 acre-ft, May 16, 22, 1977, elevation, 2,663.60 ft; normal minimum since reservoir first filled, 2,860 acre-ft, May 23, 24, 29, June 2, 7, 9, 14, 23, 24, 1966, elevation, 2,590.00 ft. Contents reduced to 195 acre-ft, elevation, 2,540.00 ft, Feb. 10, 1971, when reservoir was drained for inspection.

EXTREMES (AT 2400) FOR CURRENT YEAR.—Maximum contents, 21,900 acre-ft, July 24, 25, elevation, 2,660.20 ft; minimum, 3,480 acre-ft, Apr. 12, elevation, 2,595.30 ft.

11367740 LAKE McCLOUD NEAR McCLOUD.—Lat 41°08'06", long 122°04'26", in SE 1/4 SW 1/4 sec.22, T.38 N., R.2 W., Shasta County, Hydrologic Unit 18020004, Shasta National Forest, on McCloud Dam near spillway on McCloud River, 200 ft downstream from Panther Creek, and 8.8 mi southeast of McCloud.

DRAINAGE AREA.—403 mi^2.

PERIOD OF RECORD.—October 1965 to current year (monthend contents only).

GAGE.—Water-stage recorder. Datum of gage is 2,690 ft above NGVD of 1929 (levels by Pacific Gas & Electric Co.). Monthend contents based on capacity table dated June 29, 1965, provided by Pacific Gas & Electric Co.

REMARKS.—Reservoir is formed by a rockfill dam completed in 1965. Usable capacity, 35,231 acre-ft, between elevations 2,471.30 ft, invert of sluice pipe, and 2,680.00 ft, maximum operational water surface. Dead storage, 3 acre-ft. Normal operating pool is from elevation 2,635.00 ft, capacity, 16,425 acre-ft, to 2,680.00 ft, capacity, 35,234 acre-ft. Water is diverted from Lake McCloud (station 11367740) through a diversion tunnel to Iron Canyon Reservoir (station 11363920) and then into the Pit River via James B. Black Powerplant (station 11363910). Figures given represent total contents. Water is used for power generation and recreation. See schematic diagram of Pit and McCloud River Basins.

COOPERATION.—Record of contents 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 2106. Contents not rounded to U.S. Geological Survey standards prior to water year 2003.

EXTREMES (AT 2400) FOR PERIOD OF RECORD.—Maximum contents, 35,967 acre-ft, Jan. 15, 1974, elevation, 2,681.40 ft; minimum since reservoir first filled, 13,017 acre-ft, Oct. 14–22, 1981, elevation, 2,632.50 ft.

EXTREMES (AT 2400) FOR CURRENT YEAR.—Maximum contents, 34,700 acre-ft, July 1–4, elevation, 2,679.00 ft; minimum, 18,600 acre-ft, Jan. 8, elevation, 2,641.50 ft.

RESERVOIRS IN PIT AND McCLOUD RIVER BASINS, CA—Continued

MONTHEND ELEVATION AND CONTENTS AT 2400 HOURS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

	11361400 LAKE BRITTON			11363920 IRON CANYON RESERVOIR			11367740 LAKE McCLOUD		
Date	Elevation (ft)	Contents (acre-ft)	Change in contents (acre-ft)	Elevation (ft)	Contents (acre-ft)	Change in contents (acre-ft)	Elevation (ft)	Contents acre-ft)	Change in contents (acre-ft)
Sept. 30	2,754.10	37,100	—	2,644.50	15,300	—	2,656.20	24,200	—
Oct. 31	2,752.02	34,600	–2,500	2,646.90	16,200	–900	2,657.00	24,500	+300
Nov. 30	2,752.62	35,300	+700	2,648.40	16,800	+600	2,661.20	26,300	+1,800
Dec. 31	2,751.14	33,600	–1,700	2,602.90	4,550	–12,250	2,652.00	22,500	–3,800
CAL YR 2003			–6,000			–770			–9,800
Jan. 31	2,750.88	33,300	–300	2,625.20	9,260	+4,710	2,644.60	19,700	–2,800
Feb. 29	2,755.22	38,400	+5,100	2,615.20	6,840	–2,420	2,677.00	33,700	+14,000
Mar. 31	2,755.78	39,100	+700	2,600.00	4,110	–2,740	2,674.40	32,400	–1,300
Apr. 30	2,753.39	36,200	–2,900	2,623.75	8,880	+4,770	2,677.30	29,000	–3,400
May 31	2,756.50	40,000	+3,800	2,657.00	20,400	+11,520	2,675.20	32,800	+3,800
June 30	2,755.05	38,200	–1,800	2,659.80	21,700	+1,300	2,678.80	34,600	+1,800
July 31	2,752.62	35,300	–2,900	2,654.00	19,100	–2,600	2,674.80	32,600	–2,000
Aug. 31	2,753.64	36,500	+1,200	2,639.10	13,400	–5,700	2,663.50	27,300	–5,300
Sept. 30	2,755.94	39,300	+2,800	2,631.10	10,900	–2,500	2,644.00	19,500	–7,800
WTR YR 2004			+2,200			–4,400			–4,700

11362500 PIT RIVER BELOW PIT NO. 4 DAM, CA

LOCATION.—Lat 40°58'25", long 121°46'42", unsurveyed, T.36 N., R.2 E., Shasta County, Hydrologic Unit 18020003, Shasta National Forest, on right bank, 0.6 mi downstream from Ruling Creek, 1.3 mi downstream from Pit No. 4 Dam, and 2.7 mi downstream from Pit No. 3 Powerplant.

DRAINAGE AREA.—4,648 mi^2, excluding Goose Lake Basin.

PERIOD OF RECORD.—May 1922 to current year. Monthly discharge only for some periods, published in WSP 1315-A. Published as "near Pecks Bridge" April to October 1922, and as "at Lindsay Flat" November 1922 to June 1927.

REVISED RECORDS.—WSP 843: 1935(M). WSP 1315-A: 1928(M). WDR CA-75-4: Drainage area.

GAGE.—Water-stage recorder. Elevation of gage is 2,358 ft above NGVD of 1929, from river-profile map. Prior to November 1922, water-stage recorder at site at Pecks Bridge 7.4 mi upstream at different datum. November 1922 to June 20, 1927, at site at Lindsay Flat 1.8 mi upstream at different datum. June 20, 1927, to Sept. 5, 1990, at site 200 ft downstream at datum 0.15 ft lower.

REMARKS.—Low flow completely regulated by small reservoirs and powerplants, total usable reservoir capacity, 253,000 acre-ft. Many diversions upstream from station; diversion to Pit No. 4 Powerplant began June 9, 1955. See schematic diagram of Pit and McCloud River Basins.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 233.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 33,700 ft^3/s, Feb. 20, 1986, gage height, 18.70 ft; minimum daily prior to diversion to Pit No. 4 Powerplant in 1955, 234 ft^3/s, Sept. 13, 1953; minimum daily since diversion to Pit No. 4 Powerplant, 22 ft^3/s, Dec. 2–4, 1969.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	190	179	185	187	197	326	200	203	208	199	207	203
2	191	183	191	185	199	275	205	203	209	202	207	209
3	189	192	185	189	190	378	210	204	210	201	206	207
4	185	196	184	192	197	248	208	202	211	204	204	214
5	184	192	182	186	195	188	198	204	211	206	202	204
6	189	190	182	181	195	190	198	202	212	203	200	202
7	188	192	181	183	194	189	194	202	209	203	199	206
8	192	190	186	188	190	191	199	202	207	195	202	195
9	192	187	188	190	187	190	195	202	207	198	201	203
10	191	189	181	187	183	186	199	203	206	203	213	207
11	192	188	185	188	190	184	199	200	203	208	203	205
12	192	188	184	190	189	186	197	199	204	203	207	204
13	190	189	185	185	191	186	195	201	207	203	203	203
14	190	188	186	186	190	186	196	201	205	207	200	204
15	188	188	183	187	188	184	202	202	207	203	199	203
16	191	185	187	184	194	184	202	202	206	206	200	207
17	185	191	190	188	283	185	202	202	202	206	203	209
18	187	182	190	205	5060	188	202	204	200	203	202	204
19	188	186	191	187	5910	194	202	202	200	203	204	205
20	191	188	193	181	5770	190	203	201	200	204	203	206
21	197	223	186	186	5250	189	205	200	202	207	208	208
22	194	e160	183	186	3810	186	200	202	203	207	205	214
23	186	185	184	190	2500	186	200	202	200	203	202	238
24	187	184	185	187	840	186	198	202	200	205	199	214
25	193	207	186	191	659	186	200	201	202	205	200	218
26	186	192	185	194	1100	224	200	201	203	205	203	205
27	183	188	184	195	1480	199	201	200	198	205	203	209
28	186	184	184	187	1420	194	202	200	199	206	202	210
29	187	187	184	188	665	195	202	201	203	203	201	207
30	183	187	186	192	---	198	200	200	203	210	201	387
31	179	---	187	192	---	198	---	203	---	207	204	---
TOTAL	5846	5660	5753	5837	37816	6369	6014	6253	6137	6323	6293	6410
MEAN	189	189	186	188	1304	205	200	202	205	204	203	214
MAX	197	223	193	205	5910	378	210	204	212	210	213	387
MIN	179	160	181	181	183	184	194	199	198	195	199	195
AC-FT	11600	11230	11410	11580	75010	12630	11930	12400	12170	12540	12480	12710
a	107000	105200	145000	148000	146400	146700	133400	116600	104300	96740	91080	88980
b	106600	106800	146100	148600	155600	188100	138200	117900	105000	98360	92830	89580

11362500 PIT RIVER BELOW PIT NO. 4 DAM, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1927 - 1954, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1945	2102	2458	2700	3338	3799	3766	2877	2307	1925	1833	1865
MAX	2385	2544	5968	5523	6872	8510	11400	5507	4096	2652	2146	2318
(WY)	1954	1954	1938	1953	1942	1938	1952	1938	1953	1952	1954	1953
MIN	1571	1666	1745	1698	1742	1895	1730	1635	1612	1569	1509	1541
(WY)	1935	1934	1935	1937	1933	1934	1934	1934	1934	1934	1934	1934

SUMMARY STATISTICS	WATER YEARS 1927 - 1954	
ANNUAL MEAN	2572	
HIGHEST ANNUAL MEAN	4066	1952
LOWEST ANNUAL MEAN	1703	1934
HIGHEST DAILY MEAN	26200	Dec 12 1937
LOWEST DAILY MEAN	234	Sep 13 1953
ANNUAL SEVEN-DAY MINIMUM	1450	Aug 2 1936
MAXIMUM PEAK FLOW	a30200	Dec 12 1937
MAXIMUM PEAK STAGE	17.90	Dec 12 1937
ANNUAL RUNOFF (AC-FT)	1863000	
10 PERCENT EXCEEDS	3810	
50 PERCENT EXCEEDS	2170	
90 PERCENT EXCEEDS	1630	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	228	230	424	941	1053	1157	781	535	267	169	170	163
MAX	2189	2436	3791	7250	7657	5545	3416	4770	2788	490	458	268
(WY)	1955	1955	1965	1970	1986	1995	1982	1995	1998	1955	1992	1973
MIN	96.8	66.4	49.8	50.0	49.0	49.7	88.3	128	128	137	120	79.8
(WY)	1962	1957	1979	1981	1981	1981	1961	1961	1961	1964	1955	1955

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1955 - 2004	
ANNUAL TOTAL	105748		104711			
ANNUAL MEAN	290		286		507	
HIGHEST ANNUAL MEAN					1868	1955
LOWEST ANNUAL MEAN					98.4	1961
HIGHEST DAILY MEAN	2290	May 11	5910	Feb 19	31100	Feb 20 1986
LOWEST DAILY MEAN	160	Nov 22	160	Nov 22	22	Dec 2 1969
ANNUAL SEVEN-DAY MINIMUM	182	Jul 23	183	Oct 27	27	Dec 1 1969
MAXIMUM PEAK FLOW			7730	Feb 19	33700	Feb 20 1986
MAXIMUM PEAK STAGE			10.55	Feb 19	18.70	Feb 20 1986
ANNUAL RUNOFF (AC-FT)	209800		207700		367600	
10 PERCENT EXCEEDS	241		209		1190	
50 PERCENT EXCEEDS	189		200		160	
90 PERCENT EXCEEDS	183		185		61	

a From rating curve extended above 12,000 ft3/s on basis of velocity-area studies.

11362900 NELSON CREEK BELOW DIVERSION TO NELSON CREEK POWERPLANT, NEAR BIG BEND, CA

LOCATION.—Lat 41°02'32", long 121°52'34", in NE 1/4 NE 1/4 sec.29, T.37 N., R.1 E., Shasta County, Hydrologic Unit 18020003, on right bank, 400 ft upstream from Snowslide Creek, 0.3 mi downstream from Bull Creek, and 2.3 mi northeast of Big Bend.

DRAINAGE AREA.—13.2 mi^2.

PERIOD OF RECORD.—October 1993 to September 1996, October 1996 to current year (operated as a low-flow station only).

GAGE.—Water-stage recorder and broad-crested weir; water-stage recorder and sharp-crested weir. Elevation of gages is 2,320 ft above NGVD of 1929, from topographic map.

REMARKS.—Records good. Flow at this station has two components which are combined for publication: flow over a broad-crested weir (station 11362880) and flow over a sharp-crested weir (station 11362890). Water is diverted upstream of weirs through a tunnel to Nelson Creek Powerplant (station 11362800), returning to Nelson Creek at its confluence with the Pit River. Flow is computed to 100 ft^3/s. See schematic diagram of Pit and McCloud River Basins.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 623 ft^3/s, Feb. 19, 1996; minimum daily, 7.4 ft^3/s, Sept. 8, 21, 22, 1994.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	10	14	20	16	16	31	16	16	17	13	11
2	11	11	16	16	25	16	30	16	16	17	13	11
3	11	11	15	21	37	16	20	16	16	17	13	11
4	11	11	15	16	16	16	18	16	16	16	13	11
5	11	11	18	16	16	29	16	16	16	16	13	11
6	11	11	32	15	15	38	16	16	16	16	13	11
7	11	12	---	15	16	39	16	17	16	16	13	11
8	11	12	76	15	16	45	16	16	16	16	13	11
9	11	21	52	15	16	50	16	16	16	16	13	11
10	11	22	33	15	16	53	16	16	16	15	12	11
11	11	12	16	15	16	53	16	16	16	15	12	11
12	11	11	15	15	16	53	16	16	16	15	12	11
13	11	11	23	15	16	54	16	16	16	15	12	11
14	11	13	---	16	16	56	21	16	16	15	12	11
15	11	37	40	16	25	56	17	16	16	15	12	11
16	11	43	15	16	48	55	17	16	16	15	12	11
17	11	41	15	16	---	53	16	16	16	15	12	11
18	11	19	18	16	---	52	16	24	16	15	12	11
19	10	14	15	16	---	53	18	16	16	14	12	11
20	10	14	15	16	---	66	61	20	16	14	12	11
21	10	13	15	16	---	71	83	17	16	14	12	11
22	10	12	16	16	---	49	61	16	16	14	12	11
23	10	12	15	16	32	48	47	16	18	14	12	11
24	10	12	52	15	16	47	39	16	18	14	12	11
25	10	12	46	16	25	47	49	16	18	14	12	11
26	10	11	35	16	---	49	54	16	17	14	12	11
27	10	11	15	16	25	52	20	16	17	13	12	11
28	10	11	15	16	16	45	17	16	18	13	12	11
29	10	13	37	16	16	41	16	16	17	13	11	11
30	10	15	36	15	---	39	16	16	17	13	11	11
31	10	---	21	15	---	37	---	16	---	13	11	---
TOTAL	328	469	---	494	---	1394	811	510	492	459	378	330
MEAN	10.6	15.6	---	15.9	---	45.0	27.0	16.5	16.4	14.8	12.2	11.0
MAX	11	43	---	21	---	71	83	24	18	17	13	11
MIN	10	10	---	15	---	16	16	16	16	13	11	11
AC-FT	651	930	---	980	---	2760	1610	1010	976	910	750	655
a	0	0	623	1070	1000	2710	2500	1410	260	0	0	0

a Discharge, in acre-feet, for Nelson Creek Powerplant (station 11362800), provided by Sierra Pacific Industries.

11362950 EAST FORK NELSON CREEK BELOW DIVERSION TO NELSON CREEK, NEAR BIG BEND, CA

LOCATION.—Lat 41°02'25", long 121°52'28", in NE 1/4 NE 1/4 sec.29, T.37 N., R.1 E., Shasta County, Hydrologic Unit 18020003, on right bank, 700 ft upstream from Nelson Creek, and 2.3 mi northeast of Big Bend.

DRAINAGE AREA.—8.18 mi^2.

PERIOD OF RECORD.—October 1993 to September 1996, October 1996 to current year (operated as a low-flow station only).

GAGE.—Water-stage recorder and broad-crested weir; water-stage recorder and sharp-crested weir. Elevation of gages is 2,360 ft above NGVD of 1929, from topographic map.

REMARKS.—Records fair. Flow at this station has two components which are combined for publication: flow over a broad-crested weir (station 11362940) and flow over a sharp-crested weir (station 11362945). Water is diverted upstream of weirs through a pipe to Nelson Creek (station 11362900). Flows computed to 50 ft^3/s. See schematic diagram of Pit and McCloud River Basins.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 267 ft^3/s, Mar. 15, 1995; minimum daily, 0.07 ft^3/s, Aug. 12 to Sept. 23, 1994, and Oct. 11, 1994.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	1.8	2.5	6.6	3.9	12	24	19	4.6	3.4	2.7	3.4
2	2.1	1.9	2.7	5.5	4.1	12	24	18	4.5	3.5	2.8	3.9
3	2.1	2.1	2.5	4.7	4.1	11	23	18	4.2	3.6	2.9	3.9
4	2.0	2.1	2.4	4.4	3.9	11	23	17	4.2	4.0	2.9	4.0
5	2.0	2.0	4.6	4.2	3.8	15	23	16	4.0	3.8	2.9	4.1
6	2.0	2.0	9.3	4.1	3.8	24	23	15	3.8	3.6	2.9	4.1
7	2.0	2.3	7.9	4.1	3.6	24	23	14	3.8	3.6	2.7	4.0
8	2.0	2.6	4.4	4.7	3.5	18	23	13	3.9	3.6	2.7	4.0
9	2.0	3.7	3.7	5.4	3.5	24	23	12	3.8	3.8	2.6	4.0
10	2.0	3.1	3.9	5.5	3.5	25	23	14	3.8	4.0	2.7	4.0
11	1.9	2.3	3.9	5.4	3.5	25	23	12	3.7	3.8	2.8	4.0
12	1.8	2.2	3.7	5.3	3.4	26	23	12	3.8	3.8	2.9	3.9
13	1.8	2.1	5.3	5.0	3.6	26	22	11	3.6	3.7	2.9	3.9
14	1.8	2.5	6.7	4.7	3.8	27	20	9.7	3.5	3.5	3.0	3.8
15	1.8	3.9	5.6	4.5	5.2	26	23	8.8	3.4	3.4	3.0	3.8
16	1.8	3.3	4.3	4.5	9.8	27	20	8.0	3.4	3.4	2.9	3.8
17	1.8	3.2	3.7	4.5	24	27	18	7.1	3.4	3.3	2.8	3.8
18	1.8	2.5	3.4	4.6	33	26	18	8.7	3.5	3.3	2.8	3.8
19	1.8	2.3	3.1	4.4	25	27	18	8.4	3.6	3.3	2.8	3.8
20	1.7	2.2	3.1	4.2	20	25	20	8.2	3.7	3.4	2.8	3.8
21	1.6	2.1	3.1	4.1	17	25	24	7.8	3.5	3.2	2.8	3.8
22	1.6	2.0	3.1	4.0	15	26	23	8.2	3.5	3.3	2.7	3.7
23	1.6	1.9	3.3	4.0	14	26	20	8.3	3.4	3.3	2.7	3.6
24	1.6	1.9	7.9	4.0	14	25	20	7.5	3.5	3.3	2.7	3.6
25	1.6	1.9	12	4.1	16	26	19	6.9	3.5	3.3	2.7	3.6
26	1.6	1.9	9.7	4.0	15	25	19	6.4	3.5	3.3	2.7	3.5
27	1.6	1.8	7.7	4.1	14	25	19	6.1	3.5	3.3	2.6	3.5
28	1.6	1.8	6.7	3.9	13	25	19	6.2	3.6	2.9	2.6	3.3
29	1.7	2.5	6.5	3.9	12	25	19	5.7	3.5	2.7	2.7	3.3
30	1.8	2.7	5.5	4.1	---	25	19	5.2	3.5	2.7	2.6	3.3
31	1.8	---	5.1	4.0	---	24	---	4.9	---	2.7	2.6	---
TOTAL	56.4	70.6	157.3	140.5	299.0	715	638	323.1	111.2	105.8	85.9	113.0
MEAN	1.82	2.35	5.07	4.53	10.3	23.1	21.3	10.4	3.71	3.41	2.77	3.77
MAX	2.1	3.9	12	6.6	33	27	24	19	4.6	4.0	3.0	4.1
MIN	1.6	1.8	2.4	3.9	3.4	11	18	4.9	3.4	2.7	2.6	3.3
AC-FT	112	140	312	279	593	1420	1270	641	221	210	170	224

11363000 PIT RIVER AT BIG BEND, CA

LOCATION.—Lat 41°01'10", long 121°54'36", in NW 1/4 SW 1/4 sec.31, T.37 N., R.1 E., Shasta County, Hydrologic Unit 18020003, on left bank at Big Bend, 0.4 mi downstream from Nelson Creek, 1.5 mi upstream from Kosk Creek, and 3.1 mi downstream from Pit No. 5 Dam.

DRAINAGE AREA.—4,711 mi^2, excluding Goose Lake Basin.

PERIOD OF RECORD.—October 1910 to current year. Monthly discharge only for some periods, published in WSP 1315-A. Published as "at Henderson" 1910–23.

REVISED RECORDS.—WSP 1345: 1911, 1914(M), 1916(M), 1917, 1928, 1935–36(M). WDR CA-75-4: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is 1,674.47 ft above NGVD of 1929. Prior to Dec. 28, 1912, nonrecording gage; Dec. 28, 1912, to June 21, 1924, water-stage recorder at same site, at datum 7.69 ft higher. June 22, 1924, to Sept. 30, 1988, at site 200 ft downstream at same datum.

REMARKS.—Low flow completely regulated by many reservoirs and powerplants, total usable reservoir capacity, about 253,000 acre-ft. Many diversions upstream from station; diversion to Pit No. 5 Powerplant (station 11362700) began May 1, 1944. See schematic diagram of Pit and McCloud River Basins.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 233.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 49,000 ft^3/s, Jan. 25, 1970, gage height, 18.17 ft, in gage well, 19.0 ft, from floodmarks, site then in use, from rating curve extended above 17,000 ft^3/s, maximum gage height, 18.70 ft, Feb. 20, 1986, site then in use; minimum daily, 692 ft^3/s, July 9, 1925; minimum daily since diversion to Pit No. 5 Powerplant, 34 ft^3/s, Mar. 29, 1955.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 6,000 ft^3/s, or maximum:

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 18	0900	19,300	14.77

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	167	162	158	295	191	985	906	236	181	158	171	162
2	159	159	159	233	203	522	1190	241	169	158	162	182
3	156	157	164	214	208	1140	1220	238	169	156	164	183
4	157	147	155	197	208	956	1210	234	179	160	164	182
5	157	155	199	190	196	740	1030	228	179	162	154	178
6	154	155	444	182	202	574	405	222	175	154	163	172
7	161	162	249	191	210	397	253	219	175	155	165	175
8	154	165	179	231	202	346	251	219	172	156	173	171
9	154	172	177	242	199	411	257	218	170	152	181	190
10	155	159	183	235	200	478	250	227	170	147	188	189
11	155	143	186	228	196	360	244	213	165	175	179	175
12	152	146	186	219	191	387	242	207	164	174	185	157
13	157	153	230	215	192	354	246	202	173	176	184	161
14	167	154	335	223	201	428	249	198	165	184	180	172
15	159	180	224	221	255	536	252	195	162	187	166	170
16	165	163	192	215	524	351	237	195	156	169	165	179
17	157	163	182	211	2040	347	238	197	154	158	163	172
18	152	152	174	211	7360	336	251	237	168	154	157	180
19	161	160	172	203	7590	335	271	211	163	150	162	187
20	154	147	175	199	7630	487	371	207	159	148	169	179
21	152	156	173	197	7110	328	416	206	149	149	171	186
22	156	151	162	196	5420	320	606	204	154	152	172	175
23	162	151	179	194	3280	299	914	202	150	158	172	159
24	161	154	360	195	1540	290	622	193	152	156	175	149
25	160	161	274	197	1650	320	300	187	156	160	178	147
26	158	166	232	190	1940	963	276	185	154	163	176	144
27	150	160	207	198	2260	1370	255	187	157	157	175	155
28	152	156	192	186	2190	1200	245	193	159	154	165	160
29	155	160	201	194	1480	1170	246	196	155	158	160	163
30	165	160	185	200	---	1150	245	190	153	161	163	166
31	166	---	194	195	---	1070	---	194	---	168	161	---
TOTAL	4890	4729	6482	6497	55068	18950	13698	6481	4907	4969	5263	5120
MEAN	158	158	209	210	1899	611	457	209	164	160	170	171
MAX	167	180	444	295	7630	1370	1220	241	181	187	188	190
MIN	150	143	155	182	191	290	237	185	149	147	154	144
AC-FT	9700	9380	12860	12890	109200	37590	27170	12860	9730	9860	10440	10160

11363000 PIT RIVER AT BIG BEND, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 1943, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2206	2373	2676	3000	3927	4449	4446	3229	2520	2214	2100	2107
MAX	3021	3186	6792	7675	7989	9953	11410	6216	3763	3218	2987	2975
(WY)	1912	1912	1938	1914	1942	1938	1917	1938	1911	1911	1911	1911
MIN	1607	1740	1764	1750	1746	2051	1860	1734	1672	1584	1526	1565
(WY)	1935	1934	1935	1937	1933	1931	1934	1934	1934	1934	1934	1934

SUMMARY STATISTICS	WATER YEARS 1911 - 1943		
ANNUAL MEAN	2931		
HIGHEST ANNUAL MEAN	4597		1938
LOWEST ANNUAL MEAN	1787		1934
HIGHEST DAILY MEAN	30300	Dec 12	1937
LOWEST DAILY MEAN	692	Jul 9	1925
ANNUAL SEVEN-DAY MINIMUM	915	Jul 4	1925
MAXIMUM PEAK FLOW	a34200	Dec 12	1937
MAXIMUM PEAK STAGE	16.26	Dec 12	1937
ANNUAL RUNOFF (AC-FT)	2123000		
10 PERCENT EXCEEDS	4520		
50 PERCENT EXCEEDS	2440		
90 PERCENT EXCEEDS	1750		

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	202	215	475	1018	1216	1366	1070	672	279	136	137	129
MAX	2322	2469	3889	8804	9457	6658	8441	5420	3052	203	448	284
(WY)	1944	1944	1965	1970	1986	1995	1952	1995	1998	1998	1992	1986
MIN	58.8	56.0	45.0	51.4	57.1	52.6	49.9	114	78.5	63.5	60.9	60.1
(WY)	1949	1979	1979	1949	1977	1977	1977	1977	1944	1944	1944	1945

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1944 - 2004	
ANNUAL TOTAL	150838		137054			
ANNUAL MEAN	413		374		573	
HIGHEST ANNUAL MEAN					1638	1995
LOWEST ANNUAL MEAN					86.5	1977
HIGHEST DAILY MEAN	4580	May 10	7630	Feb 20	36500	Feb 21 1986
LOWEST DAILY MEAN	143	Nov 11	143	Nov 11	34	Mar 29 1955
ANNUAL SEVEN-DAY MINIMUM	153	Nov 18	152	Jul 18	40	Dec 7 1978
MAXIMUM PEAK FLOW			19300	Feb 18	49000	Jan 25 1970
MAXIMUM PEAK STAGE			14.77	Feb 18	18.70	Feb 20 1986
ANNUAL RUNOFF (AC-FT)	299200		271800		415200	
10 PERCENT EXCEEDS	412		481		1510	
50 PERCENT EXCEEDS	191		182		144	
90 PERCENT EXCEEDS	155		154		78	

a From rating extended above 11,000 ft3/s on basis of velocity-area studies.

11363910 JAMES B. BLACK POWERPLANT NEAR BIG BEND, CA

LOCATION.—Lat 40°59'12", long 121°58'35", in SW 1/4 SE 1/4 sec.9, T.36 N., R.1 W., Shasta County, Hydrologic Unit 18020003, at powerplant, on right bank of Pit River, and 5.8 mi downstream from Big Bend.

PERIOD OF RECORD.—December 1965 to current year.

GAGE.—Discharge computed from powerplant output.

REMARKS.—Water is diverted from Lake McCloud (station 11367740) at SE 1/4 SW 1/4 sec.22, T.38 N., R.2 W., through McCloud–Iron Canyon Diversion Tunnel (station 11367720) to Iron Canyon Reservoir (station 11363920), then through the penstock for powerplant and into the Pit River. Records are combined flow of diversion from McCloud River at McCloud Dam plus Iron Canyon Creek. See schematic diagram of Pit and McCloud River Basins.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2106.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 2,420 ft^3/s, July 15, 1966; no flow several days most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	454	516	621	1180	823	1430	1450	855	639	897	725	1110
2	449	433	782	1040	899	1700	1550	1070	1000	893	669	860
3	638	542	885	1160	823	1700	1380	1070	654	973	648	1070
4	729	514	987	1240	809	1720	1360	1080	881	1010	642	1110
5	682	551	1090	1320	885	1690	1380	1140	658	1010	642	1120
6	638	574	1190	684	862	1320	1180	1110	1070	967	648	1120
7	737	593	1290	493	689	1420	1310	1230	943	982	647	1130
8	673	639	1400	510	807	1210	1370	1080	1270	1050	690	1030
9	690	618	1330	397	779	1310	1420	1220	996	964	681	919
10	665	589	1050	360	777	1400	1460	1040	1010	785	748	920
11	676	560	1310	849	843	1510	1410	1010	915	738	842	941
12	781	561	1330	900	839	1390	1450	1010	950	821	814	877
13	605	619	1040	1040	901	1300	1330	920	675	892	881	707
14	650	564	1200	918	795	1320	1170	968	850	827	908	853
15	676	650	1170	1020	856	1510	1210	693	793	520	907	999
16	638	594	1270	1160	954	1370	1240	947	737	505	969	1020
17	763	739	1350	1140	895	1410	1090	1060	665	618	957	745
18	642	615	1340	799	1190	1390	1240	976	636	591	927	576
19	736	648	1540	880	1350	1430	1300	972	609	555	988	614
20	720	564	1610	838	1560	1310	1050	1010	465	569	996	495
21	667	689	1680	1140	1320	1370	870	715	576	500	831	620
22	691	633	1260	1080	1290	1410	998	569	621	516	934	621
23	712	629	1370	959	1410	1410	1020	567	609	532	894	551
24	610	665	1260	736	1460	1470	1200	637	637	589	985	636
25	642	632	1390	739	1500	1460	970	689	763	655	995	577
26	553	656	1070	691	1740	1150	1080	648	668	710	965	681
27	532	645	1330	517	1750	1330	1040	544	717	1100	964	658
28	572	575	1230	645	1320	1510	1050	494	640	1190	886	592
29	579	641	1180	779	1740	1440	1060	474	854	1220	849	564
30	470	619	1340	755	---	1430	892	482	666	660	945	665
31	490	---	1090	773	---	1490	---	0.00	---	722	957	---
TOTAL	19760	18067	37985	26742	31866	44310	36530	26280.00	23167	24561	26134	24381
MEAN	637	602	1225	863	1099	1429	1218	848	772	792	843	813
MAX	781	739	1680	1320	1750	1720	1550	1230	1270	1220	996	1130
MIN	449	433	621	360	689	1150	870	0.00	465	500	642	495
AC-FT	39190	35840	75340	53040	63210	87890	72460	52130	45950	48720	51840	48360
a	128500	127400	165200	182100	175500	222800	153700	141500	126100	116700	110200	110100

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 2004, BY WATER YEAR (WY)

MEAN	747	753	902	983	1050	1184	1148	1011	883	837	812	783
MAX	1122	1401	1538	1651	1625	1565	1670	1797	1735	1260	1101	1225
(WY)	1976	1974	1974	1970	1998	1995	1966	1967	1967	1966	1983	1983
MIN	505	428	433	500	373	581	421	368	523	533	465	515
(WY)	1993	1992	1992	1992	1978	1991	1990	1977	1987	1994	1992	1992

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1966 - 2004	
ANNUAL TOTAL	352799		339783.00			
ANNUAL MEAN	967		928		921	
HIGHEST ANNUAL MEAN					1313	1974
LOWEST ANNUAL MEAN					547	1991
HIGHEST DAILY MEAN	1690	Mar 18	1750	Feb 27	2420	Jul 15 1966
LOWEST DAILY MEAN	276	Jun 14	0.00	May 31	0.00	Jun 2 1966
ANNUAL SEVEN-DAY MINIMUM	385	Jun 14	469	May 26	0.00	Feb 3 1971
ANNUAL RUNOFF (AC-FT)	699800		674000		667400	
10 PERCENT EXCEEDS	1360		1390		1480	
50 PERCENT EXCEEDS	989		892		888	
90 PERCENT EXCEEDS	563		568		417	

a Discharge, in acre-feet, for Pit No. 5 Powerplant (station 11362700), provided by Pacific Gas & Electric Co.

11363930 IRON CANYON CREEK BELOW IRON CANYON DAM, NEAR BIG BEND, CA

LOCATION.—Lat 41°02'22", long 121°59'03", in NW 1/4 NW 1/4 sec.28, T.37 N., R.1 W., Shasta County, Hydrologic Unit 18020003, on left bank, 0.2 mi downstream from Iron Canyon Dam, and 4.2 mi west of Big Bend.

DRAINAGE AREA.—11.2 mi^2.

PERIOD OF RECORD.—August 1966 to current year (beginning October 1994, operated as a low-flow station only).

REVISED RECORDS.—WDR CA-95-4: Drainage area.

GAGE.—Water-stage recorder, 60° sharp-crested V-notch weir, and concrete control with flashboards in 2- by 10-ft opening. Datum of gage is 2,461.52 ft above NGVD of 1929 (levels by Pacific Gas & Electric Co.).

REMARKS.—Flow is completely regulated by Iron Canyon Reservoir (station 11363920). There is an interbasin diversion from Lake McCloud (station 11367740) to Iron Canyon Reservoir and then through a tunnel to James B. Black Powerplant on the Pit River (station 11363910). This station records fishwater release only. The minimum release requirement is 3.0 ft^3/s at all times. Flow is computed to 12.0 ft^3/s. See schematic diagram of Pit and McCloud River Basins.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2106.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 650 ft^3/s, Feb. 5, 1986, gage height unknown (flashboards removed from weir), from equation for a 4- by 4-ft slide gate. Flow was the result of full travel test of slide gate at Iron Canyon Dam; maximum gage height, 3.24 ft, Feb. 25, 1978 (flashboards in weir), was the result of failure of the James B. Black Penstock; no flow, July 15–18, 1967.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.4	8.1	6.2	3.6	3.4	3.7	3.8	3.7	3.8	3.9	3.7	3.7
2	6.4	8.1	3.9	3.4	3.4	3.8	3.8	3.7	3.8	3.9	3.7	3.6
3	6.4	8.4	3.9	3.4	3.4	3.7	3.8	3.7	3.8	3.9	3.7	3.7
4	6.4	8.5	3.6	3.5	3.4	3.8	3.9	3.7	3.8	3.9	3.7	3.6
5	6.4	8.5	3.3	3.4	3.4	3.7	3.8	3.7	3.8	3.8	3.7	3.7
6	6.4	8.5	4.8	3.5	3.4	3.7	3.8	3.7	3.8	3.8	3.7	3.7
7	6.4	8.5	3.3	3.6	3.4	3.8	3.8	3.7	3.8	3.8	3.7	3.8
8	6.4	8.5	3.3	3.6	3.5	3.7	3.8	3.7	3.8	3.7	3.7	3.8
9	6.4	8.5	3.3	3.5	3.4	3.8	3.8	3.7	3.7	3.6	3.8	3.8
10	6.6	8.2	3.4	3.4	3.4	3.8	3.8	3.7	3.7	3.6	3.8	3.8
11	6.8	7.8	3.5	3.4	3.4	3.8	3.7	3.8	3.8	3.6	3.8	3.7
12	6.8	7.9	3.5	3.4	3.5	3.8	3.7	3.7	3.8	3.6	3.7	3.7
13	6.8	8.1	3.8	3.4	3.6	3.8	3.8	3.7	4.0	3.6	3.7	3.8
14	6.8	8.2	4.2	3.4	3.6	3.8	3.8	3.8	3.8	3.6	3.7	3.8
15	6.8	9.1	3.5	3.4	3.8	3.8	3.8	3.9	3.6	3.6	3.6	3.8
16	6.8	8.5	3.6	3.5	4.5	3.8	3.8	3.9	3.6	3.7	3.6	3.7
17	6.8	8.5	3.6	3.4	7.8	3.8	3.8	3.9	3.6	3.7	3.8	3.7
18	6.8	8.1	3.5	3.4	6.3	3.8	3.9	3.7	3.7	3.7	3.7	3.7
19	6.8	8.1	3.4	3.4	4.9	3.8	3.9	3.8	3.7	3.8	3.7	3.8
20	6.8	8.1	3.4	3.4	4.6	3.8	3.8	3.8	3.8	3.8	3.6	3.8
21	6.6	8.1	3.4	3.4	4.2	3.8	3.8	4.0	3.8	3.8	3.6	3.9
22	6.4	8.1	3.4	3.4	3.9	3.8	3.8	3.8	3.8	3.9	3.6	3.9
23	6.6	8.1	3.4	3.5	3.7	3.9	3.8	3.7	3.9	3.9	3.6	3.9
24	6.8	7.9	3.7	3.5	3.7	3.8	3.8	3.7	3.9	3.9	3.7	3.9
25	7.2	7.6	3.5	3.6	4.5	3.8	3.8	3.7	3.9	3.9	3.9	3.9
26	7.2	7.6	3.4	3.6	4.9	3.8	3.8	3.8	3.9	3.9	3.9	3.9
27	7.2	7.6	3.4	3.6	4.7	3.8	3.8	3.8	3.9	3.9	3.8	3.9
28	7.5	7.6	3.5	3.5	4.0	3.8	3.7	3.9	3.9	3.8	3.8	3.9
29	7.6	7.8	3.5	3.5	3.7	3.8	3.8	3.9	3.9	3.8	3.8	3.9
30	7.9	7.6	3.4	3.5	---	3.9	3.8	3.9	3.9	3.7	3.8	3.9
31	8.1	---	3.5	3.5	---	3.8	---	3.9	---	3.7	3.7	---
TOTAL	211.3	244.2	113.1	107.6	117.4	117.5	114.0	117.1	114.0	116.8	115.3	113.7
MEAN	6.82	8.14	3.65	3.47	4.05	3.79	3.80	3.78	3.80	3.77	3.72	3.79
MAX	8.1	9.1	6.2	3.6	7.8	3.9	3.9	4.0	4.0	3.9	3.9	3.9
MIN	6.4	7.6	3.3	3.4	3.4	3.7	3.7	3.7	3.6	3.6	3.6	3.6
AC-FT	419	484	224	213	233	233	226	232	226	232	229	226

11365000 PIT RIVER NEAR MONTGOMERY CREEK, CA

LOCATION.—Lat 40°50'38", long 122°00'05", in NE 1/4 SW 1/4 sec.32, T.35 N., R.1 W., Shasta County, Hydrologic Unit 18020003, Shasta National Forest, on left bank, 0.7 mi downstream from Pit No. 7 Dam and Powerplant, 1.4 mi upstream from Potem Creek, and 4.1 mi west of town of Montgomery Creek.

DRAINAGE AREA.—4,952 mi^2, excluding Goose Lake Basin.

PERIOD OF RECORD.—October 1944 to current year (monthly discharge only December 1964 to May 1965). Monthly discharge only for some periods, published in WSP 1315-A.
CHEMICAL DATA: Water years 1951, 1953, 1955–81.
WATER TEMPERATURE: Water years 1951, 1954–57, 1959.

REVISED RECORDS.—WSP 1931: Drainage area. WDR CA-86-4: 1983 (M).

GAGE.—Water-stage recorder and crest-stage gage. Datum of gage is 1,000.00 ft above NGVD of 1929 (levels by Pacific Gas & Electric Co.). October 1944 to Feb. 17, 1963, at site 0.7 mi upstream at different datum. Feb. 17, 1963, to May 21, 1965, at site 1.5 mi upstream at different datum. May 21, 1965, to June 20, 1981, at site 0.9 mi downstream at datum 1,036.00 ft above NGVD of 1929.

REMARKS.—Low flow completely regulated by many reservoirs and powerplants, total usable reservoir capacity, 337,000 acre-ft. Many diversions upstream from station for irrigation. Diversion from McCloud River to Iron Canyon Reservoir (station 11363920) began December 1965. See schematic diagram of Pit and McCloud River Basins.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2106.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 73,000 ft^3/s, Jan. 24, 1970, gage height, 32.36 ft, site and datum then in use, maximum gage height, 74.65 ft, Feb. 19, 1986; minimum daily, 30 ft^3/s, July 12, 27, 1975, result of construction work below Pit No. 7 Powerplant.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3030	1760	3590	7250	3490	8360	5810	3280	6050	3620	2880	3170
2	2760	3670	3470	6410	5230	8360	5480	3650	7040	3290	3100	2760
3	2530	2720	3070	7420	4440	8350	6430	4790	906	1800	3140	3560
4	2820	2750	3450	7500	4340	8320	5800	5010	3320	3790	3000	3570
5	2670	2180	2790	3730	4440	8300	6510	4590	2060	3140	2270	3580
6	3520	2310	5100	3670	4010	7140	5040	4030	3820	3620	1940	4390
7	2930	2920	5070	3550	4770	6830	4930	4470	3270	3400	3170	3970
8	3040	2600	4010	3330	4290	7330	5140	3630	4210	3280	3010	2960
9	2780	3170	4460	3400	4080	7350	5110	4440	4390	3170	1600	2840
10	2950	3060	4970	3730	4200	6790	5430	4660	3900	2670	3190	2630
11	3850	3280	5350	3980	4230	6960	5310	4630	4000	3210	3250	2490
12	3420	2940	5190	4070	4500	7410	4590	4230	2350	3380	2640	3120
13	3040	3010	5160	4050	4230	6970	5040	3830	2620	2850	2650	2930
14	3140	2620	6560	5320	4690	7270	3960	4220	3200	2860	3540	2810
15	2650	3760	5220	6290	4400	7730	4370	3730	3310	2480	3260	2470
16	2820	3180	5670	8230	7760	6810	4470	4230	3030	3100	2750	2880
17	3460	3010	4810	7880	19500	7080	3680	4110	2690	3380	2750	1480
18	320	2900	4860	8020	19800	6470	4950	4120	2920	2800	3380	1270
19	3260	4420	5440	7140	15900	6890	4320	3840	2740	2270	3100	2530
20	2940	2700	5420	6290	14700	6100	5990	4520	2760	2850	2880	2930
21	3300	2860	4840	5360	13500	6610	5340	4230	2210	1410	2580	2690
22	3510	2690	4470	5580	11800	5730	6420	2880	3420	2700	2240	2430
23	2370	2500	3710	5400	9950	5690	6060	3100	2920	2740	2870	3700
24	2020	3000	6580	5220	9200	6580	5150	3500	3010	2290	3220	3220
25	1770	2990	6580	5040	9750	6430	5250	3620	2640	3030	3010	2930
26	2910	3140	5560	4870	11100	5780	6000	3480	2780	2720	3120	2380
27	3020	3870	5630	4700	10500	6560	4860	3560	2640	3070	3240	2210
28	2690	2910	6290	4480	9640	6220	4480	3110	3100	3560	3240	1780
29	3030	2960	6290	3790	9160	6880	4740	3120	3380	3980	2620	1970
30	2820	2650	5830	4000	---	5980	4420	1940	2580	3130	3020	2330
31	3170	---	5480	3160	---	7240	---	e1050	---	2700	2690	---
TOTAL	88540	88530	154920	162860	237600	216520	155080	117600	97266	92290	89350	83980
MEAN	2856	2951	4997	5254	8193	6985	5169	3794	3242	2977	2882	2799
MAX	3850	4420	6580	8230	19800	8360	6510	5010	7040	3980	3540	4390
MIN	320	1760	2790	3160	3490	5690	3680	1050	906	1410	1600	1270
AC-FT	175600	175600	307300	323000	471300	429500	307600	233300	192900	183100	177200	166600
a	33200	33100	30700	32100	33200	31700	32600	32200	33400	32000	31500	30700
b	176700	172600	292200	267000	324300	388400	279900	216900	185000	178300	173600	166100
c	13800	14300	9610	13400	14900	13600	14100	14700	14000	14300	14100	12800

e Estimated.
a Contents, in acre-feet, at end of month for Pit No. 6 Reservoir (station 11364100), provided by Pacific Gas & Electric Co.
b Discharge, in acre-feet, for Pit No. 6 Powerplant (station 11364150), provided by Pacific Gas & Electric Co.
c Contents, in acre-feet, at end of month for Pit No. 7 Reservoir (station 11364700), provided by Pacific Gas & Electric Co.

11365000 PIT RIVER NEAR MONTGOMERY CREEK, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 1965, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2643	2828	3821	4320	5592	5331	5711	4297	3127	2376	2231	2284
MAX	5999	3710	9541	11240	12970	8212	13350	7380	5044	3037	2651	2744
(WY)	1963	1951	1956	1956	1958	1956	1952	1952	1953	1958	1958	1959
MIN	2112	2232	2219	2137	2500	3225	3404	2299	2353	1935	1971	1899
(WY)	1950	1950	1950	1949	1948	1964	1947	1947	1950	1949	1947	1949

SUMMARY STATISTICS	WATER YEARS 1945 - 1965	
ANNUAL TOTAL		
ANNUAL MEAN	3704	
HIGHEST ANNUAL MEAN	5529	1956
LOWEST ANNUAL MEAN	2658	1947
HIGHEST DAILY MEAN	32100	Dec 23 1955
LOWEST DAILY MEAN	150	Jul 19 1965
ANNUAL SEVEN-DAY MINIMUM	1610	Jul 19 1965
MAXIMUM PEAK FLOW	37100	Dec 23 1955
MAXIMUM PEAK STAGE	14.12	Dec 23 1955
ANNUAL RUNOFF (AC-FT)	2684000	
10 PERCENT EXCEEDS	6080	
50 PERCENT EXCEEDS	3010	
90 PERCENT EXCEEDS	1740	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3379	4046	4773	6534	7139	7865	6490	5420	3985	3271	3085	3101
MAX	5865	8683	9814	20890	18670	16030	12920	11900	8911	4633	4187	4257
(WY)	1997	1997	1982	1970	1986	1983	1982	1995	1998	1998	1983	1998
MIN	2286	2533	2408	2632	2784	3241	2626	2404	2268	2291	2049	1428
(WY)	1993	1993	1991	1991	1991	1977	1977	1992	1992	1994	1992	1966

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1966 - 2004	
ANNUAL TOTAL	1617189		1584536			
ANNUAL MEAN	4431		4329		4913	
HIGHEST ANNUAL MEAN					7693	1974
LOWEST ANNUAL MEAN					2808	1992
HIGHEST DAILY MEAN	10300	Jan 14	19800	Feb 18	53900	Jan 23 1970
LOWEST DAILY MEAN	320	Oct 18	320	Oct 18	30	Jul 12 1975
ANNUAL SEVEN-DAY MINIMUM	1780	Aug 4	2320	Sep 16	939	Sep 5 1966
MAXIMUM PEAK FLOW			26600	Feb 17	73000	Jan 24 1970
MAXIMUM PEAK STAGE			69.00	Feb 17	74.65	Feb 19 1986
ANNUAL RUNOFF (AC-FT)	3208000		3143000		3559000	
10 PERCENT EXCEEDS	7180		6960		8430	
50 PERCENT EXCEEDS	3880		3580		4000	
90 PERCENT EXCEEDS	2650		2580		2180	

11367500 McCLOUD RIVER NEAR McCLOUD, CA

LOCATION.—Lat 41°11'18", long 122°03'52", in NW 1/4 NE 1/4 sec.34, T.39 N., R.2 W., Siskiyou County, Hydrologic Unit 18020004, on right bank, 0.4 mi downstream from Angel Creek, and 6 mi southeast of McCloud.

DRAINAGE AREA.—358 mi^2.

PERIOD OF RECORD.—April 1931 to current year.

REVISED RECORDS.—WSP 843: 1936(M). WSP 1445: 1940(M). WSP 1931: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is 2,711.2 ft above NGVD of 1929, from river-profile map.

REMARKS.—Two small diversions upstream from station for irrigation and one 22-in. pipeline for town of McCloud. See schematic diagram of Pit and McCloud River Basins.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2106.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 15,400 ft^3/s, Jan. 1, 1997, gage height, 11.22 ft, from rating curve extended above 8,800 ft^3/s on basis of slope-area measurement of peak flow; minimum daily, 524 ft^3/s, Nov. 23, 24, 1932.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 1,500 ft^3/s, or maximum:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 6	2200	1,540	2.63	Feb. 18	0300	5,110	5.95

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	822	811	814	902	823	1120	1220	1120	951	860	828	802
2	822	812	813	883	832	1090	1190	1130	948	859	828	802
3	822	812	809	863	830	1060	1180	1150	943	857	827	801
4	821	811	808	854	823	1040	1190	1170	937	855	826	799
5	821	810	828	847	818	1020	1200	1180	933	852	825	799
6	820	809	1210	844	819	1010	1200	1150	928	851	824	797
7	819	812	1230	849	817	1010	1190	1120	924	849	822	797
8	819	836	976	863	812	1030	1180	1110	924	849	821	797
9	819	843	907	891	812	1050	1180	1090	921	849	820	796
10	819	823	884	891	812	1080	1170	1110	914	848	818	796
11	818	813	862	883	812	1100	1170	1080	910	847	818	796
12	816	812	854	875	812	1110	1170	1050	905	845	817	796
13	816	809	861	865	812	1120	1180	1040	899	844	817	796
14	816	823	1210	858	812	1130	1190	1030	897	843	817	796
15	816	833	1060	855	823	1160	1220	1030	892	841	816	795
16	815	821	955	854	943	1170	1160	1030	887	840	816	795
17	814	813	911	849	3180	1190	1130	1020	885	839	813	796
18	813	810	886	844	4070	1210	1110	1070	883	839	810	795
19	812	806	870	844	2210	1250	1130	1060	880	839	810	793
20	812	804	861	842	1650	1240	1270	1030	877	839	810	792
21	812	802	853	836	1430	1240	1300	1020	874	837	812	791
22	812	801	845	833	1310	1280	1270	1020	873	837	811	790
23	812	801	853	833	1230	1320	1200	1010	871	835	808	789
24	812	801	1100	833	1210	1340	1170	995	868	834	807	787
25	811	801	1150	831	1250	1360	1160	986	865	834	807	787
26	811	801	1010	828	1430	1350	1150	980	863	832	807	786
27	811	797	947	834	1290	1300	1160	986	861	830	807	786
28	811	796	917	824	1200	1260	1180	984	864	829	805	786
29	812	805	918	823	1150	1240	1150	971	862	828	804	785
30	811	811	909	829	---	1260	1130	962	862	828	804	785
31	811	---	889	828	---	1260	---	957	---	828	803	---
TOTAL	25278	24339	29000	26388	35822	36400	35500	32641	26901	26097	25258	23808
MEAN	815	811	935	851	1235	1174	1183	1053	897	842	815	794
MAX	822	843	1230	902	4070	1360	1300	1180	951	860	828	802
MIN	811	796	808	823	812	1010	1110	957	861	828	803	785
AC-FT	50140	48280	57520	52340	71050	72200	70410	64740	53360	51760	50100	47220

11367500 McCLOUD RIVER NEAR McCLOUD, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	766	790	867	911	980	1052	1127	1121	949	836	798	776
MAX	1030	1569	1879	2348	2155	2220	1896	2182	1574	1219	1101	1059
(WY)	1984	1974	1956	1970	1958	1983	1974	1938	1998	1983	1983	1983
MIN	536	537	534	539	549	568	674	606	574	561	556	544
(WY)	1933	1933	1933	1933	1933	1935	1994	1992	1992	1934	1992	1932

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1931 - 2004	
ANNUAL TOTAL	350054		347432			
ANNUAL MEAN	959		949		916	
HIGHEST ANNUAL MEAN					1406	1974
LOWEST ANNUAL MEAN					589	1992
HIGHEST DAILY MEAN	3010	Mar 15	4070	Feb 18	11900	Jan 1 1997
LOWEST DAILY MEAN	796	Nov 28	785	Sep 29	524	Nov 23 1932
ANNUAL SEVEN-DAY MINIMUM	800	Nov 22	786	Sep 24	528	Nov 20 1932
MAXIMUM PEAK FLOW			5110	Feb 18	15400	Jan 1 1997
MAXIMUM PEAK STAGE			5.95	Feb 18	11.22	Jan 1 1997
ANNUAL RUNOFF (AC-FT)	694300		689100		663800	
10 PERCENT EXCEEDS	1190		1200		1260	
50 PERCENT EXCEEDS	870		849		842	
90 PERCENT EXCEEDS	812		802		621	

11367720 McCLOUD–IRON CANYON DIVERSION TUNNEL NEAR McCLOUD, CA

LOCATION.—Lat 41°08'06", long 122°04'26", in SE 1/4 SW 1/4 sec.22, T.38 N., R.2 W., Shasta County, Hydrologic Unit 18020004, Shasta National Forest, on left bank of Lake McCloud, and 8.8 mi southeast of McCloud.

PERIOD OF RECORD.—December 1965 to current year.

REVISED RECORDS.—WDR CA-75-4: 1973.

GAGE.—None. Water-stage recorders on Iron Canyon Reservoir and Lake McCloud (stations 11363920 and 11367740) used to compute record.

REMARKS.—Water is diverted from Lake McCloud (station 11367740) via tunnel to Iron Canyon Reservoir (station 11363920) and then via penstock into James B. Black Powerplant (station 11363910) on the Pit River. Diversion began Dec. 1, 1965. See schematic diagram of Pit and McCloud River Basins.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2106.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 1,890 ft^3/s, several days during May and June 1967; no flow several days in 1965–68, 1971, 1978, June 8, 10, 2001.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	569	541	636	1170	684	1210	1580	1210	791	815	839	915
2	557	533	673	1140	697	1240	1590	1190	811	828	828	906
3	559	529	681	1130	704	1250	1590	1200	827	848	814	918
4	583	535	688	1140	703	1290	1580	1210	839	862	801	934
5	595	524	695	1150	707	1320	1580	1220	853	884	789	949
6	601	581	703	1100	711	1320	1520	1230	855	895	781	968
7	554	574	710	899	705	1300	1520	1240	780	905	775	980
8	561	566	717	901	694	1270	1510	1250	924	919	769	984
9	559	559	725	822	690	1250	1520	1250	949	933	764	973
10	627	552	610	761	685	1240	1530	1230	962	928	764	958
11	629	544	841	739	690	1260	1540	1240	971	914	774	951
12	636	537	878	783	698	1260	1540	1220	973	876	783	937
13	641	560	900	680	702	1510	1540	1200	961	890	785	905
14	620	583	924	852	708	1240	1510	1190	945	878	795	884
15	610	590	963	864	702	1250	1480	1160	931	882	798	879
16	602	594	988	898	715	1260	1460	1130	929	850	829	891
17	610	604	1020	927	799	1400	1420	1130	915	828	853	843
18	622	607	1040	922	995	1530	1390	1130	899	808	861	841
19	625	478	1080	898	1200	1530	1390	1130	878	792	870	791
20	633	602	1130	895	989	1530	1370	1120	854	773	881	757
21	637	599	1180	334	991	1530	1340	1110	834	753	884	723
22	637	608	1220	846	1000	1540	1310	1070	823	741	882	710
23	639	608	1200	841	1030	1550	1260	1030	812	728	886	690
24	636	608	1210	904	1280	1570	1290	999	804	720	887	679
25	630	610	1230	861	1070	1580	1270	978	771	721	895	676
26	627	609	1220	779	1110	1580	1260	959	800	730	904	673
27	601	609	1180	705	1140	1540	1250	917	797	755	907	683
28	580	605	1220	675	1170	1550	1250	912	800	808	906	679
29	565	600	1210	676	1190	1570	1250	884	807	816	900	666
30	492	605	1210	657	---	1570	1230	865	808	864	899	669
31	541	---	1200	673	---	1580	---	821	---	849	854	---
TOTAL	18578	17254	29882	26622	25159	43620	42870	34425	25903	25793	25957	25012
MEAN	599	575	964	859	868	1407	1429	1110	863	832	837	834
MAX	641	610	1230	1170	1280	1580	1590	1250	973	933	907	984
MIN	492	478	610	334	684	1210	1230	821	771	720	764	666
AC-FT	36850	34220	59270	52800	49900	86520	85030	68280	51380	51160	51490	49610

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 2004, BY WATER YEAR (WY)

MEAN	659	674	815	890	966	1107	1135	1020	887	784	748	712
MAX	1028	1205	1362	1451	1583	1592	1624	1729	1854	1305	1150	1123
(WY)	1984	1984	1974	1970	1970	1970	1966	1967	1967	1967	1971	1983
MIN	0.00	0.00	333	383	439	562	445	388	416	409	343	383
(WY)	1966	1966	1992	1992	1991	1991	1990	1977	1992	1992	1992	1992

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1966 - 2004	
ANNUAL TOTAL	312310		341075			
ANNUAL MEAN	856		932		866	
HIGHEST ANNUAL MEAN					1260	1967
LOWEST ANNUAL MEAN					453	1992
HIGHEST DAILY MEAN	1290	Jan 3	1590	Apr 2	1890	May 20 1967
LOWEST DAILY MEAN	478	Nov 19	334	Jan 21	0.00	Oct 1 1965
ANNUAL SEVEN-DAY MINIMUM	528	Oct 30	528	Oct 30	0.00	Oct 1 1965
ANNUAL RUNOFF (AC-FT)	619500		676500		627200	
10 PERCENT EXCEEDS	1170		1350		1380	
50 PERCENT EXCEEDS	778		878		804	
90 PERCENT EXCEEDS	583		603		496	

11367760 McCLOUD RIVER BELOW McCLOUD DAM, NEAR McCLOUD, CA

LOCATION.—Lat 41°07'44", long 122°04'08", in SW 1/4 NE 1/4 sec.27, T.38 N., R.2 W., Shasta County, Hydrologic Unit 18020004, Shasta National Forest, on left bank, 0.1 mi downstream from Lizard Creek, 0.6 mi downstream from McCloud Dam, and 9 mi southeast of McCloud.

DRAINAGE AREA.—404 mi^2.

PERIOD OF RECORD.—April 1966 to current year (operated as a low-flow station only).

GAGE.—Water-stage recorder. Datum of gage is 2,398.76 ft above NGVD of 1929 (levels by Pacific Gas & Electric Co.). Prior to Apr. 7, 1972, at datum 3.00 ft higher.

REMARKS.—Low flow regulated by Lake McCloud (station 11367740) since November 1965. Most of McCloud River runoff is diverted from reservoir through tunnel to Iron Canyon Reservoir (station 11363920) in Pit River Basin. This station records fishwater release. The minimum release requirement is 40 ft^3/s at all times. Prior to water year 1974, flow was computed up to 400 ft^3/s. During water years 1975–81, because of channel changes, flow was computed up to 200 ft^3/s. Currently, because of maximum required release, flow is computed to 220 ft^3/s. See schematic diagram of Pit and McCloud River Basins.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2106.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	192	192	202	106	111	78	85	133	171	180	183	183
2	192	192	202	97	111	76	93	133	171	181	183	182
3	193	192	202	93	111	73	98	133	171	181	182	182
4	192	193	202	100	111	70	100	133	171	181	182	182
5	192	193	203	107	111	69	102	123	171	180	182	182
6	192	192	106	112	111	78	105	112	172	179	182	183
7	192	193	85	112	111	85	108	113	173	179	182	183
8	192	189	138	112	113	85	111	122	172	180	182	182
9	193	190	154	99	115	70	114	124	172	180	182	183
10	193	190	164	66	115	68	116	124	172	180	182	183
11	192	189	170	59	115	68	118	125	172	183	184	183
12	192	190	173	59	116	67	120	125	172	182	185	183
13	192	191	173	59	116	67	122	125	173	182	185	183
14	192	195	180	59	116	67	123	126	175	182	185	185
15	192	195	176	58	117	66	123	131	174	181	185	184
16	192	195	140	59	108	66	129	142	174	181	185	184
17	192	195	120	68	143	65	132	153	174	181	181	183
18	192	195	117	77	---	65	132	159	174	181	179	184
19	192	195	119	78	---	65	132	159	177	181	178	185
20	192	195	128	82	---	65	132	159	178	181	178	184
21	192	195	131	87	---	65	132	159	178	181	178	184
22	192	195	137	86	---	65	133	159	178	181	178	184
23	192	195	141	86	---	65	132	161	178	181	177	184
24	192	194	149	88	---	65	132	163	179	181	177	184
25	192	197	144	93	---	66	132	163	179	182	177	184
26	192	200	119	97	---	65	132	163	179	182	176	184
27	192	201	92	98	---	65	132	164	180	182	176	184
28	192	201	89	104	81	66	132	169	180	183	175	184
29	192	202	91	107	79	68	132	169	180	183	176	184
30	192	201	106	111	---	69	133	169	180	183	176	184
31	192	---	108	111	---	77	---	170	---	183	177	---
TOTAL	5955	5832	4461	2730	---	2149	3617	4463	5250	5618	5590	5503
MEAN	192	194	144	88.1	---	69.3	121	144	175	181	180	183
MAX	193	202	203	112		85	133	170	180	183	185	185
MIN	192	189	85	58		65	85	112	171	179	175	182
AC-FT	11810	11570	8850	5410	---	4260	7170	8850	10410	11140	11090	10920

11367800 McCLOUD RIVER AT AH-DI-NA, NEAR McCLOUD, CA

LOCATION.—Lat 41°06'39", long 122°05'42", in NE 1/4 SW 1/4 sec.33, T.38 N., R.2 W., Shasta County, Hydrologic Unit 18020004, Shasta National Forest, on right bank at Ah-Di-Na, 1.8 mi downstream from Squirrel Creek, 3.9 mi downstream from McCloud Dam, and 9.6 mi south of McCloud.

DRAINAGE AREA.—427 mi^2.

PERIOD OF RECORD.—October 1964 to current year.

REVISED RECORDS.—WDR CA-98-4: 1997 (m).

GAGE.—Water-stage recorder. Elevation of gage is 2,160 ft above NGVD of 1929, from topographic map.

REMARKS.—Low flow completely regulated by Lake McCloud (station 11367740) 3.9 mi upstream since November 1965. Diversion to Iron Canyon Reservoir (station 11363920) through McCloud–Iron Canyon diversion tunnel (station 11367720) started Dec. 1, 1965. This station records fishwater release. The minimum release requirements range from 160 to 210 ft^3/s per schedule outlined in Federal Energy Regulatory Commission License 2106. See schematic diagram of Pit and McCloud River Basins.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2106.

EXTREMES FOR PERIOD OF RECORD.—Prior to completion of McCloud Dam in 1965, maximum discharge, 9,660 ft^3/s, Dec. 22, 1964, gage height, 9.43 ft, from rating curve extended above 2,500 ft^3/s; minimum daily, 86 ft^3/s, Oct. 1–26, 1964. Since completion of McCloud Dam, maximum discharge, 31,700 ft^3/s, Jan. 1, 1997, gage height, 14.77 ft, from rating curve extended above 8,000 ft^3/s on basis of slope-area measurement of peak flow; minimum daily, 41 ft^3/s, Dec. 18–20, 1971 (caused by valve malfunction at McCloud Dam).

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood of Dec. 21, 1955, reached a stage of 12.5 ft, discharge, 17,800 ft^3/s, from rating curve extended above 2,500 ft^3/s.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 3,000 ft^3/s, or maximum:

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 18	1800	4,930	6.81

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	228	230	263	246	200	314	225	238	224	219	229	235
2	228	231	265	222	204	291	225	235	224	220	229	234
3	228	230	262	197	200	270	225	230	224	220	229	235
4	228	231	260	194	197	252	225	226	223	219	229	234
5	228	232	282	192	194	237	226	214	222	217	228	234
6	228	232	518	194	196	236	226	196	222	216	228	236
7	228	236	298	194	194	244	225	196	222	215	228	235
8	228	243	261	233	195	267	225	202	223	216	228	233
9	229	252	252	266	195	291	225	202	223	215	228	233
10	230	236	253	250	193	308	225	206	222	215	228	236
11	229	230	254	228	192	301	224	200	221	218	229	235
12	228	229	255	216	193	296	225	198	221	217	231	234
13	228	231	289	209	193	293	225	196	218	217	231	233
14	228	247	581	204	196	292	231	196	221	217	231	236
15	228	273	371	200	228	290	226	198	219	224	231	236
16	228	252	283	196	593	282	226	208	218	230	230	236
17	228	248	235	197	3060	276	227	218	218	229	230	236
18	228	245	215	200	3890	274	230	237	218	229	230	235
19	228	245	206	196	3400	271	263	229	221	229	230	236
20	228	245	212	197	2300	259	328	225	221	229	230	236
21	228	245	210	198	1290	253	332	224	221	229	230	236
22	228	247	212	193	591	253	319	222	220	229	230	236
23	228	248	236	189	593	251	296	223	220	229	230	236
24	228	248	534	188	592	245	282	225	220	229	229	236
25	228	248	429	188	766	251	272	224	219	229	228	236
26	228	249	313	188	1350	240	265	223	219	229	228	236
27	228	250	246	190	942	249	258	222	219	229	227	236
28	228	250	217	190	389	237	254	227	222	230	226	236
29	228	255	212	191	335	228	248	226	223	230	227	236
30	228	259	210	202	---	227	243	225	220	230	226	236
31	228	---	207	201	---	227	---	224	---	229	227	---
TOTAL	7072	7297	8841	6349	23061	8205	7426	6715	6628	6933	7095	7058
MEAN	228	243	285	205	795	265	248	217	221	224	229	235
MAX	230	273	581	266	3890	314	332	238	224	230	231	236
MIN	228	229	206	188	192	227	224	196	218	215	226	233
AC-FT	14030	14470	17540	12590	45740	16270	14730	13320	13150	13750	14070	14000

11367800 McCLOUD RIVER AT AH-DI-NA, NEAR McCLOUD, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	248	278	311	443	418	459	349	339	259	225	223	233
MAX	919	1140	1863	2211	1770	2107	2102	1498	1173	1035	992	954
(WY)	1966	1974	1965	1970	1986	1983	1965	1965	1965	1965	1965	1965
MIN	180	182	93.2	93.4	119	167	166	162	160	159	155	182
(WY)	1978	1978	1972	1972	1972	1977	1968	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1965 - 2004	
ANNUAL TOTAL	92893		102680			
ANNUAL MEAN	255		281		315	
HIGHEST ANNUAL MEAN					1326	1965
LOWEST ANNUAL MEAN					168	1977
HIGHEST DAILY MEAN	843	Jan 14	3890	Feb 18	25200	Jan 1 1997
LOWEST DAILY MEAN	180	Feb 26	188	Jan 24	41	Dec 18 1971
ANNUAL SEVEN-DAY MINIMUM	184	Feb 24	189	Jan 23	42	Dec 15 1971
MAXIMUM PEAK FLOW			4930	Feb 18	31700	Jan 1 1997
MAXIMUM PEAK STAGE			6.81	Feb 18	14.77	Jan 1 1997
ANNUAL RUNOFF (AC-FT)	184300		203700		228200	
10 PERCENT EXCEEDS	355		282		450	
50 PERCENT EXCEEDS	226		229		209	
90 PERCENT EXCEEDS	193		200		169	

11368000 McCLOUD RIVER ABOVE SHASTA LAKE, CA

LOCATION.—Lat 40°57'30", long 122°13'07", unsurveyed, T.36 N., R.3 W., Shasta County, Hydrologic Unit 18020004, on right bank, just upstream from Shasta Lake, 0.2 mi downstream from Big Bollibokka Creek, and 11.3 mi east of Lamoine.

DRAINAGE AREA.—604 mi^2.

PERIOD OF RECORD.—October 1945 to current year. Prior to 1950, published as "above Shasta Reservoir."
WATER TEMPERATURE: Water years 1956–59.

REVISED RECORDS.—WSP 1445: 1953(M). WSP 1931: Drainage area. WDR CA-94-4: 1993(P).

GAGE.—Water-stage recorder. Datum of gage is 1,100.00 ft above NGVD of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.—Low flow completely regulated by Lake McCloud (station 11367740) 16.5 mi upstream since Nov. 3, 1965. Diversions to Iron Canyon Reservoir (station 11363920) began Dec. 1, 1965. See schematic diagram of Pit and McCloud River Basins.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2106.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 51,300 ft^3/s, Jan. 1, 1997, gage height, 29.00 ft, from rating curve extended above 15,000 ft^3/s on basis of slope-area measurement of peak flow; minimum daily, 109 ft^3/s, Dec. 16–20, 1971. Minimum prior to regulation by Lake McCloud, 825 ft^3/s, Jan. 3, 1950.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 4,500 ft^3/s, or maximum:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 14	0615	5,310	15.04	Feb. 26	1515	9,090	17.36
Feb. 17	1815	19,800	22.23				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	317	315	490	2040	689	2170	732	629	438	384	320	303
2	318	322	542	1650	723	1950	709	610	434	381	318	305
3	318	331	493	1130	755	1710	694	599	432	375	321	306
4	318	325	455	912	775	1510	681	589	430	372	319	307
5	318	326	592	794	751	1370	668	573	428	368	318	306
6	316	325	3090	733	755	1270	659	534	422	363	317	306
7	317	358	1680	726	804	1220	641	522	424	361	315	304
8	316	460	888	1070	784	1240	632	519	424	361	310	301
9	316	608	709	1680	748	1310	621	512	421	359	305	302
10	316	455	668	1940	707	1330	611	527	421	357	303	302
11	316	367	679	1590	675	1270	605	499	413	359	302	302
12	316	347	686	1390	654	1220	596	486	407	358	305	303
13	315	342	1000	1270	644	1170	592	475	403	356	311	303
14	316	388	3680	1170	677	1130	603	467	404	351	312	305
15	316	683	1670	1100	835	1100	604	465	402	348	308	307
16	316	500	1080	1040	3530	1060	572	470	399	347	308	306
17	320	480	824	975	16500	1020	574	478	397	344	304	304
18	318	422	697	914	15100	990	598	529	396	341	304	304
19	316	395	620	863	8780	962	783	498	399	341	305	310
20	316	380	610	829	5650	912	1240	485	399	340	303	317
21	316	369	565	794	3630	877	1270	478	395	337	302	309
22	316	362	535	751	2300	860	1180	471	394	335	305	308
23	314	355	640	716	1980	843	1010	464	391	332	311	308
24	313	353	3290	700	2020	823	901	460	390	331	312	307
25	312	351	2300	666	4130	887	829	454	387	330	308	304
26	312	346	1430	643	8150	869	777	450	387	325	308	305
27	311	344	1050	664	5840	911	741	452	386	323	304	304
28	312	344	863	626	3140	845	710	462	388	323	301	304
29	311	383	846	621	2300	802	679	453	400	323	300	305
30	312	436	748	691	---	789	651	446	390	323	297	305
31	313	---	750	708	---	762	---	442	---	321	295	---
TOTAL	9777	11772	34170	31396	94026	35182	22163	15498	12201	10769	9551	9162
MEAN	315	392	1102	1013	3242	1135	739	500	407	347	308	305
MAX	320	683	3680	2040	16500	2170	1270	629	438	384	321	317
MIN	311	315	455	621	644	762	572	442	386	321	295	301
AC-FT	19390	23350	67780	62270	186500	69780	43960	30740	24200	21360	18940	18170

11368000 McCLOUD RIVER ABOVE SHASTA LAKE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 1965, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1121	1252	2080	2077	2617	2177	2467	1965	1460	1159	1059	1020
MAX	1899	2162	6513	4525	7493	3966	4599	2978	2248	1715	1489	1395
(WY)	1951	1951	1956	1953	1958	1958	1963	1958	1958	1958	1958	1958
MIN	856	870	856	903	1040	1265	1320	1085	1069	901	852	839
(WY)	1950	1950	1950	1949	1948	1964	1964	1947	1949	1950	1950	1950

SUMMARY STATISTICS	WATER YEARS 1946 - 1965	
ANNUAL MEAN	1699	
HIGHEST ANNUAL MEAN	2703	1958
LOWEST ANNUAL MEAN	1213	1950
HIGHEST DAILY MEAN	36100	Dec 21 1955
LOWEST DAILY MEAN	825	Jan 3 1950
ANNUAL SEVEN-DAY MINIMUM	826	Oct 9 1950
MAXIMUM PEAK FLOW	a45200	Dec 22 1955
MAXIMUM PEAK STAGE	28.20	Dec 22 1955
ANNUAL RUNOFF (AC-FT)	1231000	
10 PERCENT EXCEEDS	2670	
50 PERCENT EXCEEDS	1270	
90 PERCENT EXCEEDS	928	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	308	563	895	1462	1545	1582	945	678	433	325	287	292
MAX	468	4068	3681	6043	5118	5825	2794	1930	1379	540	409	366
(WY)	1990	1974	1997	1970	1986	1983	1982	1983	1998	1998	1998	1998
MIN	206	227	235	222	232	248	226	232	215	200	192	200
(WY)	1992	1992	1977	1991	1977	1977	1977	1977	1977	1977	1991	1991

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1967 - 2004	
ANNUAL TOTAL	286632		295667			
ANNUAL MEAN	785		808		773	
HIGHEST ANNUAL MEAN					1720	1974
LOWEST ANNUAL MEAN					230	1977
HIGHEST DAILY MEAN	5340	Jan 13	16500	Feb 17	45000	Jan 1 1997
LOWEST DAILY MEAN	311	Oct 27	295	Aug 31	109	Dec 16 1971
ANNUAL SEVEN-DAY MINIMUM	312	Oct 24	301	Aug 27	113	Dec 15 1971
MAXIMUM PEAK FLOW			19800	Feb 17	51300	Jan 1 1997
MAXIMUM PEAK STAGE			22.23	Feb 17	29.00	Jan 1 1997
ANNUAL RUNOFF (AC-FT)	568500		586500		559900	
10 PERCENT EXCEEDS	1560		1270		1510	
50 PERCENT EXCEEDS	500		454		368	
90 PERCENT EXCEEDS	321		306		253	

a From rating curve extended above 6,400 ft^3/s on basis of slope-area measurement of peak flow.

11370000 SHASTA LAKE NEAR REDDING, CA

LOCATION.—Lat 40°43'08", long 122°25'12", in SE 1/4 NW 1/4 sec.15, T.33 N., R.5 W., Shasta County, Hydrologic Unit 18020005, in Shasta Dam on Sacramento River, near right bank, 2 mi downstream from Squaw Creek, and 9.5 mi north of Redding.

DRAINAGE AREA.—6,421 mi^2, excluding Goose Lake Basin.

PERIOD OF RECORD.—November 1942 to current year. Prior to 1950, published as "Shasta Reservoir near Redding."
CHEMICAL DATA: Water years 1978–80.

GAGE.—Water-stage recorder. Datum of gage is 1,068.39 ft above NGVD of 1929 (levels by U.S. Bureau of Reclamation). Prior to July 10, 1944, nonrecording gage at various sites near dam at same datum. Contents based on capacity table dated May 8, 1967, provided by U.S. Bureau of Reclamation.

REMARKS.—Lake is formed by concrete gravity-type dam completed in 1949; regulation began Dec. 30, 1943. Usable capacity, 4,436,400 acre-ft, between elevations 737.75 ft, invert of lowest set of river outlets, and 1,067.0 ft, top of flashboard gates on drum-type spillway gates. Operating pool from elevation, 840.0 ft, capacity, 587,127 acre-ft, to 1,067.0 ft, capacity, 4,552,090 acre-ft. Dead storage, 115,800 acre-ft. Installation of flashboard gates on top of drum gates completed Nov. 12, 1964. All water passes down the Sacramento River, most of which is through powerplant at dam. Figures given represent total contents at 2400 hours. Lake is used for flood control, power generation, irrigation, and recreation. See schematic diagram of Pit and McCloud 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, 4,550,300 acre-ft, May 19, 1967, elevation, 1,066.94 ft; minimum since first filling, 562,600 acre-ft, Sept. 13, 1977, elevation, 836.68 ft.

EXTREMES (AT 2400 HOURS) FOR CURRENT YEAR.—Maximum contents, 4,119,614 acre-ft, Feb. 18, 19, elevation, 1,052.03 ft; minimum, 2,182,851 acre-ft, Sept. 30, elevation, 967.64 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on table provided by U.S. Bureau of Reclamation, dated May 8, 1967)

830	515,543	890	1,051,713	950	1,876,996	1,010	3,051,750
840	587,127	900	1,167,888	960	2,046,829	1,020	3,286,929
850	665,511	910	1,291,854	970	2,226,093	1,030	3,533,478
860	751,027	920	1,424,780	980	2,416,019	1,050	4,063,108
870	843,589	930	1,566,238	990	2,616,622	1,067	4,552,090
880	943,929	940	1,717,255	1,000	2,828,544		

RESERVOIR STORAGE, ACRE-FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3157969	3084422	3094584	3389718	3610904	3818266	3918946	4057857	3856888	3343528	2768268	2404329
2	3156093	3081189	3098513	3409149	3625050	3760302	3928130	4058410	3852077	3326046	2752222	2396536
3	3153512	3075416	3100603	3413598	3639731	3698639	3940061	4060897	3835288	3305243	2737933	2388012
4	3152105	3071277	3102924	3415575	3651621	3654464	3949009	4062555	3824381	3289339	2722208	2379875
5	3150698	3066912	3111048	3409396	3661184	3623764	3960704	4060897	3805825	3272248	2704874	2371769
6	3150229	3063007	3158438	3400047	3669753	3595288	3968333	4054265	3789146	3256158	2688032	2365605
7	3149525	3063007	3179846	3393407	3678844	3576898	3963973	4044040	3772458	3237491	2673350	2359248
8	3149291	3071277	3189043	3391686	3686636	3563656	3958524	4035749	3756085	3219147	2659552	2349856
9	3148587	3078649	3198747	3402015	3693679	3560346	3951449	4029422	3740271	3201827	2643328	2341045
10	3148118	3081882	3209173	3415575	3699161	3562128	3944128	4023646	3723746	3182440	2630476	2330747
11	3148587	3084192	3219147	3427686	3704903	3566458	3938163	4017870	3707775	3164067	2618483	2322176
12	3149291	3085346	3230582	3436848	3710907	3575625	3933011	4011545	3689764	3146945	2606341	2312883
13	3149056	3085115	3251130	3447032	3717451	3589145	3933282	4005232	3673649	3127797	2594627	2304741
14	3149291	3088579	3299219	3457713	3725581	3603733	3931655	4000304	3657307	3109191	2586242	2294551
15	3145538	3096893	3315630	3470442	3735810	3620678	3930299	3993187	3639731	3089272	2577243	2285137
16	3142498	3098513	3320232	3487689	3802649	3636371	3930842	3987438	3620421	3071507	2564880	2275571
17	3140398	3099210	3322170	3502242	4018145	3652396	3933824	3982784	3601686	3054047	2552116	2263028
18	3133164	3098978	3319990	3516080	4119614	3667156	3940603	3979232	3584283	3035294	2540123	2250184
19	3132931	3101067	3321443	3526166	4119614	3683000	3952805	3974055	3564420	3016619	2529208	2241824
20	3132464	3099442	3321686	3536772	4098128	3697595	3971330	3970785	3545641	2998473	2517744	2233866
21	3132698	3098049	3320717	3542347	4063386	3713256	3987985	3966426	3527427	2977473	2507326	2226833
22	3132698	3096431	3313449	3546908	4022821	3728204	4003042	3958524	3509525	2955679	2498125	2219101
23	3129664	3094353	3305725	3553497	3971875	3746333	4017870	3951178	3490951	2933552	2488160	2212844
24	3127097	3093198	3346206	3560855	3917057	3765573	4025572	3945484	3474186	2911539	2480999	2207509
25	3123830	3092044	3355213	3567985	3951991	3788881	4034098	3937349	3454484	2891186	2473251	2202570
26	3121963	3091351	3351318	3576134	3991544	3809266	4043211	3928130	3435358	2870272	2461778	2196533
27	3116387	3091351	3342311	3585051	3968605	3830499	4049014	3917057	3415081	2851211	2450136	2192326
28	3110816	3089965	3337442	3590937	3921915	3849939	4052330	3905724	3398572	2833338	2439513	2189217
29	3103620	3090427	3344015	3594520	3868648	3868915	4056476	3893071	3380881	2818556	2428146	2185579
30	3097586	3090196	3343528	3602453	---	3887162	4059792	3878836	3360818	2802297	2418757	2182851
31	3090889	---	3345962	3606548	---	3905184	---	3863837	---	2785022	2410369	---
a	1014.58	1012.14	1022.82	1032.87	1052.03	1044.22	1049.88	1049.98	1042.42	1022.34	997.21	979.40
b	-68487	-693	+255766	+260586	+262100	+36536	+154608	-195955	-503019	-575796	-374653	-227518
MAX	3157969	3101067	3355213	3606548	4119614	3905184	4059792	4062555	3856888	3343528	2768268	2404329
MIN	3090889	3063007	3094584	3389718	3610904	3560346	3918946	3863837	3360818	2785022	2410369	2182851

CAL YR 2003 b +122765
CAL YR 2004 b -976525

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

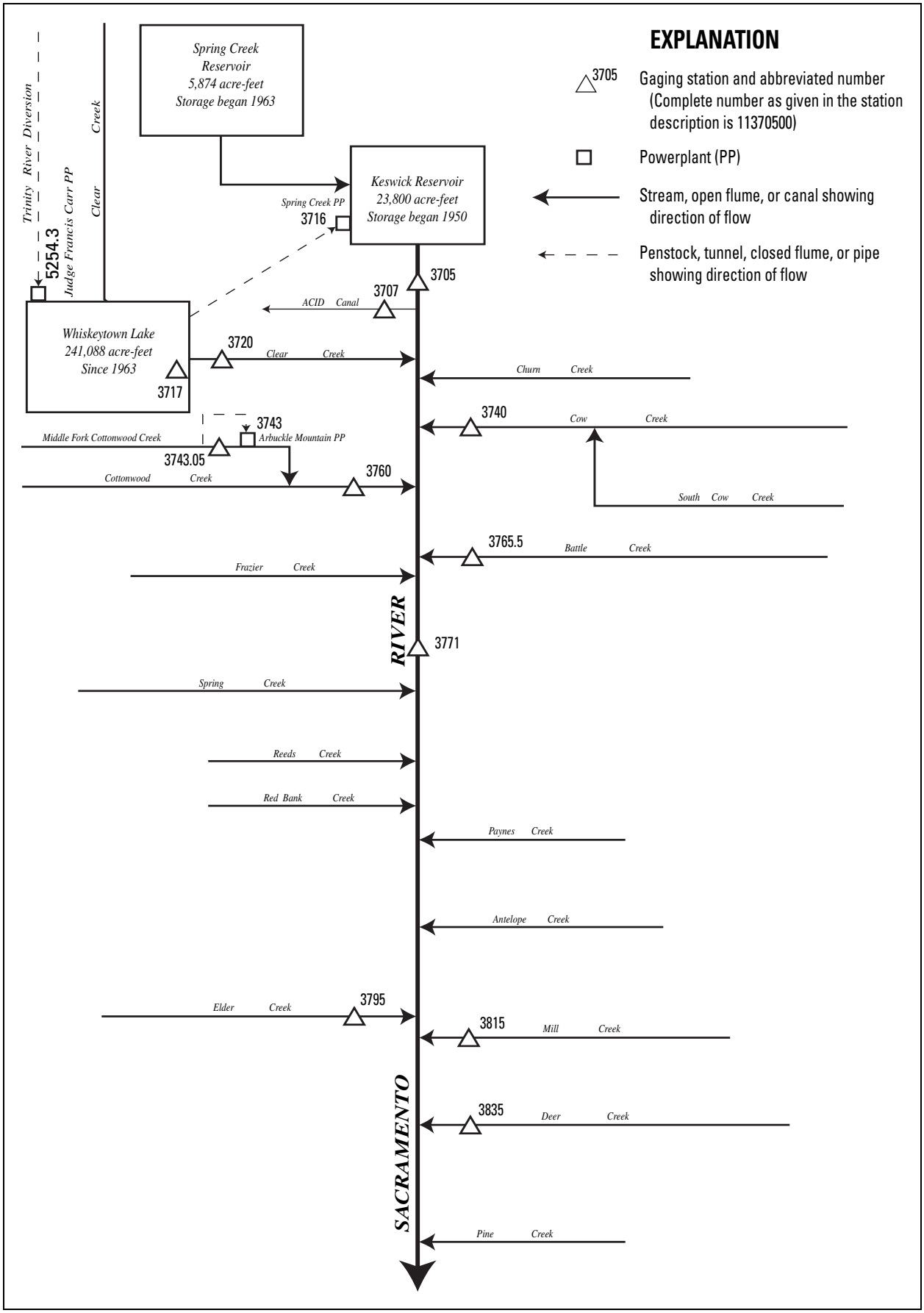


Figure 25. Diversions and storage in upper Sacramento River Basin.

11370500 SACRAMENTO RIVER AT KESWICK, CA

LOCATION.—Lat 40°36'04", long 122°26'36", in SW 1/4 NW 1/4 sec.28, T.32 N., R.5 W., Shasta County, Hydrologic Unit 18020101, on right bank, 0.4 mi upstream from Middle Creek, 0.8 mi downstream from Keswick Dam, 1.6 mi downstream from Keswick, and 10 mi downstream from Shasta Dam.

DRAINAGE AREA.—6,468 mi^2, excluding Goose Lake Basin.

PERIOD OF RECORD.—October 1938 to current year. Monthly discharge only for some periods, published in WSP 1315-A.
CHEMICAL DATA: Water years 1951–94. Published as "near Keswick" in 1951 and 1953, and as "at Keswick Dam, near Keswick" in 1968–69.
BIOLOGICAL DATA: Water years 1979–81.
SPECIFIC CONDUCTANCE: Water years 1978–94.
WATER TEMPERATURE: Water years 1978–94.
SEDIMENT DATA: Water years 1978–94.

REVISED RECORDS.—WSP 1931: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is 479.81 ft above NGVD of 1929. Prior to Oct. 1, 1939, at site 1.5 mi upstream at datum 20.2 ft higher and Oct. 1, 1939, to Apr. 30, 1942, at site 1.5 mi upstream at datum 15.2 ft higher. Aug. 20, 1960, to July 3, 1973, auxiliary water-stage recorder at city of Redding pumping plant 2.1 mi downstream.

REMARKS.—Records excellent. Flow completely regulated by Shasta Lake (station 11370000) beginning Dec. 30, 1943. Minor regulation by Keswick Reservoir since 1950, total capacity, 23,800 acre-ft, operational capacity, 4,170 acre-ft, between normal operating elevations of 579.0 ft and 586.0 ft. No diversion between Shasta Dam and station at Keswick. Since December 1963, water is released from Whiskeytown Lake (station 11371700), through a tunnel to Spring Creek Powerplant (station 11371600), and then into Keswick Reservoir. See schematic diagrams of upper Sacramento River Basin and Pit and McCloud River Basins.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 186,000 ft^3/s, Feb. 23, 1940, gage height, 47.2 ft, site and datum then in use, from rating curve extended above 75,000 ft^3/s, on basis of peak discharge at Kennet, plus 4,000 ft^3/s estimated inflow; minimum observed, 2,730 ft^3/s, Aug. 22, 1939. Since regulation by Shasta Dam in 1943, maximum discharge, 81,400 ft^3/s, Apr. 1, 1974, gage height, 31.92 ft, maximum gage height, 32.71 ft, Jan. 4, 1997; minimum discharge, 154 ft^3/s, May 15, 1948.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7130	7190	5160	10500	4520	51900	4670	9190	11500	15400	14500	8600
2	7130	7200	4970	11100	4640	52100	6220	9110	11500	15500	14600	8650
3	7140	6930	4580	12900	4570	51300	6210	9260	11600	15300	14100	9150
4	7130	7070	4550	12900	4520	43000	6170	9510	11800	15400	13700	9080
5	7130	6930	4480	12500	4580	35700	6220	10000	14200	15400	13800	9180
6	7130	6550	5000	12700	4600	31000	6380	11000	14100	15400	13100	9280
7	6680	6250	4470	12800	4610	26300	12700	12300	14800	15300	12600	9080
8	6510	6320	4490	12800	4620	22900	13500	10900	14800	15400	12600	9030
9	6510	6220	4540	11500	4580	19400	14100	10900	14700	15400	12700	9070
10	6600	6130	4560	10100	4560	16800	14100	10800	14500	15500	12700	9060
11	6570	5830	4520	8690	4480	14200	14100	9910	14400	15500	12200	9100
12	6580	5700	4520	8470	4500	12100	12100	9500	14300	15400	11700	9120
13	6610	5740	4570	7580	4470	10500	10400	9520	14200	15400	11200	9070
14	6620	5700	4890	6610	4500	9100	10300	9530	14300	15400	10700	9030
15	6630	5500	6230	6480	4530	7750	10300	9500	14900	15400	10700	9060
16	6630	5550	9070	5930	5260	6630	8790	9510	15400	15500	10300	9110
17	6640	5500	9070	5750	9340	6290	7660	9500	15800	15400	10100	9050
18	6800	5270	9060	5560	33900	6030	6540	8980	15500	15500	9620	9250
19	6880	5070	9060	5380	50800	5770	6260	8950	15400	15300	9190	9210
20	6950	5050	9080	5190	49800	5570	6240	8610	15400	15300	9290	9240
21	6950	5070	9060	5040	50300	5400	6170	8670	15300	16100	9580	8560
22	6880	5060	11300	4860	50100	5070	6160	9070	15500	16700	9600	8570
23	6870	5070	15300	4540	49400	4800	6200	9120	15400	16800	9460	8500
24	6890	5080	15600	4430	50000	4570	6730	9160	15400	16600	9190	8170
25	6890	5100	15100	4420	28200	4460	7250	9980	15500	16600	9580	8120
26	6890	5150	14700	4560	37300	4520	7640	10100	15600	16500	10100	8120
27	6890	5150	14800	4590	53700	4600	7880	11000	15500	15600	10100	8040
28	7150	5140	14800	4460	53900	4470	8170	11000	15400	15600	9680	7680
29	7260	5120	10500	4490	52500	4500	8650	11500	15400	14600	9650	7630
30	7200	5140	10200	4520	---	4490	8700	11500	15400	14400	9640	7630
31	7190	---	10200	4510	---	4540	---	11500	---	14600	9140	---
TOTAL	213060	172780	258430	235860	642780	485760	256510	309080	437500	482200	345120	262440
MEAN	6873	5759	8336	7608	22160	15670	8550	9970	14580	15550	11130	8748
MAX	7260	7200	15600	12900	53900	52100	14100	12300	15800	16800	14600	9280
MIN	6510	5050	4470	4420	4470	4460	4670	8610	11500	14400	9140	7630
AC-FT	422600	342700	512600	467800	1275000	963500	508800	613100	867800	956400	684500	520500

11370500 SACRAMENTO RIVER AT KESWICK, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 1962, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	5992	5603	6611	10610	11700	6564	6714	8212	8564	9951	10030	7331
MAX	8572	8970	16680	32870	44170	14490	21180	13400	10300	11810	11870	10030
(WY)	1959	1958	1951	1953	1958	1957	1958	1948	1948	1951	1958	1958
MIN	4785	4064	3726	3234	3060	2546	2830	5247	6437	7480	7057	5239
(WY)	1948	1952	1960	1962	1950	1950	1950	1951	1947	1947	1947	1947

SUMMARY STATISTICS	WATER YEARS 1946 - 1962	
ANNUAL MEAN	8141	
HIGHEST ANNUAL MEAN	13910	1958
LOWEST ANNUAL MEAN	5364	1950
HIGHEST DAILY MEAN	75800	Feb 21 1958
LOWEST DAILY MEAN	2360	Mar 15 1950
ANNUAL SEVEN-DAY MINIMUM	2440	Mar 9 1950
MAXIMUM PEAK FLOW	78800	Feb 21 1958
MAXIMUM PEAK STAGE	31.55	Feb 21 1958
ANNUAL RUNOFF (AC-FT)	5898000	
10 PERCENT EXCEEDS	11600	
50 PERCENT EXCEEDS	7000	
90 PERCENT EXCEEDS	3720	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	6227	7093	9536	11300	13700	11450	8787	10680	11700	12900	11570	8264
MAX	10290	23430	27340	41600	40420	47170	26840	17410	15590	15550	14700	11800
(WY)	1984	1974	1974	1997	1998	1983	1974	1995	1998	2004	1998	1971
MIN	3431	3182	2847	3258	3268	2869	3096	6953	7342	7754	8070	4564
(WY)	1978	1993	1978	1993	1990	1991	1991	1992	1992	1992	1992	1977

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1964 - 2004	
ANNUAL TOTAL	3632320		4101520			
ANNUAL MEAN	9952		11210		10260	
HIGHEST ANNUAL MEAN					18230	1974
LOWEST ANNUAL MEAN					5390	1992
HIGHEST DAILY MEAN	30500	May 3	53900	Feb 28	79700	Mar 31 1974
LOWEST DAILY MEAN	3450	Apr 10	4420	Jan 25	2360	Mar 17 1989
ANNUAL SEVEN-DAY MINIMUM	3500	Apr 5	4500	Jan 24	2460	Mar 12 1989
MAXIMUM PEAK FLOW			55100	Feb 27	81400	Apr 1 1974
MAXIMUM PEAK STAGE			28.76	Feb 27	32.71	Jan 4 1997
INSTANTANEOUS LOW FLOW					154	May 15 1948
ANNUAL RUNOFF (AC-FT)	7205000		8135000		7430000	
10 PERCENT EXCEEDS	15100		15500		15000	
50 PERCENT EXCEEDS	9060		9090		8540	
90 PERCENT EXCEEDS	4420		4590		4090	

11370700 ANDERSON–COTTONWOOD IRRIGATION DISTRICT CANAL AT SHARON STREET, AT REDDING, CA

LOCATION.—Lat 40°34'08", long 122°22'49", unsurveyed, Shasta County, Hydrologic Unit 18020101, on right bank of canal, 10 ft upstream from Sharon Street, 900 ft downstream from Parkview Avenue, and 0.75 mi southwest of Mercy Hospital.

PERIOD OF RECORD.—April to September 1989, April 1991 to current year (beginning October 1994, irrigation season only).

GAGE.—Water-stage recorder. Elevation of gage is 480 ft above NGVD of 1929, from topographic map.

REMARKS.—Records fair. Canal diverts from Sacramento River 0.3 mi downstream from Southern Pacific Railroad bridge and 0.1 mi upstream from Highway 273; water is used for irrigation. See schematic diagrams for upper Sacramento River Basin and Pit and McCloud River Basins.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 370 ft^3/s, June 9, 1989; no flow at times each year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	244	---	---	---	---	---	---	282	280	265	257	222
2	243	---	---	---	---	---	---	287	264	275	257	222
3	239	---	---	---	---	---	---	287	269	270	250	227
4	236	---	---	---	---	---	---	286	266	271	256	225
5	235	---	---	---	---	---	---	284	277	270	257	229
6	237	---	---	---	---	---	---	274	260	274	249	231
7	233	---	---	---	---	---	---	283	262	278	238	228
8	228	---	---	---	---	---	---	284	263	277	240	222
9	230	---	---	---	---	---	94	288	264	273	237	222
10	235	---	---	---	---	---	132	291	274	266	234	229
11	232	---	---	---	---	---	135	284	279	271	231	231
12	231	---	---	---	---	---	130	276	279	274	232	231
13	234	---	---	---	---	---	126	272	285	271	235	233
14	235	---	---	---	---	---	133	270	291	269	237	233
15	236	---	---	---	---	---	190	266	296	267	231	233
16	236	---	---	---	---	---	230	274	294	269	236	234
17	233	---	---	---	---	---	246	276	298	272	244	233
18	233	---	---	---	---	---	249	270	303	272	240	231
19	231	---	---	---	---	---	260	264	313	271	235	233
20	222	---	---	---	---	---	260	260	246	271	232	235
21	211	---	---	---	---	---	261	261	95	273	232	227
22	192	---	---	---	---	---	258	271	140	274	237	226
23	171	---	---	---	---	---	253	270	238	271	237	227
24	114	---	---	---	---	---	257	271	256	266	234	223
25	19	---	---	---	---	---	264	285	257	269	233	223
26	16	---	---	---	---	---	267	287	250	270	239	222
27	e10	---	---	---	---	---	268	297	255	263	232	224
28	---	---	---	---	---	---	271	298	253	259	228	222
29	---	---	---	---	---	---	277	283	259	252	229	219
30	---	---	---	---	---	---	279	287	266	253	228	219
31	---	---	---	---	---	---	---	288	---	254	224	---
TOTAL	---	---	---	---	---	---	---	8656	7832	8330	7381	6816
MEAN	---	---	---	---	---	---	---	279	261	269	238	227
MAX		---	---	---	---	---		298	313	278	257	235
MIN		---	---	---	---	---		260	95	252	224	219
AC-FT	---	---	---	---	---	---	---	17170	15530	16520	14640	13520

e Estimated.

11525430 JUDGE FRANCIS CARR POWERPLANT NEAR FRENCH GULCH, CA

LOCATION.—Lat 40°38'49", long 122°37'34", Shasta County, Hydrologic Unit 18010212, at powerplant, 1.6 mi downstream from Mill Creek, and 3.8 mi south of French Gulch.

PERIOD OF RECORD.—May 1963 to current year.

GAGE.—Recorded powerplant output.

REMARKS.—Water is diverted from Trinity River at NW 1/4 SE 1/4 sec.8, T.33 N., R.8 W., through a tunnel to powerplant and then into Whiskeytown Lake (station 11371700). See schematic diagram of upper Sacramento River Basin and Pit and McCloud River Basins.

COOPERATION.—Records were provided by U.S. Bureau of Reclamation, not rounded to U.S. Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 4,000 ft^3/s, Oct. 18, 1987; no flow for many days most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2845	118	529	118	118	118	2259	2568	725	2051	2233	1935
2	2666	118	118	118	118	118	1943	2312	121	2039	2482	1971
3	2441	118	118	118	118	123	1828	2408	678	2105	2340	1051
4	2711	1172	559	398	118	3101	1612	2417	796	2105	2455	1053
5	2727	1131	489	737	118	3285	1634	1501	1227	2127	1831	1400
6	2812	1188	402	287	118	3127	1698	570	938	2053	1973	1030
7	2563	1169	118	452	118	3100	1713	591	1283	1397	2078	1058
8	2683	1255	382	456	118	3376	1715	118	1053	2282	1989	1010
9	2656	1165	550	118	118	3329	2395	118	1470	2313	1912	1419
10	2619	1160	235	118	118	3361	2202	167	1365	2438	1916	1221
11	2807	1165	504	118	118	3323	2475	14	1436	2050	1995	1289
12	2510	1228	551	118	118	2952	2977	118	1725	1863	1969	1305
13	2767	1074	477	118	118	3370	3488	118	1673	2662	1912	1413
14	2768	1085	118	118	118	3428	2609	118	1724	2563	2050	1281
15	1723	1143	118	118	118	2040	2077	116	1749	2093	1682	1455
16	1682	122	118	118	118	2100	2579	118	1937	2234	1338	1252
17	1640	118	519	118	118	1684	2213	266	2162	2144	110	1344
18	1681	118	616	118	118	1751	2770	118	2346	2318	110	1180
19	2720	118	680	118	118	1769	2434	121	1988	1995	110	1738
20	2796	118	630	623	118	1759	2022	142	2175	2425	111	1789
21	2784	117	0	813	118	1585	1947	127	2204	2646	1100	1772
22	2617	513	546	722	118	1960	2132	118	2039	2349	2054	1677
23	2310	642	118	837	118	3382	2778	118	2092	2329	2308	1932
24	2700	962	118	811	118	3342	1849	118	2151	2318	1899	1803
25	2626	962	118	679	118	3351	2345	118	1941	2325	1202	2356
26	2594	988	118	1060	118	3406	2777	118	2056	2217	1412	2296
27	126	885	118	1117	118	3378	2782	118	2095	2217	1184	3413
28	118	842	118	118	432	3385	2963	118	2258	2217	1178	3496
29	118	783	118	411	787	3384	2685	118	1924	2471	1113	3461
30	118	624	231	118	---	2410	2446	118	2036	2785	1321	3466
31	118	---	833	371	---	2038	---	118	---	2001	2017	---
TOTAL	66046	22201	10267	11662	4405	78835	69347	15326	49367	69132	49384	52866
MEAN	2131	740	331	376	152	2543	2312	494	1646	2230	1593	1762
MAX	2845	1255	833	1117	787	3428	3488	2568	2346	2785	2482	3496
MIN	118	117	0	118	118	118	1612	14	121	1397	110	1010
AC-FT	131000	44040	20360	23130	8740	156400	137500	30400	97920	137100	97950	104900

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 2004, BY WATER YEAR (WY)

MEAN	1275	785	634	580	759	879	1177	1301	1843	2370	2246	2025
MAX	3363	2158	2891	2755	3223	3111	3220	3513	3662	3589	3236	3504
(WY)	1988	1967	1979	1982	1974	1974	1970	1974	1969	1968	1977	1988
MIN	94.0	18.0	0.00	0.00	0.34	0.00	0.00	0.10	0.63	253	507	415
(WY)	2001	1992	2002	1986	1988	1988	1978	1991	1993	1978	1992	1997

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1963 - 2004	
ANNUAL MEAN					1337	
HIGHEST ANNUAL MEAN					2485	1974
LOWEST ANNUAL MEAN					301	1978
HIGHEST DAILY MEAN	3426	Aug 21	3496	Sep 28	4000	Oct 18 1987
LOWEST DAILY MEAN	0	Dec 21	0	Dec 21	0	May 6 1963
ANNUAL SEVEN-DAY MINIMUM	118	Jan 1	110	May 9	0.00	Oct 14 1969
ANNUAL RUNOFF (AC-FT)					968400	
10 PERCENT EXCEEDS					3100	
50 PERCENT EXCEEDS					1080	
90 PERCENT EXCEEDS					0.00	

11371600 SPRING CREEK POWERPLANT AT KESWICK, CA

LOCATION.—Lat 40°37'41", long 122°27'59", in NE 1/4 SE 1/4 sec.18, T.32 N., R.5 W., Shasta County, Hydrologic Unit 18020112, at powerplant on Spring Creek, 0.4 mi northwest of Keswick, and 4.9 mi northwest of Redding.

PERIOD OF RECORD.—December 1963 to current year.

GAGE.—Discharge computed from powerplant output.

REMARKS.—Water is released from Whiskeytown Lake (station 11371700) through a tunnel to powerplant and then into Keswick Reservoir. Spring Creek Reservoir releases into Keswick Reservoir at Spring Creek Powerplant. See schematic diagrams of upper Sacramento River Basin and Pit and McCloud River Basins.

COOPERATION.—Records were provided by U.S. Bureau of Reclamation, not rounded to U.S. Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 4,800 ft^3/s, May 2, 1983; no flow for many days most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2523	1060	558	2633	291	1598	2437	2010	14	1773	2231	2019
2	2568	14	575	1919	451	1777	2395	2001	129	2225	2237	1798
3	2535	14	528	519	576	1094	2560	1990	557	2026	2198	1011
4	2515	1152	505	534	449	4270	1913	2020	436	2009	2228	986
5	2548	1197	527	1145	260	4249	1852	818	1487	2525	2035	986
6	2520	1459	977	766	258	4195	1826	14	493	1922	1798	967
7	2504	1419	1608	543	270	4186	1744	378	1363	1196	1780	1098
8	2505	2621	483	558	290	4190	1852	14	666	2291	1840	1008
9	2530	1156	699	1417	566	4224	2465	14	1350	2410	1906	1043
10	2505	2728	528	1241	281	4199	2412	14	984	2247	1770	1065
11	2487	2632	548	1070	262	4139	2403	14	1191	2331	1838	1546
12	2458	2255	512	657	253	4246	2012	14	1489	2079	1787	1051
13	2561	2029	532	1300	135	4204	2053	14	1871	2178	1789	1142
14	2522	2256	2037	801	157	4172	2058	18	1588	2208	1789	1076
15	1440	2211	1211	545	257	3019	2061	14	1491	2199	1765	1037
16	1533	1157	564	651	2122	2987	2058	14	1605	2259	1446	1051
17	1542	733	548	631	2928	2176	2027	205	2080	2192	14	1054
18	1510	431	529	513	4239	1751	2031	16	2323	2187	14	1033
19	2544	727	501	540	4236	1941	2021	14	1795	2248	14	1562
20	2542	472	556	556	4238	2399	2023	14	2024	2322	14	1585
21	2521	506	695	914	4236	1905	2020	14	2087	2257	951	1578
22	2517	593	725	1025	4243	2346	2021	14	1853	2245	1752	1580
23	2530	592	1008	997	4240	3983	2020	14	1994	2263	1771	1490
24	2506	609	3468	1036	3302	3653	2021	16	2212	2220	1755	1517
25	2511	515	1423	1009	3223	3777	2020	14	2358	2234	1591	2181
26	2536	562	533	1056	4189	4297	2023	14	1998	2195	965	2236
27	97	537	545	1038	4326	4297	2009	14	1860	2204	1022	3281
28	16	514	507	462	3802	3854	2017	14	2284	2235	998	3300
29	15	532	515	268	2232	3856	2034	14	1650	2267	993	3310
30	14	530	497	597	---	2817	2015	14	1658	2186	1005	3316
31	75	---	533	506	---	2337	---	14	---	2208	1981	---
TOTAL	61730	33213	24975	27447	56312	102138	62403	9766	44890	67341	45277	47907
MEAN	1991	1107	806	885	1942	3295	2080	315	1496	2172	1461	1597
MAX	2568	2728	3468	2633	4326	4297	2560	2020	2358	2525	2237	3316
MIN	14	14	483	268	135	1094	1744	14	14	1196	14	967
AC-FT	122400	65880	49540	54440	111700	202600	123800	19370	89040	133600	89810	95020
a	0	163	3180	2970	8930	2230	645	79	893	0	7.9	228

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2004, BY WATER YEAR (WY)

MEAN	1559	1179	1063	1337	1637	1660	1370	1524	1987	2419	2318	2150
MAX	3691	3174	4032	4532	4498	4364	4405	4265	3866	3886	3654	3526
(WY)	1989	1967	1974	1974	1974	1983	1983	1983	1969	1968	1977	1988
MIN	265	0.00	1.55	2.10	3.36	86.6	5.23	5.45	158	250	467	416
(WY)	1978	2002	1992	1991	1991	1988	1987	1991	1989	1978	1992	1992

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1964 - 2004	
ANNUAL TOTAL	577052		583399			
ANNUAL MEAN	1581		1594		1683	
HIGHEST ANNUAL MEAN					3389	1974
LOWEST ANNUAL MEAN					748	1992
HIGHEST DAILY MEAN	4298	Jan 1	4326	Feb 27	4800	May 2 1983
LOWEST DAILY MEAN	14	Mar 8	14	Oct 30	0	Mar 30 1974
ANNUAL SEVEN-DAY MINIMUM	14	Apr 9	14	May 25	0.00	Mar 26 1976
ANNUAL RUNOFF (AC-FT)	1145000		1157000		1219000	
10 PERCENT EXCEEDS	2530		2950		3460	
50 PERCENT EXCEEDS	1680		1610		1550	
90 PERCENT EXCEEDS	508		119		17	

a Discharge, in acre-feet, from Spring creek Reservoir, provided by U.S. Bureau of Reclamation.

11371700 WHISKEYTOWN LAKE NEAR IGO, CA

LOCATION.—Lat 40°37'03", long 122°31'31", unsurveyed, Shasta County, Hydrologic Unit 18010112, Whiskeytown–Shasta–Trinity National Recreation Area, at outlet works to Spring Creek Powerplant, on Clear Creek, 1.8 mi downstream from Whiskey Creek, and 7.8 mi northeast of Igo.

DRAINAGE AREA.—200 mi^2.

PERIOD OF RECORD.—May 1963 to current year. Prior to October 1964 published as "Whiskeytown Reservoir near Igo".

GAGE.—Water-stage recorder. Datum of gage is 1,232.87 ft above NGVD of 1929 (levels by U.S. Bureau of Reclamation). Contents based on capacity table dated April 1962 provided by U.S. Bureau of Reclamation.

REMARKS.—Lake is formed by earth and rockfill dam. Storage began in May 1963. Usable capacity, 241,088 acre-ft, between elevations 972.0 ft, invert of sluice pipe, and 1,210.00 ft, crest of glory hole spillway. Dead storage, 8 acre-ft. Normal operating pool is from elevation 1,197.0 ft, capacity, 201,288 acre-ft, to 1,210.0 ft, capacity, 241,096 acre-ft. Transbasin water enters the reservoir through Judge Francis Carr Powerplant (station 11525430) and is released through Spring Creek Tunnel to Spring Creek Powerplant (station 11371600) and Keswick Reservoir. Figures given represent total contents at 2400 hours. Lake is used for power generation and recreation. See schematic diagrams of upper Sacramento River Basin and Pit and McCloud 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, 258,600 acre-ft, Mar. 2, 1983, elevation, 1,215.34 ft; minimum since first filling, 145,562 acre-ft, Dec. 27, 1992, elevation, 1,176.05 ft.

EXTREMES (AT 2400 HOURS) FOR CURRENT YEAR.—Maximum contents, 238,727 acre-ft, July 1, elevation, 1,209.26 ft; minimum, 204,327 acre-ft, Dec. 25, elevation, 1,198.04 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey by U.S. Bureau of Reclamation in 1962)

1,015	714	1,040	3,055	1,080	15,076	1,140	73,960
1,020	994	1,050	4,898	1,100	27,542	1,180	155,276
1,030	1,797	1,060	7,418	1,120	46,701	1,220	274,389

RESERVOIR STORAGE, ACRE-FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	238119	233266	206831	205800	205417	205859	206566	232982	237577	238727	237768	237991
2	238151	233140	206065	204356	205682	205270	206301	233707	237132	238311	237863	237991
3	237768	232761	205093	204739	205535	205711	205387	234496	237069	238407	238023	237800
4	237991	232540	205299	205328	205594	205888	205270	235416	237482	238503	238247	237609
5	238119	232067	205358	205063	205859	206242	205270	236783	236814	237641	237673	238247
6	238407	231186	206831	204533	206153	206212	205446	237704	237291	237800	237863	238119
7	238151	230529	204946	205034	206301	205977	205564	238151	236846	238023	238279	237768
8	238183	228838	204975	205947	206360	206153	205505	238247	237323	237927	238119	237609
9	238055	229464	205063	205594	205859	206271	205770	238215	237355	237577	237991	238119
10	237959	226442	204887	205829	205800	206448	205682	238407	237927	237895	237895	238119
11	238247	223379	204946	205859	205770	206595	206094	238439	238151	237228	237959	237259
12	238055	221197	205358	206360	205682	205741	208284	238439	238215	236719	238119	237387
13	238151	219053	206477	205358	205800	205623	211472	238439	237641	237577	238215	237482
14	238311	216865	205947	205240	205977	205594	212999	238375	237673	238215	238471	237545
15	238471	214778	204946	205564	206330	205063	213300	238311	237991	237800	238055	237895
16	238343	212430	204563	205446	208224	204592	214628	238279	238375	237704	237609	237927
17	238087	210784	204739	205240	226038	204710	215321	238247	238311	237482	237418	238023
18	238055	209561	205063	205063	231186	205741	217108	238215	238183	237609	237228	237959
19	238055	207838	205947	204739	229589	206330	219206	238215	238343	237037	237005	237991
20	238247	206566	206536	205358	225758	205977	220125	238311	238407	237101	236846	238055
21	238407	205270	205682	205564	220798	206065	220492	238343	238439	237736	236846	238055
22	238407	204739	205594	205328	215623	206094	221135	238311	238599	237831	237259	237831
23	237768	204415	204946	205417	209917	205918	223040	238183	238599	238055	238215	238279
24	238023	204710	204415	205270	205918	206389	222978	238023	238311	238055	238247	238439
25	238087	205181	204327	204857	209115	207096	223904	237863	237196	238023	237291	238375
26	237831	205594	204798	205181	210514	206477	225665	237641	237037	237959	237863	238055
27	237323	205829	204769	205829	207927	205859	227405	237545	237259	237863	237959	237991
28	236942	206006	204857	205358	205299	205859	229339	237323	237323	237863	238055	238087
29	236433	206419	204857	205888	205564	205888	230811	237101	237641	238183	238055	238119
30	236052	206536	204356	205387	---	205977	231814	236878	238343	238151	238407	238183
31	235639	---	206477	205446	---	206094	---	236687	---	237800	238343	---
a	1208.29	1198.79	1198.77	1198.42	1198.46	1198.64	1207.08	1208.62	1209.14	1208.97	1209.14	1209.09
b	-1970	-29103	-59	-1031	+118	+530	+25720	+4873	+1656	-543	+543	-160
MAX	238471	233266	206831	206360	231186	207096	231814	238439	238599	238727	238471	238439
MIN	235639	204415	204327	204356	205299	204592	205270	232982	236814	236719	236846	237259

CAL YR 2003 b -8030
CAL YR 2004 b +574

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

11372000 CLEAR CREEK NEAR IGO, CA

LOCATION.—Lat 40°30'48", long 122°31'23", unsurveyed, Shasta County, Hydrologic Unit 18020112, on left bank, at old highway bridge on Redding–Igo Road, 1.0 mi northeast of Igo, 7.0 mi downstream from Whiskeytown Dam, 8.3 mi southwest of Redding, and 10.4 mi upstream from mouth.

DRAINAGE AREA.—228 mi^2.

PERIOD OF RECORD.—October 1940 to current year.
CHEMICAL DATA: Water years 1958–79.
WATER TEMPERATURE: Water years 1965–79.

REVISED RECORDS.—WSP 1345: Drainage area. WSP 1395: 1941(M). WRD CA-03-04: 1983(P).

GAGE.—Water-stage recorder. Datum of gage is 672.99 ft above NGVD of 1929.

REMARKS.—Records good. Low flow completely regulated by Whiskeytown Lake (station 11371700) since May 1963. Transbasin diversion from Trinity River through Judge Francis Carr Powerplant (station 11525430) to Whiskeytown Lake began in April 1963. Diversions from Whiskeytown Lake to Spring Creek Powerplant (station 11371600) began in December 1963. See schematic diagrams of upper Sacramento River Basin and Pit and McCloud River Basins.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 24,500 ft^3/s, Dec. 21, 1955, gage height, 13.75 ft; minimum daily, 9.0 ft^3/s, Sept. 4–7, 1950. Since completion of Whiskeytown Dam in 1963, maximum discharge, 18,400 ft^3/s, Mar. 3, 1983, gage height, 12.73 ft, from rating curve extended above 12,000 ft^3/s, on basis of slope-area measurement of peak flow; minimum daily, 30 ft^3/s, Oct. 10, 11, 1977.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	206	212	247	1140	264	780	250	244	227	118	81	75
2	207	214	240	527	403	666	250	243	222	111	80	76
3	207	215	225	371	445	529	249	242	209	101	81	75
4	207	215	224	314	388	458	248	241	191	101	81	75
5	207	215	243	288	340	409	247	240	175	101	82	75
6	207	215	e1070	277	316	375	246	240	174	100	81	75
7	208	215	e343	294	300	352	244	240	176	88	81	75
8	207	228	257	333	287	337	243	240	174	88	81	75
9	211	239	247	440	278	324	241	238	174	88	81	75
10	209	222	310	472	272	310	240	239	174	75	81	87
11	209	216	269	398	267	288	239	238	174	73	81	133
12	209	215	296	350	263	291	238	237	175	72	81	133
13	208	215	377	322	310	285	240	235	173	73	81	133
14	211	219	570	314	245	280	241	235	173	73	81	138
15	212	232	311	302	255	275	241	234	171	72	81	147
16	212	236	269	291	1470	271	240	234	171	72	81	147
17	212	224	251	282	2440	269	241	236	171	72	81	148
18	212	217	241	276	1050	266	251	236	171	72	81	150
19	212	215	249	271	627	263	330	235	170	72	80	148
20	212	214	283	266	502	260	369	235	170	72	80	164
21	212	212	258	261	435	257	297	233	170	72	80	182
22	212	212	247	257	427	256	277	233	149	72	80	189
23	213	212	269	255	392	255	267	232	137	80	78	212
24	212	212	860	255	404	253	261	231	165	88	75	213
25	212	212	391	251	1100	287	256	230	164	88	75	215
26	212	212	306	250	1590	272	252	230	164	88	76	215
27	212	212	277	289	867	267	249	230	164	72	75	215
28	212	212	267	276	595	259	247	231	164	71	75	217
29	212	221	e400	269	507	255	236	230	150	76	75	217
30	212	227	395	271	---	254	231	229	124	81	75	217
31	212	---	378	265	---	251	---	228	---	81	75	---
TOTAL	6518	6537	10570	10427	17039	10154	7661	7299	5166	2563	2457	4296
MEAN	210	218	341	336	588	328	255	235	172	82.7	79.3	143
MAX	213	239	1070	1140	2440	780	369	244	227	118	82	217
MIN	206	212	224	250	245	251	231	228	124	71	75	75
AC-FT	12930	12970	20970	20680	33800	20140	15200	14480	10250	5080	4870	8520

e Estimated.

11372000 CLEAR CREEK NEAR IGO, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 1962, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	76.7	150	597	807	1226	834	676	347	161	63.4	35.1	32.8
MAX	373	427	2336	2513	5753	2595	2431	773	289	126	64.6	89.7
(WY)	1951	1951	1956	1941	1958	1941	1941	1957	1953	1941	1941	1957
MIN	25.8	39.0	47.0	65.5	142	168	172	87.6	66.5	24.3	14.3	13.4
(WY)	1950	1960	1950	1947	1948	1955	1944	1947	1950	1950	1950	1944

SUMMARY STATISTICS	WATER YEARS 1941 - 1962	
ANNUAL MEAN	413	
HIGHEST ANNUAL MEAN	1092	1941
LOWEST ANNUAL MEAN	128	1944
HIGHEST DAILY MEAN	15100	Mar 1 1941
LOWEST DAILY MEAN	9.0	Sep 4 1950
ANNUAL SEVEN-DAY MINIMUM	9.5	Sep 1 1950
MAXIMUM PEAK FLOW	24500	Dec 21 1955
MAXIMUM PEAK STAGE	13.75	Dec 21 1955
ANNUAL RUNOFF (AC-FT)	299000	
10 PERCENT EXCEEDS	929	
50 PERCENT EXCEEDS	133	
90 PERCENT EXCEEDS	27	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	87.2	152	222	308	319	334	177	123	81.5	62.2	59.8	66.4
MAX	317	299	625	1358	1612	3437	668	592	249	150	151	225
(WY)	1993	1974	1965	1970	1998	1983	1974	2003	1993	1999	1999	1999
MIN	38.8	70.7	94.2	54.3	49.8	51.3	50.7	48.6	42.9	39.2	37.9	37.9
(WY)	1978	1969	1977	1977	1977	1977	1977	1966	1966	1966	1966	1977

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1965 - 2004	
ANNUAL TOTAL	103658		90687			
ANNUAL MEAN	284		248		167	
HIGHEST ANNUAL MEAN					570	1983
LOWEST ANNUAL MEAN					57.9	1977
HIGHEST DAILY MEAN	3590	Apr 30	2440	Feb 17	15000	Mar 3 1983
LOWEST DAILY MEAN	91	Sep 2	71	Jul 28	30	Oct 10 1977
ANNUAL SEVEN-DAY MINIMUM	92	Aug 28	72	Jul 15	31	Oct 5 1977
MAXIMUM PEAK FLOW			3680	Feb 17	18400	Mar 3 1983
MAXIMUM PEAK STAGE			7.54	Feb 17	12.73	Mar 3 1983
ANNUAL RUNOFF (AC-FT)	205600		179900		120900	
10 PERCENT EXCEEDS	380		372		280	
50 PERCENT EXCEEDS	228		228		84	
90 PERCENT EXCEEDS	96		80		50	

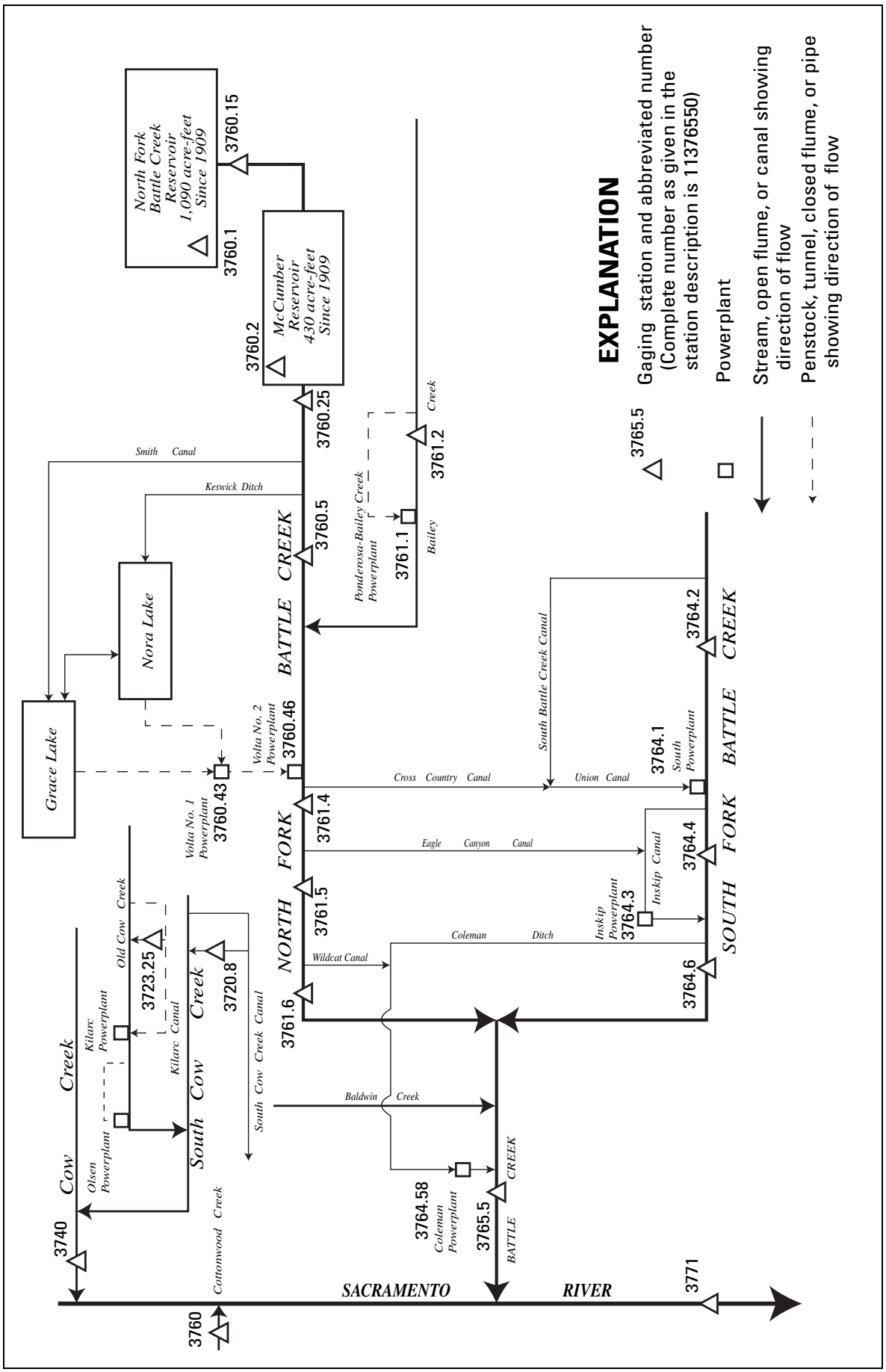


Figure 26. Diversions and storage in Battle Creek and Cow Creek Basins.

11372080 SOUTH COW CREEK CANAL DIVERSION TO SOUTH COW CREEK, NEAR WHITMORE, CA

LOCATION.—Lat 40°35'35", long 121°58'53", in NE 1/4 NW 1/4 sec.33, T.32 N., R.1 W., Shasta County, Hydrologic Unit 18020118, on left bank, 2.5 mi northeast of Cow Creek Powerplant, and 4.3 mi southwest of Whitmore.

PERIOD OF RECORD.—October 1986 to current year (operated as a low-flow station only). Unpublished records for water years 1984–86 available in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder. Elevation of gage is 1,560 ft above NGVD of 1929, from topographic map.

REMARKS.—This station records fishwater release only. The minimum release requirements are 2.0 ft^3/s during dry years and 4.0 ft^3/s during normal years. Flow is computed to 7.8 ft^3/s. See schematic diagram of Battle Creek and Cow Creek Basins.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 606.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.3	5.3	5.3	5.2	---	6.3	6.1	5.6	6.5	5.5	5.5	5.5
2	5.3	5.3	5.3	5.2	6.4	6.3	6.0	5.7	6.0	5.5	5.5	5.5
3	5.3	5.3	5.3	5.2	5.9	5.8	6.0	5.7	5.8	5.5	5.5	5.5
4	5.3	5.3	5.3	5.2	5.6	5.7	6.0	5.9	5.5	5.5	5.5	5.5
5	5.3	5.3	5.4	5.3	5.5	5.6	6.0	6.1	5.5	5.5	5.5	5.5
6	5.3	5.3	---	5.3	5.5	5.7	6.0	6.0	5.5	5.5	5.5	5.5
7	5.3	5.3	---	5.3	5.3	5.8	6.0	6.0	5.5	5.5	5.5	5.5
8	5.3	5.3	5.3	5.3	5.3	5.9	6.0	6.0	5.5	5.5	5.5	5.5
9	5.3	5.3	5.3	5.4	5.3	5.9	6.0	5.9	5.5	5.5	5.5	5.6
10	5.3	5.3	5.7	5.3	5.3	6.0	6.0	6.0	5.5	5.5	5.5	5.6
11	5.3	5.3	---	5.3	5.3	6.0	6.0	5.9	5.5	5.5	5.5	5.6
12	5.3	5.3	5.3	5.2	5.3	6.0	6.0	5.8	5.5	5.5	5.5	5.6
13	5.3	5.3	5.4	5.3	5.3	6.0	6.0	5.7	5.5	5.5	5.5	5.6
14	5.3	5.3	---	5.3	5.5	6.0	6.0	5.7	5.5	5.5	5.5	5.6
15	5.3	5.3	5.4	5.3	---	6.0	5.9	5.7	5.5	5.5	5.5	5.5
16	5.3	5.3	5.4	5.3	---	5.8	5.7	5.7	5.5	5.5	5.5	5.5
17	5.3	5.3	5.6	5.3	---	5.9	5.8	5.8	5.5	5.5	5.5	5.5
18	5.3	5.3	5.4	5.3	5.7	5.8	5.8	6.0	5.7	5.6	5.5	5.5
19	5.3	3.7	5.2	5.3	5.3	5.9	5.7	5.8	5.7	5.5	5.5	5.5
20	5.3	5.5	5.3	5.3	5.3	5.9	5.9	5.8	5.7	5.5	5.5	5.5
21	5.3	5.6	5.2	5.3	5.3	5.8	5.9	5.7	5.7	5.6	5.5	5.5
22	5.3	5.6	5.2	5.3	5.3	5.8	5.8	5.7	5.7	5.5	5.5	5.5
23	5.3	5.5	5.3	5.3	5.3	5.9	5.8	5.7	5.3	5.5	5.5	5.5
24	5.3	5.3	---	5.3	5.5	5.9	5.8	5.6	5.5	5.5	5.5	5.5
25	5.3	5.3	5.5	5.3	5.3	5.8	5.8	5.6	5.5	5.5	5.5	5.5
26	5.3	5.3	5.3	5.5	5.6	5.7	5.8	6.4	5.5	5.6	5.5	5.5
27	5.3	5.3	5.3	5.3	5.4	5.6	5.9	6.9	5.5	5.5	5.5	5.5
28	5.3	5.3	5.3	5.3	5.8	5.5	5.9	7.3	5.5	5.5	5.5	5.5
29	5.3	5.3	---	5.3	5.7	5.7	5.8	7.1	5.5	5.5	5.5	5.5
30	5.3	5.3	5.3	5.3	---	5.8	5.8	6.9	5.5	5.5	5.5	5.5
31	5.3	---	5.3	5.3	---	5.9	---	6.7	---	5.5	5.5	---
TOTAL	164.3	158.4	---	164.1	---	181.7	177.2	186.4	167.6	170.8	170.5	165.6
MEAN	5.30	5.28	---	5.29	---	5.86	5.91	6.01	5.59	5.51	5.50	5.52
MAX	5.3	5.6	--	5.5	--	6.3	6.1	7.3	6.5	5.6	5.5	5.6
MIN	5.3	3.7	--	5.2	--	5.5	5.7	5.6	5.3	5.5	5.5	5.5
AC-FT	326	314	---	325	---	360	351	370	332	339	338	328

11372325 KILARC CANAL DIVERSION TO OLD COW CREEK, NEAR WHITMORE, CA

LOCATION.—Lat 40°41'13", long 121°48'27", in SW 1/4 NE 1/4 sec.25, T.32 N., R.1 E., Shasta County, Hydrologic Unit 18020118, on right bank of Kilarc Canal, 3.6 mi upstream of Kilarc Powerplant, and 6.9 mi northeast of Whitmore.

PERIOD OF RECORD.—October 1986 to current year (operated as a low-flow station only). Unpublished records for water years 1983–86 available in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder and Cipolletti weir. Elevation of gage is 3,840 ft above NGVD of 1929, from topographic map.

REMARKS.—This station records fishwater release only. The minimum release requirement is 2.0 ft^3/s during dry or normal years. Flow is computed to 5.0 ft^3/s. See schematic diagram of Battle Creek and Cow Creek Basins.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project no. 606.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	2.8	2.8	3.9	3.4	2.9	3.7	3.7	3.2	3.0	3.0	3.0
2	2.8	2.8	2.8	3.9	3.5	2.8	3.7	3.7	3.1	3.0	3.0	3.0
3	2.8	2.6	2.8	3.9	3.4	2.8	3.7	3.7	3.1	3.0	3.0	3.0
4	2.8	2.5	2.8	3.0	3.3	3.1	3.7	3.7	3.0	3.0	3.0	3.0
5	2.8	2.5	3.3	3.1	3.2	3.3	3.7	3.7	3.0	3.0	3.0	3.0
6	2.8	2.7	3.6	3.1	3.2	3.4	3.7	3.7	3.0	3.0	3.0	3.0
7	2.8	2.8	3.0	3.1	3.2	3.5	3.7	3.7	3.0	3.0	3.0	3.0
8	2.7	2.9	2.8	3.8	3.1	3.6	3.7	3.7	3.0	3.0	3.0	3.0
9	2.8	2.9	2.8	4.0	3.1	3.7	3.7	3.7	3.0	3.0	3.0	3.0
10	2.8	3.0	3.1	4.0	3.0	3.7	3.7	3.7	3.0	3.0	3.0	3.0
11	2.7	3.0	3.2	3.9	3.1	3.8	3.7	3.6	3.0	3.0	3.0	3.0
12	2.7	2.9	3.1	3.7	3.3	3.8	3.8	3.6	3.0	3.0	3.0	3.0
13	2.7	2.8	3.7	3.6	3.6	3.8	3.8	3.5	3.0	3.0	3.0	3.0
14	2.7	2.8	4.4	3.6	3.7	3.8	3.7	3.5	3.0	3.0	3.0	3.0
15	2.7	3.0	4.0	3.6	4.0	3.8	3.7	3.5	3.0	3.0	3.0	3.0
16	2.7	3.0	3.6	3.5	4.7	3.8	3.7	3.5	3.0	3.0	3.0	3.0
17	2.7	3.3	3.5	3.5	4.9	3.8	3.7	3.5	3.0	3.0	3.0	3.0
18	2.7	2.8	3.5	3.5	4.5	3.8	3.7	3.6	3.0	3.0	3.0	3.0
19	2.7	2.8	3.5	3.4	4.3	3.8	3.7	3.5	3.0	3.0	3.0	3.0
20	2.7	2.8	3.5	3.4	4.2	3.8	3.7	3.5	3.0	3.0	3.0	3.0
21	2.7	2.8	3.5	3.3	4.1	3.8	3.8	3.5	3.0	3.0	3.0	2.9
22	2.7	2.8	3.5	3.3	4.0	3.8	3.7	3.4	3.0	3.0	3.0	2.9
23	2.7	2.8	3.5	3.3	4.0	3.8	3.7	3.4	3.0	3.0	3.0	2.9
24	2.8	2.8	4.2	3.3	4.0	3.8	3.7	3.4	3.0	3.0	3.0	2.9
25	2.8	2.8	4.3	3.2	4.0	3.8	3.7	3.4	3.0	3.0	3.0	2.9
26	2.8	2.8	4.3	3.2	4.0	3.7	3.7	3.4	3.0	3.0	3.0	2.9
27	2.8	2.8	4.3	3.3	4.0	3.7	3.7	3.4	3.0	3.0	3.0	2.9
28	2.8	2.8	4.3	3.2	3.3	3.7	3.7	3.5	3.0	3.0	3.0	2.9
29	2.8	2.8	4.3	3.3	2.9	3.7	3.7	3.4	3.0	3.0	3.0	2.9
30	2.8	2.9	4.0	3.5	---	3.7	3.7	3.3	3.0	3.0	3.0	2.9
31	2.8	---	3.9	3.4	---	3.7	---	3.3	---	3.0	3.0	---
TOTAL	85.4	84.8	109.9	107.8	107.0	112.0	111.3	109.7	90.4	93.0	93.0	89.0
MEAN	2.75	2.83	3.55	3.48	3.69	3.61	3.71	3.54	3.01	3.00	3.00	2.97
MAX	2.8	3.3	4.4	4.0	4.9	3.8	3.8	3.7	3.2	3.0	3.0	3.0
MIN	2.7	2.5	2.8	3.0	2.9	2.8	3.7	3.3	3.0	3.0	3.0	2.9
AC-FT	169	168	218	214	212	222	221	218	179	184	184	177

11374000 COW CREEK NEAR MILLVILLE, CA

LOCATION.—Lat 40°30'19", long 122°13'56", in NE 1/4 NW 1/4 sec.32, T.31 N., R.3 W., Shasta County, Hydrologic Unit 18020101, on right bank, 2.9 mi upstream from mouth, 4.2 mi southwest of Millville, and 4.3 mi downstream from Little Cow Creek.

DRAINAGE AREA.—425 mi^2.

PERIOD OF RECORD.—October 1949 to current year.
CHEMICAL DATA: Water years 1959–66.
WATER TEMPERATURE: Water years 1966–71, 1973–76, 1978–79.
SEDIMENT DATA: Water year 1978.

REVISED RECORDS.—WSP 1931: Drainage area.

GAGE.—Water-stage recorder and crest-stage gage. Datum of gage is 385.7 ft above NGVD of 1929. Prior to June 11, 1987, at datum 3.00 ft higher.

REMARKS.—Records fair. Numerous small diversions upstream from station for irrigation. See schematic diagrams of upper Sacramento River and Battle Creek and Cow Creek Basins.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 48,700 ft^3/s, Nov. 16, 1981, gage height, 24.22 ft, present datum; maximum gage height, 24.55 ft, Dec. 27, 1951, present datum; minimum daily, 0.02 ft^3/s, July 29, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood of 1937 or 1940 reached a stage of 26.8 ft from floodmarks, present datum; probable backwater effect from high flows on the Sacramento River.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 13,900 ft^3/s, or maximum:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 17	0015	30,800	19.74	Feb. 25	1130	18,300	15.50

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	67	307	7340	657	4390	685	371	204	64	24	21
2	37	73	402	3190	5070	2720	634	358	202	58	24	22
3	33	109	311	1770	4930	1770	622	357	194	54	26	19
4	34	113	211	1170	2200	1390	612	354	181	54	28	17
5	37	105	1120	931	1390	1180	601	358	170	55	23	20
6	38	112	2750	827	1090	1040	610	354	158	53	27	22
7	38	130	3500	2260	1310	941	599	345	152	53	23	24
8	41	142	735	3150	943	885	571	368	147	47	22	23
9	41	270	424	3630	796	856	557	349	158	47	25	22
10	41	717	2390	3040	707	838	540	394	151	44	21	21
11	40	202	1850	1790	656	835	533	375	144	45	21	16
12	43	149	1320	1330	624	818	524	324	135	51	23	17
13	46	137	6480	1090	590	798	527	294	131	44	24	18
14	47	135	5590	922	592	781	532	274	127	42	19	21
15	49	209	1570	857	632	767	551	265	115	40	18	20
16	55	264	916	781	11300	759	502	260	100	40	26	21
17	55	220	684	710	14900	763	473	264	100	33	31	23
18	57	192	561	655	7740	793	492	340	99	33	31	24
19	55	161	476	613	4060	786	490	336	101	37	27	31
20	52	148	793	582	2940	793	558	288	95	35	31	50
21	57	143	669	546	2390	761	809	270	88	32	24	50
22	56	137	521	511	2250	763	699	258	81	29	19	45
23	55	134	628	491	2160	766	555	252	74	27	28	37
24	53	132	6170	501	1930	777	503	243	75	23	31	37
25	52	131	4150	489	9780	825	473	224	76	23	29	33
26	51	129	1440	458	4250	895	442	212	73	25	27	29
27	52	128	960	1370	2950	813	442	209	64	28	25	34
28	52	126	776	1080	2030	771	436	273	70	28	20	35
29	55	148	6310	769	1630	724	417	296	68	26	20	39
30	59	266	4400	839	---	724	384	246	65	24	20	37
31	64	---	2560	777	---	735	---	217	---	23	20	---
TOTAL	1483	5129	60974	44469	92497	32457	16373	9328	3598	1217	757	828
MEAN	47.8	171	1967	1434	3190	1047	546	301	120	39.3	24.4	27.6
MAX	64	717	6480	7340	14900	4390	809	394	204	64	31	50
MIN	33	67	211	458	590	724	384	209	64	23	18	16
AC-FT	2940	10170	120900	88200	183500	64380	32480	18500	7140	2410	1500	1640

11374000 COW CREEK NEAR MILLVILLE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	121	468	1164	1735	1698	1356	845	547	227	63.4	37.8	47.1
MAX	1057	2539	3929	5593	5636	5275	3012	2375	1386	324	148	130
(WY)	1963	1982	1984	1970	1998	1983	1963	1998	1998	1998	1998	1983
MIN	19.4	58.3	76.1	80.7	103	118	63.0	54.1	13.5	0.63	0.74	3.19
(WY)	1992	1992	1991	1991	1977	1977	1977	1992	1992	1977	1977	1992

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1950 - 2004	
ANNUAL TOTAL	275688		269110			
ANNUAL MEAN	755		735		688	
HIGHEST ANNUAL MEAN					1634	1998
LOWEST ANNUAL MEAN					66.8	1977
HIGHEST DAILY MEAN	10600	Jan 14	14900	Feb 17	32500	Dec 27 1951
LOWEST DAILY MEAN	30	Sep 28	16	Sep 11	0.02	Jul 29 1977
ANNUAL SEVEN-DAY MINIMUM	33	Sep 22	19	Sep 10	0.09	Jul 23 1977
MAXIMUM PEAK FLOW			30800	Feb 17	48700	Nov 16 1981
MAXIMUM PEAK STAGE			19.74	Feb 17	24.55	Dec 27 1951
ANNUAL RUNOFF (AC-FT)	546800		533800		498500	
10 PERCENT EXCEEDS	2020		1780		1640	
50 PERCENT EXCEEDS	335		222		191	
90 PERCENT EXCEEDS	40		24		24	

11374305 MIDDLE FORK COTTONWOOD CREEK BELOW DIVERSION TO ARBUCKLE MOUNTAIN PP, NEAR PLATINA, CA

LOCATION.—Lat 40°24'35", long 122°52'52", in NW 1/4 SE 1/4 sec.4, T.29 N., R.9 W., Shasta County, Hydrologic Unit 18020113, on left bank, 1.2 mi downstream from Cow Gulch, 1.0 mi upstream from Knob Gulch , and 2.4 mi northeast of the town of Platina.

DRAINAGE AREA.—46.0 mi^2.

PERIOD OF RECORD.—October 1997 to current year (low-flow records only, collected only seasonally during period of upstream diversion for power generation).

GAGE.—Water-stage recorder and V-notched weir. Elevation of gage is 2,050 ft above NGVD of 1929, from topographic map.

REMARKS.—Records published to 11 ft^3/s. Prior to February 2004 records published to 90 ft^3/s. Record is only collected during the part of the year when flow is generally high enough to allow for upstream diversion of water to Arbuckle Mountain Powerplant (station 11374300). This year, record was collected December 1 to May 15. During times of powerplant operation, the minimum release requirement is 5.0 ft^3/s. See schematic diagram of upper Sacramento River Basin.

COOPERATION.—Records were collected by Arbuckle Mountain Hydro, LLC, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission Project no. 7178.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	5.2	16	5.4	---	4.7	4.8	---	---	---	---
2	---	---	5.2	5.8	28	---	4.5	4.8	---	---	---	---
3	---	---	5.2	5.4	31	---	4.5	4.8	---	---	---	---
4	---	---	5.9	5.2	45	---	4.5	4.8	---	---	---	---
5	---	---	5.4	5.4	42	---	8.0	4.8	---	---	---	---
6	---	---	39	5.4	37	---	4.5	4.8	---	---	---	---
7	---	---	8.8	5.4	32	---	4.5	4.8	---	---	---	---
8	---	---	5.2	16	14	---	4.5	4.9	---	---	---	---
9	---	---	11	---	5.2	---	6.4	4.9	---	---	---	---
10	---	---	16	---	5.4	---	4.5	4.9	---	---	---	---
11	---	---	5.4	---	5.4	---	4.6	4.9	---	---	---	---
12	---	---	7.5	---	5.4	7.8	7.1	4.9	---	---	---	---
13	---	---	20	89	5.4	7.7	4.6	4.9	---	---	---	---
14	---	---	---	---	9.2	4.3	6.2	4.9	---	---	---	---
15	---	---	10	---	12	7.0	4.6	11	---	---	---	---
16	---	---	5.2	90	---	4.3	4.6	---	---	---	---	---
17	---	---	5.2	60	---	6.1	6.0	---	---	---	---	---
18	---	---	5.2	39	---	4.3	4.6	---	---	---	---	---
19	---	---	6.3	25	---	7.9	5.9	---	---	---	---	---
20	---	---	5.4	7.5	---	4.3	4.5	---	---	---	---	---
21	---	---	5.2	5.2	---	4.3	7.0	---	---	---	---	---
22	---	---	5.2	5.4	---	5.6	4.7	---	---	---	---	---
23	---	---	5.4	5.4	---	4.6	4.9	---	---	---	---	---
24	---	---	62	5.4	---	9.7	4.7	---	---	---	---	---
25	---	---	28	5.4	---	4.7	4.7	---	---	---	---	---
26	---	---	5.4	5.4	---	4.3	4.7	---	---	---	---	---
27	---	---	5.2	11	---	4.4	4.7	---	---	---	---	---
28	---	---	5.2	5.4	---	5.6	4.7	---	---	---	---	---
29	---	---	49	9.0	---	11	4.8	---	---	---	---	---
30	---	---	39	9.7	---	4.4	4.8	---	---	---	---	---
31	---	---	5.6	6.3	---	7.2	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	153.0	---	---	---	---	---
MEAN	---	---	---	---	---	---	5.10	---	---	---	---	---
MAX	---	---	--	--	--	--	8.0	--	---	---	---	---
MIN	---	---	--	--	--	--	4.5	--	---	---	---	---
AC-FT	---	---	---	---	---	---	303	---	---	---	---	---
a			2870	4830	4810	4360	1680	479				

a Discharge, in acre-feet, for Arbuckle Mountain Powerplant (station 11374300), provided by Arbuckle Mountain Hydro, LLC.

11376000 COTTONWOOD CREEK NEAR COTTONWOOD, CA

LOCATION.—Lat 40°23'14", long 122°14'15", in NE 1/4 NE 1/4 sec.7, T.29 N., R.3 W., Shasta County, Hydrologic Unit 18020102, on left bank, 2.2 mi east of Cottonwood, and 2.5 mi upstream from mouth.

DRAINAGE AREA.—927 mi^2.

PERIOD OF RECORD.—October 1940 to current year.
CHEMICAL DATA: Water years 1982–85.
WATER TEMPERATURE: Water years 1963–67, 1977–85.
SEDIMENT DATA: Water years 1957–67, 1977–85.

REVISED RECORDS.—WSP 1345: 1943, 1944(M), 1946–47, 1949(M), 1951–52. WSP 1931: Drainage area.

GAGE.—Water-stage recorder and crest-stage gage. Datum of gage is 363.80 ft above NGVD of 1929 (levels by U.S. Army Corps of Engineers). Prior to July 26, 1963, on right bank at datum 3.59 ft higher. July 26, 1963, to Sept. 13, 1972, at site 250 ft downstream on right bank at present datum. Sept. 21, 1967, to Jan. 14, 1968, supplementary gage at a site 1,450 ft downstream on right bank at datum 2.35 ft higher.

REMARKS.—Records fair. Small diversions for irrigation upstream from station. At times during irrigation season, Cottonwood Creek receives water from the Sacramento River by way of Anderson–Cottonwood Irrigation District Canal. See schematic diagrams of upper Sacramento River and Battle Creek and Cow Creek Basins.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 86,000 ft^3/s, Mar. 1, 1983, gage height, 21.59 ft, from rating curve extended above 34,000 ft^3/s, on basis of runoff comparisons with upstream stations then in use; minimum, 15 ft^3/s, several days during September 1945.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 11,000 ft^3/s, or maximum:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 1	1515	13,900	10.98	Feb. 25	1445	25,300	13.65
Feb. 17	2300	33,000	15.08	Mar. 1	2245	13,800	10.95

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64	50	488	7110	1190	8180	969	550	318	131	76	51
2	68	53	809	4430	4360	6900	915	544	303	135	84	47
3	67	64	520	2550	4300	4560	885	544	292	137	79	49
4	73	72	378	1830	2810	3690	855	553	289	127	74	56
5	75	72	578	1480	2080	3230	840	548	283	116	65	48
6	74	72	1800	1290	1730	2960	805	532	268	112	62	51
7	78	76	2980	1720	1610	2730	779	527	256	97	67	59
8	72	100	1190	2220	1410	2700	751	530	252	84	73	49
9	70	225	804	4390	1270	2720	730	513	255	78	66	52
10	59	333	2270	4480	1150	2700	716	498	257	90	64	50
11	61	227	1390	3080	1070	2480	722	472	237	87	59	46
12	70	166	1270	2500	997	2260	721	446	226	85	66	50
13	87	133	2870	2230	939	2100	709	426	211	87	68	50
14	89	122	5410	2130	912	2010	679	426	193	81	64	51
15	88	127	2740	2350	906	1970	649	413	186	85	63	48
16	85	150	1590	2130	8030	1900	649	398	181	84	69	57
17	94	171	1130	1850	22800	1790	673	401	185	80	68	55
18	76	153	899	1650	20900	1730	651	438	170	83	60	50
19	93	142	788	1520	9610	1670	700	416	165	82	54	53
20	98	130	2630	1400	6590	1530	896	416	167	81	57	58
21	92	122	1650	1260	5290	1430	811	397	163	71	65	62
22	87	116	1210	1140	4770	1380	737	387	147	64	54	55
23	95	108	1310	1020	4520	1370	693	373	139	67	53	54
24	88	100	5320	1000	4070	1290	662	358	131	72	57	49
25	84	99	3370	969	12600	1280	633	345	130	67	56	53
26	68	98	2100	895	10900	1430	618	341	137	63	60	63
27	59	96	1490	1330	8010	1190	601	324	125	65	62	56
28	51	95	1200	1740	5420	1120	593	336	121	64	63	61
29	48	117	5970	1300	4550	1070	579	342	134	68	65	60
30	47	257	5570	1290	---	1070	565	335	125	76	58	67
31	49	---	3710	1280	---	1040	---	330	---	75	54	---
TOTAL	2309	3846	65434	65564	154794	73480	21786	13459	6046	2694	1985	1610
MEAN	74.5	128	2111	2115	5338	2370	726	434	202	86.9	64.0	53.7
MAX	98	333	5970	7110	22800	8180	969	553	318	137	84	67
MIN	47	50	378	895	906	1040	565	324	121	63	53	46
AC-FT	4580	7630	129800	130000	307000	145700	43210	26700	11990	5340	3940	3190

11376000 COTTONWOOD CREEK NEAR COTTONWOOD, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	125	347	1258	2178	2494	1958	1172	657	321	119	70.9	76.5
MAX	805	1828	5428	9193	12430	10770	4270	2447	2082	495	178	164
(WY)	1958	1985	1984	1995	1998	1983	1941	1983	1998	1998	1998	1983
MIN	50.6	52.2	49.8	60.3	76.3	146	136	165	74.5	36.8	26.4	30.8
(WY)	1995	1991	1991	1991	1977	1977	1977	1977	1977	1994	1945	1945

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1941 - 2004	
ANNUAL TOTAL	367268		413007			
ANNUAL MEAN	1006		1128		891	
HIGHEST ANNUAL MEAN					2714	1983
LOWEST ANNUAL MEAN					94.4	1977
HIGHEST DAILY MEAN	15700	Jan 13	22800	Feb 17	54300	Jan 16 1974
LOWEST DAILY MEAN	47	Oct 30	46	Sep 11	15	Sep 7 1945
ANNUAL SEVEN-DAY MINIMUM	51	Oct 27	50	Sep 9	16	Sep 4 1945
MAXIMUM PEAK FLOW			33000	Feb 17	86000	Mar 1 1983
MAXIMUM PEAK STAGE			15.08	Feb 17	21.59	Mar 1 1983
INSTANTANEOUS LOW FLOW			46	Sep 11		
ANNUAL RUNOFF (AC-FT)	728500		819200		645200	
10 PERCENT EXCEEDS	2460		2760		2110	
50 PERCENT EXCEEDS	626		327		228	
90 PERCENT EXCEEDS	67		58		58	

11376015 NORTH FORK BATTLE CREEK BELOW NORTH BATTLE CREEK DAM, NEAR MANZANITA LAKE, CA

LOCATION.—Lat 40°36'10", long 121°39'17", in SE 1/4 SE 1/4 sec.20, T.32 N., R.3 E., Shasta County, Hydrologic Unit 18020118, Lassen National Forest, on left bank, 300 ft downstream from North Battle Creek Dam, and 6.7 mi northwest of Manzanita Lake.

DRAINAGE AREA.—6.40 mi^2.

PERIOD OF RECORD.—October 1987 to current year (operated as a low-flow station only). Unpublished records for water years 1978–87 available in files of the U.S. Geological Survey. Fragmentary records for water years 1920–77 in files of the Pacific Gas & Electric Co.

GAGE.—Water-stage recorder and a compound weir consisting of a 5-ft rectangular and V-notch weir. Elevation of gage is 5,560 ft above NGVD of 1929, from topographic map.

REMARKS.—This station records fishwater release only. The minimum release requirement is 0.30 ft^3/s Oct. 1–31 and Apr. 1 to Sept. 30. No license requirement Nov. 1 to Mar. 31, records not computed. Each fall, North Fork Battle Creek Reservoir is drafted and flows may exceed the rated limits of the weirs; flow is computed to 60 ft^3/s. See schematic diagram of Battle Creek and Cow Creek Basins.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 1121.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.4	5.6	---	---	---	---	10	3.6	3.8	0.77	0.70	0.72
2	6.4	5.4	---	---	---	---	9.2	3.4	3.4	0.75	0.68	0.73
3	6.3	5.4	---	---	---	---	9.5	3.4	3.3	0.78	0.70	0.79
4	6.4	5.4	---	---	---	---	11	7.9	3.1	0.79	0.81	0.76
5	6.5	---	---	---	---	---	12	19	3.1	0.87	0.91	0.78
6	7.0	---	---	---	---	---	12	20	2.9	0.88	0.83	0.83
7	7.0	---	---	---	---	---	13	20	2.9	0.84	0.81	0.90
8	7.0	---	---	---	---	---	13	21	2.8	0.78	0.81	0.91
9	7.0	---	---	---	---	---	14	17	2.8	0.86	0.81	0.85
10	7.0	---	---	---	---	---	15	21	2.8	0.88	0.75	0.85
11	7.0	---	---	---	---	---	15	19	2.6	0.91	0.81	3.7
12	7.0	---	---	---	---	---	16	15	2.5	0.86	0.80	5.6
13	7.0	---	---	---	---	---	16	14	2.5	0.87	0.73	5.6
14	7.0	---	---	---	---	---	15	14	2.6	0.83	0.76	8.8
15	6.5	---	---	---	---	---	15	13	1.9	0.83	0.80	11
16	6.2	---	---	---	---	---	12	12	1.5	0.77	0.85	11
17	6.2	---	---	---	---	---	11	6.1	1.4	0.76	0.95	11
18	6.2	---	---	---	---	---	11	3.0	1.3	0.74	0.98	11
19	6.2	---	---	---	---	---	10	2.9	1.3	0.78	1.0	10
20	6.1	---	---	---	---	---	11	2.9	1.3	0.72	0.99	10
21	6.1	---	---	---	---	---	12	2.9	1.2	0.76	1.0	10
22	6.0	---	---	---	---	---	11	3.0	1.2	0.78	1.0	10
23	6.0	---	---	---	---	---	10	3.0	1.0	0.80	1.0	10
24	6.0	---	---	---	---	---	11	3.0	0.90	0.83	1.0	10
25	5.9	---	---	---	---	---	12	1.9	0.85	0.84	1.0	10
26	5.8	---	---	---	---	---	14	1.2	0.83	0.82	1.1	10
27	5.8	---	---	---	---	---	16	1.2	0.80	0.85	1.1	10
28	5.8	---	---	---	---	---	18	3.7	0.74	0.73	1.1	9.9
29	5.8	---	---	---	---	---	11	4.7	0.72	0.73	1.1	7.3
30	5.6	---	---	---	---	11	3.6	4.8	0.74	0.72	1.1	5.6
31	5.6	---	---	---	---	11	---	4.6	---	0.70	0.80	---
TOTAL	196.8	---	---	---	---	---	369.3	272.2	58.78	24.83	27.78	188.62
MEAN	6.35	---	---	---	---	---	12.3	8.78	1.96	0.80	0.90	6.29
MAX	7.0	--	---	---	---		18	21	3.8	0.91	1.1	11
MIN	5.6	--	---	---	---		3.6	1.2	0.72	0.70	0.68	0.72
AC-FT	390	---	---	---	---	---	733	540	117	49	55	374
a	180	221	412	477	678	739	783	1070	1030	915	789	414

a Contents, in acre-feet, end of month for North Fork Battle Creek Reservoir (station 11376010), provided by Pacific Gas & Electric Co.

11376025 NORTH FORK BATTLE CREEK BELOW McCUMBER DAM, NEAR MANZANITA LAKE, CA

LOCATION.—Lat 40°32'15", long 121°43'53", in SW 1/4 SE 1/4 sec.15, T.31 N., R.2 E., Shasta County, Hydrologic Unit 18020118, on right bank, 300 ft downstream from McCumber Dam, 3.0 mi northwest of Viola, and 9.0 mi west of Manzanita Lake.

DRAINAGE AREA.—27.6 mi^2.

PERIOD OF RECORD.—October 1987 to current year (operated as a low-flow station only). Unpublished records for water years 1978–87 available in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder and V-notch weir. Elevation of gage is 4,080 ft above NGVD of 1929, from topographic map.

REMARKS.—This station records fishwater release only. Prior to water year 1995 flow computed to 211 ft^3/s. The minimum release requirement is 0.30 ft^3/s at all times; flow is computed to 800 ft^3/s. See schematic diagram of Battle Creek and Cow Creek Basins.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 1121.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.2	4.1	5.9	e8.8	e7.7	e39	43	26	17	4.5	1.5	1.6
2	7.2	4.1	5.9	e8.8	e7.7	e40	43	24	16	4.5	1.4	1.6
3	7.2	6.6	5.4	e8.8	e7.7	e39	41	23	14	4.2	1.4	1.6
4	7.2	9.4	5.4	e8.8	e7.7	e39	43	21	14	4.3	1.2	1.6
5	7.2	9.4	5.4	e8.8	e7.7	e36	45	30	13	3.4	1.1	1.6
6	7.2	9.4	5.4	e8.8	e10	e36	44	33	13	3.0	1.1	1.5
7	7.2	9.4	5.4	e5.4	e10	e39	44	35	14	2.8	1.1	1.4
8	7.2	9.4	6.9	e5.4	e7.7	e39	44	38	15	2.6	1.1	1.4
9	7.2	9.0	8.8	e5.4	e7.7	e39	44	35	14	2.5	1.1	1.4
10	7.2	8.8	8.8	e5.4	e7.7	e39	43	45	14	2.7	1.1	1.4
11	7.2	8.8	8.8	e5.4	e7.7	e53	44	40	13	2.6	1.1	8.7
12	7.2	8.5	7.0	e7.2	e9.4	e57	43	34	13	2.5	1.3	12
13	7.2	7.3	19	e7.2	e9.4	e61	44	31	12	2.3	1.4	12
14	7.2	6.0	20	e7.7	e8.8	e63	42	29	12	2.1	1.5	11
15	7.2	5.9	23	e7.7	e7.7	e64	45	28	11	1.9	1.6	11
16	7.2	5.9	22	e8.8	e7.7	64	36	26	9.9	1.9	1.6	8.8
17	7.2	5.9	21	e8.8	e14	65	38	25	10	1.7	1.6	7.2
18	7.2	5.9	13	e8.8	e201	67	41	27	9.0	1.6	1.6	7.2
19	7.2	5.9	8.8	e8.8	e73	71	37	20	8.8	1.6	1.6	7.2
20	7.2	5.9	8.8	e12	e55	71	37	20	8.1	1.6	1.8	7.2
21	7.2	5.9	8.8	e12	e48	66	42	19	7.8	1.6	1.9	7.2
22	7.2	5.9	8.8	e12	e51	68	37	20	6.5	1.6	1.9	4.2
23	6.9	5.9	8.8	e12	e46	69	35	17	6.8	1.6	1.9	7.0
24	6.7	5.9	8.8	e14	e46	72	35	16	6.4	1.6	1.9	10
25	6.7	5.9	8.8	e12	e64	74	37	16	6.2	1.6	1.6	10
26	5.6	5.9	8.8	e12	e56	69	39	13	5.7	1.6	1.6	10
27	4.8	5.9	8.8	e7.7	e48	60	41	13	5.6	1.6	1.6	9.7
28	4.1	5.9	8.8	e7.7	e42	54	43	20	5.2	1.6	1.6	8.2
29	4.1	5.9	e8.8	e7.7	e40	51	40	19	4.8	1.6	1.5	4.3
30	4.1	5.9	e8.8	e7.7	---	49	28	17	4.6	1.6	1.5	4.0
31	4.1	---	e8.8	e7.7	---	51	---	16	---	1.6	1.6	---
TOTAL	205.5	204.6	311.5	269.3	916.3	1704	1218	776	310.4	71.9	45.8	182.0
MEAN	6.63	6.82	10.0	8.69	31.6	55.0	40.6	25.0	10.3	2.32	1.48	6.07
MAX	7.2	9.4	23	14	201	74	45	45	17	4.5	1.9	12
MIN	4.1	4.1	5.4	5.4	7.7	36	28	13	4.6	1.6	1.1	1.4
AC-FT	408	406	618	534	1820	3380	2420	1540	616	143	91	361
a	147	147	166	156	428	436	436	436	428	395	334	235

e Estimated.

a Contents, in acre-feet, at end of month for McCumber Reservoir (station 11376020), provided by Pacific Gas & Electric Co.

POWERPLANTS IN BATTLE CREEK AND COW CREEK BASINS

11376043 VOLTA NO. 1 POWERPLANT NEAR MANTON, CA, Lat 40°27'34", long 121°51'57", in NW 1/4 NE 1/4 sec.16, T.30 N., R.1 E., Shasta County, Hydrologic Unit 18020118, 1.7 mi north of Manton. Powerplant consists of one unit with a total of 8,550 KW normal operating capacity. See schematic diagram of Battle Creek and Cow Creek Basins.

11376046 VOLTA NO. 2 POWERPLANT NEAR MANTON, CA, Lat 40°27'08", long 121°51'38", in NE 1/4 SW 1/4 sec.16, T.30 N., R.1 E., Shasta County, Hydrologic Unit 18020118, 1.2 mi northeast of Manton. Powerplant consists of one unit with a total of 956 KW normal operating capacity. See schematic diagram of Battle Creek and Cow Creek Basins.

11376410 SOUTH POWERPLANT NEAR MANTON, CA, Lat 40°23'45", long 121°52'38", in NE 1/4 SE 1/4 sec.5, T.29 N., R.1 E., Tehama County, Hydrologic Unit 18020118, 2.7 mi south of Manton. Powerplant consists of one unit with a total of 6,750 KW normal operating capacity. See schematic diagram of Battle Creek and Cow Creek Basins.

11376430 INSKIP POWERPLANT NEAR MANTON, CA, Lat 40°24'04", long 121°57'48", in NE 1/4 NW 1/4 sec.3, T.29 N., R.1 W., Tehama County, Hydrologic Unit 18020118, 5.5 mi southwest of Manton. Powerplant consists of one unit with a total of 7,650 KW normal operating capacity. See schematic diagram of Battle Creek and Cow Creek Basins.

11376458 COLEMAN POWERPLANT NEAR COTTONWOOD, CA, Lat 40°24'18", long 122°07'16", in SW 1/4 SW 1/4 sec.32, T.30 N., R.2 W., Shasta County, Hydrologic Unit 18020101, 8.5 mi east of Cottonwood. Powerplant consists of one unit with a total of 12,150 KW normal operating capacity. See schematic diagram of Battle Creek and Cow Creek Basins.

MONTHLY DISCHARGE, IN ACRE-FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Volta No. 1	Volta No. 2	South	Inskip	Coleman
Oct.	3,040	3,630	9,820	10,530	10,750
Nov.	2,940	3,500	10,280	11,140	11,750
Dec.	3,670	4,260	12,680	15,100	17,600
Jan.	4,200	4,900	12,510	13,740	18,260
Feb.	5,230	5,520	11,940	14,950	17,860
Mar.	6,720	6,570	10,970	16,600	19,980
Apr.	5,430	5,500	12,270	15,830	19,200
May	5,580	5,860	13,040	16,190	1,390
June	4,080	4,690	12,520	15,380	8,900
July	3,390	3,970	11,140	12,520	12,810
Aug.	2,900	3,480	9,350	9,890	434
Sept.	2,830	3,420	8,720	9,120	8,570

Note.—Records were provided by Pacific Gas & Electric Co., in connection with Federal Energy Regulatory Commission project no. 1121. Unpublished records for water years 1979–86 available in files of U.S.Geolgoical Survey. Fragmentary records prior to water year 1979 available in files of Pacific Gas & Electric Co.

11376050 NORTH FORK BATTLE CREEK BELOW DIVERSION TO KESWICK CANAL, NEAR MANTON, CA

LOCATION.—Lat 40°30'00", long 121°48'29", in NW 1/4 NE 1/4 sec.36, T.31 N., R.1 E., Shasta County, Hydrologic Unit 18020118, on right bank, 4.2 mi east of Shingletown, and 5.5 mi northeast of Manton.

PERIOD OF RECORD.—October 1986 to current year (operated as a low-flow station only). Unpublished records for water years 1978–86 available in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder and Parshall flume. Elevation of gage is 3,600 ft above NGVD of 1929, from topographic map.

REMARKS.—This station records fishwater release only. The minimum release requirement is 3.0 ft^3/s at all times; flow is computed to 5.6 ft^3/s. See schematic diagram of Battle Creek and Cow Creek Basins.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 1121.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.6	3.4	3.6	3.5	3.5	5.1	3.6	3.4	3.6	3.5	3.5	3.4
2	3.6	3.4	3.6	3.6	3.5	5.1	3.6	3.4	3.6	3.6	3.5	3.4
3	3.6	3.5	3.6	3.7	3.5	5.2	3.6	3.5	3.6	3.6	3.5	3.4
4	3.6	3.6	3.6	3.7	3.5	5.2	3.6	3.5	3.6	3.6	3.5	3.5
5	3.6	3.6	3.6	3.7	3.5	4.5	3.6	3.6	3.6	3.6	3.9	3.5
6	3.6	3.6	3.7	3.7	3.5	4.0	3.6	3.6	3.5	3.6	3.9	3.5
7	3.6	3.6	3.8	3.7	3.4	4.0	3.6	3.6	3.6	3.6	3.5	3.5
8	3.6	3.6	3.6	3.7	3.3	3.9	3.6	3.6	3.6	3.6	3.5	3.5
9	3.5	3.7	3.7	3.7	3.2	3.9	3.6	3.6	3.6	3.6	3.5	3.6
10	3.5	3.6	3.8	3.8	3.4	3.9	3.6	3.7	3.5	3.7	3.5	3.6
11	3.6	3.6	3.8	3.7	3.6	3.8	3.6	3.7	3.5	3.7	3.5	3.6
12	3.6	3.6	---	3.7	3.6	3.8	3.6	3.6	3.5	3.7	3.5	3.8
13	3.6	3.6	4.0	3.7	3.6	3.8	3.6	3.6	3.4	3.7	3.5	3.6
14	3.6	3.5	4.0	3.7	3.6	3.8	3.6	3.6	3.4	3.7	3.5	3.6
15	3.6	3.6	3.7	3.7	3.6	3.8	3.6	3.5	3.4	3.7	3.4	3.6
16	3.6	3.6	3.7	3.7	4.3	3.8	3.6	3.6	3.4	3.6	3.4	3.6
17	3.6	3.6	3.7	3.7	5.1	3.8	3.6	3.7	3.4	3.6	3.5	3.5
18	3.6	3.6	3.6	3.7	5.0	3.8	3.6	3.8	3.4	3.6	3.5	3.5
19	3.6	3.6	3.5	3.7	5.0	3.8	---	3.7	3.5	3.5	3.5	3.5
20	3.5	3.5	3.5	3.7	5.0	3.8	---	3.6	3.5	3.5	3.5	3.5
21	3.5	3.5	3.5	3.6	5.0	3.8	---	3.6	3.5	3.5	3.5	3.5
22	3.5	3.5	3.5	3.6	5.0	3.8	---	3.6	3.6	3.5	3.5	3.5
23	3.5	3.6	3.5	3.5	4.8	3.8	3.5	3.6	3.6	3.5	3.5	3.4
24	3.6	3.6	3.6	3.5	4.9	---	3.5	3.5	3.6	3.5	3.5	3.5
25	3.6	3.6	3.6	3.5	5.0	3.8	3.5	3.5	3.4	3.5	3.5	3.5
26	3.5	3.6	3.6	3.4	5.0	3.7	3.5	3.5	3.4	3.5	3.5	3.5
27	3.4	3.5	3.5	3.4	5.1	3.7	---	3.5	3.6	3.5	3.5	3.5
28	3.4	3.6	3.5	3.4	5.0	3.7	3.5	3.6	3.6	3.5	3.5	3.5
29	3.4	3.6	3.6	3.4	5.1	3.7	3.5	3.6	3.6	3.5	3.4	3.4
30	3.4	3.6	3.6	3.5	---	3.7	3.4	3.5	3.6	3.5	3.4	3.3
31	3.4	---	3.6	3.5	---	3.7	---	3.6	---	3.5	3.4	---
TOTAL	109.9	107.1	---	112.1	121.6	---	---	111.0	105.7	110.8	108.8	105.3
MEAN	3.55	3.57	---	3.62	4.19	---	---	3.58	3.52	3.57	3.51	3.51
MAX	3.6	3.7	--	3.8	5.1	--	--	3.8	3.6	3.7	3.9	3.8
MIN	3.4	3.4	--	3.4	3.2	--	--	3.4	3.4	3.5	3.4	3.3
AC-FT	218	212	---	222	241	---	---	220	210	220	216	209

11376120 BAILEY CREEK BELOW DIVERSION TO PONDEROSA–BAILEY CREEK POWERPLANT, NEAR MANTON, CA

LOCATION.—Lat 40°27'59", long 121°59'20", in NE 1/4 SE 1/4 sec.11, T.30 N., R.1 E., Shasta County, Hydrologic Unit 18020118, on right bank, 250 ft downstream from Spring Creek, 0.4 mi upstream from Ponderosa Way, 3.3 mi northeast of Manton, and 3.9 mi southeast of Shingletown.

DRAINAGE AREA.—29.6 mi^2.

PERIOD OF RECORD.—January 1990 to current year (operated as a low-flow station only).

GAGE.—Water-stage recorder and V-notch weir. Elevation of gage is 2,650 ft above NGVD of 1929, from topographic map.

REMARKS.—During times of powerplant operation the minimum release requirement is 17 ft^3/s; flow is computed to 109 ft^3/s. See schematic diagram of Battle Creek and Cow Creek Basins.

COOPERATION.—Records were collected by Snow Mountain Hydro, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 8357.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	17	21	e22	18	18	20	18	18	18	23	17
2	17	17	20	e22	18	18	18	18	18	18	22	17
3	17	17	20	e22	18	18	18	18	18	18	21	17
4	17	17	20	e22	18	18	18	18	18	18	20	17
5	17	17	23	e22	18	18	18	18	18	18	19	17
6	17	18	21	e22	18	20	18	18	18	18	18	17
7	17	19	19	22	18	18	18	18	18	18	18	17
8	17	20	19	22	18	19	18	18	18	18	18	17
9	17	21	23	18	18	18	18	18	18	18	17	17
10	17	21	23	18	18	18	18	18	18	18	17	17
11	17	20	18	18	18	18	18	18	18	18	17	17
12	17	20	18	18	18	18	18	18	18	18	17	17
13	17	19	18	18	18	18	18	18	18	18	17	17
14	17	20	18	18	18	18	18	18	18	18	17	17
15	17	21	18	18	18	18	18	18	22	18	17	17
16	17	20	20	18	19	18	18	18	18	18	17	17
17	17	21	22	18	50	18	18	18	18	18	17	17
18	17	20	22	18	50	18	18	18	18	18	17	17
19	17	20	22	18	25	18	18	18	18	18	17	17
20	17	20	23	18	18	18	18	18	18	18	17	17
21	17	20	23	19	18	18	18	18	18	18	17	17
22	17	19	22	22	18	18	18	18	18	20	17	17
23	17	19	22	22	18	18	18	18	18	26	17	17
24	17	19	20	23	18	18	18	18	18	26	17	17
25	17	19	18	22	22	18	18	18	18	25	17	17
26	17	19	23	21	18	18	18	18	18	26	17	17
27	17	19	21	18	20	18	18	18	18	27	17	17
28	17	19	22	18	18	18	18	18	18	25	17	17
29	17	20	e22	18	e18	18	18	18	18	24	17	17
30	17	22	e22	18	---	20	18	18	18	24	17	17
31	17	---	e22	18	---	18	---	18	---	23	17	---
TOTAL	526	580	645	611	600	563	542	558	544	624	550	510
MEAN	17.0	19.3	20.8	19.7	20.7	18.2	18.1	18.0	18.1	20.1	17.7	17.0
MAX	17	22	23	23	50	20	20	18	22	27	23	17
MIN	16	17	18	18	18	18	18	18	18	18	17	17
AC-FT	1040	1150	1280	1210	1190	1120	1080	1110	1080	1240	1090	1010
a	0	0	194	208	1500	1560	1080	1820	2790	823	0	0

e Estimated.

a Discharge, in acre-feet, for Ponderosa-Bailey Creek Powerplant (station 11376110), provided by Snow Mountain Hydro.

11376140 NORTH FORK BATTLE CREEK BELOW DIVERSION TO CROSS COUNTRY CANAL, NEAR MANTON, CA

LOCATION.—Lat 40°27'16", long 121°51'35", in SW 1/4 NW 1/4 sec.15, T.30 N., R.1 E., Shasta County, Hydrologic Unit 18020118, on left bank, at diversion dam 800 ft downstream from Volta No. 2 Powerplant, and 1.4 mi northeast of Manton.

DRAINAGE AREA.—133 mi^2.

PERIOD OF RECORD.—October 1987 to current year (operated as a low-flow station only). Unpublished records for water years 1978–87 available in files of the U.S. Geological Survey. Fragmentary records for water year 1977 available in files of Pacific Gas & Electric Co.

GAGE.—Water-stage recorder and metal Alaskan fishladder. Elevation of gage is 2,240 ft above NGVD of 1929, from topographic map.

REMARKS.—This station records fishwater release only. The minimum release requirement is 3.0 ft^3/s at all times; flow is computed to 6.8 ft^3/s. See schematic diagram of Battle Creek and Cow Creek Basins.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 1121.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.9	4.5	---	---	---	---	---	---	---	---	5.1	4.4
2	4.6	4.6	6.5	---	---	---	---	---	---	---	4.9	4.5
3	4.7	6.3	5.6	---	---	---	---	---	---	---	4.9	4.5
4	4.7	6.3	5.6	---	---	---	---	---	---	---	4.7	4.4
5	5.2	6.7	---	---	---	---	---	---	---	---	4.6	4.4
6	5.0	6.3	---	---	---	---	---	---	---	---	4.4	4.4
7	5.5	5.3	---	---	---	---	---	---	---	---	4.6	4.4
8	5.5	5.5	---	---	---	---	---	---	---	---	4.6	4.5
9	5.2	---	---	---	---	---	---	---	---	---	4.5	4.4
10	5.7	6.6	---	---	---	---	---	---	---	---	4.5	4.4
11	5.1	6.2	---	---	---	---	---	---	---	---	4.6	4.4
12	5.0	6.6	---	---	---	---	---	---	---	---	4.5	4.5
13	5.0	6.0	---	---	---	---	---	---	---	---	4.4	4.4
14	5.1	6.3	---	---	---	---	---	---	---	---	4.5	4.4
15	5.3	---	---	---	---	---	---	---	---	---	4.5	4.4
16	4.7	---	---	---	---	---	---	---	---	---	4.5	4.5
17	4.2	---	---	---	---	---	6.8	---	---	---	4.5	4.5
18	4.2	---	---	---	---	---	---	---	---	---	4.4	4.5
19	4.2	6.7	---	---	---	---	---	---	---	---	4.4	4.9
20	4.7	6.1	---	---	---	---	---	---	---	---	4.5	5.2
21	6.0	---	---	---	---	---	---	---	---	---	4.5	4.5
22	5.7	---	6.7	---	---	---	---	---	---	---	4.6	4.5
23	4.9	---	---	---	---	---	---	---	---	---	4.6	4.5
24	4.6	6.6	---	---	---	---	---	---	---	---	4.6	4.5
25	4.8	5.3	---	---	---	---	---	---	---	---	4.8	4.5
26	4.8	5.5	---	---	---	---	---	---	---	6.5	4.5	4.5
27	4.9	4.9	---	---	---	---	---	---	---	6.3	4.6	4.5
28	5.5	4.9	---	---	---	---	---	---	---	5.9	4.5	4.6
29	4.8	6.1	---	---	---	---	---	---	---	5.8	4.5	4.4
30	4.5	---	---	---	---	---	---	---	---	5.8	4.5	4.5
31	4.5	---	---	---	---	---	---	---	---	5.4	4.5	---
TOTAL	153.5	---	---	---	---	---	---	---	---	---	141.8	135.0
MEAN	4.95	---	---	---	---	---	---	---	---	---	4.57	4.50
MAX	6.0	--	--	---	---	---	--	---	---	--	5.1	5.2
MIN	4.2	--	--	---	---	---	--	---	---	--	4.4	4.4
AC-FT	304	---	---	---	---	---	---	---	---	---	281	268

11376150 NORTH FORK BATTLE CREEK BELOW DIVERSION TO EAGLE CANYON CANAL, NEAR MANTON, CA

LOCATION.—Lat 40°25'26", long 121°55'09", in NW 1/4 SE 1/4 sec.25, T.30 N., R.1 W., Tehama County, Hydrologic Unit 18020118, on left bank, at diversion dam to Eagle Canyon Canal, and 2.8 mi southwest of Manton.

DRAINAGE AREA.—186 mi^2.

PERIOD OF RECORD.—October 1987 to current year (operated as a low-flow station only). Unpublished records for water years 1978–87 available in files of the U.S. Geological Survey. Fragmentary records for water year 1977 available in files of Pacific Gas & Electric Co.

GAGE.—Water-stage recorder and metal Alaskan fishladder. Elevation of gage is 1,400 ft above NGVD of 1929, from topographic map.

REMARKS.—This station records fishwater release only. Prior to water year 1996 flow computed to 7.2 ft^3/s. The minimum release requirement is 3.0 ft^3/s at all times; flow is computed to 50 ft^3/s. See schematic diagram of Battle Creek and Cow Creek Basins.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 1121.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e30	e30	e32	---	e33	---	---	---	e49	e31	e30	e31
2	e30	e30	e32	---	---	---	---	---	---	e31	e30	e31
3	e30	e31	e31	e43	---	---	---	---	---	e31	e30	e31
4	e30	e31	e30	e37	---	---	---	---	---	e31	e30	e31
5	e30	e31	e33	e34	---	---	---	---	---	e31	e30	e31
6	e30	e31	---	e34	---	---	---	---	---	e31	e30	e30
7	e30	e31	---	e42	---	---	---	---	---	e31	e29	e30
8	e30	e31	e35	e42	---	---	---	---	---	e31	e30	e30
9	e30	e32	e33	---	e48	---	---	---	e40	e31	e29	e30
10	e30	e31	e36	---	e44	---	---	---	e31	e30	e31	e31
11	e30	e31	e41	---	e40	---	---	---	e26	e30	e32	e31
12	e30	e30	e38	e46	e34	---	---	---	e29	e29	e31	e31
13	e30	e30	---	e38	e31	---	---	e48	e33	e29	e32	e32
14	e30	e30	---	e31	e32	---	---	e44	e38	e29	e32	e31
15	e30	e32	e43	e30	e38	---	---	e44	e37	e30	e32	e31
16	e30	e31	e34	e29	---	---	---	e47	e34	e30	e32	e31
17	e30	e31	e33	e28	---	---	---	e49	e34	e31	e32	e31
18	e30	e31	e33	e30	---	---	---	---	e35	e31	e32	e31
19	e30	e30	e32	e31	---	---	---	e49	e32	e31	e31	e32
20	e30	e30	e35	e31	---	---	---	e45	e30	e31	e31	e32
21	e31	e31	e33	e31	---	---	---	e40	e29	e31	e31	e31
22	e31	e31	e32	e31	---	---	---	e46	e28	e30	e31	e31
23	e31	e31	e33	e31	---	---	e49	e46	e29	e30	e31	e31
24	e31	e31	e45	e31	---	---	e44	e44	e26	e30	e31	e31
25	e31	e31	e39	e30	---	---	e45	e41	e29	e30	e31	e31
26	e30	e30	e36	e43	---	---	e49	e38	e32	e30	e31	e31
27	e30	e30	e33	---	---	---	---	e50	e32	e30	e31	e31
28	e31	e30	e34	e40	---	---	---	---	e32	e30	e31	e31
29	e30	e31	---	e35	---	---	---	---	e32	e30	e31	e31
30	e30	e31	e50	e36	---	---	---	---	e31	e30	e31	e31
31	e30	---	e38	e34	---	---	---	e46	---	e30	e31	---
TOTAL	936	922	---	---	---	---	---	---	---	941	957	929
MEAN	30.2	30.7	---	---	---	---	---	---	---	30.4	30.9	31.0
MAX	31	32				---				31	32	32
MIN	30	30				---				29	29	30
AC-FT	1860	1830	---	---	---	---	---	---	---	1870	1900	1840

e Estimated.

11376160 NORTH FORK BATTLE CREEK BELOW DIVERSION TO WILDCAT CANAL, NEAR MANTON, CA

LOCATION.—Lat 40°25'14", long 121°57'36", in SE 1/4 SW 1/4 sec.27, T.30 N., R.1 W., Tehama County, Hydrologic Unit 18020118, on left bank, at diversion dam to Wildcat Canal, and 4.9 mi west of Manton.

DRAINAGE AREA.—189 mi^2.

PERIOD OF RECORD.—October 1987 to current year (operated as a low-flow station only). Unpublished records for water years 1978–87 available in files of the U.S. Geological Survey. Fragmentary records for water year 1977 available in files of Pacific Gas & Electric Co.

GAGE.—Water-stage recorder and metal Alaskan fishladder. Elevation of gage is 1,080 ft above NGVD of 1929, from topographic map.

REMARKS.—This station records fishwater release only. The minimum release requirement is 3.0 ft^3/s at all times; flow is computed to 65 ft^3/s. See schematic diagram of Battle Creek and Cow Creek Basins.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 1121.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	33	35	---	36	---	---	53	52	34	33	34
2	33	33	35	---	---	---	---	54	58	34	33	34
3	33	34	34	46	---	---	---	---	---	34	33	34
4	33	34	33	39	---	---	---	---	---	34	33	34
5	33	34	36	37	56	---	---	---	---	34	33	34
6	33	34	42	37	57	---	---	---	---	34	33	34
7	33	34	---	45	---	---	---	---	---	35	33	33
8	34	35	38	45	56	---	---	---	54	34	33	33
9	34	35	36	58	51	---	---	---	43	34	33	33
10	34	34	39	---	47	---	---	---	34	34	34	34
11	33	34	44	57	43	---	---	---	29	33	35	34
12	33	33	41	49	37	---	---	58	32	32	35	35
13	33	33	56	41	34	---	---	51	36	33	35	35
14	33	33	---	34	35	---	---	47	41	32	35	34
15	33	35	46	33	41	---	---	47	40	33	35	34
16	33	34	37	32	---	---	---	49	37	33	35	34
17	33	34	36	31	---	---	---	53	37	34	35	34
18	33	34	36	33	---	---	---	---	38	34	35	34
19	33	34	35	35	---	---	---	52	35	34	34	35
20	33	33	38	34	---	---	---	48	33	34	34	35
21	34	34	36	34	---	---	---	43	32	34	34	34
22	34	34	35	34	---	---	---	49	31	33	34	34
23	34	34	36	34	---	---	52	49	32	33	34	34
24	34	34	55	34	---	---	47	47	29	33	34	34
25	34	34	49	34	---	---	48	44	32	33	34	34
26	33	33	39	46	---	---	52	41	35	33	34	34
27	33	33	36	53	---	---	59	53	35	33	34	34
28	34	33	37	43	---	---	---	---	35	33	34	34
29	33	34	---	38	---	---	61	---	35	33	34	34
30	33	34	53	39	---	---	55	55	34	33	34	34
31	33	---	41	37	---	---	---	49	---	33	34	---
TOTAL	1032	1014	---	---	---	---	---	---	---	1037	1053	1021
MEAN	33.3	33.8	---	---	---	---	---	---	---	33.5	34.0	34.0
MAX	34	35				---				35	35	35
MIN	33	33				---				32	33	33
AC-FT	2050	2010	---	---	---	---	---	---	---	2060	2090	2030

11376420 SOUTH FORK BATTLE CREEK BELOW DIVERSION TO SOUTH BATTLE CREEK CANAL, NEAR MANTON, CA

LOCATION.—Lat 40°22'08", long 121°47'48", in SW 1/4 NW 1/4 sec.18, T.29 N., R.2 E., Tehama County, Hydrologic Unit 18020118, on right bank, at diversion dam to South Battle Creek Canal, and 5.9 mi southeast of Manton.

DRAINAGE AREA.—66.7 mi^2.

PERIOD OF RECORD.—October 1987 to current year (operated as a low-flow station only). Unpublished records for water years 1978–87 available in files of the U.S. Geological Survey. Fragmentary records for water years 1976–77 in files of Pacific Gas & Electric Co.

GAGE.—Water-stage recorder and metal Alaskan fishladder. Elevation of gage is 2,040 ft above NGVD of 1929, from topographic map.

REMARKS.—This station records fishwater release only. The minimum release requirement is 5.0 ft^3/s at all times; flow is computed to 8.9 ft^3/s. See schematic diagram of Battle Creek and Cow Creek Basins.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 1121.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.7	5.6	8.5	---	5.6	---	---	---	---	5.8	5.9	5.9
2	5.7	5.7	6.1	---	---	---	---	---	---	5.8	5.9	5.9
3	5.7	5.6	5.5	8.7	---	---	---	---	---	5.9	5.9	5.9
4	5.7	5.7	5.6	7.0	---	---	---	---	---	5.9	5.9	5.9
5	5.7	5.7	---	5.7	---	---	---	---	---	5.8	5.9	5.9
6	5.7	5.6	---	5.6	---	---	---	---	---	5.9	5.9	5.9
7	5.7	5.7	---	6.9	7.7	---	---	---	---	5.9	5.9	5.9
8	5.7	5.6	---	---	7.3	---	---	---	---	5.8	5.9	5.9
9	5.7	5.9	8.4	---	7.0	---	---	---	---	5.9	5.9	5.9
10	5.6	5.9	7.1	---	6.5	---	---	---	---	5.8	5.9	5.8
11	5.7	5.6	8.8	---	6.2	---	---	---	---	5.8	5.9	5.7
12	5.6	5.6	5.5	---	6.1	---	---	---	---	5.8	5.9	5.8
13	5.7	5.6	---	---	5.9	---	---	---	---	5.8	5.9	5.7
14	5.6	5.7	---	---	5.5	---	---	---	---	5.8	5.9	5.7
15	5.7	5.6	---	---	6.0	---	---	---	---	5.8	5.9	5.7
16	5.7	5.6	---	---	---	---	---	---	8.3	5.8	5.9	5.7
17	5.7	5.6	6.6	---	---	---	---	---	7.8	5.8	5.9	5.7
18	5.6	5.6	5.4	---	---	---	---	---	7.4	5.8	5.9	5.7
19	5.6	5.6	5.5	---	---	---	---	---	6.4	5.8	5.9	5.7
20	5.7	5.6	---	8.4	---	---	---	---	6.2	5.8	5.9	5.7
21	5.7	5.5	---	6.9	---	---	---	---	5.9	5.8	5.9	5.7
22	5.7	5.5	6.0	6.7	---	---	---	---	5.9	5.8	5.8	5.7
23	5.7	5.5	6.1	6.3	---	---	---	---	5.9	5.8	5.9	5.7
24	5.7	5.5	---	5.7	---	---	---	---	5.9	5.8	5.9	5.7
25	5.7	5.5	---	5.7	---	---	---	---	5.9	5.8	5.8	5.8
26	5.7	5.6	---	5.7	---	---	---	---	5.9	5.8	5.9	5.7
27	5.7	5.6	---	7.4	---	---	---	---	6.0	5.8	5.9	5.7
28	5.7	5.5	6.8	6.4	---	---	---	---	5.9	5.9	5.9	5.7
29	5.7	5.5	---	5.6	---	---	---	---	5.9	5.9	5.9	5.7
30	5.6	5.4	---	6.1	---	---	---	---	5.9	5.9	5.9	5.7
31	5.7	---	---	6.0	---	---	---	---	---	5.9	5.9	---
TOTAL	176.1	168.2	---	---	---	---	---	---	---	180.7	182.7	173.1
MEAN	5.68	5.61	---	---	---	---	---	---	---	5.83	5.89	5.77
MAX	5.7	5.9	--	--	--	---	---	---	--	5.9	5.9	5.9
MIN	5.6	5.4	--	--	--	---	---	---	--	5.8	5.8	5.7
AC-FT	349	334	---	---	---	---	---	---	---	358	362	343

11376440 SOUTH FORK BATTLE CREEK BELOW DIVERSION TO INSKIP CANAL, NEAR MANTON, CA

LOCATION.—Lat 40°23'43", long 121°52'57", in NW 1/4 SE 1/4 sec.5, T.29 N., R.1 E., Tehama County, Hydrologic Unit 18020118, on left bank, at diversion dam to Inskip Canal, and 2.8 mi south of Manton.

DRAINAGE AREA.—88.3 mi^2.

PERIOD OF RECORD.—October 1987 to current year (operated as a low-flow station only). Unpublished records for water years 1978–87 available in files of the U.S. Geological Survey. Fragmentary records for water year 1977 available in files of Pacific Gas & Electric Co.

GAGE.—Water-stage recorder and metal Alaskan fishladder. Elevation of gage is 1,440 ft above NGVD of 1929, from topographic map.

REMARKS.—This station records fishwater release only. Prior to Feb. 6, 1998, flow computed to 12 ft^3/s. The minimum release requirement is 5.0 ft^3/s at all times; flow computed to 60 ft^3/s. See schematic diagram of Battle Creek and Cow Creek Basins.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 1121.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.3	7.0	14	---	14	---	---	---	---	14	7.7	7.7
2	7.3	7.1	13	---	---	39	---	---	---	13	7.7	7.7
3	7.2	7.1	14	44	---	---	---	---	---	13	7.8	7.8
4	6.9	7.1	12	31	---	---	---	---	---	13	7.8	7.6
5	6.9	7.1	14	21	50	---	---	---	---	12	7.9	7.7
6	6.9	7.2	---	20	35	---	---	---	60	12	7.8	7.7
7	7.0	7.5	---	34	40	---	---	---	58	12	7.8	7.6
8	6.9	8.5	45	46	24	---	---	---	56	12	7.8	7.7
9	6.9	12	18	---	17	---	---	---	56	11	7.8	7.8
10	7.0	12	28	---	13	---	---	---	46	11	7.8	8.5
11	7.0	8.2	45	---	13	---	---	---	41	11	7.8	10
12	7.0	7.4	18	---	12	---	---	---	38	11	7.8	11
13	7.0	7.3	59	43	13	---	---	---	31	8.8	7.7	12
14	7.0	7.7	---	34	13	---	---	---	27	7.6	7.7	12
15	7.0	12	---	28	14	---	---	---	23	7.3	7.7	12
16	7.0	9.8	35	23	---	---	---	---	22	7.0	7.7	10
17	7.0	9.8	17	20	---	---	---	---	19	6.4	7.7	8.7
18	7.0	8.0	13	17	---	---	---	---	17	5.9	7.6	8.7
19	7.0	7.9	12	15	---	---	---	---	16	5.6	7.7	8.8
20	6.9	8.0	19	14	---	---	---	---	16	6.2	7.7	8.9
21	6.9	7.9	21	13	---	---	---	---	15	6.0	7.7	8.9
22	6.9	8.0	14	13	---	---	---	---	14	5.9	7.7	8.9
23	6.9	8.1	14	13	---	---	---	---	14	5.7	7.7	8.8
24	7.0	8.0	---	13	---	---	---	---	14	5.8	7.8	8.8
25	7.0	8.0	---	12	---	---	---	---	14	5.6	7.8	8.8
26	7.0	8.0	42	---	---	---	---	---	14	6.0	7.8	9.1
27	7.0	7.9	16	---	---	---	---	---	14	5.7	7.7	8.8
28	7.0	8.2	13	---	---	---	---	---	13	5.8	7.8	8.7
29	7.0	8.7	---	40	---	---	---	---	13	5.8	7.8	8.8
30	7.1	12	---	16	---	---	---	---	13	7.0	7.7	8.7
31	7.1	---	60	15	---	---	---	---	---	7.7	7.7	---
TOTAL	217.1	253.5	---	---	---	---	---	---	---	266.8	240.2	268.2
MEAN	7.00	8.45	---	---	---	---	---	---	---	8.61	7.75	8.94
MAX	7.3	12					---	---		14	7.9	12
MIN	6.9	7.0					---	---		5.6	7.6	7.6
AC-FT	431	503	---	---	---	---	---	---	---	529	476	532

11376460 SOUTH FORK BATTLE CREEK BELOW DIVERSION TO COLEMAN CANAL, NEAR MANTON, CA

LOCATION.—Lat 40°24'10", long 121°58'02", in NW 1/4 NW 1/4 sec.3, T.29 N., R.1 W., Tehama County, Hydrologic Unit 18020118, on right bank, 7.5 mi southwest of Shingletown, and 5.7 mi southwest of Manton.

DRAINAGE AREA.—102 mi^2.

PERIOD OF RECORD.—October 1987 to current year (operated as a low-flow station only). Unpublished records for water years 1978–86 available in files of the U.S. Geological Survey. Fragmentary records for water year 1977 available in files of Pacific Gas & Electric Co.

GAGE.—Water-stage recorder and metal Alaskan fishladder. Elevation of gage is 980 ft above NGVD of 1929, from topographic map.

REMARKS.—This station records fishwater release only. Prior to water year 1996 flow computed to 10 ft^3/s. The minimum release requirement is 5.0 ft^3/s at all times; flow is computed to 45 ft^3/s. See schematic diagram of Battle Creek and Cow Creek Basins.

COOPERATION.—Records were collected by the Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 1121.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	34	33	---	40	---	---	---	---	39	34	---
2	35	35	33	---	---	---	---	---	---	39	---	---
3	35	34	35	---	---	---	---	---	---	39	---	34
4	35	34	35	39	---	---	---	---	---	39	---	34
5	35	34	35	38	---	---	---	---	---	40	---	34
6	35	34	---	43	---	---	---	---	---	40	---	34
7	35	34	---	---	---	---	---	---	---	39	---	34
8	35	34	39	---	42	---	---	---	45	39	---	34
9	35	34	34	---	39	---	---	---	45	40	---	34
10	35	34	38	---	39	---	---	---	40	40	---	34
11	35	34	---	---	39	---	---	---	37	40	---	34
12	35	34	44	---	39	---	---	---	38	40	---	34
13	35	33	---	41	39	---	---	---	38	40	---	34
14	35	34	---	40	39	---	---	---	38	40	---	34
15	35	33	---	40	39	---	---	---	38	40	---	34
16	35	33	38	41	---	---	---	---	40	40	---	34
17	35	33	38	41	---	---	---	---	40	40	---	34
18	35	33	38	41	---	---	---	---	40	40	---	34
19	35	34	38	41	---	---	---	---	39	40	---	34
20	35	34	37	41	---	---	---	---	39	37	---	34
21	34	34	37	41	---	---	---	---	39	35	---	34
22	34	34	38	---	---	---	---	---	39	34	---	34
23	34	34	38	41	---	---	---	---	39	34	---	34
24	34	33	---	41	---	---	---	---	39	34	---	34
25	34	32	---	41	---	---	---	---	39	34	---	34
26	35	32	---	45	---	---	---	---	39	34	---	34
27	34	32	38	---	---	---	---	---	39	34	---	34
28	34	32	38	44	---	---	---	---	39	34	---	34
29	35	33	---	41	---	---	---	---	39	34	---	34
30	35	33	---	---	---	---	---	---	39	34	---	34
31	34	---	---	40	---	---	---	---	---	34	---	---
TOTAL	1077	1005	---	---	---	---	---	---	---	1166	---	---
MEAN	34.7	33.5	---	---	---	---	---	---	---	37.6	---	---
MAX	35	35				---	---	---		40		
MIN	34	32				---	---	---		34		
AC-FT	2140	1990	---	---	---	---	---	---	---	2310	---	---

11376550 BATTLE CREEK BELOW COLEMAN FISH HATCHERY, NEAR COTTONWOOD, CA

LOCATION.—Lat 40°23'54", long 122°08'43", in SW 1/4 NE 1/4 sec.1, T.29 N., R.3 W., Shasta County, Hydrologic Unit 18020101, U.S. Fish and Wildlife Service land, on right bank, 3.7 mi downstream from Spring Branch, 5.7 mi upstream from mouth, and 7.0 mi east of Cottonwood.

DRAINAGE AREA.—357 mi^2.

PERIOD OF RECORD.—October 1940 to September 1996, October 1996 to September 1997 (operated as a low-flow station only), October 1997 to current year.
CHEMICAL DATA: Water years 1962–66.
WATER TEMPERATURE: Water years 1966–79.
SEDIMENT DATA: Water years 1962–70.

GAGE.—Water-stage recorder. Elevation of gage is 415 ft above NGVD of 1929, from topographic map. Prior to Oct. 1, 1961, water-stage recorder at site 0.6 mi upstream at different datum published as station 11376500, "Battle Creek near Cottonwood"; low-flow records not equivalent owing to Coleman Fish Hatchery diversion, maximum flows considered equivalent.

REMARKS.—Records good. Some regulation at low flows by five small powerplants, several small reservoirs, and Coleman Fish Hatchery. Coleman Fish Hatchery diverts from 50 to 90 ft^3/s and pumps ground water for temperature control, which is returned above the station. At times, 10 ft^3/s diverted upstream from station for irrigation. See schematic diagrams of Battle Creek and Cow Creek Basins and upper Sacramento River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 24,300 ft^3/s, Jan. 24, 1970, gage height, 14.75 ft, from rating curve extended above 4,200 ft^3/s, on basis of slope-area measurement of peak flow; minimum, 52 ft^3/s, Aug. 8, 1962.

EXTREMES OUTSIDE PERIOD OF RECORD.—Maximum stage known, 15.8 ft, Dec. 11, 1937, from floodmarks, site and datum then in use, discharge, 35,000 ft^3/s, by slope-area measurement.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 14	0630	4,080	5.81	Feb. 17	2300	5,320	6.83
Dec. 29	1245	3,410	5.22	Feb. 25	1315	5,270	6.79
Feb. 2	2100	3,660	5.44				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	255	251	375	996	405	1370	638	527	434	331	242	218
2	259	254	409	660	1810	1080	596	535	438	331	232	196
3	261	280	331	535	1260	823	589	530	438	322	238	230
4	268	277	308	464	689	756	605	570	433	324	240	235
5	274	281	445	426	540	722	605	592	432	324	239	230
6	269	283	653	411	509	701	601	576	431	320	236	229
7	263	295	762	760	645	679	600	553	430	320	233	224
8	263	303	470	701	497	674	591	579	418	320	231	220
9	261	337	390	896	460	695	593	546	411	314	228	221
10	262	337	726	815	437	697	590	614	389	309	227	220
11	264	307	678	580	424	706	590	550	384	302	227	220
12	263	296	523	513	414	712	589	501	372	295	227	230
13	263	285	1030	472	405	715	590	479	373	290	227	233
14	265	289	1610	445	403	713	572	474	398	284	227	233
15	261	338	604	434	419	726	575	474	385	271	226	233
16	264	328	451	421	1580	726	544	474	384	273	227	234
17	262	316	400	411	4060	723	526	478	381	273	225	232
18	260	302	374	400	3820	730	554	539	373	269	225	233
19	260	291	358	394	1760	760	532	485	370	267	220	243
20	259	289	503	391	1210	763	550	460	367	268	221	251
21	259	285	442	385	998	755	557	473	364	268	224	244
22	259	284	386	376	976	775	530	473	355	265	224	240
23	258	283	428	374	916	784	488	468	353	259	228	236
24	257	285	1170	381	871	773	480	457	354	258	229	241
25	268	284	808	374	2810	766	488	445	338	256	228	245
26	269	283	514	358	1500	746	508	434	341	255	232	241
27	265	281	418	677	1130	690	535	449	334	252	231	240
28	266	280	398	538	927	672	563	509	332	251	234	247
29	253	299	1780	428	827	647	547	497	333	250	231	240
30	249	339	1100	444	---	670	527	453	326	249	226	231
31	250	---	572	432	---	653	---	441	---	248	219	---
TOTAL	8109	8842	19416	15892	32702	23402	16853	15635	11471	8818	7104	6970
MEAN	262	295	626	513	1128	755	562	504	382	284	229	232
MAX	274	339	1780	996	4060	1370	638	614	438	331	242	251
MIN	249	251	308	358	403	647	480	434	326	248	219	196
AC-FT	16080	17540	38510	31520	64860	46420	33430	31010	22750	17490	14090	13820

11376550 BATTLE CREEK BELOW COLEMAN FISH HATCHERY, NEAR COTTONWOOD, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	295	404	554	754	748	741	645	622	489	333	266	261
MAX	589	1058	1602	2434	1919	1802	1160	1578	1453	817	540	449
(WY)	1963	1982	1984	1970	1986	1983	1995	1998	1998	1998	1998	1998
MIN	139	205	224	234	260	266	231	266	207	168	160	154
(WY)	1993	1993	1992	1991	1977	1977	1977	1977	1992	1992	1992	1992

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1962 - 2004	
ANNUAL TOTAL	202784		175214			
ANNUAL MEAN	556		479		509	
HIGHEST ANNUAL MEAN					926	1998
LOWEST ANNUAL MEAN					238	1977
HIGHEST DAILY MEAN	3340	Jan 14	4060	Feb 17	10900	Jan 16 1974
LOWEST DAILY MEAN	238	Aug 15	196	Sep 2	102	Oct 27 1992
ANNUAL SEVEN-DAY MINIMUM	253	Sep 2	222	Aug 28	110	Oct 22 1992
MAXIMUM PEAK FLOW			5320	Feb 17	24300	Jan 24 1970
MAXIMUM PEAK STAGE			6.83	Feb 17	14.75	Jan 24 1970
ANNUAL RUNOFF (AC-FT)	402200		347500		368500	
10 PERCENT EXCEEDS	926		757		890	
50 PERCENT EXCEEDS	442		386		371	
90 PERCENT EXCEEDS	260		232		223	

11377100 SACRAMENTO RIVER ABOVE BEND BRIDGE, NEAR RED BLUFF, CA

LOCATION.—Lat 40°17'19", long 122°11'08", in NW 1/4 NE 1/4 sec.15, T.28 N., R.3 W., Tehama County, Hydrologic Unit 18020103, on left bank, 2.7 mi upstream from Bend Bridge, and 8.1 mi northeast of Red Bluff.

DRAINAGE AREA.—8,900 mi^2, excluding Goose Lake Basin.

PERIOD OF RECORD.—1879–88 annual observed maximums only, published in WSP 1315-A. October 1891 to current year. Monthly discharges only for some periods and yearly estimates for some incomplete years, published in WSP 1315-A. Published as "at Red Bluff" 1894–96, as "at Jellys Ferry" 1895–1902, and as "near Red Bluff" 1903–68 (station 11378000).
CHEMICAL DATA: Water years 1955–81, 1996–98.
SPECIFIC CONDUCTANCE: Water years 1955–63.
WATER TEMPERATURE: Water years 1955–80.
SEDIMENT DATA: Water years 1958–70, 1977–80, 1996–98.

REVISED RECORDS.—WSP 861: 1904, 1907, 1909, 1914–15, 1927–28. WSP 1315-A: 1916(M), 1918(M), 1941(M). WSP 1931: Drainage area. WDR CA-69-2: 1965.

GAGE.—Water-stage recorder and crest-stage gage. Datum of gage is 285.77 ft above NGVD of 1929. See WSP 2131 for history of changes prior to September 1968.

REMARKS.—Records fair. Flow completely regulated by Shasta Lake (station 11370000), 52 mi upstream, since Dec. 30, 1943. Diversions, in addition to those on tributaries, for irrigation of about 22,000 acres between stations at Keswick and above Bend Bridge. Transbasin diversion from Trinity River to Whiskeytown Lake (station 11371700) via Judge Francis Carr Powerplant (station 11525430) started in April 1963. See schematic diagrams of upper Sacramento River and Battle Creek and Cow Creek Basins.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 291,000 ft^3/s, Feb. 28, 1940, gage height, 38.9 ft, site and datum then in use, from rating curve extended above 170,000 ft^3/s, on basis of velocity-area studies. Since regulation by Shasta Lake in 1943, maximum discharge, 170,000 ft^3/s, Dec. 22, 1964, gage height, 28.15 ft, site and datum then in use, maximum gage height, 36.60 ft, Jan. 24, 1970; minimum (since water year 1892), 2,000 ft^3/s, Mar. 29, 1944.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7470	7750	7310	32600	8080	69800	7530	10200	12200	15500	14500	8950
2	7480	7770	7900	24800	19500	70100	8280	10300	12200	15600	14400	8780
3	7460	7760	7010	20500	23900	64100	8690	10300	12200	15500	14100	9100
4	7480	7630	6380	18400	14000	58000	8620	10600	12100	15500	13700	9180
5	7470	7750	7710	17100	10800	50000	8610	11200	14100	15500	13700	9260
6	7460	7440	12300	16600	9750	43800	8510	11400	14600	15500	13200	9320
7	7250	7240	17900	20000	10200	38100	12600	14000	15300	15400	12600	9220
8	6970	7290	8780	21800	9100	33200	15700	12600	15500	15400	12400	9100
9	6940	7790	7540	24300	8540	28900	16400	12200	15400	15400	12400	9130
10	6990	8890	13100	25800	8250	25200	16400	12300	15200	15500	12300	9140
11	6970	7580	10900	17400	7960	21700	16400	11600	15000	15400	12000	9140
12	7000	7110	8980	14900	7740	18600	15000	10800	15100	15400	11500	9260
13	7020	7010	18400	13500	7580	16600	12900	10500	14700	15400	10900	9320
14	7030	6970	24400	12100	7560	14900	12200	10500	15000	15400	10500	9160
15	7050	7140	12400	11600	7530	13300	12100	10500	14800	15300	10300	9270
16	7070	7190	13100	10900	30800	11800	10900	10400	15800	15400	10300	9280
17	7010	7030	12200	10100	68300	11000	9600	10500	16100	15300	10300	9320
18	7160	6800	11700	9610	70500	10600	8720	10300	15900	15300	10000	9400
19	7290	6490	11400	9200	68300	10200	8250	10100	16100	15300	9540	9400
20	7400	6380	14000	8820	62900	9800	8610	9660	15600	15300	9330	9500
21	7430	6330	13000	8430	60600	9430	8680	9510	15800	15500	9740	9090
22	7390	6320	12300	8060	60000	9100	8500	9830	15900	16500	9720	8860
23	7410	6300	18300	7670	59300	8820	8180	9890	15700	16500	9600	8800
24	7420	6300	34200	7450	58900	8520	8290	9870	15700	16500	9500	8620
25	7540	6320	30400	7380	73200	8310	8620	10400	15700	16400	9380	8490
26	7500	6360	21200	7270	56400	8660	8970	10700	15800	16400	10300	8490
27	7480	6350	19200	9230	69800	8250	9080	11400	15700	15700	10300	8400
28	7580	6350	18600	10100	65900	8050	9420	11900	15600	15500	9980	8260
29	7720	6470	33200	8460	63500	7800	9760	12400	15600	14800	9770	8060
30	7780	6800	31500	8470	---	7740	9880	12400	15600	14400	9770	8110
31	7760	---	20900	8500	---	7720	---	12400	---	14200	9450	---
TOTAL	226980	210910	486210	431050	1028890	712100	315400	340660	450000	480700	345480	269410
MEAN	7322	7030	15680	13900	35480	22970	10510	10990	15000	15510	11140	8980
MAX	7780	8890	34200	32600	73200	70100	16400	14000	16100	16500	14500	9500
MIN	6940	6300	6380	7270	7530	7720	7530	9510	12100	14200	9330	8060
AC-FT	450200	418300	964400	855000	2041000	1412000	625600	675700	892600	953500	685300	534400

11377100 SACRAMENTO RIVER ABOVE BEND BRIDGE, NEAR RED BLUFF, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1892 - 1943, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	4853	7538	11940	18960	24760	22210	18280	12310	7635	5127	4381	4404
MAX	10910	21420	42780	72340	69240	73280	38810	27910	17640	10170	9050	8481
(WY)	1905	1904	1893	1909	1902	1904	1904	1896	1906	1893	1893	1893
MIN	2847	3300	3618	4142	4778	4434	4014	3253	2969	2622	2505	2551
(WY)	1933	1937	1937	1937	1920	1924	1924	1924	1924	1931	1931	1934

SUMMARY STATISTICS	WATER YEARS 1892 - 1943	
ANNUAL MEAN	11800	
HIGHEST ANNUAL MEAN	22180	1904
LOWEST ANNUAL MEAN	4096	1924
HIGHEST DAILY MEAN	261000	Feb 28 1940
LOWEST DAILY MEAN	2400	Aug 13 1931
ANNUAL SEVEN-DAY MINIMUM	2470	Aug 7 1931
MAXIMUM PEAK FLOW	291000	Feb 28 1940
MAXIMUM PEAK STAGE	38.9	Feb 28 1940
ANNUAL RUNOFF (AC-FT)	8545000	
10 PERCENT EXCEEDS	24000	
50 PERCENT EXCEEDS	6500	
90 PERCENT EXCEEDS	3520	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 1962, BY WATER YEAR (WY)

MEAN	6501	6932	11440	16840	19340	11950	10210	10260	9469	10030	10030	7510
MAX	10490	11180	29530	52620	76870	24840	32420	17830	12930	11630	11800	10230
(WY)	1958	1958	1956	1956	1958	1958	1958	1948	1948	1951	1958	1958
MIN	5468	4681	4336	5104	4579	4727	5335	6788	7253	7476	7080	5289
(WY)	1960	1960	1960	1957	1948	1955	1950	1947	1947	1947	1947	1947

SUMMARY STATISTICS	WATER YEARS 1946 - 1962	
ANNUAL MEAN	10840	
HIGHEST ANNUAL MEAN	20330	1958
LOWEST ANNUAL MEAN	6690	1947
HIGHEST DAILY MEAN	125000	Feb 19 1958
LOWEST DAILY MEAN	3640	Jan 31 1949
ANNUAL SEVEN-DAY MINIMUM	3830	Feb 27 1948
MAXIMUM PEAK FLOW	139000	Feb 19 1958
MAXIMUM PEAK STAGE	24.98	Feb 19 1958
ANNUAL RUNOFF (AC-FT)	7852000	
10 PERCENT EXCEEDS	16900	
50 PERCENT EXCEEDS	8430	
90 PERCENT EXCEEDS	5190	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2004, BY WATER YEAR (WY)

MEAN	6865	9006	13910	18610	20760	17870	12070	12500	12520	13170	11670	8528
MAX	10600	29690	43350	61060	68400	75830	35110	22920	21150	16760	15790	11900
(WY)	1984	1974	1984	1970	1998	1983	1974	1995	1998	1998	1998	1998
MIN	3935	4068	4296	4573	4700	5476	4804	7322	7431	7811	7998	5323
(WY)	1978	1993	1977	1992	1990	1994	1991	1992	1992	1992	1992	1977

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1964 - 2004	
ANNUAL TOTAL	4903240		5297790			
ANNUAL MEAN	13430		14470		13090	
HIGHEST ANNUAL MEAN					25450	1983
LOWEST ANNUAL MEAN					6494	1991
HIGHEST DAILY MEAN	58400	Jan 14	73200	Feb 25	127000	Jan 27 1970
LOWEST DAILY MEAN	6270	Apr 11	6300	Nov 23	3200	Oct 11 1977
ANNUAL SEVEN-DAY MINIMUM	6330	Nov 21	6330	Nov 21	3210	Oct 10 1977
MAXIMUM PEAK FLOW			92800	Feb 25	170000	Dec 22 1964
MAXIMUM PEAK STAGE			25.89	Feb 25	36.60	Jan 24 1970
ANNUAL RUNOFF (AC-FT)	9726000		10510000		9486000	
10 PERCENT EXCEEDS	22500		21400		20500	
50 PERCENT EXCEEDS	11400		10300		10100	
90 PERCENT EXCEEDS	7010		7290		5710	

11379500 ELDER CREEK NEAR PASKENTA, CA

LOCATION.—Lat 40°01'29", long 122°30'31", in SE 1/4 NW 1/4 sec.14, T.25 N., R.6 W., Tehama County, Hydrologic Unit 18020103, on left bank, 2.5 mi downstream from South Fork Elder Creek, 8.2 mi northwest of Flournoy, and 10 mi north of Paskenta.

DRAINAGE AREA.—92.4 mi^2.

PERIOD OF RECORD.—October 1948 to current year. Monthly discharge only for some periods, published in WSP 1315-A.
CHEMICAL DATA: Water years 1959–66.
WATER TEMPERATURE: Water year 1963.
SEDIMENT DATA: Water years 1963–70.

REVISED RECORDS.—WSP 1515: 1956. WDR CA-70-2: 1967(P). WDR CA-75-4: 1966–67(P), 1969–71(P), 1973(P). WDR CA-78-4: Drainage area. WDR CA-94-4: 1993(P).

GAGE.—Water-stage recorder. Datum of gage is 718.1 ft above NGVD of 1929. Prior to Aug. 13, 1965, water-stage recorder at site 300 ft downstream at datum 5.13 ft lower.

REMARKS.—Records fair. No regulation or large diversion upstream from station. See schematic diagram of upper Sacramento River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 17,700 ft^3/s, Feb. 28, 1983, gage height, 12.10 ft, from rating curve extended above 5,200 ft^3/s, on basis of slope-area measurements at gage height 11.34 ft and of peak flow, maximum gage height, 13.90 ft, Feb. 24, 1958, site and datum then in use; no flow at times some years.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 2,000 ft^3/s, or maximum:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 24	0630	2,730	6.80	Feb. 25	0830	3,750	7.65
Feb. 17	1730	8,340	10.41				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	6.4	218	708	126	645	129	67	24	9.2	2.2	1.0
2	3.0	6.1	126	322	406	491	121	66	23	8.6	2.3	0.90
3	2.9	7.0	59	225	262	371	116	66	23	8.0	2.6	0.82
4	3.0	7.0	48	176	197	322	116	65	22	7.6	2.4	0.92
5	3.2	7.1	90	151	165	300	119	62	21	7.3	2.1	0.95
6	3.2	7.4	454	124	154	283	119	59	20	6.8	2.1	0.95
7	3.2	8.6	246	150	145	282	113	57	19	5.9	1.9	0.94
8	3.1	70	109	222	134	305	109	58	20	5.9	1.7	0.93
9	3.1	90	97	387	119	318	106	52	20	6.1	1.6	0.85
10	2.9	32	271	352	118	334	103	49	20	6.2	1.4	0.88
11	3.0	18	148	271	109	296	101	47	19	6.2	1.4	0.85
12	3.2	14	107	216	104	281	100	45	18	5.9	1.2	0.83
13	3.2	13	210	221	109	270	100	43	16	5.3	1.1	0.94
14	3.1	12	485	215	107	268	95	41	15	5.0	1.0	1.0
15	3.3	15	197	243	115	274	92	40	14	4.9	1.1	1.1
16	3.5	17	127	212	1480	263	90	37	13	4.4	1.1	0.98
17	3.7	14	94	182	4280	252	92	38	13	4.2	1.2	1.0
18	3.7	14	73	179	1720	249	90	38	13	4.0	1.1	1.1
19	3.7	13	138	167	861	238	122	39	13	4.0	0.94	1.2
20	3.7	12	323	141	588	215	127	42	12	4.0	1.0	1.7
21	3.4	12	200	119	479	205	100	38	11	3.8	1.00	2.0
22	3.3	12	146	122	441	211	93	37	11	3.4	0.95	1.8
23	3.4	11	243	116	382	208	87	34	11	3.2	1.3	1.8
24	3.0	11	1200	108	328	192	84	32	11	3.0	1.6	1.7
25	2.9	11	360	83	1650	207	81	31	10	2.9	1.7	1.6
26	2.7	11	212	94	983	175	82	30	9.4	2.5	1.6	1.6
27	2.8	11	158	227	598	157	84	29	8.7	2.4	1.4	1.6
28	2.9	11	138	184	450	145	85	29	8.6	2.2	1.2	1.6
29	3.0	23	746	147	370	140	78	29	8.4	2.0	1.1	1.6
30	3.0	51	577	148	---	148	72	27	8.6	2.2	0.96	1.8
31	4.9	---	343	131	---	139	---	26	---	2.2	1.0	---
TOTAL	100.0	547.6	7943	6343	16980	8184	3006	1353	455.7	149.3	45.25	36.94
MEAN	3.23	18.3	256	205	586	264	100	43.6	15.2	4.82	1.46	1.23
MAX	4.9	90	1200	708	4280	645	129	67	24	9.2	2.6	2.0
MIN	2.7	6.1	48	83	104	139	72	26	8.4	2.0	0.94	0.82
AC-FT	198	1090	15750	12580	33680	16230	5960	2680	904	296	90	73

11379500 ELDER CREEK NEAR PASKENTA, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	8.79	45.9	142	253	295	239	150	83.7	31.1	8.87	3.44	3.05
MAX	102	310	649	1208	1636	1176	497	463	262	49.6	17.5	11.3
(WY)	1958	1974	1984	1995	1958	1983	1958	1998	1998	1998	1998	1978
MIN	0.66	2.89	4.06	5.38	7.00	22.6	13.8	13.4	2.52	0.32	0.00	0.15
(WY)	1992	1991	1991	1991	1977	1964	1977	1977	1977	1977	1994	1991

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1949 - 2004	
ANNUAL TOTAL	41719.4		45143.79			
ANNUAL MEAN	114		123		104	
HIGHEST ANNUAL MEAN					303	1983
LOWEST ANNUAL MEAN					6.69	1977
HIGHEST DAILY MEAN	1620	Jan 13	4280	Feb 17	7650	Dec 22 1964
LOWEST DAILY MEAN	2.0	Sep 28	0.82	Sep 3	0.00	Aug 6 1950
ANNUAL SEVEN-DAY MINIMUM	2.3	Sep 23	0.89	Sep 7	0.00	Aug 14 1950
MAXIMUM PEAK FLOW			8340	Feb 17	17700	Feb 28 1983
MAXIMUM PEAK STAGE			10.41	Feb 17	13.90	Feb 24 1958
ANNUAL RUNOFF (AC-FT)	82750		89540		75610	
10 PERCENT EXCEEDS	267		287		243	
50 PERCENT EXCEEDS	61		29		19	
90 PERCENT EXCEEDS	3.1		1.4		1.6	

11381500 MILL CREEK NEAR LOS MOLINOS, CA

LOCATION.—Lat 40°03'17", long 122°01'23", in NE 1/4 NW 1/4 sec.6, T.25 N., R.1 W., Tehama County, Hydrologic Unit 18020103, on right bank, 4.5 mi northeast of Los Molinos, and 5.5 mi upstream from mouth.

DRAINAGE AREA.—131 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—September 1909 to August 1913 (fragmentary), October 1928 to current year.

REVISED RECORDS.—WSP 1315-A: 1929(M). WSP 1931: Drainage area. WSP 2131: 1938(M).

GAGE.—Water-stage recorder. Elevation of gage is 385 ft above NGVD of 1929, from topographic map. Prior to September 1913, nonrecording gage at site 0.3 mi downstream at different datum.

REMARKS.—Records fair. No storage or large diversion upstream from station. See schematic diagram of upper Sacramento River Basin.

EXTREMES FOR PERIOD OF RECORD (Since water year 1929).—Maximum discharge, 36,400 ft^3/s, Dec. 11, 1937, gage height, 23.4 ft, from floodmarks, from rating curve extended above 14,000 ft^3/s, on basis of step-backwater computation and slope-area measurement of peak flow; minimum daily, 52 ft^3/s, Dec. 12, 1932.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 2,400 ft^3/s, or maximum:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 14	0545	2,900	6.89	Feb. 25	1515	3,780	7.79
Feb. 17	2030	6,500	9.99				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	112	116	183	1160	197	723	397	409	377	248	147	112
2	112	117	198	584	896	578	376	430	389	235	147	112
3	112	127	175	398	705	466	376	468	396	228	147	112
4	114	126	158	310	440	408	412	512	390	224	147	110
5	114	125	195	266	329	371	416	540	390	211	144	109
6	114	124	508	245	298	353	417	491	388	206	144	109
7	114	131	611	483	359	344	411	452	386	203	143	109
8	116	139	302	458	286	359	414	449	350	199	141	108
9	116	171	232	517	259	397	424	432	319	190	128	107
10	116	179	422	581	234	444	424	452	301	185	126	107
11	116	143	485	439	217	442	423	394	302	179	126	107
12	116	137	272	377	206	436	417	357	295	175	126	107
13	116	135	291	333	199	445	420	354	301	172	127	107
14	116	136	1270	301	195	459	390	363	310	170	126	107
15	116	201	464	284	211	488	378	381	309	166	126	105
16	116	178	306	271	1180	489	355	391	311	164	126	105
17	116	165	253	265	3820	490	331	396	309	164	125	104
18	116	162	218	256	3530	507	321	405	302	162	124	105
19	116	149	195	246	1490	537	312	373	296	161	122	108
20	115	142	299	238	914	530	357	368	291	161	121	124
21	114	140	290	229	669	522	388	346	286	159	121	116
22	114	134	247	206	565	548	369	361	281	157	121	110
23	114	129	284	200	496	564	339	376	280	155	123	108
24	114	128	1270	200	604	555	332	377	271	154	123	107
25	114	127	656	195	2060	534	348	361	266	152	120	105
26	114	126	390	185	1360	488	372	371	258	151	119	102
27	112	126	293	212	872	434	409	403	251	149	116	102
28	113	124	256	241	642	420	455	441	249	149	114	102
29	114	136	821	214	526	404	415	402	245	149	114	103
30	114	162	632	207	---	425	398	373	238	148	112	103
31	114	---	369	207	---	407	---	377	---	147	112	---
TOTAL	3550	4235	12545	10308	23759	14567	11596	12605	9337	5473	3958	3232
MEAN	115	141	405	333	819	470	387	407	311	177	128	108
MAX	116	201	1270	1160	3820	723	455	540	396	248	147	124
MIN	112	116	158	185	195	344	312	346	238	147	112	102
AC-FT	7040	8400	24880	20450	47130	28890	23000	25000	18520	10860	7850	6410

11381500 MILL CREEK NEAR LOS MOLINOS, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	124	198	353	450	484	452	432	443	330	180	119	107
MAX	684	1039	1365	1837	1744	1278	862	923	790	510	230	168
(WY)	1963	1974	1965	1970	1986	1983	1982	1938	1998	1998	1983	1983
MIN	76.0	75.1	87.4	96.8	98.6	107	112	122	94.9	67.8	61.4	65.4
(WY)	1930	1930	1977	1977	1977	1977	1977	1977	1931	1931	1931	1931

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1929 - 2004	
ANNUAL TOTAL	135215		115164			
ANNUAL MEAN	370		315		305	
HIGHEST ANNUAL MEAN					576	1974
LOWEST ANNUAL MEAN					93.6	1977
HIGHEST DAILY MEAN	2270	Mar 15	3820	Feb 17	14400	Jan 1 1997
LOWEST DAILY MEAN	112	Sep 23	102	Sep 26	52	Dec 12 1932
ANNUAL SEVEN-DAY MINIMUM	112	Sep 23	103	Sep 24	60	Jul 28 1931
MAXIMUM PEAK FLOW			6500	Feb 17	36400	Dec 11 1937
MAXIMUM PEAK STAGE			9.99	Feb 17	23.40	Dec 11 1937
ANNUAL RUNOFF (AC-FT)	268200		228400		221000	
10 PERCENT EXCEEDS	718		509		583	
50 PERCENT EXCEEDS	284		246		181	
90 PERCENT EXCEEDS	116		114		92	

11381500 MILL CREEK NEAR LOS MOLINOS, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.—October 1998 to current year.
WATER TEMPERATURE: October 1998 to current year.

INSTRUMENTATION.—Temperature recorder since Oct. 5, 1998.

REMARKS.—Records rated excellent except for July 9 to Sept. 13, which is rated poor.

EXTREMES FOR PERIOD OF DAILY RECORD.—
WATER TEMPERATURE: Maximum recorded, 27.0°C, July 14, 2002; minimum recorded, 0.5°C, Dec. 23, 1998.

EXTREME FOR CURRENT YEAR.—
WATER TEMPERATURE: Maximum recorded, 25.0°C, Aug. 10; minimum recorded, 4.0°C, Dec. 27, 28.

TEMPERATURE, WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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

11381500 MILL CREEK NEAR LOS MOLINOS, CA—Continued

TEMPERATURE, WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	11.0	9.0	15.0	12.5	18.0	14.5	21.0	19.5	22.0	18.5	22.0	19.5
2	11.0	8.5	16.0	13.0	19.0	15.5	22.0	20.0	21.5	18.5	21.0	19.0
3	13.0	9.5	16.0	14.0	19.0	16.0	22.5	21.0	22.0	18.5	20.5	18.5
4	13.0	11.0	15.5	14.0	18.5	15.5	23.0	21.0	22.0	19.0	21.0	18.0
5	12.0	10.0	15.0	13.5	19.0	15.5	23.5	22.0	21.0	18.5	21.5	18.5
6	12.5	10.0	14.0	12.5	18.5	15.5	24.5	22.5	20.5	17.5	22.0	19.5
7	13.0	10.0	14.0	12.0	17.0	15.0	24.0	22.5	21.0	17.5	22.5	20.0
8	13.5	10.5	14.5	12.5	15.5	13.5	23.5	21.5	22.0	18.0	22.5	20.0
9	14.0	11.5	14.0	12.0	16.0	12.0	22.0	20.5	24.5	18.5	22.5	20.0
10	13.5	11.0	14.5	12.5	17.0	14.0	21.5	19.5	25.0	22.0	22.0	20.0
11	13.5	11.0	13.5	10.5	18.0	15.5	22.0	19.5	24.5	21.5	21.5	19.5
12	13.5	11.0	14.0	11.0	18.5	15.5	22.0	19.5	24.5	21.5	21.5	19.0
13	13.0	11.0	15.5	12.0	19.0	16.0	22.0	19.5	24.5	22.0	20.5	15.0
14	12.0	10.0	16.0	13.0	19.5	16.5	22.0	19.0	24.0	22.0	18.5	16.5
15	12.0	10.0	16.5	13.5	20.5	17.0	21.5	19.0	23.5	21.0	19.0	16.5
16	11.0	8.5	16.0	13.5	21.0	17.5	22.0	19.0	23.5	21.0	20.0	17.0
17	11.0	9.0	15.5	13.0	21.0	18.0	22.5	19.5	23.5	21.0	19.5	16.5
18	10.5	8.5	14.5	13.0	20.5	18.0	23.0	20.0	24.0	21.0	18.0	15.5
19	9.5	8.5	15.0	11.5	20.5	18.0	23.0	20.5	23.5	21.5	15.5	13.5
20	10.0	9.5	15.5	13.0	20.5	18.0	24.0	20.5	23.5	21.0	15.5	13.5
21	12.0	9.0	15.5	12.0	21.0	18.5	24.5	21.0	23.0	20.5	15.5	13.5
22	12.0	9.0	16.0	13.0	21.0	18.5	24.5	21.5	22.0	20.5	16.5	13.5
23	13.5	10.5	16.5	13.5	21.0	19.0	24.5	21.0	21.5	19.5	17.0	14.5
24	15.0	11.5	16.0	13.5	21.0	18.5	24.0	21.0	23.0	20.0	17.5	15.0
25	16.0	12.5	16.5	13.5	20.5	18.5	24.0	21.0	23.0	20.5	17.5	15.0
26	16.0	13.0	17.0	13.0	20.5	18.5	23.5	20.5	22.5	20.0	17.5	15.0
27	16.5	13.5	16.5	15.0	21.0	19.0	23.0	20.0	22.5	20.0	17.5	15.0
28	15.5	13.0	15.0	13.0	21.0	19.5	23.5	20.0	23.0	20.0	17.0	15.0
29	13.5	11.0	15.0	11.5	21.0	19.0	22.5	20.0	23.0	20.5	17.0	15.0
30	14.5	11.5	17.0	13.5	21.5	20.0	23.0	20.0	22.5	20.0	21.0	15.0
31	---	---	17.5	14.5	---	---	22.5	19.5	22.5	20.0	---	---
MONTH	16.5	8.5	17.5	10.5	21.5	12.0	24.5	19.0	25.0	17.5	22.5	13.5

CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Depth at sample location, feet (81903)	Temperature, water, deg C (00010)	Location in X-sect. looking dwnstrm ft from l bank (00009)
APR				
02...*	1330	1.00	10.7	6.00
02...*	1335	2.40	10.5	17.0
02...*	1340	2.30	10.5	28.0
02...*	1345	2.40	10.5	39.0
02...*	1350	2.20	10.6	50.0
AUG				
19...*	1240	.60	22.0	5.00
19...*	1245	1.44	22.0	15.0
19...*	1250	1.62	22.0	25.0
19...*	1255	1.50	22.0	35.0
19...*	1300	1.06	22.0	45.0

* Instantaneous discharge at the time of the cross-sectional measurements: Apr. 2, 378 ft^3/s; Aug. 19, 121 ft^3/s.

11383500 DEER CREEK NEAR VINA, CA

LOCATION.—Lat 40°00'51", long 121°56'50", in NW 1/4 NE 1/4 sec.23, T.25 N., R.1 W., Tehama County, Hydrologic Unit 18020103, on left bank, 0.5 mi upstream from irrigation diversion dam, and 7.9 mi northeast of Vina.

DRAINAGE AREA.—208 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—October 1911 to September 1915, March 1920 to current year. December 1937 to January 1939 first published in WDR CA-94-4. Monthly discharge only for some periods, published in WSP 1315-A.

REVISED RECORDS.—WSP 1315-A: 1940–42(M). WSP 1931: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is 479.2 ft above NGVD of 1929, from river-profile survey. Prior to Oct. 9, 1928, nonrecording gage at site 0.8 mi downstream at different datum. Oct. 9, 1928, to Jan. 19, 1939, water-stage recorder at present site at datum 2.64 ft higher.

REMARKS.—Records fair. No storage or large diversions upstream from station. See schematic diagram of upper Sacramento River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 24,000 ft^3/s, Jan. 1, 1997, gage height, 15.56 ft, from rating curve extended above 9,200 ft^3/s, maximum gage height, 19.20 ft, Dec. 10, 1937; minimum, 52 ft^3/s, Aug. 28, 1931.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 2,500 ft^3/s, or maximum:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 14	0600	3,290	7.02	Feb. 17	2145	8,290	10.18
Dec. 24	1030	3,580	7.25	Feb. 25	1430	6,080	8.99
Jan. 1	1215	3,050	6.84				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	96	106	166	1560	202	1040	509	279	155	122	93	89
2	98	105	166	750	688	874	478	272	151	119	94	89
3	98	113	148	472	604	725	468	270	147	114	94	89
4	98	113	133	363	445	638	480	269	143	112	94	89
5	98	111	154	304	362	576	475	264	140	110	94	90
6	98	112	254	273	328	543	466	254	138	109	93	90
7	97	116	538	492	350	527	450	247	133	108	94	89
8	98	123	281	491	305	538	444	242	132	107	94	89
9	98	167	200	536	280	587	437	234	137	107	92	89
10	98	164	455	650	259	629	427	247	139	105	90	90
11	98	133	425	512	243	648	418	249	135	105	89	89
12	98	123	260	431	231	640	410	227	131	104	89	89
13	98	118	266	377	222	640	403	214	127	104	89	90
14	97	119	1340	339	218	643	387	206	124	103	89	90
15	98	166	478	314	224	666	384	201	121	101	89	90
16	100	159	309	296	1010	673	363	197	119	101	89	91
17	100	149	244	283	4570	673	339	192	118	101	89	91
18	99	142	213	267	4920	682	343	205	117	99	89	92
19	98	126	197	254	2210	715	325	200	117	99	89	96
20	99	121	282	244	1340	698	351	195	116	99	88	109
21	99	119	254	229	955	679	382	205	116	100	88	106
22	98	115	226	217	763	691	378	218	115	99	88	99
23	98	113	291	210	645	704	327	196	114	98	90	98
24	98	112	1750	209	754	688	316	182	113	98	95	96
25	97	113	746	204	3430	675	309	176	112	97	94	96
26	96	112	431	194	2340	638	310	171	112	95	92	95
27	96	112	319	218	1540	577	310	168	112	94	90	96
28	97	111	269	230	1150	559	316	189	113	94	89	96
29	98	118	1010	211	915	530	302	196	116	94	89	98
30	99	146	720	209	---	537	289	173	117	95	88	98
31	103	---	431	212	---	524	---	161	---	94	87	---
TOTAL	3041	3757	12956	11551	31503	20157	11596	6699	3780	3187	2811	2798
MEAN	98.1	125	418	373	1086	650	387	216	126	103	90.7	93.3
MAX	103	167	1750	1560	4920	1040	509	279	155	122	95	109
MIN	96	105	133	194	202	524	289	161	112	94	87	89
AC-FT	6030	7450	25700	22910	62490	39980	23000	13290	7500	6320	5580	5550

11383500 DEER CREEK NEAR VINA, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	113	194	382	545	643	585	530	390	201	118	98.3	95.3
MAX	775	984	1825	2458	2600	2105	1494	1193	674	267	194	174
(WY)	1963	1974	1956	1970	1986	1983	1982	1995	1998	1983	1983	1983
MIN	63.4	65.2	82.5	87.4	95.3	109	99.5	77.2	66.1	55.8	53.3	55.2
(WY)	1935	1930	1931	1991	1977	1977	1977	1924	1924	1931	1931	1931

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1912 - 2004	
ANNUAL TOTAL	136282		113836			
ANNUAL MEAN	373		311		323	
HIGHEST ANNUAL MEAN					700	1983
LOWEST ANNUAL MEAN					86.2	1977
HIGHEST DAILY MEAN	3750	Mar 15	4920	Feb 18	20100	Jan 1 1997
LOWEST DAILY MEAN	94	Sep 26	87	Aug 31	52	Aug 25 1931
ANNUAL SEVEN-DAY MINIMUM	95	Sep 22	89	Aug 16	53	Aug 21 1931
MAXIMUM PEAK FLOW			8290	Feb 17	24000	Jan 1 1997
MAXIMUM PEAK STAGE			10.18	Feb 17	19.20	Dec 10 1937
ANNUAL RUNOFF (AC-FT)	270300		225800		234200	
10 PERCENT EXCEEDS	846		649		688	
50 PERCENT EXCEEDS	221		160		147	
90 PERCENT EXCEEDS	98		92		80	

11383500 DEER CREEK NEAR VINA, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—Water year 1999 to current year.
WATER TEMPERATURE: Water year 1999 to current year.
TURBIDITY: Water year 2001 to current year (discontinued).
SEDIMENT DATA: Water years 2001–02 .

PERIOD OF DAILY RECORD.—
WATER TEMPERATURE: October 1998 to current year.
TURBIDITY: January 2001 to September 2004 (discontinued).

INSTRUMENTATION.—Temperature recorder since Oct. 5, 1998, and Turbidity recorder since October 2000.

REMARKS.—Temperature record rated excellent. Turbidity record rated fair. Interruption in record due to malfunction of the recording equipment. Unpublished sediment and turbidity sample data in U.S. Geological Survey Sediment Laboratory Environmental Data System (SLEDS) for January 2000 to October 2001.

EXTREMES FOR PERIOD OF DAILY RECORD.—
WATER TEMPERATURE: Maximum recorded, 28.0°C, July 14, 2002; minimum recorded, 0.5°C, Dec. 23, 24, 1998.
TURBIDITY: Maximum recorded, 290 NTU, Dec. 16, 2002; minimum recorded, 0.0 NTU, many days during most years.

EXTREME FOR CURRENT YEAR.—
WATER TEMPERATURE: Maximum recorded, 27.0°C, July 6, 7; minimum recorded, 4.0°C, Dec. 28.
TURBIDITY: Maximum recorded, 180 NTU, Feb. 17; minimum recorded, 0.0 NTU, many days during the year.

TEMPERATURE, WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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

11383500 DEER CREEK NEAR VINA, CA—Continued

TEMPERATURE, WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	11.0	9.0	16.5	14.0	21.0	18.0	24.5	22.0	24.5	22.0	23.0	20.5
2	11.5	8.5	18.0	15.0	22.0	19.0	25.5	22.5	24.0	21.5	22.0	19.5
3	12.5	9.5	18.5	16.0	22.0	19.5	26.0	23.0	24.0	21.5	20.5	18.5
4	13.0	10.5	19.0	16.5	22.0	19.5	26.0	23.0	24.0	21.5	21.0	18.5
5	12.5	10.0	18.0	16.0	22.0	19.5	26.5	23.5	23.5	21.5	21.5	19.0
6	12.5	10.0	17.0	15.0	22.0	19.5	27.0	24.5	23.0	20.5	22.0	19.5
7	13.0	10.0	17.0	14.5	21.0	19.0	27.0	24.5	23.5	20.5	22.0	19.5
8	13.5	11.0	16.5	15.0	19.5	17.5	26.0	23.5	24.0	21.5	22.5	20.0
9	14.0	11.5	17.0	14.0	19.0	16.0	24.5	22.5	24.5	21.5	22.0	20.0
10	14.0	12.0	16.5	14.5	20.0	17.0	24.0	21.5	24.5	21.5	22.0	19.5
11	14.0	12.0	15.5	13.5	20.5	17.5	24.0	21.5	23.5	21.5	21.5	19.0
12	14.0	12.0	15.5	12.5	21.5	18.0	24.0	21.0	24.0	21.5	21.0	19.0
13	13.5	12.0	16.5	13.5	22.0	19.0	24.0	21.5	24.5	22.0	21.0	18.5
14	12.5	11.0	17.5	14.5	22.5	19.5	24.0	21.0	24.5	22.5	20.0	18.0
15	12.5	10.5	18.5	15.5	23.0	20.0	23.5	21.0	24.0	21.5	20.0	17.5
16	12.0	9.5	18.5	16.0	24.0	21.0	23.5	21.0	24.0	21.5	21.0	18.5
17	11.0	9.5	18.5	16.0	24.5	21.5	24.0	21.5	24.0	21.5	20.5	18.5
18	10.5	9.5	17.5	15.5	24.0	21.5	24.5	22.0	25.0	22.0	19.0	17.0
19	9.5	9.0	17.0	14.5	24.0	21.5	24.5	22.5	24.5	22.5	17.0	15.5
20	10.5	9.5	18.0	15.5	24.0	21.5	26.0	23.0	24.5	22.0	17.0	14.5
21	12.5	9.5	17.0	14.0	24.5	21.5	26.5	23.5	24.5	22.0	16.5	14.5
22	12.5	9.0	17.5	15.0	25.0	22.0	26.5	23.5	23.0	21.5	17.0	14.5
23	14.0	11.0	18.0	15.0	24.5	22.0	26.5	24.0	23.0	21.0	17.5	15.0
24	15.0	12.0	18.5	16.0	24.0	21.5	26.5	24.0	24.0	21.5	18.0	15.5
25	16.0	13.5	19.0	16.0	24.0	21.5	26.5	24.0	23.5	21.0	18.0	15.5
26	17.0	14.5	19.5	16.5	24.0	21.5	26.0	23.0	22.5	20.5	18.0	15.5
27	17.5	15.0	19.0	17.5	24.5	21.5	25.5	23.0	22.5	20.0	18.0	15.5
28	17.0	15.0	17.5	16.5	24.5	22.0	25.5	23.0	23.0	20.5	17.5	15.5
29	15.5	13.5	18.0	15.0	24.0	21.5	25.0	23.0	23.5	21.0	17.5	15.5
30	16.0	13.0	19.0	16.0	24.0	21.5	25.5	22.5	23.0	20.5	17.5	15.5
31	---	---	20.5	17.0	---	---	25.0	22.5	22.5	20.5	---	---
MONTH	17.5	8.5	20.5	12.5	25.0	16.0	27.0	21.0	25.0	20.0	23.0	14.5

TURBIDITY (NTU), WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	4.8	0.0	0.3	0.0	1.7	0.1	25	1.8	0.5	0.0	5.1	1.8
2	4.7	0.0	0.7	0.0	1.2	0.2	6.3	1.2	22	0.0	2.3	1.3
3	4.0	0.0	2.9	0.0	1.0	0.0	5.0	0.6	4.6	0.3	5.1	1.1
4	2.8	0.0	0.6	0.0	0.3	0.0	3.1	0.1	1.2	0.0	3.0	1.0
5	5.0	0.0	1.5	0.0	1.1	0.0	2.0	0.2	0.9	0.0	2.1	0.9
6	0.5	0.0	0.0	0.0	62	0.7	3.0	0.1	2.0	0.0	5.5	0.7
7	0.5	0.0	1.3	0.0	73	11	2.7	0.2	1.3	0.0	3.8	0.6
8	1.8	0.0	1.3	0.0	11	2.7	1.7	0.0	0.7	0.0	5.4	0.8
9	0.3	0.0	9.0	0.1	3.6	0.5	3.7	0.0	0.6	0.0	5.8	1.0
10	3.0	0.0	2.5	0.9	16	0.5	4.6	0.1	1.7	0.0	6.6	1.1
11	0.2	0.0	1.3	0.0	4.0	0.7	1.7	0.0	0.2	0.0	2.6	1.1
12	0.8	0.0	1.2	0.0	2.3	0.0	1.8	0.0	0.3	0.0	2.3	1.2
13	0.0	0.0	0.7	0.0	1.9	0.0	0.4	0.0	0.5	0.0	3.7	1.2
14	0.7	0.0	1.0	0.0	---	---	0.7	0.0	2.6	0.0	2.5	1.1
15	0.7	0.0	3.0	0.0	---	---	1.9	0.0	0.6	0.0	3.7	1.3
16	0.8	0.0	2.7	0.2	---	---	0.2	0.0	21	0.3	3.4	1.5
17	0.4	0.0	1.0	0.1	---	---	0.0	0.0	180	21	2.5	1.5
18	1.2	0.0	0.8	0.0	---	---	1.2	0.0	140	33	3.6	1.6
19	0.3	0.0	0.3	0.0	---	---	0.4	0.0	38	11	3.8	1.6
20	0.1	0.0	0.1	0.0	---	---	0.5	0.0	21	7.7	7.4	1.8
21	0.0	0.0	0.7	0.0	---	---	1.4	0.0	14	4.3	4.2	1.5
22	0.1	0.0	0.2	0.0	---	---	0.1	0.0	5.7	2.9	5.5	1.5
23	0.4	0.0	0.8	0.0	2.9	0.0	1.2	0.0	5.9	2.7	3.8	1.7
24	2.8	0.0	0.1	0.0	46	1.8	0.9	0.0	10	2.7	3.9	1.7
25	0.1	0.0	0.1	0.0	9.3	2.9	0.5	0.0	140	2.5	2.7	1.3
26	0.3	0.0	3.5	0.0	3.5	2.0	2.1	0.0	28	6.6	3.5	1.1
27	0.8	0.0	3.0	0.0	3.3	1.5	1.3	0.0	7.7	3.2	2.4	1.1
28	0.8	0.0	0.0	0.0	2.0	1.4	1.2	0.0	6.7	2.3	1.8	0.9
29	0.2	0.0	1.9	0.0	20	1.4	1.6	0.0	6.6	1.9	2.3	0.8
30	1.3	0.0	1.2	0.0	7.8	2.2	1.9	0.0	---	---	2.1	0.9
31	0.6	0.0	---	---	2.5	1.7	0.6	0.0	---	---	2.4	0.8
MONTH	5.0	0.0	9.0	0.0	---	---	25	0.0	180	0.0	7.4	0.6

11383500 DEER CREEK NEAR VINA, CA—Continued

TURBIDITY (NTU), WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	4.6	0.8	1.1	0.5	1.6	0.0	0.8	0.0	1.1	0.0	0.8	0.0
2	1.9	0.7	2.0	0.5	2.0	0.0	1.0	0.0	1.3	0.0	0.6	0.0
3	2.2	0.7	2.3	0.6	1.3	0.0	1.3	0.0	2.3	0.0	0.8	0.0
4	2.1	0.9	2.6	0.5	0.5	0.0	2.7	0.0	1.1	0.0	1.6	0.0
5	2.4	0.7	2.2	0.5	0.6	0.0	1.8	0.0	1.1	0.0	0.9	0.0
6	1.4	0.6	1.9	0.0	3.1	0.0	1.5	0.0	1.6	0.0	0.2	0.0
7	3.0	0.7	3.3	0.0	0.8	0.0	0.3	0.0	0.7	0.0	0.7	0.0
8	1.8	0.7	0.8	0.0	1.2	0.0	1.6	0.0	1.9	0.0	0.2	0.0
9	2.0	0.7	0.7	0.0	1.3	0.0	0.3	0.0	2.7	0.0	0.5	0.0
10	1.6	0.7	3.1	0.0	1.3	0.0	1.0	0.0	1.2	0.0	1.9	0.0
11	1.1	0.6	0.5	0.0	2.6	0.0	0.6	0.0	4.6	0.0	0.2	0.0
12	3.1	0.6	1.1	0.0	0.5	0.0	1.2	0.0	5.4	1.5	1.0	0.0
13	1.9	0.6	2.6	0.0	0.9	0.0	2.6	0.0	5.0	0.0	1.0	0.0
14	1.6	0.3	1.6	0.0	0.6	0.0	4.7	0.0	1.5	0.5	0.5	0.0
15	1.9	0.3	0.6	0.0	1.0	0.0	3.7	0.0	2.4	0.3	2.1	0.0
16	2.6	0.6	1.2	0.0	0.9	0.0	4.4	0.0	1.9	0.0	0.8	0.0
17	1.2	0.4	0.4	0.0	0.7	0.0	3.3	0.0	1.4	0.2	0.8	0.0
18	1.2	0.4	1.6	0.0	0.5	0.0	2.6	0.0	1.5	0.0	0.1	0.0
19	1.5	0.3	0.4	0.0	1.0	0.0	1.4	0.0	0.4	0.0	1.3	0.0
20	2.0	0.5	1.5	0.0	1.7	0.0	3.7	0.0	0.6	0.0	1.6	0.0
21	1.7	0.7	0.3	0.0	0.5	0.0	2.4	0.0	0.6	0.0	0.4	0.0
22	1.9	0.8	0.5	0.0	0.2	0.0	3.8	0.0	0.5	0.0	0.4	0.0
23	1.9	0.5	4.0	0.0	0.7	0.0	1.9	0.0	1.1	0.0	1.9	0.0
24	1.9	0.5	0.2	0.0	0.4	0.0	3.6	0.0	1.3	0.0	1.5	0.0
25	1.0	0.3	0.3	0.0	3.8	0.0	1.4	0.0	0.5	0.0	0.1	0.0
26	1.3	0.6	1.0	0.1	3.8	0.0	1.9	0.0	0.6	0.0	0.6	0.0
27	1.6	0.5	1.1	0.1	0.8	0.0	4.2	0.0	0.5	0.0	0.1	0.0
28	1.7	0.7	0.5	0.0	0.8	0.0	4.2	0.0	1.3	0.0	0.3	0.0
29	1.9	0.5	0.3	0.0	0.6	0.0	1.8	0.0	1.4	0.0	0.5	0.0
30	1.3	0.5	0.6	0.0	1.0	0.0	1.9	0.0	1.4	0.0	0.0	0.0
31	---	---	0.9	0.0	---	---	4.5	0.0	0.7	0.0	---	---
MONTH	4.6	0.3	4.0	0.0	3.8	0.0	4.7	0.0	5.4	0.0	2.1	0.0

CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Depth at sample location, feet (81903)	Turbidity, water, unfltrd field, NTU (61028)	Temperature, water, deg C (00010)	Location in X-sect. looking dwnstrm ft from l bank (00009)
FEB					
05...*	1210	2.90	.0	6.2	76.0
05...*	1215	3.60	.0	6.2	59.0
05...*	1220	3.70	.0	6.2	42.0
05...*	1225	2.70	.0	6.2	25.0
05...*	1230	1.90	.0	6.2	8.00
AUG					
19...*	0935	1.80	.2	22.5	7.00
19...*	0940	1.90	.2	22.5	22.0
19...*	0945	2.40	.1	22.5	37.0
19...*	0950	1.50	.1	22.5	52.0
19...*	0955	.70	.2	22.6	67.0

* Instantaneous discharge at the time of the cross-sectional measurements: Feb. 5, 363 ft^3/s; Aug. 19, 89 ft^3/s.

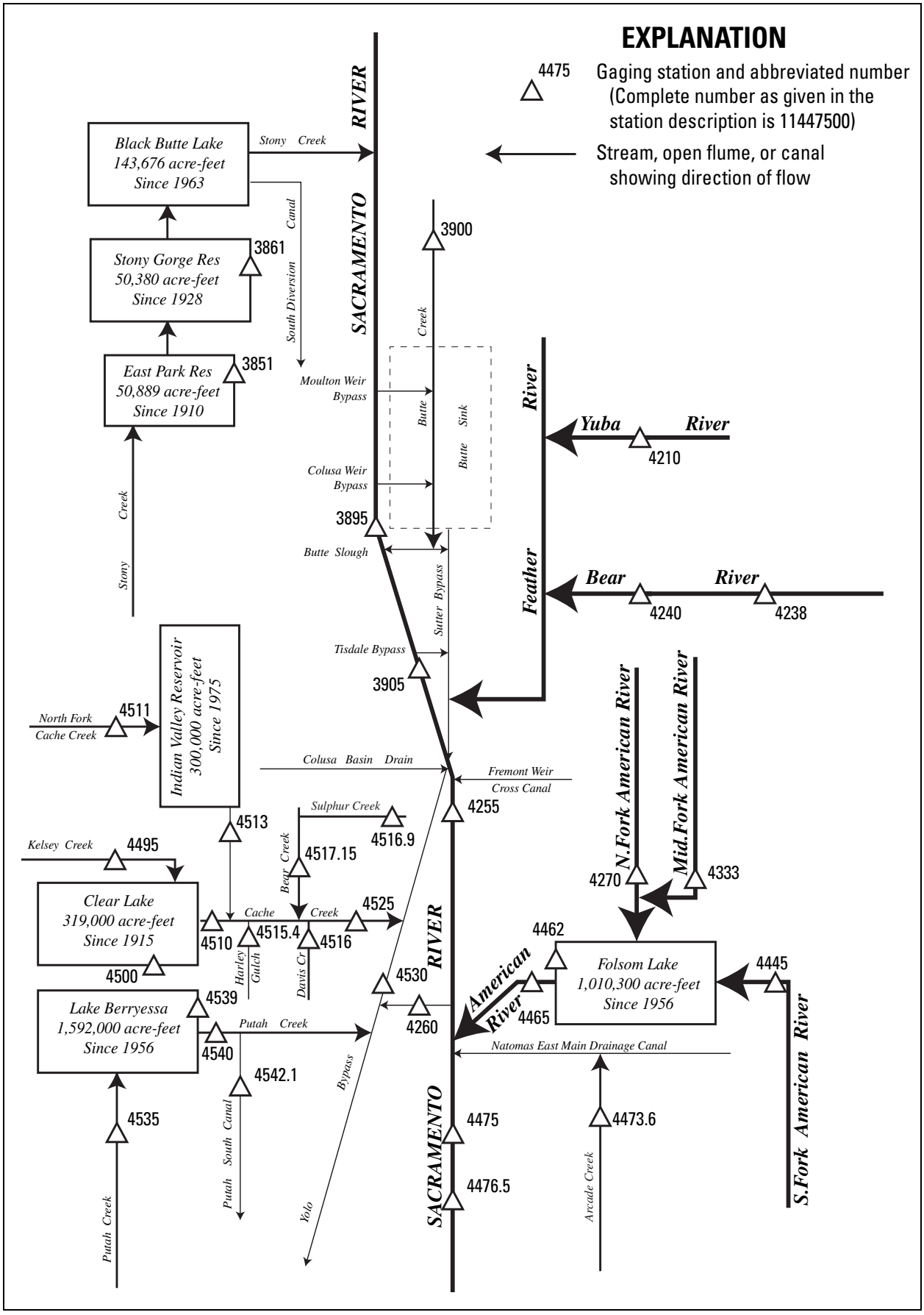


Figure 27. Diversions and storage in lower Sacramento River Basin.

11385100 EAST PARK RESERVOIR NEAR STONYFORD, CA

LOCATION.—Lat 39°21'24", long 122°30'53", in SW 1/4 NE 1/4 sec.3, T.17 N., R.6 W., Colusa County, Hydrologic Unit 18020115, near south side of spillway section on East Park Dam on Little Stony Creek, 1.9 mi southeast of Stonyford.

DRAINAGE AREA.—98.2 mi^2.

PERIOD OF RECORD.—October 1969 to current year. Prior to Oct. 1, 2003, monthend elevation and contents at 0800 hours published.

GAGE.—Nonrecording gage read once daily. Datum of gage is NGVD of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.—Reservoir is formed by a concrete arch-type dam. Storage began in 1910. Capacity, 48,210 acre-ft, between elevations 1,131.68 ft, invert of sluice pipe, and 1,198.18 ft, crest of spillway. Capacity increased to 50,889 acre-ft with the addition of flashboards to an elevation of 1,199.68 ft. Dead storage, 279 acre-ft. Records, including extremes, represent contents at 0700 hours. See schematic diagram of lower Sacramento River Basin.

COOPERATION.—Records provided by U.S. Bureau of Reclamation. Contents not rounded to U.S. Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 53,500 acre-ft, Mar. 30, 1974, elevation, 1,201.10 ft; minimum, 280 acre-ft, Aug. 8 to Oct. 31, 1972, Apr. 30 to Nov. 1, 1977, elevation, 1,131.68 ft.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 51,161 acre-ft, Feb. 18, elevation, 1,199.83 ft; minimum, 41,946 acre-ft, Nov. 6, 7, elevation, 1,194.47 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey by U.S. Bureau of Reclamation in 1970)

1,130.0	212	1,150.0	2,989	1,170.0	13,162	1,190.0	35,074
1,135.0	478	1,155.0	4,666	1,175.0	17,351	1,195.0	42,810
1,140.0	978	1,160.0	6,888	1,180.0	22,368	1,201.5	54,250
1,145.0	1,788	1,165.0	9,702	1,185.0	28,265		

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY OBSERVATION AT 0700 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43469	42059	42483	49112	48546	49077	48546	48387	48194	47389	45872	44107
2	43436	42027	43188	49432	48599	49682	48528	48387	48194	47354	45821	43950
3	43386	41995	43320	49112	49165	49237	48510	48387	48158	47320	45770	43817
4	43336	41962	43386	48935	48935	49077	48510	48369	48141	47285	45719	43750
5	43303	41962	43452	48828	48811	48988	48510	48334	48123	47250	45634	43684
6	43254	41946	43551	48758	48740	48935	48510	48317	48106	47215	45566	43634
7	43221	41946	43917	48740	48705	48882	48510	48299	48071	47181	45515	43585
8	43171	41995	44067	48740	48669	48846	48493	48299	48036	47146	45447	43535
9	43122	42124	44150	48917	48616	48828	48493	48317	48000	47111	45396	43485
10	43040	42108	44990	49006	48616	48793	48475	48317	47965	47059	45328	43419
11	42990	42108	45515	48935	48599	48758	48475	48299	47965	47007	45260	43369
12	42941	42108	45702	48846	48599	48758	48475	48299	47948	46973	45226	43303
13	42892	42108	45958	48793	48581	48722	48457	48299	47930	46921	45159	43237
14	42843	42108	46782	48758	48581	48705	48440	48299	47913	46852	45108	43171
15	42793	42124	47581	48758	48581	48687	48422	48299	47860	46800	45040	43089
16	42761	42124	47843	48722	48811	48669	48422	48299	47825	46731	44990	43040
17	42728	42124	48053	48687	50545	48652	48457	48281	47808	46679	44939	42990
18	42679	42124	48194	48669	51161	48652	48475	48281	47790	46627	44888	42908
19	42613	42124	48299	48652	49951	48634	48457	48281	47755	46576	44855	42826
20	42581	42124	48669	48634	49468	48616	48457	48281	47738	46524	44787	42777
21	42548	42141	49006	48581	49237	48616	48457	48299	47703	46472	44720	42711
22	42515	42124	48828	48581	49148	48616	48440	48317	47703	46421	44653	42630
23	42466	42092	48687	48563	49112	48599	48440	48299	47668	46369	44585	42581
24	42417	42092	49629	48563	49006	48581	48440	48299	47633	46335	44535	42548
25	42352	42092	49557	48563	49629	48563	48440	48299	47616	46283	44485	42483
26	42320	42092	49059	48546	50275	48616	48440	48281	47546	46232	44401	42434
27	42271	42076	48846	48563	49718	48581	48422	48281	47511	46163	44300	42385
28	42238	42076	48740	48616	49397	48581	48405	48264	47476	46112	44234	42336
29	42222	42108	49326	48599	49201	48563	48369	48229	47441	46060	44167	42287
30	42157	42222	50275	48581	---	48546	48369	48211	47424	45992	44117	42238
31	42092	---	49361	48563	---	48546	---	48194	---	45941	44067	---
MAX	43469	42222	50275	49432	51161	49682	48546	48387	48194	47389	45872	44107
MIN	42092	41946	42483	48546	48546	48546	48369	48194	47424	45941	44067	42238
a	1194.56	1194.64	1198.83	1198.38	1198.74	1198.37	1198.27	1198.17	1197.73	1196.87	1195.76	1194.65
b	-1431	+130	+7139	-798	+638	-655	-177	-175	-770	-1483	-1874	-1829
c	815	94	75	67	139	432	670	972	1322	1394	1184	878

CAL YR 2003 b +13948
WTR YR 2004 b -1285

a Elevation, in feet, at end of month.
b Change in contents, in acre-feet.
c Total evaporation, in acre-feet, provided by U.S. Bureau of Reclamation, not reviewed by U.S. Geological Survey.

11386100 STONY GORGE RESERVOIR NEAR ELK CREEK, CA

LOCATION.—Lat 39°35'09", long 122°31'54", in NE 1/4 SE 1/4 sec.16, T.20 N., R.6 W., Glenn County, Hydrologic Unit 18020115, on south end of Stony Gorge Dam on Stony Creek, 1.3 mi southeast of Elk Creek.

DRAINAGE AREA.—301 mi^2.

PERIOD OF RECORD.—October 1969 to current year. Prior to Oct. 1, 2003, monthend elevation and contents at 0800 hours published.

GAGE.—Nonrecording gage read once daily. Datum of gage is NGVD of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.—Reservoir is formed by slab and buttress-type dam. Storage began in 1928. Capacity, 50,380 acre-ft, between elevations 728.0 ft, top of low intake, and 841.0 ft, crest of spillway. No dead storage. See schematic diagram of lower Sacramento River Basin.

COOPERATION.—Records provided by U.S. Bureau of Reclamation. Contents not rounded to U.S. Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 54,630 acre-ft, Mar. 26, 1971, elevation, 844.20 ft; minimum, 3,810 acre-ft, Nov. 6, 1971, elevation, 779.20 ft.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 49,620 acre-ft, May 26, elevation, 840.41 ft; minimum, 32,366 acre-ft, Nov. 3, elevation, 825.42 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey by U.S. Bureau of Reclamation in 1970)

770	1,799	790	7,479	810	18,884	830	37,204
775	2,765	795	9,711	815	22,781	835	42,921
780	4,034	800	12,359	820	27,134	840	49,092
785	5,605	805	15,416	825	31,941	847	58,500

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY OBSERVATION AT 0700 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32999	32376	34306	37149	37160	41008	49389	46795	49120	48202	48051	37556
2	32958	32376	35964	37999	37182	43327	49350	46421	48992	48228	48000	36875
3	32947	32366	36668	37292	39165	43758	49376	46136	48864	48253	47911	36400
4	32886	32376	37138	37711	39641	44689	49363	45852	48724	48279	47860	36364
5	32865	32386	36755	37910	39972	45422	49325	45508	48558	48291	47848	36331
6	32824	32376	36646	37866	39994	45902	49299	45189	48380	48317	47823	36321
7	32784	32376	37490	37667	39960	46258	49273	45397	48177	48304	47823	36321
8	32743	32437	37490	37578	39504	46570	49222	45704	48000	48279	47823	36321
9	32702	32681	36744	38311	39040	47019	49132	45976	47785	48266	47823	36321
10	32651	32958	36396	39368	39607	47320	49017	46248	47659	48240	47798	36321
11	32600	33112	36723	39550	39960	47697	48889	46483	47621	48228	47785	36321
12	32559	33173	36126	39743	40223	47810	48787	46795	47697	48202	47785	36321
13	32518	33214	35535	39789	40453	47848	48609	47019	47773	48177	47760	36321
14	32486	33245	36288	39675	40327	47798	48431	47257	47810	48177	47747	36321
15	32478	33256	38680	39607	40603	47710	48177	47483	47810	48164	47735	36256
16	32468	33328	38759	39459	41042	47571	47924	47697	47823	48177	47710	36234
17	32468	33410	38289	39346	41484	47408	47823	47899	47874	48228	47659	36202
18	32478	33472	37578	38995	41555	47207	47773	48101	47899	48240	47157	36126
19	32498	33514	36723	38468	39789	46969	48139	48279	47949	48215	46297	36094
20	32518	33576	37116	38624	39686	46682	48533	48507	48000	48202	45618	36072
21	32498	33617	37999	38770	39664	47007	48992	48711	48025	48202	44957	36040
22	32498	33638	38456	38849	40017	47295	48834	48928	48038	48190	44313	36007
23	32498	33659	38278	38883	40086	47571	48647	49132	48063	48190	43626	35964
24	32486	33669	39607	38871	39914	47823	48444	49312	48088	48190	42981	35910
25	32478	33700	38905	38917	39800	47975	48253	49479	48114	48202	42306	35878
26	32478	33732	38479	38894	39846	48279	48025	49620	48126	48190	41625	35835
27	32437	33732	37623	38849	39823	48482	47823	49569	48139	48177	40880	35813
28	32427	33752	37722	39165	39903	48685	47596	49479	48164	48164	40212	35792
29	32417	33784	37955	38692	40892	48864	47383	49363	48164	48152	39504	35760
30	32407	33929	38400	38066	---	49158	47069	49299	48177	48139	38804	35738
31	32386	---	37999	37413	---	49325	---	49222	---	48101	38266	---
MAX	32999	33929	39607	39789	41555	49325	49389	49620	49120	48317	48051	37556
MIN	32386	32366	34306	37149	37160	41008	47069	45189	47621	48101	38266	35738
a	825.44	826.94	830.72	830.19	833.27	840.18	838.40	840.10	839.28	839.22	830.96	828.65
b	-665	+1543	+4070	-586	+3479	+8433	-2256	+2153	-1045	-76	-9835	-2528
c	498	58	48	49	88	298	472	678	939	1000	849	576

CAL YR 2003 b -3325
WTR YR 2004 b +2687

a Elevation, in feet, at end of month.
b Change in contents, in acre-feet.
c Total evaporation, in acre-feet, provided by U.S. Bureau of Reclamation, not reviewed by U.S. Geological Survey.

11389500 SACRAMENTO RIVER AT COLUSA, CA

LOCATION.—Lat 39°12'51", long 121°59'57", at north end of Jimeno Grant, Colusa County, Hydrologic Unit 18020104, on right bank, 60 ft downstream from highway bridge at Colusa, and at mile 89.4 upstream from Sacramento.

DRAINAGE AREA.—12,090 mi^2.

PERIOD OF RECORD.—April 1921 to current year (prior to October 1940, low-water periods only).
CHEMICAL DATA: Water years 1959–66, 1996–2001.
SPECIFIC CONDUCTANCE: Water years 1995–98.
WATER TEMPERATURE: Water years 1975, 1977–80, 1995–98.
SEDIMENT: Water years 1973–80, 1996–2000.

REVISED RECORDS.—WSP 1345: 1952. WDR CA-77-4: Drainage area.

GAGE.—Water-stage recorder and crest-stage gage. Datum of gage is 2.95 ft below NGVD of 1929. Prior to December 1930, water-stage recorder in center fender pier 50 ft upstream from bridge at same datum.

REMARKS.—Records good. Natural flow of stream affected by storage reservoirs, including Shasta Lake (station 11370000) since 1943, power development, bypassing for flood control, diversions for irrigation, and return flow from irrigated areas. When discharge exceeds about 30,000 ft^3/s, flow begins over Colusa Weir, 2.5 mi upstream on left bank, into Butte Sink and Sutter Bypass. See schematic diagram of lower Sacramento River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge (since water year 1941), 51,800 ft^3/s, Mar. 4, 1983, gage height, 68.50 ft, maximum gage height, 69.20 ft, Feb. 18, 1942; minimum recorded, 820 ft^3/s, July 25, 26, 1931, gage height, 34.79 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6680	5070	5490	31300	11700	44500	11400	8160	9690	11200	10500	7960
2	6320	5190	6400	33000	11400	44400	11100	8080	9200	11100	10800	7580
3	6190	5430	7770	32900	21300	45900	11200	8310	8740	11200	10800	7330
4	6140	5670	7450	28600	30400	44700	11700	8320	8430	11200	10600	7510
5	6090	5510	6510	24500	23700	42900	11400	8640	8260	11100	10400	7960
6	6060	5570	7050	21600	17400	40700	11400	8980	9080	11200	10100	8050
7	6040	5520	10500	19900	14900	38500	11300	9300	10400	11200	10100	8220
8	6100	5410	17500	22800	14800	36800	12400	9310	10900	11000	9750	8250
9	5830	5640	12200	26100	13600	35200	15500	9700	11200	11000	9430	8080
10	5520	6200	9610	29300	12700	33600	16400	9270	11200	11000	9320	8710
11	5340	6970	15500	31100	12200	31500	16600	9590	11200	11200	9220	8810
12	5260	6600	15800	25200	11700	28700	16500	9410	11000	11300	9120	8700
13	5200	5830	12900	21000	11300	25700	15900	8670	11000	11300	8710	8810
14	5260	5500	18500	19300	11000	23300	14200	8010	10800	11100	8200	8700
15	5160	5500	31300	17600	10700	21500	13000	7720	10800	11100	7820	8510
16	5080	5630	24100	16800	10900	19700	12500	7700	10300	11000	7560	8550
17	5050	5830	17700	16100	26800	18100	11700	7710	11000	11100	7570	8620
18	4990	5620	16100	14800	41700	17000	10400	7770	11100	11200	7610	8720
19	4960	5370	15000	13800	47700	16300	9450	7840	11200	11200	7510	8680
20	4940	5010	14800	13200	48300	15700	8550	7660	11200	11200	7240	8910
21	5020	4830	18500	12700	46900	15100	8450	7550	11000	11200	7040	8950
22	4990	4740	18100	12200	45200	14600	8520	7340	11100	11100	7250	8710
23	4910	4670	16200	11600	43900	14200	8290	7400	11000	11800	7520	8330
24	4850	4680	20500	11100	43100	13800	7630	7660	11000	12000	7600	8240
25	4840	4720	36700	10700	42800	13400	7190	7610	11000	12000	7590	8130
26	4870	4720	37100	10600	45000	13200	7190	7590	10900	11900	7400	7880
27	4870	4780	31600	10400	47700	13200	7350	7790	11100	12000	7970	7820
28	4830	4870	27200	11600	46400	12700	7540	8140	11100	11700	8280	7740
29	4810	4930	25900	13900	45600	12400	7880	8950	11200	11300	8340	7570
30	4870	5090	38700	12300	---	11800	8050	9450	11200	11100	8110	7170
31	4950	---	38400	11700	---	11500	---	9820	---	10600	8130	---
TOTAL	166020	161100	581080	587700	810800	770600	330690	259450	317300	349600	267590	247200
MEAN	5355	5370	18740	18960	27960	24860	11020	8369	10580	11280	8632	8240
MAX	6680	6970	38700	33000	48300	45900	16600	9820	11200	12000	10800	8950
MIN	4810	4670	5490	10400	10700	11500	7190	7340	8260	10600	7040	7170
AC-FT	329300	319500	1153000	1166000	1608000	1528000	655900	514600	629400	693400	530800	490300

11389500 SACRAMENTO RIVER AT COLUSA, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	6431	8574	13810	17940	19950	17420	12500	10740	9136	8820	8295	7237
MAX	12040	27000	38000	39720	45500	44450	31490	26680	24590	13890	12320	10850
(WY)	1958	1974	1984	1997	1998	1983	1982	1983	1998	1998	1998	1998
MIN	3219	3860	4141	5193	5147	5852	4966	5015	4852	5073	5081	4322
(WY)	1978	1993	1977	1991	1991	1977	1994	1947	1992	1992	1947	1977

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1946 - 2004	
ANNUAL TOTAL	5099160		4849130			
ANNUAL MEAN	13970		13250		11700	
HIGHEST ANNUAL MEAN					21790	1983
LOWEST ANNUAL MEAN					5671	1977
HIGHEST DAILY MEAN	45000	Jan 15	48300	Feb 20	51300	Mar 4 1983
LOWEST DAILY MEAN	4670	Nov 23	4670	Nov 23	2620	Oct 16 1977
ANNUAL SEVEN-DAY MINIMUM	4730	Nov 21	4730	Nov 21	2690	Oct 12 1977
MAXIMUM PEAK FLOW			49000	Feb 20	51800	Mar 4 1983
MAXIMUM PEAK STAGE			67.05	Feb 20	68.83	Jan 3 1997
ANNUAL RUNOFF (AC-FT)	10110000		9618000		8477000	
10 PERCENT EXCEEDS	31300		28600		24600	
50 PERCENT EXCEEDS	11000		10600		8400	
90 PERCENT EXCEEDS	5420		5420		5340	

11389720 BUTTE CREEK BELOW DIVERSION DAM, NEAR STIRLING CITY, CA

LOCATION.—Lat 39°58'53", long 121°35'15", unsurveyed, T.25 N., R.3 E., Butte County, Hydrologic Unit 18020120, on left bank, 400 ft downstream from diversion dam, 0.1 mi upstream from Haw Creek, and 6.2 mi northwest of Stirling City.

DRAINAGE AREA.—61.3 mi^2.

PERIOD OF RECORD.—January 1986, June 1986 to current year (low-flow records only).

GAGE.—Water-stage recorder. Elevation of gage is 2,840 ft above NGVD of 1929, from topographic map.

REMARKS.—Flow regulated by diversion dam 400 ft upstream. Flows computed to 100 ft^3/s. Most of the water is diverted at diversion dam to Butte Creek Canal and then to De Sabla Powerplant (station 11389750).

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 803.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	21	37	---	60	---	---	---	66	19	18	18
2	21	21	27	---	78	---	---	---	55	18	18	18
3	21	22	22	---	81	---	---	---	51	18	18	18
4	21	22	28	---	73	---	---	---	46	18	18	18
5	21	22	45	91	67	---	---	---	43	18	18	18
6	21	22	---	89	64	---	---	---	40	18	18	18
7	21	29	---	---	63	---	---	---	37	19	18	18
8	21	39	84	---	61	---	---	---	43	19	18	18
9	21	60	57	---	59	---	---	---	51	19	18	18
10	21	43	96	---	48	---	---	---	43	19	18	18
11	21	22	---	---	34	---	---	---	28	19	18	18
12	21	22	71	---	31	---	---	---	27	18	18	18
13	21	22	---	---	37	---	---	---	26	18	18	18
14	21	33	---	---	41	---	---	---	25	18	18	18
15	21	73	---	---	53	---	---	---	25	18	18	18
16	21	50	95	---	---	---	---	---	24	18	18	18
17	21	44	45	93	---	---	---	---	23	18	18	18
18	21	30	35	87	---	---	---	---	22	18	18	18
19	21	26	44	83	---	---	---	---	22	18	18	18
20	21	25	79	80	---	---	---	---	22	18	18	18
21	21	24	73	73	---	---	---	---	22	18	18	18
22	21	23	63	69	---	---	---	---	22	18	18	18
23	21	23	77	66	---	---	---	---	20	18	19	18
24	21	23	---	66	---	---	---	90	18	18	19	18
25	21	23	---	62	---	---	---	81	18	18	19	18
26	21	22	---	59	---	---	---	77	18	18	19	18
27	21	22	---	72	---	---	---	88	18	18	18	18
28	21	22	---	70	---	---	---	---	18	18	18	18
29	21	25	---	65	---	---	---	---	18	18	18	18
30	21	27	---	66	---	---	---	83	18	18	18	18
31	21	---	---	63	---	---	---	78	---	18	18	---
TOTAL	651	882	---	---	---	---	---	---	909	564	562	540
MEAN	21.0	29.4	---	---	---	---	---	---	30.3	18.2	18.1	18.0
MAX	21	73				---	---		66	19	19	18
MIN	21	21				---	---		18	18	18	18
AC-FT	1290	1750	---	---	---	---	---	---	1800	1120	1110	1070

11389740 BUTTE CREEK BELOW FORKS OF BUTTE DIVERSION DAM, NEAR DE SABLA, CA

LOCATION.—Lat 39°54'05", long 121°37'24", in NW 1/4 NE 1/4 sec.34, T.24 N., R.3 E., Butte County, Hydrologic Unit 18020120, on left bank, 30 ft downstream from diversion dam, 0.2 mi upstream from American Ravine, and 2.0 mi north of De Sabla.

DRAINAGE AREA.—96.4 mi^2.

PERIOD OF RECORD.—April 1992 to current year (low-flow records only).

GAGE.—Water-stage recorder and concrete control. Elevation of gage is 1,900 ft above NGVD of 1929, from topographic map.

REMARKS.—No records computed above 60 ft^3/s. Flow regulated by Forks of Butte Diversion Dam 30 ft upstream. Water is diverted out of creek to Butte Canal 7.4 mi upstream by Pacific Gas and Electric Co. Water is diverted 30 ft upstream to Forks of Butte Powerplant (station 11389747).

COOPERATION.—Records were collected by H&M Engineering, Inc., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 6896.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	38	51	---	48	---	---	48	48	41	34	32
2	37	35	53	---	54	---	---	48	47	41	34	32
3	37	41	46	---	48	---	55	48	47	40	34	32
4	37	38	46	48	48	---	---	48	47	39	34	32
5	37	37	51	48	48	---	---	48	47	39	34	32
6	37	38	---	48	48	---	50	48	47	38	34	32
7	37	51	---	48	48	---	48	48	47	39	34	32
8	37	56	47	48	48	---	49	48	48	39	34	32
9	37	48	48	---	48	---	48	48	47	38	34	31
10	37	51	53	---	48	---	48	48	48	38	33	32
11	37	41	---	---	48	---	48	48	60	38	33	32
12	37	40	48	48	48	---	48	48	56	37	33	32
13	37	39	---	48	48	---	48	48	54	37	33	32
14	37	43	---	48	48	---	48	48	52	38	33	32
15	37	48	---	48	48	---	49	48	51	37	33	32
16	37	53	48	48	---	---	48	48	49	37	33	32
17	37	56	47	48	---	---	48	48	48	37	33	32
18	37	52	47	48	---	---	48	48	46	36	33	32
19	37	45	48	48	---	---	48	48	45	36	33	34
20	37	43	48	48	---	---	---	48	45	36	33	35
21	37	42	48	48	---	---	---	48	45	36	33	34
22	37	40	47	48	---	---	49	48	44	35	33	33
23	37	39	48	48	---	---	48	48	43	35	34	33
24	36	39	---	48	---	---	48	48	41	35	35	32
25	36	39	---	47	---	---	48	48	40	35	34	32
26	36	39	---	48	---	---	48	48	40	34	34	32
27	36	39	48	48	---	---	48	48	40	34	33	32
28	36	39	48	48	---	---	48	48	40	34	33	32
29	36	41	48	48	---	---	48	48	41	34	33	32
30	37	46	48	48	---	---	48	48	40	34	32	33
31	38	---	48	48	---	---	---	48	---	34	32	---
TOTAL	1142	1296	---	---	---	---	---	1488	1393	1141	1035	969
MEAN	36.8	43.2	---	---	---	---	---	48.0	46.4	36.8	33.4	32.3
MAX	38	56				---		48	60	41	35	35
MIN	36	35				---		48	40	34	32	31
AC-FT	2270	2570	---	---	---	---	---	2950	2760	2260	2050	1920
a	0	379	7830	9310	10240	16180	13200	7110	577	0	0	0

CAL YR 2003 a 90090
WTR YR 2004 a 64830

a Diversion, in acre-feet, to Forks of Butte Powerplant (station 11389747), provided by H&M Engineering, Inc.

11389780 BUTTE CREEK BELOW CENTERVILLE DIVERSION DAM, NEAR PARADISE, CA

LOCATION.—Lat 39°52'01", long 121°37'58", in SW 1/4 NW 1/4 sec.10, T.23 N., R.3 E., Butte County, Hydrologic Unit 18020120, on left bank, 400 ft downstream from Centerville Diversion Dam, 0.2 mi downstream from De Sabla Powerplant, and 6.8 mi north of Paradise.

DRAINAGE AREA.—101 mi^2.

PERIOD OF RECORD.—November 1985 to February 1986, June 1986 to current year (low-flow records only).

GAGE.—Water-stage recorder. Elevation of gage is 1,130 ft above NGVD of 1929, from topographic map.

REMARKS.—Flow regulated by several reservoirs and diversions upstream. Flows computed to 60 ft^3/s. Most of the water is diverted at Centerville Diversion Dam to the Centerville Powerplant (station 11389775).

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 803.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	---	---	---	---	---	---	---	---	45	44	45
2	43	---	---	---	---	---	---	---	---	45	44	45
3	46	---	---	---	---	---	---	---	---	45	44	45
4	47	---	---	---	---	---	---	---	---	44	44	45
5	47	---	---	---	---	---	---	---	---	44	44	45
6	47	---	---	---	---	---	---	---	---	45	45	45
7	47	---	---	---	---	---	---	---	---	44	45	45
8	47	---	---	---	---	---	---	---	---	44	45	45
9	47	---	---	---	---	---	---	---	---	44	44	45
10	47	---	---	---	---	---	---	---	---	44	44	44
11	47	---	---	---	---	---	---	---	---	44	44	44
12	47	---	---	---	---	---	---	---	---	44	44	44
13	47	---	---	---	---	---	---	---	---	46	45	44
14	46	---	---	---	---	---	---	---	---	45	45	44
15	46	---	---	---	---	---	---	---	---	45	45	44
16	47	---	---	---	---	---	---	---	---	45	45	44
17	46	---	---	---	---	---	---	---	55	45	45	46
18	46	---	---	---	---	---	---	---	51	45	43	46
19	46	---	---	---	---	---	---	---	51	44	43	45
20	47	---	---	---	---	---	---	---	46	44	44	44
21	47	---	---	---	---	---	---	---	44	46	44	44
22	47	---	---	---	---	---	---	---	44	46	46	49
23	47	---	---	---	---	---	---	---	45	45	46	54
24	46	---	---	---	---	---	---	---	43	44	46	58
25	47	---	---	---	---	---	---	---	43	45	46	58
26	48	---	---	---	---	---	---	---	43	46	46	58
27	50	---	---	---	---	---	---	---	43	45	45	57
28	55	---	---	---	---	---	---	---	43	45	45	57
29	---	---	---	---	---	---	---	---	44	45	45	58
30	---	---	---	---	---	---	---	---	44	44	45	60
31	---	---	---	---	---	---	---	---	---	44	45	---
TOTAL	---	---	---	---	---	---	---	---	---	1386	1385	1447
MEAN	---	---	---	---	---	---	---	---	---	44.7	44.7	48.2
MAX		---	---	---	---	---	---	---		46	46	60
MIN		---	---	---	---	---	---	---		44	43	44
AC-FT	---	---	---	---	---	---	---	---	---	2750	2750	2870
a	2750	0	4400	5720	1410	6720	7720	9070	8690	6980	6260	4680

a Discharge, in acre-feet, from Centerville Powerplant (station 11389775), provided by Pacific Gas & Electric Co.

11389800 TOADTOWN CANAL ABOVE BUTTE CANAL, NEAR STIRLING CITY, CA

LOCATION.—Lat 39°53'09", long 121°36'35", in NE 1/4 NW 1/4 sec.2, T.23 N., R.3 E., Butte County, Hydrologic Unit 18020120, on right bank, 600 ft upstream from Butte Canal, and 4.6 mi west of Stirling City.

PERIOD OF RECORD.—October 1986 to current year. Monthly discharges for water years 1931–86 are published as a line item to Butte Creek near Chico (station 11390000).

GAGE.—Water-stage recorder and Parshall flume. Elevation of gage is 2,790 ft above NGVD of 1929, from topographic map.

REMARKS.—Canal diverts from right bank of West Branch Feather River, in sec.16, T.24 N., R.4 E. at Hendricks Diversion Dam to Hendricks Canal, flows through tunnel down Long Ravine to Toadtown Canal, and discharges into Butte Canal. Butte Canal flows to De Sabla Powerplant (station 11389750) on Butte Creek.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 803.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 127 ft^3/s, Feb. 12, May 20, 1995, no flow at times in most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	25	44	63	83	57	50	107	108	65	47	64
2	25	25	47	55	94	89	102	106	112	65	46	64
3	25	29	41	52	96	94	100	108	114	63	47	63
4	25	27	35	51	87	98	99	109	113	61	47	63
5	25	31	44	51	83	97	104	108	113	60	47	63
6	25	30	62	51	75	96	109	110	113	56	51	62
7	25	33	74	53	70	95	112	112	113	54	50	62
8	25	33	75	58	69	43	112	112	107	53	50	61
9	25	42	70	64	72	4.9	112	112	98	52	49	60
10	25	36	79	64	73	3.1	111	111	105	51	49	54
11	24	28	76	63	73	3.2	112	113	108	50	49	53
12	24	27	69	65	72	3.1	114	113	99	49	49	53
13	24	26	78	66	72	2.8	114	112	98	48	58	53
14	24	28	65	80	72	2.7	107	112	98	47	57	53
15	24	37	74	96	78	4.2	97	112	104	46	57	43
16	24	39	76	95	94	5.3	96	112	90	45	57	31
17	24	45	82	95	66	2.7	96	111	87	45	57	26
18	24	43	77	95	54	1.5	96	111	85	44	57	26
19	24	40	71	95	65	2.6	97	110	82	43	58	26
20	24	34	77	94	82	3.8	98	111	79	43	64	29
21	24	32	76	90	74	3.7	100	111	79	55	64	28
22	24	30	75	86	66	3.9	100	111	76	55	65	26
23	24	29	76	84	70	4.4	101	112	74	53	66	25
24	24	29	68	84	63	3.0	100	114	71	51	67	25
25	23	28	51	81	49	2.8	99	114	69	48	65	25
26	23	28	54	78	38	2.1	56	114	68	58	65	24
27	23	28	52	90	49	4.2	0.25	109	68	58	63	24
28	23	28	52	92	47	4.2	0.01	105	66	52	63	24
29	24	30	54	87	46	4.4	51	104	67	51	62	22
30	24	34	53	90	---	4.2	108	104	65	47	61	22
31	25	---	51	86	---	4.2	---	103	---	47	64	---
TOTAL	752	954	1978	2354	2032	750.0	2753.26	3413	2729	1615	1751	1254
MEAN	24.3	31.8	63.8	75.9	70.1	24.2	91.8	110	91.0	52.1	56.5	41.8
MAX	26	45	82	96	96	98	114	114	114	65	67	64
MIN	23	25	35	51	38	1.5	0.01	103	65	43	46	22
AC-FT	1490	1890	3920	4670	4030	1490	5460	6770	5410	3200	3470	2490
a	2750	4010	6490	7590	6060	1310	8410	10270	8580	5710	5440	4190

a Discharge, in acre-feet, from De Sabla Powerplant (station 11389750), provided by Pacific Gas & Electric Co.

11390000 BUTTE CREEK NEAR CHICO, CA

LOCATION.—Lat 39°43'34", long 121°42'28", in NW 1/4 NW 1/4 sec.36, T.22 N., R.2 E., Butte County, Hydrologic Unit 18020105, on right bank, 0.7 mi downstream from Little Butte Creek, and 7.5 mi east of Chico.

DRAINAGE AREA.—147 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—October 1930 to current year. Monthly discharge only for some periods, published in WSP 1315-A.

REVISED RECORDS.—WSP 1445: 1953(M). WSP 1931: Drainage area.

GAGE.—Water-stage recorder and crest-stage gage. Elevation of gage is 320 ft above NGVD of 1929, from topographic map. Prior to Aug. 13, 1944, water-stage recorder at site 0.4 mi upstream at different datum. Aug. 13, 1944, to June 5, 1986, at datum 3.00 ft higher.

REMARKS.—Records good. Flow slightly regulated by storage in Magalia Reservoir, usable capacity, 2,640 acre-ft, and since 1957 by Paradise Reservoir, usable capacity, 11,500 acre-ft. Diversions upstream from station for irrigation and domestic use of about 7,000 acre-ft annually. Butte Creek receives water above station from West Branch Feather River by way of Toadtown Canal (station 11389800).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 35,600 ft^3/s, Jan. 1, 1997, gage height, 15.06 ft in gage well, 15.7 ft from floodmarks, on basis of slope-area measurement of peak flow, maximum gage height, 17.52 ft, Feb. 17, 1986, present datum; minimum discharge, 44 ft^3/s, Aug. 23–29, 1931.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 2,700 ft^3/s, or maximum:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 14	0630	3,150	4.22	Feb. 17	2215	9,080	7.31
Dec. 24	1045	3,570	4.50	Feb. 25	1530	4,770	5.52
Jan. 1	1230	2,830	3.99				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	103	109	196	1630	375	1410	519	450	310	191	150	142
2	104	106	210	1030	703	1200	536	437	312	188	152	143
3	104	136	173	647	848	995	532	433	300	188	150	168
4	104	116	144	487	697	900	525	435	294	189	142	149
5	104	116	185	414	574	847	523	452	297	186	143	141
6	102	119	451	377	502	791	527	476	304	176	140	137
7	102	129	603	506	480	775	521	471	291	171	154	136
8	103	138	313	526	458	744	530	473	290	164	151	135
9	103	226	246	575	446	709	528	458	278	157	147	133
10	103	166	520	653	425	712	519	495	283	155	138	127
11	103	127	608	593	411	695	515	494	299	157	139	125
12	103	117	367	525	393	681	520	459	272	166	137	125
13	102	114	451	475	384	665	524	444	279	163	143	124
14	99	118	1580	457	383	648	501	436	284	159	145	124
15	99	226	594	465	398	615	494	429	280	154	146	114
16	101	172	397	454	1560	596	453	427	275	155	144	100
17	101	167	346	437	5440	580	436	419	268	156	149	91
18	101	157	303	417	6160	581	425	419	260	152	146	93
19	100	140	275	403	2660	591	429	419	242	147	148	95
20	101	129	369	392	1670	579	525	369	232	148	164	104
21	101	125	352	373	1300	567	512	367	254	163	155	104
22	99	122	314	353	1090	566	487	392	240	161	146	96
23	99	118	344	345	983	569	442	370	235	156	151	90
24	99	118	2000	343	1160	553	429	373	228	163	157	91
25	98	118	1050	339	2960	583	437	349	224	153	152	95
26	96	117	613	330	2490	571	437	348	221	155	150	94
27	97	116	442	469	1760	505	325	364	220	154	147	89
28	98	116	372	502	1490	546	339	393	220	146	144	89
29	98	121	1190	424	1330	500	349	370	215	146	141	88
30	98	136	998	409	---	477	445	336	192	154	138	85
31	105	---	566	397	---	593	---	322	---	152	140	---
TOTAL	3130	4035	16572	15747	39530	21344	14284	12879	7899	5025	4549	3427
MEAN	101	134	535	508	1363	689	476	415	263	162	147	114
MAX	105	226	2000	1630	6160	1410	536	495	312	191	164	168
MIN	96	106	144	330	375	477	325	322	192	146	137	85
AC-FT	6210	8000	32870	31230	78410	42340	28330	25550	15670	9970	9020	6800

11390000 BUTTE CREEK NEAR CHICO, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	137	223	463	690	820	763	677	503	286	165	133	119
MAX	775	1269	2061	2847	2925	2601	1848	1314	773	356	223	183
(WY)	1963	1974	1956	1997	1986	1995	1982	1995	1998	1998	1975	1998
MIN	65.8	77.8	89.5	91.0	114	123	114	134	79.4	54.4	46.1	51.9
(WY)	1992	1992	1991	1991	1977	1977	1977	1977	1977	1977	1931	1992

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1931 - 2004	
ANNUAL TOTAL	184819		148421			
ANNUAL MEAN	506		406		413	
HIGHEST ANNUAL MEAN					834	1995
LOWEST ANNUAL MEAN					94.0	1977
HIGHEST DAILY MEAN	2900	Mar 15	6160	Feb 18	26600	Jan 1 1997
LOWEST DAILY MEAN	96	Oct 26	85	Sep 30	44	Aug 23 1931
ANNUAL SEVEN-DAY MINIMUM	98	Oct 24	90	Sep 24	44	Aug 23 1931
MAXIMUM PEAK FLOW			9080	Feb 17	35600	Jan 1 1997
MAXIMUM PEAK STAGE			7.31	Feb 17	17.52	Feb 17 1986
ANNUAL RUNOFF (AC-FT)	366600		294400		299000	
10 PERCENT EXCEEDS	1120		670		856	
50 PERCENT EXCEEDS	380		292		210	
90 PERCENT EXCEEDS	106		103		102	

11390000 BUTTE CREEK NEAR CHICO, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—Water years 1953–79, 1999 to current year.
CHEMICAL DATA: Water years 1953–79.
WATER TEMPERATURE: Water years 1962–79, 1999 to current year.
TURBIDITY: Water year 2001 to current year (discontinued).
SEDIMENT DATA: Water years 2001–02.

PERIOD OF DAILY RECORD.—
WATER TEMPERATURE: November 1961 to January 1979, October 1998 to current year.
TURBIDITY: January 2001 to September 2004 (discontinued).

INSTRUMENTATION.—Temperature recorder since October 1998.

REMARKS.—Temperature record rated excellent. Turbidity record rated good except for Jan. 6 to Mar. 9, which is rated fair. Unpublished sediment and turbidity sample data in U.S. Geological Survey Sediment Laboratory Environmental Data System (SLEDS) for January 2000 to October 2001.

EXTREMES FOR PERIOD OF DAILY RECORD.—
WATER TEMPERATURE: Maximum recorded, 27.5°C, July 13, 14, 2002; minimum recorded, 0.5°C, Dec. 8, 31, 1978, Jan. 1, 1979.
TURBIDITY: Maximum recorded, 440 NTU, Feb. 18, 2004; minimum recorded, 0.0 NTU, many days during most years.

EXTREME FOR CURRENT YEAR.—
WATER TEMPERATURE: Maximum recorded, 26.0°C, July 6; minimum recorded, 4.0°C, Nov. 25, Dec. 28.
TURBIDITY: Maximum record, 440 NTU, Feb. 18; minimum recorded, 0.0 NTU, many days during the year.

TEMPERATURE, WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	19.0	15.5	11.0	8.5	9.0	8.0	8.5	7.5	6.5	5.5	8.5	7.5
2	18.5	15.0	9.5	8.0	9.5	8.5	7.5	6.5	7.5	6.0	9.5	7.0
3	18.0	15.5	9.5	7.5	10.0	8.0	6.5	5.5	7.0	6.5	8.5	7.0
4	19.0	16.0	9.0	6.5	9.0	8.0	6.5	5.0	7.5	6.0	9.5	7.0
5	19.0	15.5	9.5	8.0	9.0	9.0	6.0	4.5	7.5	5.5	9.0	7.5
6	19.0	15.5	9.0	7.5	10.0	9.0	6.5	5.5	7.5	6.0	11.0	8.0
7	19.0	15.5	10.0	8.5	10.0	8.0	7.5	6.0	8.0	5.5	11.5	8.5
8	18.5	15.0	10.5	9.0	8.0	6.5	8.0	7.0	7.5	5.0	11.5	9.0
9	17.5	14.5	11.5	9.5	6.5	6.0	8.0	7.0	7.5	5.0	12.5	9.5
10	16.0	13.0	11.0	8.5	8.0	6.5	9.0	7.5	7.5	5.0	12.0	9.5
11	15.5	12.0	10.0	7.5	7.0	6.5	8.5	7.5	8.0	5.0	11.5	9.5
12	15.5	12.0	10.0	7.5	7.0	6.5	8.0	7.0	8.0	5.0	12.0	9.0
13	15.0	11.0	10.0	8.0	8.0	6.5	7.5	6.5	7.0	5.5	12.0	9.5
14	15.0	11.5	9.5	8.5	8.5	7.0	7.0	6.0	8.5	6.5	12.5	9.5
15	14.5	11.5	9.5	8.5	7.0	6.0	8.0	7.0	8.0	7.0	12.5	9.5
16	14.5	11.5	9.5	8.0	6.5	5.5	7.5	6.5	9.5	7.5	12.5	9.5
17	14.5	11.5	10.0	8.5	6.5	5.0	7.0	6.5	9.0	8.5	12.5	9.5
18	14.5	11.5	9.5	7.5	7.0	5.0	7.5	6.5	9.0	8.5	12.5	9.5
19	15.0	11.5	10.0	8.0	6.5	5.0	7.0	6.0	9.0	8.0	13.0	10.0
20	15.5	12.0	10.0	8.5	7.5	6.5	8.0	6.0	9.0	8.0	12.0	9.5
21	15.5	12.5	9.0	7.0	8.5	7.0	7.0	5.0	9.0	8.5	13.0	9.5
22	15.5	12.5	7.5	5.5	8.0	6.5	6.5	4.5	8.5	8.5	13.0	10.0
23	15.5	12.5	6.5	4.5	7.5	6.5	6.5	4.5	10.0	8.0	12.5	10.0
24	14.5	11.5	6.5	4.5	9.5	7.5	6.5	5.5	9.0	8.0	12.5	10.0
25	15.0	12.0	6.5	4.0	9.0	7.5	7.0	5.5	9.5	8.0	10.5	8.5
26	15.5	12.5	6.5	4.5	7.5	5.5	6.0	5.0	8.5	8.0	9.5	8.0
27	15.5	12.5	6.5	4.5	6.0	4.5	6.5	5.5	9.0	8.0	11.5	8.0
28	15.5	12.5	7.0	5.5	5.5	4.0	7.0	5.5	9.0	7.0	12.5	8.5
29	15.5	13.0	7.5	6.5	7.5	5.0	7.5	5.5	9.5	7.5	13.0	9.5
30	13.0	11.0	8.0	7.5	8.0	7.0	8.0	6.0	---	---	11.5	10.0
31	11.5	10.5	---	---	7.5	7.0	7.5	5.5	---	---	12.5	9.0
MONTH	19.0	10.5	11.5	4.0	10.0	4.0	9.0	4.5	10.0	5.0	13.0	7.0

11390000 BUTTE CREEK NEAR CHICO, CA—Continued

TEMPERATURE, WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	11.5	8.5	15.0	11.0	19.5	14.5	23.5	18.5	23.5	18.5	22.0	17.0
2	11.5	8.5	16.0	11.5	20.0	14.5	24.0	19.0	23.0	18.5	21.5	17.0
3	12.5	8.5	16.5	12.5	20.0	15.5	24.0	19.0	23.5	18.0	20.5	16.5
4	12.0	9.5	17.0	13.0	20.0	15.0	24.5	19.5	23.5	18.5	20.5	16.0
5	12.0	9.0	16.0	12.5	19.5	15.5	25.0	20.0	22.5	18.0	21.0	16.0
6	12.0	9.0	15.0	11.5	20.0	15.5	26.0	20.5	22.5	17.5	21.0	16.5
7	12.5	8.5	15.0	11.5	19.5	15.5	25.5	21.0	23.0	17.5	21.5	17.0
8	13.0	9.0	15.0	12.0	18.0	14.5	25.0	20.0	23.5	18.0	21.5	17.0
9	13.5	9.5	15.5	11.5	17.5	13.5	24.0	19.0	23.5	18.5	21.5	17.0
10	13.5	9.5	14.5	11.5	18.5	13.5	23.5	18.5	23.5	18.0	21.0	17.0
11	13.0	9.5	14.0	10.5	18.5	14.0	23.5	18.0	23.0	18.0	21.0	16.0
12	13.5	10.0	14.0	9.5	19.5	14.5	23.5	18.0	23.5	18.0	21.0	16.5
13	12.5	9.5	14.5	10.5	20.0	15.0	23.5	18.0	23.5	18.5	20.5	16.0
14	11.5	9.5	15.5	11.5	21.0	16.0	23.5	17.5	23.5	19.0	19.5	15.5
15	11.5	9.0	16.5	12.0	21.5	16.0	23.5	17.5	23.0	18.0	20.0	15.0
16	11.0	8.0	16.5	12.5	22.0	17.0	22.0	18.0	23.0	18.0	20.5	16.0
17	9.5	8.0	16.0	12.5	22.0	17.5	23.5	18.5	23.0	18.0	20.0	16.5
18	9.0	7.5	15.5	12.5	22.5	17.5	24.0	19.0	23.5	18.5	19.5	16.5
19	9.0	7.5	15.5	11.5	22.5	17.5	24.0	19.5	24.0	19.0	16.5	15.0
20	9.0	8.0	16.5	12.0	22.5	17.5	25.0	20.0	23.5	19.0	17.5	14.0
21	10.0	8.5	16.0	12.0	22.5	17.5	25.5	20.0	23.5	19.0	17.0	13.0
22	12.0	7.5	15.5	12.0	23.0	18.0	25.5	20.0	22.0	19.0	17.0	13.0
23	13.0	9.0	16.0	12.0	23.0	18.0	25.5	20.0	22.5	18.5	17.5	13.5
24	14.0	9.5	16.5	12.5	23.0	18.0	25.5	20.0	23.0	19.0	18.0	14.0
25	15.0	10.5	16.0	12.5	23.0	17.5	25.5	20.0	22.5	18.0	18.0	14.0
26	15.5	11.5	17.0	12.5	23.0	17.5	25.0	19.5	22.5	18.5	18.5	14.5
27	17.0	12.0	16.0	13.5	23.0	17.5	24.5	19.5	22.0	17.0	18.0	14.5
28	16.5	12.5	16.0	14.0	23.0	18.5	24.5	19.5	22.5	17.0	16.5	14.0
29	15.5	11.5	17.0	12.5	23.0	18.5	24.0	19.0	22.5	17.5	17.0	14.0
30	14.5	10.5	17.5	12.5	23.0	18.5	24.5	19.0	22.5	17.5	17.5	14.0
31	---	---	19.0	13.5	---	---	24.0	19.0	22.0	17.5	---	---
MONTH	17.0	7.5	19.0	9.5	23.0	13.5	26.0	17.5	24.0	17.0	22.0	13.0

TURBIDITY (NTU), WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	2.8	0.4	1.6	0.0	7.0	0.5	72	2.3	5.9	0.7	20	6.6
2	1.8	0.3	1.3	0.0	3.8	1.2	13	4.2	50	1.2	8.8	5.4
3	3.1	0.4	6.7	0.0	4.4	0.6	7.9	2.5	18	5.1	6.2	4.2
4	2.2	0.4	1.3	0.0	0.9	0.2	3.9	1.3	6.6	2.2	5.9	3.6
5	2.2	0.4	1.0	0.0	3.0	0.3	3.3	1.0	3.9	1.7	5.7	2.9
6	1.9	0.0	2.7	0.1	93	1.8	5.9	0.9	2.6	1.4	8.0	2.3
7	2.1	0.0	1.1	0.0	76	8.6	15	1.4	8.4	1.6	6.3	2.5
8	1.4	0.0	9.9	0.1	14	3.7	17	1.9	3.4	1.2	3.7	2.2
9	2.9	0.0	16	3.9	7.4	1.9	22	1.8	2.1	1.1	4.0	2.1
10	2.4	0.0	8.8	1.2	49	3.5	38	2.0	3.5	1.0	4.6	2.1
11	3.5	0.0	2.9	0.6	14	3.7	6.9	1.2	1.8	1.0	4.1	1.7
12	4.2	0.0	1.7	0.3	3.7	1.4	1.5	1.0	1.6	1.0	4.1	1.7
13	0.9	0.0	1.2	0.0	14	1.4	1.3	0.8	2.1	1.0	5.1	1.6
14	2.3	0.0	3.3	0.0	220	11	1.7	0.5	1.9	1.0	5.3	1.6
15	3.6	0.0	9.0	1.2	11	3.0	2.1	0.9	2.3	1.0	6.9	1.7
16	2.2	0.0	5.8	1.2	5.0	1.2	2.0	0.6	180	1.8	3.2	1.7
17	1.6	0.0	3.0	0.9	2.2	0.9	1.9	0.6	390	75	4.0	1.0
18	1.9	0.0	1.8	0.3	3.3	0.8	1.7	0.7	440	95	3.4	1.5
19	0.7	0.0	1.6	0.2	2.2	0.6	5.0	0.7	110	31	4.7	1.4
20	1.5	0.0	1.1	0.2	4.5	1.4	2.8	0.6	31	14	5.2	1.5
21	0.4	0.0	1.3	0.1	2.3	0.8	5.2	0.6	24	10	4.5	1.4
22	2.2	0.0	2.2	0.2	1.6	0.3	2.0	0.6	31	7.0	7.5	1.5
23	0.4	0.0	3.0	0.1	5.8	0.4	3.6	0.7	9.0	5.8	5.0	1.5
24	0.5	0.0	0.6	0.1	130	5.2	2.7	0.6	41	5.8	3.5	1.4
25	1.0	0.0	2.6	0.0	26	4.8	1.8	0.6	190	9.6	10	1.5
26	0.9	0.0	2.6	0.0	4.8	1.8	3.1	1.0	63	21	6.1	1.6
27	0.8	0.0	1.5	0.0	2.4	0.9	40	0.5	23	11	5.2	1.3
28	2.4	0.0	1.1	0.0	3.7	0.6	15	2.0	12	7.0	2.5	1.2
29	1.0	0.0	1.0	0.0	120	0.6	5.6	1.1	8.8	5.0	4.9	1.1
30	0.8	0.0	2.2	0.1	23	4.5	4.6	1.3	---	---	6.2	1.1
31	1.1	0.0	---	---	7.0	2.4	5.7	1.3	---	---	4.1	1.3
MONTH	4.2	0.0	16	0.0	220	0.2	72	0.5	440	0.7	20	1.0

11390000 BUTTE CREEK NEAR CHICO, CA—Continued

TURBIDITY (NTU), WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	2.9	1.1	2.3	0.1	2.0	0.0	2.9	0.0	3.0	0.0	3.8	0.0
2	5.0	0.3	1.4	0.1	5.0	0.0	4.2	0.0	1.7	0.1	1.7	0.4
3	1.9	0.3	1.5	0.3	4.7	0.0	4.8	0.0	1.7	0.0	2.9	0.5
4	2.0	0.3	2.2	0.3	4.7	0.0	5.8	0.0	1.2	0.0	2.5	0.5
5	3.3	0.0	1.7	0.4	4.0	0.0	7.7	0.0	1.0	0.1	3.1	0.6
6	1.3	0.2	1.7	0.2	7.3	0.0	3.3	0.0	3.0	0.0	2.4	0.0
7	1.6	0.1	2.5	0.1	0.5	0.0	2.0	0.0	2.1	0.2	3.5	0.0
8	1.1	0.2	1.5	0.1	2.3	0.0	8.0	0.0	2.5	0.3	2.3	0.0
9	1.5	0.1	1.6	0.1	2.6	0.0	5.9	0.0	1.9	0.2	2.4	0.3
10	2.4	0.1	2.2	0.2	3.5	0.0	7.1	0.0	1.3	0.3	3.4	0.4
11	2.7	0.1	8.1	0.0	4.2	0.0	7.8	0.0	2.7	0.2	3.5	0.5
12	2.7	0.1	5.0	0.0	5.1	0.0	9.5	0.0	1.0	0.3	2.7	0.5
13	2.3	0.1	2.7	0.0	3.6	0.0	2.4	0.2	1.1	0.4	4.1	0.0
14	1.6	0.0	1.2	0.0	2.0	0.0	1.3	0.0	2.5	0.3	4.8	0.0
15	1.8	0.0	2.2	0.0	1.9	0.0	3.3	0.4	1.7	0.4	1.8	0.0
16	1.2	0.0	1.1	0.0	0.5	0.0	1.4	0.2	2.9	0.0	1.7	0.3
17	0.6	0.0	2.5	0.0	1.8	0.0	1.0	0.3	2.5	0.0	1.4	0.3
18	0.3	0.0	3.4	0.0	0.3	0.0	3.4	0.0	1.8	0.3	2.8	0.2
19	1.3	0.0	4.2	0.0	2.5	0.0	1.2	0.2	2.0	0.0	2.4	0.0
20	3.7	0.5	2.1	0.0	3.1	0.0	2.7	0.3	3.5	0.5	3.0	0.0
21	4.1	0.3	2.0	0.0	1.0	0.0	4.5	0.3	2.5	0.2	3.8	0.1
22	1.8	0.0	1.9	0.0	1.1	0.0	2.4	0.5	3.1	0.0	3.9	0.0
23	1.0	0.0	2.0	0.0	1.5	0.0	2.0	0.4	2.3	0.0	2.2	0.2
24	0.6	0.0	3.7	0.0	0.9	0.0	2.7	0.0	2.0	0.0	2.5	0.2
25	3.6	0.0	2.2	0.0	0.9	0.0	1.7	0.3	2.4	0.2	2.1	0.0
26	2.1	0.0	5.1	0.0	1.9	0.0	2.4	0.2	3.4	0.6	2.4	0.5
27	1.2	0.0	3.4	0.0	1.4	0.0	1.3	0.5	4.0	0.0	3.7	0.5
28	0.7	0.0	8.5	0.0	0.4	0.0	2.0	0.2	2.8	0.0	1.8	0.4
29	2.7	0.0	9.6	0.3	2.0	0.0	1.2	0.0	3.4	0.5	4.6	0.4
30	2.3	0.2	5.8	0.0	2.2	0.0	3.1	0.3	2.5	0.0	1.9	0.5
31	---	---	7.6	0.0	---	---	2.6	0.0	2.0	0.0	---	---
MONTH	5.0	0.0	9.6	0.0	7.3	0.0	9.5	0.0	4.0	0.0	4.8	0.0

CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Depth at sample loca-tion, feet (81903)	Tur-bidity, water, unfltrd field, NTU (61028)	Temper-ature, water, deg C (00010)	Loca-tion in X-sect. looking dwnstrm ft from l bank (00009)
FEB					
04...*	1320	.30	4.3	7.2	14.0
04...*	1325	1.20	4.4	7.2	43.0
04...*	1330	1.70	1.6	7.2	72.0
04...*	1335	2.00	1.6	7.2	101
04...*	1340	1.80	1.4	7.3	130
AUG					
18...*	1435	.50	1.0	22.9	20.0
18...*	1440	.76	1.0	22.7	40.0
18...*	1445	.94	.8	22.6	60.0
18...*	1450	1.38	1.1	22.6	80.0
18...*	1455	1.36	.9	22.6	100

* Instantaneous discharge at the time of the cross-sectional measurements: Feb. 4, 688 ft^3/s; Aug. 18, 141 ft^3/s.

11390500 SACRAMENTO RIVER BELOW WILKINS SLOUGH, NEAR GRIMES, CA

LOCATION.—Lat 39°00'36", long 121°49'25", in NW 1/4 NE 1/4 sec.2, T.13 N., R.1 E., Colusa County, Hydrologic Unit 18020104, on right bank, 1,200 ft downstream from Wilkins Slough, 5.8 mi southeast of Grimes, and at mile 62.9 upstream from Sacramento.

DRAINAGE AREA.—12,926 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—August 1931 to current year (prior to October 1938, low-water periods only). Monthly discharge only for some periods, published in WSP 1315-A. Prior to October 1965, published as "below Wilkins Slough."

GAGE.—Water-stage recorder and crest-stage gage. Datum of gage is 3.00 ft below NGVD of 1929.

REMARKS.—Records good. Natural flow of stream affected by storage reservoirs, power development, bypassing for flood control, diversions for irrigation, and return flow from irrigated areas. When discharge exceeds about 23,000 ft^3/s, flow begins over Tisdale Weir, 1.0 mi upstream on left bank, into Sutter Bypass. Records tabulated below do not include flow over Tisdale Weir. See schematic diagram of lower Sacramento River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge (since water year 1939), 32,700 ft^3/s, Feb. 20, 1986, gage height, 52.50 ft, maximum gage height, 52.75 ft, Mar. 1, 1940; minimum daily, 645 ft^3/s, Aug. 9, 1939.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6800	4670	5500	26400	12200	29000	10900	6280	8370	9440	9000	7790
2	6450	4770	6330	26300	11900	28800	10600	6160	8000	9370	9180	7540
3	6320	5030	7720	26700	16400	29000	10400	6380	7450	9390	9370	7190
4	6250	5530	8200	25500	25000	28800	10900	6510	7140	9490	9260	7260
5	6210	5430	7500	24200	23700	28400	10900	6790	6860	9430	9080	7660
6	6170	5430	7190	22900	19800	27800	10700	7070	6960	9550	8870	7870
7	6130	5460	9090	21300	16600	27200	10700	7410	8480	9440	8770	8070
8	6170	5360	15200	21700	15900	26700	11000	7290	9180	9360	8580	8200
9	6070	5530	13900	23900	15100	26200	14300	8050	9680	9310	8230	8100
10	5750	6170	10600	24700	13900	25700	15800	7700	9730	9340	8140	8370
11	5490	6880	12600	25600	13100	25100	16200	7900	9750	9410	8080	8810
12	5400	7190	15500	24200	12500	24400	16200	7920	9690	9620	8090	8760
13	5280	6430	13700	22300	12000	23600	15900	7330	9580	9650	7830	8780
14	5250	5800	15100	20500	11500	22600	14500	6630	9450	9460	7410	8810
15	5220	5700	24000	18900	11100	21300	12800	6220	9310	9400	7050	8680
16	5110	5740	23600	17800	11000	19700	12000	6190	9080	9370	6830	8600
17	5050	5990	18500	17200	18900	18300	11200	6250	9140	9390	6810	8670
18	5030	5940	16400	16100	27700	17100	9860	6400	9430	9470	6890	8720
19	4990	5660	15300	14900	29400	16300	8890	6540	9530	9470	6870	8710
20	4950	5280	14700	14100	29900	15800	7950	6400	9360	9510	6670	8860
21	5000	4900	16700	13500	29700	15200	7450	6340	9320	9510	6560	9030
22	5010	4800	17900	12900	29400	14600	7400	6180	9360	9400	6650	8870
23	4940	4730	16700	12200	29100	14200	7280	6160	9340	9820	7000	8540
24	4880	4730	17600	11600	28800	13800	6650	6480	9360	10300	7190	8420
25	4790	4790	25300	11000	28600	13300	6100	6550	9250	10400	7270	8330
26	4780	4750	26800	10700	28900	12900	5870	6350	9200	10300	7270	8140
27	4830	4770	25500	10500	29600	12900	5900	6510	9260	10300	7430	8010
28	4740	4890	24300	10800	29500	12500	6060	6730	9420	10300	7860	7950
29	4690	5020	23600	14100	29200	11900	6290	7480	9420	9790	8010	7830
30	4570	5140	26000	13400	---	11500	6290	8000	9460	9610	7940	7530
31	4560	---	27700	12300	---	11000	---	8380	---	9080	7880	---
TOTAL	166880	162510	508730	568200	610400	625600	306990	212580	269560	297680	242070	248100
MEAN	5383	5417	16410	18330	21050	20180	10230	6857	8985	9603	7809	8270
MAX	6800	7190	27700	26700	29900	29000	16200	8380	9750	10400	9370	9030
MIN	4560	4670	5500	10500	11000	11000	5870	6160	6860	9080	6560	7190
AC-FT	331000	322300	1009000	1127000	1211000	1241000	608900	421700	534700	590400	480100	492100

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 2004, BY WATER YEAR (WY)

MEAN	6455	8340	12480	15250	16930	15520	11400	9466	7947	7551	7318	7245
MAX	11800	20510	27430	27310	29090	29490	24920	23110	20670	12500	10940	10620
(WY)	1958	1974	1984	1997	1998	1983	1982	1983	1998	1998	1998	1967
MIN	3330	3839	4103	5281	5012	5152	4201	3397	3451	3784	4086	4065
(WY)	1978	1993	1977	1991	1991	1977	1994	1992	1992	1992	1947	1977

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1946 - 2004	
ANNUAL TOTAL	4544320		4219300			
ANNUAL MEAN	12450		11530		10460	
HIGHEST ANNUAL MEAN					17980	1983
LOWEST ANNUAL MEAN					5109	1977
HIGHEST DAILY MEAN	30500	Jan 2	29900	Feb 20	32600	Feb 20 1986
LOWEST DAILY MEAN	4560	Oct 31	4560	Oct 31	2720	May 7 1992
ANNUAL SEVEN-DAY MINIMUM	4690	Oct 27	4690	Oct 27	2880	Oct 12 1977
MAXIMUM PEAK FLOW			30100	Feb 20	32700	Feb 20 1986
MAXIMUM PEAK STAGE			50.40	Feb 20	52.68	Jan 4 1997
ANNUAL RUNOFF (AC-FT)	9014000		8369000		7580000	
10 PERCENT EXCEEDS	25600		24300		22200	
50 PERCENT EXCEEDS	9980		9260		8030	
90 PERCENT EXCEEDS	5340		5430		5050	

11390500 SACRAMENTO RIVER BELOW WILKINS SLOUGH, NEAR GRIMES, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.—
WATER TEMPERATURE: October 1966 to current year.

INSTRUMENTATION.—Water-temperature recorder since October 1966.

REMARKS.—Water-temperature records rated excellent except for Oct. 22 to Nov. 20, Dec. 15 to Jan. 6, Feb. 29 to May 13, which are rated good; and May 14–18, which are rated fair. Temperature recorder located at gaging station on right bank. Water temperature is affected by regulation from dams upstream. Interruption in record was due to malfunction of the recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.—
WATER TEMPERATURE: Maximum recorded, 25.5°C, Sept. 6–8, 1977, June 3–5, 1992; minimum recorded, 3.5°C, Dec. 23–25, 1990.

EXTREMES FOR CURRENT YEAR.—
WATER TEMPERATURE: Maximum recorded, 21.5°C, several days in July and August; minimum recorded, 6.5°C, Dec. 31.

TEMPERATURE, WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	19.0	18.0	14.0	13.0	11.5	11.0	8.0	7.0	9.5	9.0	10.0	10.0
2	18.5	18.0	13.5	12.5	12.0	11.0	8.5	8.0	9.5	9.0	10.0	10.0
3	18.5	17.5	12.5	12.0	12.5	12.0	8.5	7.5	9.0	8.5	10.0	9.5
4	18.5	17.5	12.5	11.5	12.5	12.0	7.5	7.0	8.5	7.5	10.0	9.5
5	19.0	18.0	12.5	12.0	12.5	12.0	7.5	7.5	8.5	7.5	10.0	10.0
6	19.5	18.0	13.0	12.0	12.5	12.5	8.0	7.5	9.0	8.5	10.5	10.0
7	19.0	18.5	13.0	12.5	12.5	12.0	8.5	8.0	9.5	8.5	11.0	10.5
8	19.0	18.0	13.5	13.0	12.0	11.5	9.0	8.5	9.5	9.0	12.0	11.0
9	19.0	18.0	13.5	13.0	11.5	10.5	9.0	8.5	9.5	9.0	12.5	12.0
10	18.5	17.5	14.0	13.0	10.5	10.5	9.5	9.0	9.5	9.0	13.0	12.5
11	17.5	16.5	13.5	13.0	10.5	10.0	9.5	9.0	10.0	9.0	13.0	12.5
12	16.5	16.0	13.5	13.0	10.0	9.5	9.5	9.0	10.0	9.5	13.0	13.0
13	16.5	15.5	13.5	13.0	10.0	9.5	10.0	9.5	10.0	9.5	13.0	13.0
14	16.5	15.5	13.5	13.0	10.5	10.0	9.5	9.5	10.0	9.5	13.5	13.0
15	16.5	15.5	13.0	13.0	10.5	9.5	9.5	9.5	10.5	10.0	14.0	13.5
16	16.5	15.5	13.0	12.5	9.5	9.0	9.5	9.0	11.0	10.5	14.5	13.5
17	16.5	15.5	13.0	12.5	9.0	8.5	9.5	9.5	11.0	10.5	15.0	14.0
18	16.5	15.5	13.0	12.5	9.0	8.5	10.0	9.5	11.0	10.5	15.5	14.0
19	17.0	16.0	13.0	12.5	9.5	9.0	10.0	9.5	11.0	11.0	16.0	14.5
20	17.0	16.0	13.0	13.0	10.0	9.5	10.0	9.5	11.0	10.5	16.5	15.0
21	17.0	16.0	13.0	12.5	10.5	9.5	10.5	10.0	10.5	10.0	16.5	15.0
22	17.0	16.0	12.5	11.5	10.5	10.0	10.0	9.5	10.0	10.0	16.5	15.0
23	17.0	16.0	11.5	10.5	10.5	10.0	9.5	9.5	10.0	10.0	16.5	15.5
24	17.0	16.0	10.5	10.0	10.5	10.0	9.5	9.0	10.5	10.0	16.0	15.0
25	16.5	15.5	10.0	9.5	10.5	10.0	9.5	9.0	10.5	10.0	15.5	15.0
26	16.5	15.5	10.0	9.5	10.5	9.5	9.0	9.0	10.0	10.0	15.0	14.0
27	17.0	16.0	10.0	9.5	9.5	9.0	9.0	9.0	10.5	10.0	14.0	13.0
28	17.0	16.0	10.5	10.0	9.0	8.5	9.0	9.0	10.0	9.5	13.5	12.5
29	17.0	16.0	10.5	10.5	8.5	8.0	9.0	8.0	10.0	10.0	14.5	13.0
30	16.5	15.5	11.0	10.5	8.5	7.0	8.5	8.0	---	---	15.0	14.5
31	15.5	14.0	---	---	7.0	6.5	9.0	8.5	---	---	15.5	15.0
MONTH	19.5	14.0	14.0	9.5	12.5	6.5	10.5	7.0	11.0	7.5	16.5	9.5

11390500 SACRAMENTO RIVER BELOW WILKINS SLOUGH, NEAR GRIMES, CA—Continued

TEMPERATURE, WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	15.5	14.5	19.0	18.0	20.5	18.5	20.5	19.0	---	---	20.5	20.0
2	14.5	14.0	19.5	18.5	21.0	19.0	21.0	19.0	---	---	20.5	20.0
3	15.0	14.0	20.0	19.0	21.0	19.5	21.0	19.5	---	---	20.0	19.0
4	15.5	15.0	20.0	19.5	21.0	19.5	21.0	19.5	---	---	19.5	18.5
5	15.5	15.0	20.0	19.0	21.0	19.5	21.5	19.5	---	---	20.0	18.5
6	15.5	15.0	19.5	18.5	21.0	20.0	21.5	20.0	---	---	20.0	19.5
7	16.0	15.5	19.0	18.0	21.0	19.5	21.5	19.5	---	---	20.5	20.0
8	17.0	16.0	18.5	17.0	19.5	18.0	21.0	19.5	---	---	20.5	20.0
9	17.0	15.5	18.5	17.5	18.5	17.0	21.0	19.5	---	---	20.5	20.0
10	16.0	15.0	18.0	16.5	18.0	16.5	20.5	19.0	---	---	20.5	20.0
11	15.5	15.0	17.5	16.5	18.5	17.0	20.5	19.0	---	---	20.5	20.0
12	15.5	15.0	18.0	16.5	19.0	17.5	20.5	19.0	---	---	20.0	19.5
13	15.5	15.0	18.5	17.0	20.0	18.0	20.5	19.0	---	---	20.0	19.5
14	15.5	14.5	19.0	17.5	20.0	18.0	20.5	18.5	---	---	19.5	19.0
15	15.5	14.0	19.0	18.5	20.0	18.5	20.5	18.5	---	---	19.0	18.5
16	15.0	14.0	20.0	19.0	20.5	18.5	20.5	18.5	---	---	19.0	18.5
17	15.0	14.0	19.5	19.0	21.0	19.0	20.5	18.5	---	---	19.5	19.0
18	14.5	13.5	19.0	18.5	20.5	19.0	21.0	19.0	21.5	20.5	19.5	18.5
19	14.0	13.0	19.5	18.5	20.0	18.5	21.0	19.5	21.5	20.5	18.5	17.5
20	13.5	13.0	19.5	18.5	20.5	18.5	21.0	19.5	---	---	17.5	17.0
21	14.0	13.0	19.5	18.5	20.5	19.0	21.0	19.0	---	---	17.0	16.0
22	15.5	14.0	19.5	18.5	21.0	19.0	21.5	19.5	---	---	17.0	16.5
23	16.0	14.5	19.0	18.5	21.0	19.0	21.5	19.5	---	---	17.5	17.0
24	17.0	15.5	19.5	18.5	20.5	19.0	21.5	19.5	20.5	20.0	18.0	17.5
25	19.0	17.0	20.0	19.0	20.5	19.0	---	---	20.5	20.0	18.5	18.0
26	20.0	18.0	20.5	19.5	21.0	19.0	---	---	20.5	20.0	19.0	18.0
27	20.5	19.0	20.0	20.0	21.0	19.0	---	---	20.5	19.5	19.0	18.5
28	20.5	19.5	20.0	19.5	21.0	19.0	---	---	20.5	19.5	18.5	18.0
29	19.5	18.5	19.5	19.0	21.0	19.0	20.5	18.5	20.5	20.0	18.5	18.0
30	19.0	18.0	19.0	18.0	20.5	19.0	21.0	18.5	20.5	20.0	18.5	17.5
31	---	---	20.0	18.0	---	---	---	---	20.5	20.0	---	---
MONTH	20.5	13.0	20.5	16.5	21.0	16.5	---	---	---	---	20.5	16.0

CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	TIME	Depth at sample location, feet (81903)	Temperature, water, deg C (00010)	Location in X-sect. looking dwnstrm ft from l bank (00009)
JUN				
29...*	1210	7.60	19.7	247
29...*	1215	20.0	19.7	221
29...*	1220	18.4	19.7	195
29...*	1225	17.0	19.7	169
29...*	1227	15.0	19.7	143
29...*	1230	16.0	19.8	117
29...*	1235	15.0	19.8	91.0
29...*	1238	14.0	19.8	65.0
29...*	1242	7.00	19.8	39.0
29...*	1245	3.50	20.1	13.0
AUG				
17...*	1235	8.00	20.3	226
17...*	1240	15.0	20.3	204
17...*	1244	16.0	20.3	180
17...*	1247	14.5	20.3	156
17...*	1250	14.5	20.3	132
17...*	1253	13.5	20.3	108
17...*	1256	13.0	20.3	84.0
17...*	1258	12.0	20.3	60.0
17...*	1300	10.0	20.4	36.0
17...*	1303	4.00	20.6	14.0

* Instantaneous discharge at time of cross-sectional measurement: June 29, 9,390 ft^3/s; Aug. 17, 6,800 ft^3/s.

11391100 SACRAMENTO SLOUGH NEAR KNIGHTS LANDING, CA

LOCATION.—Lat 38°46'45", long 121°38'15", in SE 1/4 NE 1/4, sec.20, T.11 S, R.3 E, Sutter County, Hydrologic Unit 18020104, on right bank, 1 mi east of Karnak Pumping Plant, and 4.5 mi east of Knights Landing.

DRAINAGE AREA.—Not determined.

PERIOD OF RECORD.—Water years 1996–98, 2001 to current year.
CHEMICAL DATA: Water years 1996–98, 2001 to current year.
SPECIFIC CONDUCTANCE: Water year 1996.
WATER TEMPERATURE: Water year 1996.
SEDIMENT DATA: Water years 1996–98, 2001 to current year.

PERIOD OF DAILY RECORD.—
SPECIFIC CONDUCTANCE: October 1995 to September 1996.
WATER TEMPERATURE: October 1995 to September 1996.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Alkalinity, wat flt Gran, field, mg/L as CaCO3 (29802)	Chloride, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Ammonia water, fltrd, mg/L as N (00608)
NOV										
20...	1010	763	8.1	7.4	344	12.5	124	--	--	--
JAN										
14...	1030	768	8.7	8.5	181	8.5	80.0	8.48	6.4	<.04
MAR										
17...	1040	767	8.8	7.9	249	18.0	--	5.40	6.9	<.04
APR										
23...	1040	769	9.4	7.6	260	16.0	--	9.07	5.6	<.04
MAY										
27...	1040	764	8.5	7.7	481	22.0	--	47.0	14.2	<.04
JUN										
24...	1020	770	10.5	7.5	497	22.9	--	60.7	17.6	<.04
JUL										
29...	1030	766	8.6	8.3	364	24.5	--	31.9	11.0	<.04
AUG										
25...	1200	--	--	--	--	--	--	--	--	--
SEP										
27...	1220	769	6.0	7.4	321	20.9	--	18.8	6.2	<.04

Date	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, wat unf by analysis, mg/L (62855)	Biomass peri-phyton, ashfree drymass g/m2 (49954)	Peri-phyton biomass ash weight, g/m2 (00572)	Peri-phyton biomass dry weight, g/m2 (00573)	Pheophytin a, peri-phyton, mg/m2 (62359)
NOV									
20...	--	--	--	--	--	--	--	--	--
JAN									
14...	.21	<.008	.042	.116	.59	--	--	--	--
MAR									
17...	e.05	<.008	.035	.128	.60	--	--	--	--
APR									
23...	e.04	.036	.038	.175	.57	--	--	--	--
MAY									
27...	.31	.011	.095	.181	.55	--	--	--	--
JUN									
24...	.46	.029	.128	.26	1.17	--	--	--	--
JUL									
29...	<.06	<.008	.062	.168	.46	--	--	--	--
AUG									
25...	--	--	--	--	--	55.0	580	633.2	34
SEP									
27...	e.06	<.008	.123	.187	.49	--	--	--	--

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

11391100 SACRAMENTO SLOUGH NEAR KNIGHTS LANDING, CA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Chlorophyll a periphyton, chromofluoro, mg/m2 (70957)	2,6-Diethylaniline water fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)	Acetochlor, water, fltrd, ug/L (49260)	Alachlor, water, fltrd, ug/L (46342)	alpha-HCH, water, fltrd, ug/L (34253)	Atrazine, water, fltrd, ug/L (39632)	Azinphosmethyl, water, fltrd 0.7u GF ug/L (82686)	Benfluralin, water, fltrd 0.7u GF ug/L (82673)
NOV									
20...	--	--	--	--	--	--	--	--	--
JAN									
14...	--	<.006	<.006	<.006	<.005	<.005	e.005	<.050	<.010
MAR									
17...	--	<.006	<.006	<.006	<.005	<.005	e.007	<.050	<.010
APR									
23...	--	<.006	<.006	<.006	<.005	<.005	<.007	<.050	<.010
MAY									
27...	--	<.006	<.006	<.006	<.005	<.005	<.007	<.050	<.010
JUN									
24...	--	<.006	<.006	<.006	<.005	<.005	<.007	<.050	<.010
JUL									
29...	--	<.006	<.006	<.006	<.005	<.005	<.007	<.050	<.010
AUG									
25...	65.0	--	--	--	--	--	--	--	--
SEP									
27...	--	<.006	<.006	<.006	<.005	<.005	<.007	<.050	<.010

Date	Butylate, water, fltrd, ug/L (04028)	Carbaryl, water, fltrd 0.7u GF ug/L (82680)	Carbofuran, water, fltrd 0.7u GF ug/L (82674)	Chlorpyrifos water, fltrd, ug/L (38933)	cis-Permethrin water fltrd 0.7u GF ug/L (82687)	Cyanazine, water, fltrd, ug/L (04041)	DCPA, water fltrd 0.7u GF ug/L (82682)	Desulfinyl fipronil, water, fltrd, ug/L (62170)	Diazinon, water, fltrd, ug/L (39572)
NOV									
20...	--	--	--	--	--	--	--	--	--
JAN									
14...	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.012	<.005
MAR									
17...	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.012	.010
APR									
23...	<.004	<.041	e.029	<.005	<.006	<.018	<.003	<.012	<.005
MAY									
27...	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.012	<.005
JUN									
24...	<.004	<.041	<.050	.019	<.006	<.018	<.003	<.012	<.005
JUL									
29...	<.004	<.041	<.100	.016	<.006	<.018	<.003	<.012	<.005
AUG									
25...	--	--	--	--	--	--	--	--	--
SEP									
27...	<.004	<.041	<.020	<.030	<.006	<.018	<.003	<.012	<.005

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

11391100 SACRAMENTO SLOUGH NEAR KNIGHTS LANDING, CA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Diel-drin, water, fltrd, ug/L (39381)	Disul-foton, water, fltrd 0.7u GF ug/L (82677)	EPTC, water, fltrd 0.7u GF ug/L (82668)	Ethal-flur-alin, water, fltrd 0.7u GF ug/L (82663)	Etho-prop, water, fltrd 0.7u GF ug/L (82672)	Desulf-inyl-fipro-nil amide, wat flt ug/L (62169)	Fipro-nil sulfide water, fltrd, ug/L (62167)	Fipro-nil sulfone water, fltrd, ug/L (62168)	Fipro-nil, water, fltrd, ug/L (62166)
NOV									
20...	--	--	--	--	--	--	--	--	--
JAN									
14...	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024	<.016
MAR									
17...	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024	<.016
APR									
23...	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024	<.016
MAY									
27...	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024	<.016
JUN									
24...	<.009	<.02	<.004	.011	<.005	<.029	<.013	<.024	<.016
JUL									
29...	<.009	<.02	<.004	e.005	<.005	<.029	<.013	<.024	<.016
AUG									
25...	--	--	--	--	--	--	--	--	--
SEP									
27...	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024	<.016

Date	Fonofos water, fltrd, ug/L (04095)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF ug/L (82666)	Mala-thion, water, fltrd, ug/L (39532)	Methyl para-thion, water, fltrd 0.7u GF ug/L (82667)	Metola-chlor, water, fltrd, ug/L (39415)	Metri-buzin, water, fltrd, ug/L (82630)	Moli-nate, water, fltrd 0.7u GF ug/L (82671)	Naprop-amide, water, fltrd 0.7u GF ug/L (82684)
NOV									
20...	--	--	--	--	--	--	--	--	--
JAN									
14...	<.003	<.004	<.035	<.027	<.015	e.010	<.006	.017	<.007
MAR									
17...	<.003	<.004	<.035	<.027	<.015	.017	<.006	.009	<.007
APR									
23...	<.003	<.004	<.035	<.027	<.015	e.006	<.006	.012	<.007
MAY									
27...	<.003	<.004	<.035	e.013	<.015	.033	<.010	4.18	<.007
JUN									
24...	<.003	<.004	<.035	<.027	<.015	.041	<.007	.920	<.007
JUL									
29...	<.003	<.004	<.035	<.027	<.015	.018	<.006	.202	<.007
AUG									
25...	--	--	--	--	--	--	--	--	--
SEP									
27...	<.003	<.004	<.035	<.027	<.300	<.013	<.006	.042	<.007

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

11391100 SACRAMENTO SLOUGH NEAR KNIGHTS LANDING, CA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	p,p'-DDE, water, fltrd, ug/L (34653)	Parathion, water, fltrd, ug/L (39542)	Pebulate, water, fltrd 0.7u GF ug/L (82669)	Pendimethalin, water, fltrd 0.7u GF ug/L (82683)	Phorate water fltrd 0.7u GF ug/L (82664)	Prometon, water, fltrd, ug/L (04037)	Propyzamide, water, fltrd 0.7u GF ug/L (82676)	Propachlor, water, fltrd, ug/L (04024)	Propanil, water, fltrd 0.7u GF ug/L (82679)
NOV									
20...	--	--	--	--	--	--	--	--	--
JAN									
14...	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011
MAR									
17...	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011
APR									
23...	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011
MAY									
27...	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	e.028
JUN									
24...	<.003	<.010	<.004	<.022	<.011	--	<.004	<.025	.144
JUL									
29...	<.003	<.010	<.004	<.022	<.011	<.07	<.004	<.025	.015
AUG									
25...	--	--	--	--	--	--	--	--	--
SEP									
27...	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011

Date	Propargite, water, fltrd 0.7u GF ug/L (82685)	Simazine, water, fltrd, ug/L (04035)	Tebuthiuron water fltrd 0.7u GF ug/L (82670)	Terbacil, water, fltrd 0.7u GF ug/L (82665)	Terbufos, water, fltrd 0.7u GF ug/L (82675)	Thiobencarb water fltrd 0.7u GF ug/L (82681)	Triallate, water, fltrd 0.7u GF ug/L (82678)	Trifluralin, water, fltrd 0.7u GF ug/L (82661)
NOV								
20...	--	--	--	--	--	--	--	--
JAN								
14...	<.02	.016	<.02	<.034	<.02	.010	<.002	<.009
MAR								
17...	<.02	.026	<.02	<.034	<.02	.010	<.002	<.009
APR								
23...	<.02	.007	<.02	<.034	<.02	<.010	<.002	<.009
MAY								
27...	e.22	<.010	<.02	<.034	<.02	e.914	<.002	e.006
JUN								
24...	<.02	<.007	<.02	<.034	<.02	.431	<.002	e.007
JUL								
29...	<.03	<.005	<.02	<.075	<.02	.064	<.002	e.007
AUG								
25...	--	--	--	--	--	--	--	--
SEP								
27...	<.02	<.005	<.02	<.034	<.02	<.010	<.002	<.009

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

11391100 SACRAMENTO SLOUGH NEAR KNIGHTS LANDING, CA—Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Temperature, water, deg C (00010)	Suspended sediment concentration mg/L (80154)	Suspnd. sediment, sieve diametr percent <.063mm (70331)
NOV				
20...SS	1010	12.5	42	90
JAN				
14...SS	1030	8.5	37	94
MAR				
17...SS	1040	18.0	59	97
APR				
23...SS	1040	16.0	89	99
MAY				
27...SS	1040	22.0	64	99
JUN				
24...SS	1020	22.9	130	99
JUL				
29...SS	1030	24.5	71	97
SEP				
27...SS	1220	20.9	38	96

SS Suspended sediment data determined from a sample collected and processed according to National Water Quality Assessment (NAWQA) protocol.

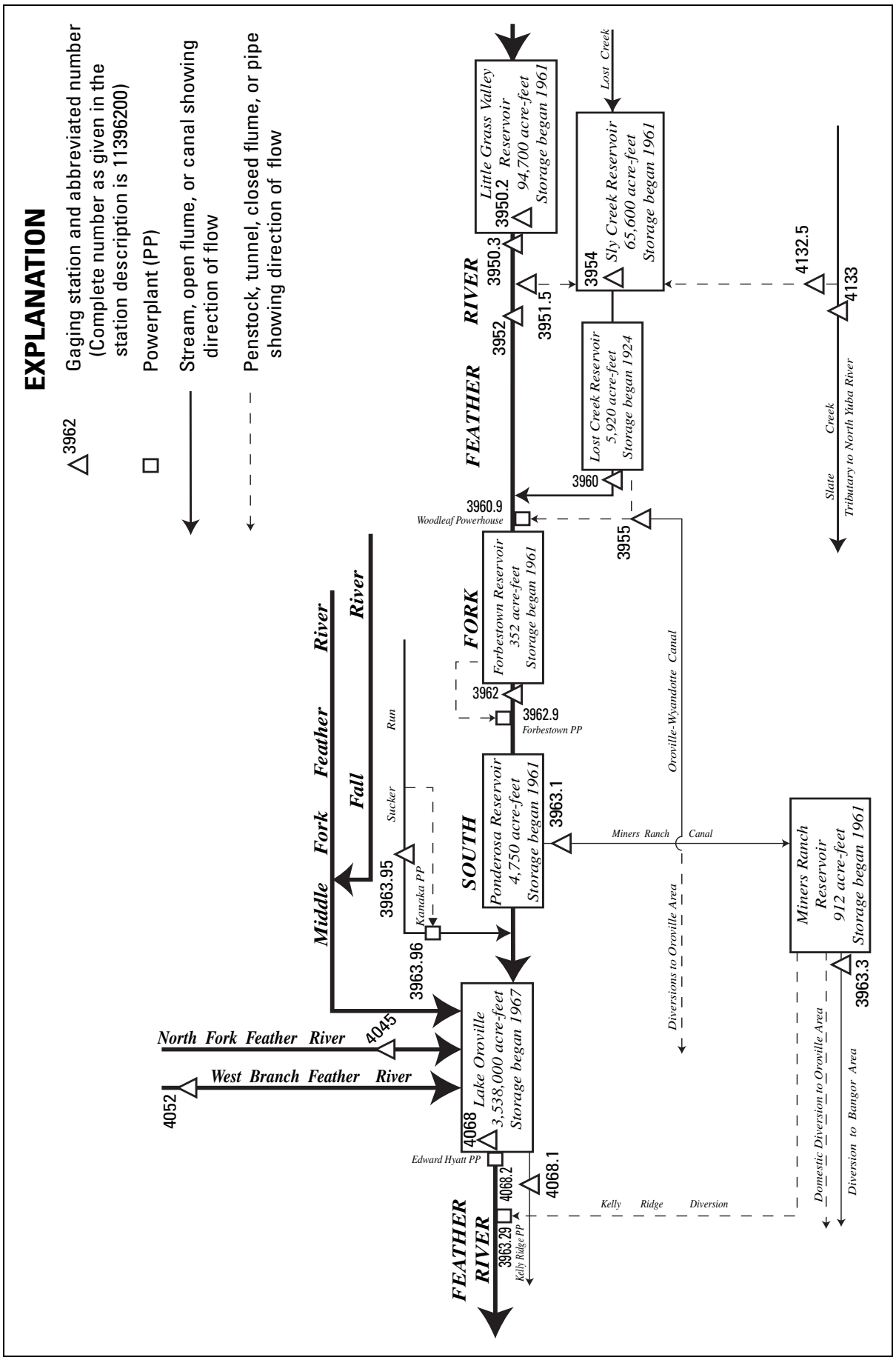


Figure 28. Diversions and storage in South Fork Feather River Basin.

11395020 LITTLE GRASS VALLEY RESERVOIR NEAR LA PORTE, CA

LOCATION.—Lat 39°43'25", long 121°01'10", in SE 1/4 NW 1/4 sec.31, T.22 N., R.9 E., Plumas County, Hydrologic Unit 18020123, Plumas National Forest, on right bank, 300 ft upstream from dam on South Fork Feather River, and 3.3 mi northwest of La Porte.

DRAINAGE AREA.—25.8 mi^2.

PERIOD OF RECORD.—October 1961 to current year. Monthend elevation and contents only, October 1961 to October 1962.

GAGE.—Water-stage recorder. Datum of gage is NGVD of 1929 (levels by Oroville–Wyandotte Irrigation District). Prior to Nov. 1, 1962, in valve chamber in dam at same datum.

REMARKS.—Reservoir is formed by rockfill dam. Storage began in October 1961. Total capacity, 94,700 acre-ft, between elevations 4,876 ft, invert of release valve, and 5,047 ft, top of spillway gates, all of which is available for release. Water is released down South Fork Feather River for power development and irrigation. Records represent total contents at 2400 hours. See schematic diagram of South Fork Feather River Basin.

COOPERATION.—Records provided by South Feather Water and Power Agency, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2088.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 98,000 acre-ft, May 1, 1995, May 17, 1996, elevation, 5,049.0 ft; minimum since reservoir first filled, 30,300 acre-ft, many days during 1977, elevation, 4,994.8 ft.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 92,000 acre-ft, May 17–19, elevation, 5,045.4 ft; minimum, 50,000 acre-ft, Feb. 15, elevation, 5,014.9 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey by Pacific Gas & Electric Co. in 1963)

4,990	26,300	5,010	44,400	5,030	68,900	5,048	96,300
5,000	34,600	5,020	55,900	5,040	83,500	5,049	98,000

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59700	52700	50600	e54000	52200	57400	71200	86800	90400	83500	76900	68500
2	59300	52400	50700	e54000	52200	57700	71700	e87400	90100	83500	76600	68200
3	59000	52200	50700	e54000	52200	57800	72100	e87900	89800	83500	76500	67800
4	58700	52000	50700	e54000	52100	58000	72700	e88200	89500	83500	76200	67600
5	58400	51600	51000	e54000	51900	58100	73300	e88700	89200	83500	75900	67300
6	58100	51400	52000	e54000	51800	58200	73900	e89200	88900	83500	75500	67100
7	57700	51200	52200	e54000	51500	58500	74400	e89600	88500	83300	75200	66800
8	57400	51000	52400	54000	51400	58600	74900	e90000	88100	83000	75000	66400
9	57300	51000	52600	53900	51200	58700	75500	e90400	87700	82900	74900	66200
10	57200	50700	52800	53900	51000	59000	76200	90700	87400	82700	74900	65900
11	57200	50500	52800	53900	50800	59300	76800	90900	87100	82500	74900	65500
12	57200	50300	52900	53800	50600	59700	77400	91200	87000	82200	74700	65400
13	57200	50300	53100	53800	50400	60000	77800	91400	86600	82000	74400	65000
14	57200	50300	e53600	53700	50200	60400	78400	91500	86300	81900	74100	64700
15	57100	50400	e53600	53700	50000	60800	78800	91900	85800	81700	73900	64500
16	57100	50400	e53600	53600	50500	61300	79400	91900	85500	81600	73600	64200
17	56900	50500	e53700	53500	51900	61900	79700	92000	85100	81300	73100	63800
18	56500	50500	e53700	53400	52800	62500	80000	92000	85100	81000	72800	63600
19	56300	50500	e53700	53200	53400	63200	80600	92000	84900	80900	72500	63300
20	56000	50500	e53800	53100	53800	63800	81000	91900	84700	80600	72200	63000
21	55800	50500	e53800	53100	54200	64600	81400	91900	84400	80300	72000	62800
22	55400	50500	e53800	53000	54500	65200	81900	91900	84300	80000	71700	62400
23	55200	50500	e53800	52900	54800	66000	82300	91700	84100	79700	71400	62300
24	55000	50500	e53900	52800	55200	66700	82800	91700	84000	79200	71100	62300
25	54600	50500	e53900	52700	56000	67500	83300	91500	83800	79000	70600	62300
26	54300	50500	e53900	52700	56400	68100	83800	91400	83600	78700	70300	62100
27	54000	50500	e53900	52700	56700	68600	84400	91200	83600	78500	70100	62100
28	53800	50500	e53900	52600	56900	69200	85200	91100	83600	78100	69800	62000
29	53500	50500	e53900	52400	57200	69600	85700	91100	83600	78000	69500	61300
30	53200	50500	e54000	52400	---	70100	86300	90700	83500	77700	69200	60800
31	53000	---	e54000	52300	---	70600	---	90600	---	77400	68900	---
MAX	59700	52700	54000	54000	57200	70600	86300	92000	90400	83500	76900	68500
MIN	53000	50300	50600	52300	50000	57400	71200	86800	83500	77400	68900	60800
a	5017.5	5015.3	---	5016.9	5021.0	5031.2	5041.8	5044.5	5040.0	5035.8	5030.0	5023.8
b	-6900	-2500	+3500	-1700	+4900	+13400	+15700	+4300	-7100	-6100	-8500	-8100

CAL YR 2003 b +5400
WTR YR 2004 b +900

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

11395030 SOUTH FORK FEATHER RIVER BELOW LITTLE GRASS VALLEY DAM, CA

LOCATION.—Lat 39°43'26", long 121°01'16", in SW 1/4 NW 1/4 sec.31, T.22 N., R.9 E., Plumas County, Hydrologic Unit 18020123, Plumas National Forest, on left bank, 0.1 mi downstream from Little Grass Valley Dam, and 3.5 mi northwest of La Porte.

DRAINAGE AREA.—25.9 mi^2.

PERIOD OF RECORD.—October 1927 to September 1933 (published as "near La Porte"), October 1960 to current year.

REVISED RECORDS.—WSP 1931: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is 4,809.0 ft above NGVD of 1929. Prior to Oct. 1, 1960, at site 0.4 mi upstream at different datum. Oct. 1, 1960, to Oct. 30, 1962, at present site and datum. Nov. 1, 1962, to May 31, 1966, at site on outlet works at base of Little Grass Valley Dam 0.1 mi upstream at datum 4,850.00 ft above NGVD of 1929.

REMARKS.—Flow regulated by Little Grass Valley Reservoir (station 11395020) beginning in October 1961. No diversion upstream from station. See schematic diagram of South Fork Feather River Basin.

COOPERATION.—Records provided by South Feather Water and Power Agency, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2088.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 7,370 ft^3/s, Jan. 1, 1997, gage height, 14.80 ft; minimum daily, 0.2 ft^3/s, Oct. 28–31, Nov. 2, 1961, during initial operation of Little Grass Valley Reservoir; since operation stabilized in 1964, 1.4 ft^3/s, Jan. 27, 1964.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	153	149	7.3	102	101	10	12	14	199	12	147	150
2	153	150	7.6	102	101	9.9	12	14	199	12	147	150
3	152	152	7.5	101	101	9.9	12	14	199	12	147	150
4	153	151	7.4	101	101	9.9	12	14	199	13	146	150
5	153	149	8.5	101	124	9.9	13	45	198	13	146	150
6	153	149	19	101	140	9.9	12	66	198	13	146	150
7	152	150	13	102	140	10	13	66	198	12	146	150
8	153	151	9.5	102	140	10	13	66	198	58	72	150
9	76	152	22	102	140	11	13	65	197	88	12	150
10	10	150	40	102	140	11	13	65	197	89	15	150
11	10	149	40	101	140	11	13	65	197	89	67	150
12	10	75	40	101	140	11	13	64	197	89	99	150
13	11	8.2	43	101	140	11	13	64	197	44	124	150
14	12	7.6	44	101	139	11	13	64	197	16	150	150
15	12	7.8	42	101	139	12	12	64	196	84	150	150
16	12	7.6	42	101	146	12	12	64	196	148	150	149
17	82	7.7	41	101	152	12	12	64	149	148	150	148
18	150	7.6	71	101	148	13	11	111	104	147	150	149
19	150	7.5	104	101	62	13	11	144	104	148	150	149
20	150	7.4	105	101	11	13	12	144	104	148	150	149
21	151	7.4	105	101	11	13	12	144	104	147	150	149
22	150	7.4	104	101	11	13	12	144	104	147	150	149
23	150	7.4	104	101	11	13	12	144	104	147	150	73
24	150	7.4	108	101	10	13	12	144	104	147	150	11
25	150	7.4	105	101	11	13	13	143	55	147	150	11
26	150	7.4	104	101	11	12	14	143	12	147	150	11
27	150	7.2	103	101	10	12	15	177	12	147	150	11
28	150	7.2	103	101	10	11	14	200	12	147	150	113
29	149	7.2	103	101	10	12	13	200	12	147	150	276
30	149	7.2	102	101	---	12	13	200	12	147	150	323
31	149	---	102	101	---	12	---	200	---	147	150	---
TOTAL	3555	1861.6	1856.8	3137	2540	356.5	377	3116	4154	3000	4114	4121
MEAN	115	62.1	59.9	101	87.6	11.5	12.6	101	138	96.8	133	137
MAX	153	152	108	102	152	13	15	200	199	148	150	323
MIN	10	7.2	7.3	101	10	9.9	11	14	12	12	12	11
AC-FT	7050	3690	3680	6220	5040	707	748	6180	8240	5950	8160	8170

11395030 SOUTH FORK FEATHER RIVER BELOW LITTLE GRASS VALLEY DAM, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1933, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2.56	19.5	47.6	26.3	45.2	134	181	201	78.8	7.70	1.74	1.35
MAX	6.62	94.5	206	51.3	94.7	386	301	384	169	13.7	2.54	1.72
(WY)	1932	1928	1930	1928	1930	1928	1930	1932	1933	1932	1932	1930
MIN	1.43	1.67	2.65	3.60	3.55	14.5	106	48.9	13.8	2.38	1.06	1.04
(WY)	1929	1930	1933	1933	1933	1933	1933	1931	1931	1931	1931	1931

SUMMARY STATISTICS	WATER YEARS 1928 - 1933	
ANNUAL MEAN	62.3	
HIGHEST ANNUAL MEAN	85.6	1932
LOWEST ANNUAL MEAN	28.0	1931
HIGHEST DAILY MEAN	1800	Mar 25 1928
LOWEST DAILY MEAN	.90	Aug 25 1931
ANNUAL SEVEN-DAY MINIMUM	.90	Sep 1 1931
MAXIMUM PEAK FLOW	2600	Mar 26 1928
MAXIMUM PEAK STAGE	7.00	Mar 26 1928
ANNUAL RUNOFF (AC-FT)	45140	
10 PERCENT EXCEEDS	202	
50 PERCENT EXCEEDS	10	
90 PERCENT EXCEEDS	1.4	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2004, BY WATER YEAR (WY)

MEAN	108	77.8	66.6	95.4	92.5	99.9	79.8	136	104	115	143	159
MAX	305	404	420	725	694	586	317	489	403	350	344	389
(WY)	1970	1982	1982	1997	1986	1995	1989	1995	1998	1983	1968	1984
MIN	13.0	2.94	4.01	2.36	2.25	3.70	4.31	4.38	3.99	3.71	5.42	10.0
(WY)	1986	1976	1979	1964	1976	1964	1964	1977	1977	1977	2001	1981

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1964 - 2004	
ANNUAL TOTAL	38382.4		32188.9			
ANNUAL MEAN	105		87.9		107	
HIGHEST ANNUAL MEAN					250	1982
LOWEST ANNUAL MEAN					29.5	1981
HIGHEST DAILY MEAN	395	May 22	323	Sep 30	5420	Jan 1 1997
LOWEST DAILY MEAN	7.1	Jan 9	7.2	Nov 27	1.4	Jan 27 1964
ANNUAL SEVEN-DAY MINIMUM	7.3	Nov 25	7.3	Nov 25	1.4	Jan 27 1964
MAXIMUM PEAK FLOW			329	Sep 30	7370	Jan 1 1997
MAXIMUM PEAK STAGE			9.24	Sep 30	14.80	Jan 1 1997
ANNUAL RUNOFF (AC-FT)	76130		63850		77200	
10 PERCENT EXCEEDS	219		151		248	
50 PERCENT EXCEEDS	105		101		50	
90 PERCENT EXCEEDS	7.7		10		5.7	

11395150 SOUTH FORK TUNNEL NEAR STRAWBERRY VALLEY, CA

LOCATION.—Lat 39°38'55", long 120°07'00", in NW 1/4 SW 1/4 sec.29, T.21 N., R.8 E., Plumas County, Hydrologic Unit 18020123, Plumas National Forest, 3.2 mi upstream from Rock Creek, and 5.8 mi north of Strawberry Valley.

PERIOD OF RECORD.—October 1973 to current year. Records of daily discharge for November 1961 to September 1973 are in files of the U.S. Geological Survey. Monthly diversion used to adjust South Fork Feather River below diversion dam near Strawberry Valley (station 11395200) since October 1961.

GAGE.—Water-stage recorder. Datum of gage is NGVD of 1929.

REMARKS.—Tunnel diverts water from South Fork Feather River to Sly Creek Reservoir (station 11395400) for power development. See schematic diagram of South Fork Feather River Basin.

COOPERATION.—Records provided by South Feather Water and Power Agency, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2088.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 570 ft^3/s, Mar. 13, May 25–29, June 3, 1983; no flow at times in many years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	141	133	7.6	158	133	102	117	54	211	6.9	141	98
2	142	133	24	143	143	92	107	51	210	6.8	141	126
3	141	135	13	137	137	85	105	48	209	6.6	141	140
4	141	133	9.0	132	131	78	110	45	208	6.5	141	140
5	142	133	19	129	145	73	109	60	208	6.4	142	139
6	141	133	175	128	170	73	105	92	208	6.2	141	140
7	141	136	142	133	168	81	99	89	207	6.1	142	140
8	141	142	66	135	167	96	101	87	207	37	88	139
9	111	152	48	141	166	120	102	85	207	120	19	139
10	6.5	143	83	153	164	144	99	84	207	120	3.9	139
11	1.2	142	78	153	163	161	94	83	207	120	12	139
12	1.0	120	70	152	163	167	90	79	206	119	62	139
13	0.55	35	136	151	162	170	86	78	206	90	93	139
14	1.0	7.3	242	150	162	177	79	76	206	6.3	144	138
15	1.3	20	134	154	164	193	75	76	205	48	143	138
16	1.3	11	101	154	321	199	68	74	204	143	142	138
17	35	18	87	154	520	199	64	73	170	144	142	138
18	143	12	95	154	532	202	61	112	101	146	142	138
19	142	8.0	138	153	374	204	61	154	101	146	142	140
20	142	6.9	158	151	217	197	95	154	100	146	141	139
21	142	6.4	162	148	167	197	98	154	100	143	142	138
22	140	5.8	156	147	141	197	92	152	100	142	142	138
23	137	5.2	157	142	119	190	84	151	99	141	141	101
24	137	4.8	355	140	116	178	79	150	99	141	141	3.2
25	139	4.7	293	136	189	171	77	149	78	140	141	0.97
26	138	4.4	226	133	196	148	85	149	8.5	140	142	0.87
27	137	4.0	192	141	149	132	79	172	7.5	136	142	0.80
28	136	3.9	173	134	123	122	75	219	7.2	129	142	59
29	135	4.2	172	132	108	121	67	218	7.2	140	141	253
30	133	4.1	154	139	---	124	59	212	7.1	141	141	306
31	136	---	149	135	---	122	---	212	---	141	140	---
TOTAL	3225.85	1800.7	4014.6	4442	5610	4515	2622	3592	4301.5	2964.8	3817.9	3726.84
MEAN	104	60.0	130	143	193	146	87.4	116	143	95.6	123	124
MAX	143	152	355	158	532	204	117	219	211	146	144	306
MIN	0.55	3.9	7.6	128	108	73	59	45	7.1	6.1	3.9	0.80
AC-FT	6400	3570	7960	8810	11130	8960	5200	7120	8530	5880	7570	7390

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2004, BY WATER YEAR (WY)

MEAN	98.2	101	104	126	145	172	150	173	113	115	129	144
MAX	202	377	462	381	406	454	429	520	421	363	327	390
(WY)	1999	1982	1982	1974	1996	1983	1989	1993	1983	1983	1983	1978
MIN	6.21	4.14	3.36	5.99	8.49	9.71	8.68	16.4	7.22	3.33	1.50	0.00
(WY)	1986	1977	1977	1977	1977	1977	1977	1977	1977	2001	2001	1981

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1974 - 2004	
ANNUAL TOTAL	54923.15		44633.19			
ANNUAL MEAN	150		122		131	
HIGHEST ANNUAL MEAN					294	1983
LOWEST ANNUAL MEAN					35.0	1977
HIGHEST DAILY MEAN	518	May 20	532	Feb 18	570	Mar 13 1983
LOWEST DAILY MEAN	0.55	Oct 13	0.55	Oct 13	0.00	Jan 16 1980
ANNUAL SEVEN-DAY MINIMUM	1.8	Oct 10	1.8	Oct 10	0.00	Jan 16 1980
ANNUAL RUNOFF (AC-FT)	108900		88530		94780	
10 PERCENT EXCEEDS	294		197		310	
50 PERCENT EXCEEDS	141		138		97	
90 PERCENT EXCEEDS	22		7.6		8.6	

11395200 SOUTH FORK FEATHER RIVER BELOW DIVERSION DAM, NEAR STRAWBERRY VALLEY, CA

LOCATION.—Lat 39°38'51", long 121°07'04", in NE 1/4 SE 1/4 sec.30, T.21 N., R.8 E., Plumas County, Hydrologic Unit 18020123, Plumas National Forest, on left bank, 0.1 mi downstream from diversion dam, 3.1 mi upstream from Rock Creek, and 5.8 mi north of Strawberry Valley.

DRAINAGE AREA.—37.7 mi^2.

PERIOD OF RECORD.—October 1960 to current year.

REVISED RECORDS.—WDR CA-80-4: 1976(M).

GAGE.—Water-stage recorder and since May 8, 1987, sharp-crested rectangular weir. Datum of gage is 3,535.02 ft above NGVD of 1929 (levels by Oroville–Wyandotte Irrigation District).

REMARKS.—Flow regulated by Little Grass Valley Reservoir (station 11395020) since October 1961. South Fork Diversion Tunnel, maximum capacity, about 600 ft^3/s, 500 ft upstream, diverts to Sly Creek Reservoir (station 11395400); diversion began in November 1961. See schematic diagram of South Fork Feather River Basin.

COOPERATION.—Records provided by South Feather Water and Power Agency, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2088.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 11,300 ft^3/s, Jan. 1, 1997, gage height unknown, from computation of peak flow over diversion dam; minimum daily, 0.30 ft^3/s, Dec. 25, 1962, to Jan. 2, 1963, Mar. 1–3, 1963, during initial operation of Little Grass Valley Reservoir; since operation stabilized in 1964, 0.70 ft^3/s, Jan. 18, 1968.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	12	5.8	6.3	6.0	6.0	6.0	11	12	11	11	12
2	11	12	6.0	6.2	6.1	6.0	6.0	11	12	11	11	14
3	11	12	5.8	6.0	6.0	6.0	6.0	11	12	11	11	14
4	11	12	5.7	6.0	6.0	6.0	6.0	11	12	11	11	14
5	11	12	5.9	6.0	6.0	6.0	6.0	11	12	11	10	14
6	11	12	6.5	6.0	6.0	6.0	6.0	11	11	11	10	14
7	11	12	6.2	6.0	6.0	6.0	6.0	11	11	11	10	14
8	11	12	6.0	6.0	6.0	6.0	6.0	11	12	11	11	14
9	11	12	6.0	6.1	6.0	6.0	6.0	11	12	11	12	14
10	11	8.0	6.3	6.1	6.0	6.0	6.0	11	12	11	11	14
11	11	5.8	6.1	6.0	6.0	6.0	6.0	11	12	11	11	14
12	11	5.6	6.1	6.0	6.0	6.0	6.0	11	12	11	12	14
13	11	5.6	6.4	6.0	6.0	6.0	6.0	11	12	11	12	14
14	11	5.3	6.6	6.0	6.0	6.0	6.0	11	12	11	12	14
15	11	5.6	6.2	6.0	6.0	6.0	6.0	11	12	11	12	14
16	11	5.3	6.0	6.0	6.9	6.0	6.0	11	12	11	12	14
17	11	5.5	6.0	6.0	6.9	6.0	6.0	11	11	11	12	14
18	12	5.4	6.0	6.0	39	6.0	6.0	11	11	11	12	14
19	12	5.3	6.1	6.0	6.0	6.0	6.1	11	11	11	12	14
20	12	5.3	6.2	6.0	6.0	6.0	6.2	11	11	11	13	14
21	12	5.3	6.2	6.0	6.0	6.0	6.2	11	11	11	12	14
22	12	5.3	6.1	6.0	6.0	6.0	6.1	11	11	11	12	14
23	12	5.3	6.1	6.0	6.0	6.0	6.0	11	11	11	12	14
24	12	5.3	6.5	6.0	6.0	6.0	6.0	11	11	11	12	12
25	12	5.3	6.4	6.0	6.0	6.2	6.0	11	11	11	12	12
26	12	5.5	6.2	6.0	6.0	6.0	6.0	11	11	11	12	12
27	12	5.6	6.0	6.1	6.0	6.0	5.8	11	11	16	12	12
28	12	5.6	6.0	6.0	6.0	6.0	5.8	12	11	24	12	12
29	12	5.6	6.1	6.0	6.0	6.0	5.7	12	11	11	12	13
30	12	5.6	6.0	6.0	---	6.0	8.8	12	11	11	12	13
31	12	---	6.0	6.0	---	6.0	---	12	---	11	11	---
TOTAL	355	225.1	189.5	186.8	208.9	186.2	182.7	345	344	359	359	406
MEAN	11.5	7.50	6.11	6.03	7.20	6.01	6.09	11.1	11.5	11.6	11.6	13.5
MAX	12	12	6.6	6.3	39	6.2	8.8	12	12	24	13	14
MIN	11	5.3	5.7	6.0	6.0	6.0	5.7	11	11	11	10	12
AC-FT	704	446	376	371	414	369	362	684	682	712	712	805

11395200 SOUTH FORK FEATHER RIVER BELOW DIVERSION DAM, NEAR STRAWBERRY VALLEY, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	10.5	12.6	38.9	74.8	50.0	44.5	23.0	41.7	20.2	9.67	10.2	10.5
MAX	21.8	226	808	885	1113	741	317	417	230	13.3	18.5	18.8
(WY)	2001	1982	1965	1970	1986	1995	1982	1995	1998	1968	1973	1973
MIN	2.92	2.62	2.41	3.94	2.73	3.79	3.68	3.61	2.20	2.57	3.32	3.45
(WY)	1978	1978	1980	1976	1978	1980	1970	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1964 - 2004	
ANNUAL TOTAL	3279.9		3347.2			
ANNUAL MEAN	8.99		9.15		28.9	
HIGHEST ANNUAL MEAN					120	1995
LOWEST ANNUAL MEAN					3.72	1977
HIGHEST DAILY MEAN	28	May 19	39	Feb 18	9020	Jan 1 1997
LOWEST DAILY MEAN	5.3	Nov 14	5.3	Nov 14	0.70	Jan 18 1968
ANNUAL SEVEN-DAY MINIMUM	5.3	Nov 19	5.3	Nov 19	1.1	Jan 18 1968
MAXIMUM PEAK FLOW			203	Feb 18	11300	Jan 1 1997
MAXIMUM PEAK STAGE			6.95	Feb 18	unknown	Jan 1 1997
ANNUAL RUNOFF (AC-FT)	6510		6640		20910	
10 PERCENT EXCEEDS	11		12		12	
50 PERCENT EXCEEDS	10		11		7.8	
90 PERCENT EXCEEDS	6.1		6.0		4.7	

11395400 SLY CREEK RESERVOIR NEAR STRAWBERRY VALLEY, CA

LOCATION.—Lat 39°35'01", long 121°06'59", in NE 1/4 NE 1/4 sec.19, T.20 N., R.8 E., Butte County, Hydrologic Unit 18020123, Plumas National Forest, on right bank, 100 ft upstream from dam on Lost Creek, and 1.4 mi northwest of Strawberry Valley.

DRAINAGE AREA.—24.0 mi^2.

PERIOD OF RECORD.—November 1961 to current year (fragmentary prior to Mar. 14, 1962).

GAGE.—Water-stage recorder. Datum of gage is NGVD of 1929 (levels by Oroville–Wyandotte Irrigation District). Prior to Sept. 30, 1966, water-stage recorder in valve chamber inside dam at same datum. Oct. 1, 1966, to December 1974, nonrecording gage read once daily.

REMARKS.—Reservoir is formed by earthfill dam. Storage began in November 1961. Total capacity, 65,600 acre-ft, between elevations 3,285 ft, invert of outlet, and 3,531 ft, top of spillway gate, all of which is available for release. Water is diverted into reservoir from South Fork Feather River through South Fork Diversion Tunnel and from North Yuba River Basin through Slate Creek Tunnel (station 11413250). Records represent total contents at 2400 hours. See schematic diagram of South Fork Feather River Basin.

COOPERATION.—Records provided by South Feather Water and Power Agency, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2088.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 65,600 acre-ft, June 22, 1978, elevation, 3,530.9 ft; minimum observed under normal operating conditions since reservoir first filled, 860 acre-ft, Feb. 11, 1976, elevation, 3,320.0 ft. Reservoir completely drained for powerplant construction, Sept. 12 to Oct. 17, 1981.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 57,400 acre-ft, June 7, 8, elevation, 3,517.1 ft; minimum, 13,200 acre-ft, Jan. 29, elevation, 3,407.2 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey by Pacific Gas & Electric Co. in 1946)

3,310	450	3,340	2,150	3,400	11,500	3,480	38,500
3,315	655	3,360	4,300	3,420	16,600	3,510	53,400
3,320	860	3,380	7,360	3,450	26,300	3,531	65,600

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23800	20700	19800	25000	13800	34000	52400	53000	56500	52800	39700	25100
2	23700	21000	20100	24500	14000	34000	52500	53200	56400	52300	39200	24600
3	23600	21200	20200	24000	14200	34100	52500	53300	56700	51800	38800	24100
4	23700	21500	20300	23700	14200	34300	52700	53000	56700	51500	38200	23600
5	23600	21700	20500	23400	14200	34100	52800	53000	57000	51100	37700	23400
6	23400	21800	22100	23000	14400	33900	52900	53200	57200	50600	37100	22900
7	23300	22100	23400	22700	14600	33800	53100	53300	57400	50000	36700	22400
8	23200	22000	23900	22000	14700	33900	53200	53600	57400	49400	36100	22200
9	23000	22000	24000	21500	14900	34100	53200	53900	57300	49100	35200	22000
10	22300	21700	24000	21000	14800	34500	53200	54100	57100	48800	34400	21900
11	21600	21400	24200	20600	14600	35000	53100	54600	57000	48600	33700	21700
12	20700	21000	24200	20100	14400	35600	53000	54800	57100	48100	33100	21500
13	20500	20300	24700	19700	14300	36300	53000	54800	57100	47600	32500	21100
14	20000	20000	26300	19300	14400	37100	52900	54800	57100	47000	32300	20800
15	19400	19800	26700	18900	14600	38000	52700	54800	57000	46500	32100	20700
16	18600	19600	26900	18500	16300	38900	52400	54700	56800	46100	31700	20100
17	18200	19300	26500	18100	18800	39900	52100	54700	56600	46400	31300	19700
18	17900	19000	25800	17700	22100	41100	51700	54600	56500	46100	31000	19500
19	17700	19100	25200	17300	24300	42400	51300	54600	56400	45600	30500	19500
20	17900	19100	24700	16800	25600	43800	51300	54700	56400	45300	30000	19300
21	18200	19200	24800	16300	26300	45200	51300	54700	56300	44800	29800	18900
22	18400	19300	24300	15800	26800	46800	51200	54900	56200	44300	29600	18500
23	18700	19300	23900	15400	27600	47800	51000	55100	55900	43800	29300	18000
24	19000	19400	25200	14900	27700	48900	51200	55600	55600	43500	29000	17400
25	19200	19400	25800	14500	29700	49900	51400	55200	e55200	43000	28400	16900
26	19500	19500	25900	14200	31800	50600	51600	55100	e54900	42600	28000	16400
27	19700	19500	26400	14000	33200	51100	51900	55100	54500	42200	27500	16200
28	20000	19600	26500	13700	33600	51400	52200	55600	54000	41700	26900	15800
29	20300	19600	26200	13200	33900	51500	52400	56100	53700	41100	26500	15800
30	20500	19700	25800	13300	---	51800	52700	55900	53300	40500	25900	15800
31	20800	---	25300	13700	---	52100	---	56500	---	40100	25600	---
MAX	23800	22100	26900	25000	33900	52100	53200	56500	57400	52800	39700	25100
MIN	17700	19000	19800	13200	13800	33800	51000	53000	53300	40100	25600	15800
a	3433.8	3430.5	3447.2	3408.9	3469.5	3507.5	3508.6	3515.5	3509.7	3483.4	3448.0	3416.9
b	-3100	-1100	+5600	-11600	+20200	+18200	+600	+3800	-3200	-13200	-14500	-9800

CAL YR 2003 b -3800
WTR YR 2004 b -8100

11395500 OROVILLE–WYANDOTTE CANAL NEAR CLIPPER MILLS, CAm

LOCATION.—Lat 39°33'15", long 121°11'31", in NW 1/4 NE 1/4 sec.33, T.20 N., R.7 E., Butte County, Hydrologic Unit 18020123, in concrete valve house at head of canal, and 2.5 mi north of Clipper Mills.

PERIOD OF RECORD.—October 1927 to September 1941 (published as "Forbestown Ditch"), October 1953 to current year. Monthly discharge only for October 1953 to September 1961, published with records for Lost Creek near Clipper Mills.

GAGE.—Water-stage recorder and Parshall flume. Datum of gage is 3,166.0 ft above NGVD of 1929 (levels by Oroville–Wyandotte Irrigation District). Prior to Sept. 30, 1941, nonrecording gages and Oct. 1, 1941, to Nov. 16, 1962, water-stage recorder at sites at different datums 4 mi upstream in abandoned part of canal, 0.3 mi downstream from Lost Creek Dam.

REMARKS.—Water is discharged to canal through valve in Woodleaf Penstock. Prior to Nov. 16, 1962, canal diverted from Lost Creek Dam. Water is used for irrigation and domestic supply. Demand for water reduced when a large lumber mill closed at Woodleaf in 1962. See schematic diagram of South Fork Feather River Basin.

COOPERATION.—Records provided by South Feather Water and Power Agency, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2088.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 43 ft^3/s, Aug. 9 to Sept. 9, 1937, Aug. 13–15, 1977; no flow at times in many years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	14	0.00	0.00	0.00	0.00	0.00	14	18	23	24	24
2	16	14	6.8	0.00	0.00	0.00	0.00	14	20	23	24	24
3	16	6.9	10	0.00	0.00	0.00	0.00	14	21	23	24	24
4	16	0.00	3.4	0.00	0.00	0.00	0.00	14	21	23	24	24
5	16	0.00	0.00	0.00	0.00	0.00	0.00	15	21	23	24	24
6	15	0.00	0.00	0.00	0.00	0.00	0.00	16	21	23	24	24
7	14	0.00	0.00	0.00	0.00	0.00	0.00	16	21	24	24	24
8	14	0.00	0.00	0.00	0.00	0.00	0.00	16	21	24	24	24
9	14	0.00	0.00	0.00	0.00	0.00	0.00	16	21	24	24	24
10	14	0.00	0.00	0.00	0.00	0.00	0.00	16	20	24	24	24
11	14	0.00	0.00	0.00	0.00	0.00	0.00	16	19	24	24	24
12	14	0.00	0.00	5.9	0.00	0.00	0.00	16	19	24	24	24
13	14	0.00	0.00	5.0	0.00	0.00	0.00	16	19	25	24	24
14	14	0.00	0.00	0.00	0.00	0.00	0.00	16	19	25	24	24
15	7.5	0.00	0.00	0.00	0.00	0.00	0.00	16	19	25	24	24
16	0.00	0.00	0.00	0.00	0.00	0.00	2.0	16	21	24	24	24
17	0.00	5.4	0.00	0.00	0.00	0.00	3.1	16	22	24	24	24
18	0.00	10	0.00	0.00	0.00	0.00	3.1	17	22	24	24	24
19	0.00	5.3	0.00	0.00	0.00	0.00	3.1	18	22	24	24	24
20	0.00	0.00	0.00	0.00	0.00	0.00	3.1	18	22	24	24	24
21	0.00	0.00	0.00	0.00	0.00	0.00	3.1	18	22	24	24	24
22	0.00	0.00	0.00	0.00	0.00	0.00	3.1	18	22	24	24	23
23	0.00	0.00	0.00	0.00	0.00	0.00	3.1	18	22	24	24	22
24	0.00	0.00	0.00	0.00	0.00	0.00	3.1	18	22	24	24	22
25	0.00	0.00	0.00	0.00	0.00	0.00	3.2	18	22	24	24	22
26	0.00	0.00	0.00	0.00	0.00	0.00	7.0	18	22	24	24	22
27	6.5	0.00	0.00	0.00	0.00	0.00	9.2	18	22	24	24	22
28	10	0.00	0.00	0.00	0.00	0.00	9.2	18	22	24	24	22
29	10	0.00	0.00	0.00	0.00	0.00	12	18	22	24	24	22
30	12	0.00	0.00	0.00	---	0.00	14	18	22	24	24	22
31	14	---	0.00	0.00	---	0.00	---	18	---	24	24	---
TOTAL	269.00	55.60	20.20	10.90	0.00	0.00	81.40	514	629	741	744	703
MEAN	8.68	1.85	0.65	0.35	0.00	0.00	2.71	16.6	21.0	23.9	24.0	23.4
MAX	18	14	10	5.9	0.00	0.00	14	18	22	25	24	24
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14	18	23	24	22
AC-FT	534	110	40	22	0.00	0.00	161	1020	1250	1470	1480	1390

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 2004, BY WATER YEAR (WY)

MEAN	12.2	5.07	2.14	1.21	0.74	0.89	1.67	6.08	12.5	17.8	20.9	20.1
MAX	20.2	16.5	8.64	6.89	5.34	6.70	11.4	20.2	29.3	26.4	37.4	30.9
(WY)	1967	1968	1977	1968	1977	1964	1977	1977	1963	1976	1977	1977
MIN	3.75	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.88	7.60	9.47	9.29
(WY)	1990	2002	1982	1980	1963	1963	1963	1975	1998	1998	1965	1965

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1963 - 2004	
ANNUAL TOTAL	2690.48		3768.10			
ANNUAL MEAN	7.37		10.3		8.48	
HIGHEST ANNUAL MEAN					16.7	1977
LOWEST ANNUAL MEAN					4.33	1998
HIGHEST DAILY MEAN	24	Aug 1	25	Jul 13	43	Aug 13 1977
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Oct 16	0.00	Dec 12 1962
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Oct 16	0.00	Dec 15 1962
ANNUAL RUNOFF (AC-FT)	5340		7470		6140	
10 PERCENT EXCEEDS	24		24		23	
50 PERCENT EXCEEDS	0.00		6.7		5.4	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

11396000 LOST CREEK NEAR CLIPPER MILLS, CA

LOCATION.—Lat 39°34'25", long 121°08'26", in SE 1/4 SW 1/4 sec.24, T.20 N., R.7 E., Butte County, Hydrologic Unit 18020123, Plumas National Forest, on left bank, 0.3 mi downstream from Lost Creek Reservoir, and 2.8 mi north of Clipper Mills.

DRAINAGE AREA.—30.0 mi^2.

PERIOD OF RECORD.—October 1927 to September 1941, October 1948 to current year. Records for Woodleaf Powerplant from February 1963 to September 1966 in files of the U.S. Geological Survey.

REVISED RECORDS.—WSP 1395: 1954. WSP 1931: Drainage area.

GAGE.—Water-stage recorder. Sharp-crested weir for low-water control since June 20, 1987. Elevation of gage is 3,170 ft above NGVD of 1929, from topographic map. Prior to June 20, 1987, at site 100 ft downstream at same datum.

REMARKS.—Flow regulated by Sly Creek Reservoir (station 11395400) 1.5 mi upstream and Lost Creek Reservoir 0.3 mi upstream, usable capacity, 5,920 acre-ft with flashboards. Water is diverted into Sly Creek Reservoir through South Fork Diversion Tunnel from South Fork Feather River and through Slate Creek Tunnel (station 11413250) from North Yuba River Basin. Woodleaf Tunnel diverts from Lost Creek Reservoir to Woodleaf Powerhouse. Oroville–Wyandotte Canal (station 11395500) diverts from Woodleaf Penstock for irrigation and domestic use. Records represent seepage, release, and spill from Lost Creek Reservoir to Lost Creek. See schematic diagram of South Fork Feather River Basin.

COOPERATION.—Records provided by South Feather Water and Power Agency, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2088.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 5,760 ft^3/s, Jan. 1, 1997, gage height, 13.50 ft; no flow at times in some years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.7	7.9	6.1	8.5	6.3	7.3	8.8	9.5	10	10	10	10
2	8.6	7.9	6.1	7.2	7.0	7.2	8.8	9.5	10	10	10	10
3	8.6	8.0	5.9	6.7	7.1	7.0	8.8	9.5	10	10	10	9.8
4	8.6	7.9	5.9	6.5	6.8	6.7	8.8	9.8	10	10	10	9.8
5	8.6	7.9	6.0	6.3	6.7	6.7	8.8	18	10	10	10	9.9
6	8.6	7.9	7.0	6.2	6.7	6.5	8.7	17	10	10	10	10
7	8.6	8.1	6.3	6.3	6.6	6.3	8.6	15	10	10	9.9	9.9
8	8.7	8.3	5.9	6.3	6.5	6.3	8.6	16	10	10	9.8	9.8
9	8.6	8.3	6.0	6.4	6.3	6.3	8.6	16	9.8	10	9.8	9.8
10	8.6	7.1	6.9	6.5	6.3	6.3	8.6	16	9.8	10	10	10
11	8.6	5.9	6.4	6.5	6.3	6.2	8.7	13	9.8	10	10	9.9
12	8.6	5.9	6.0	6.5	6.3	6.1	8.8	9.6	9.8	10	10	9.7
13	8.6	5.9	6.6	6.4	6.3	6.1	8.8	9.5	9.9	10	10	9.5
14	8.6	6.0	7.3	6.3	6.3	6.1	8.8	9.5	9.9	10	10	9.9
15	8.6	6.2	6.3	6.3	6.3	6.1	8.8	9.5	9.9	10	9.9	9.6
16	8.6	5.9	6.0	6.3	8.7	6.1	8.8	15	9.9	10	10	9.7
17	8.6	5.9	5.9	6.3	8.8	6.1	8.8	17	9.9	10	9.8	9.7
18	8.6	5.9	5.9	6.3	12	6.1	8.8	16	9.9	10	9.8	9.5
19	8.6	5.9	5.9	6.3	9.1	6.0	8.9	17	10	10	9.8	9.8
20	8.6	5.9	5.9	6.3	8.1	5.9	8.9	14	9.9	10	10	9.7
21	8.6	5.9	5.9	6.1	7.5	5.9	9.0	11	9.9	10	10	9.5
22	8.6	5.9	5.9	6.1	7.2	5.9	8.8	12	9.9	10	9.9	10
23	8.6	5.9	6.1	6.0	6.9	6.5	8.8	14	9.8	10	9.8	9.9
24	8.6	5.9	8.2	5.9	7.3	5.9	8.8	13	9.8	10	9.7	9.9
25	8.6	5.9	6.9	6.1	9.6	6.1	9.2	11	10	10	9.8	9.6
26	8.6	5.9	6.6	6.1	9.9	5.9	9.5	12	10	10	9.8	11
27	8.6	5.9	6.3	6.8	8.9	5.9	9.5	12	10	10	9.8	11
28	8.6	5.9	6.0	6.7	7.9	5.9	9.5	12	10	10	9.8	11
29	8.6	5.9	6.2	6.5	7.4	5.9	9.5	11	10	10	9.8	10
30	8.5	5.9	6.3	6.6	---	5.9	9.5	11	10	10	9.8	10
31	8.1	---	6.3	6.4	---	7.6	---	10	---	10	10	---
TOTAL	266.2	197.7	195.0	199.7	217.1	194.8	267.3	395.4	297.9	310	307.0	297.9
MEAN	8.59	6.59	6.29	6.44	7.49	6.28	8.91	12.8	9.93	10.0	9.90	9.93
MAX	8.7	8.3	8.2	8.5	12	7.6	9.5	18	10	10	10	11
MIN	8.1	5.9	5.9	5.9	6.3	5.9	8.6	9.5	9.8	10	9.7	9.5
AC-FT	528	392	387	396	431	386	530	784	591	615	609	591
a	10090	6890	20560	31970	18640	30910	32490	13940	13660	18410	20960	16160

a Diversion, in acre-feet, through Woodleaf Powerhouse (station 11396090), provided by South Feather Water and Power Agency.

11396000 LOST CREEK NEAR CLIPPER MILLS, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1961, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3.78	8.61	66.0	93.4	170	175	191	129	29.9	6.42	4.23	5.13
MAX	13.4	121	544	485	562	467	423	441	153	34.7	10.2	15.3
(WY)	1928	1951	1956	1956	1958	1938	1938	1952	1952	1952	1961	1960
MIN	.20	.000	.000	.15	.50	25.7	4.68	1.21	1.33	.20	.10	.10
(WY)	1935	1960	1960	1960	1937	1933	1931	1931	1934	1939	1934	1934

SUMMARY STATISTICS	WATER YEARS 1928 - 1961	
ANNUAL MEAN	73.0	
HIGHEST ANNUAL MEAN	167	1938
LOWEST ANNUAL MEAN	6.78	1931
HIGHEST DAILY MEAN	3840	Dec 22 1955
LOWEST DAILY MEAN	.00	Jul 30 1940
ANNUAL SEVEN-DAY MINIMUM	.00	Nov 1 1959
MAXIMUM PEAK FLOW	5000	Dec 22 1955
MAXIMUM PEAK STAGE	a6.90	Dec 22 1955
ANNUAL RUNOFF (AC-FT)	52890	
10 PERCENT EXCEEDS	212	
50 PERCENT EXCEEDS	8.4	
90 PERCENT EXCEEDS	.30	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	12.6	6.78	39.5	51.3	70.9	77.0	52.2	48.2	37.8	4.60	4.15	4.44
MAX	392	179	417	674	512	573	410	454	750	16.0	22.2	34.4
(WY)	1963	1963	1998	1997	1986	1983	1993	1995	1995	1962	1966	1997
MIN	0.01	0.03	0.09	0.10	0.35	0.33	0.22	0.13	0.10	0.10	0.00	0.00
(WY)	1965	1975	1975	1962	1964	1964	1968	1968	1966	1963	1964	1963

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1962 - 2004	
ANNUAL TOTAL	10414.8		3146.0			
ANNUAL MEAN	28.5		8.60		33.9	
HIGHEST ANNUAL MEAN					200	1995
LOWEST ANNUAL MEAN					0.49	1964
HIGHEST DAILY MEAN	652	May 15	18	May 5	4490	Jan 1 1997
LOWEST DAILY MEAN	5.9	Mar 3	5.9	Nov 11	0.00	Oct 21 1961
ANNUAL SEVEN-DAY MINIMUM	5.9	Mar 3	5.9	Nov 16	0.00	Oct 21 1961
MAXIMUM PEAK FLOW			20	May 5	5760	Jan 1 1997
MAXIMUM PEAK STAGE			5.24	May 5	13.50	Jan 1 1997
ANNUAL RUNOFF (AC-FT)	20660		6240		24590	
TOTAL DIVERSION (AC-FT) b	269800		234700			
10 PERCENT EXCEEDS	10		10		12	
50 PERCENT EXCEEDS	8.6		8.8		2.5	
90 PERCENT EXCEEDS	5.9		5.9		0.20	

a Site then in use.
b Diversion, in acre-feet, through Woodleaf Powerhouse (station 11396090), provided by South Feather Water and Power Agency.

11396200 SOUTH FORK FEATHER RIVER BELOW FORBESTOWN DAM, CA

LOCATION.—Lat 39°33'05", long 121°12'30", in SE 1/4 NE 1/4 sec.32, T.20 N., R.7 E., Butte County, Hydrologic Unit 18020123, Plumas National Forest, on right bank, 500 ft downstream from Forbestown Dam, 0.4 mi upstream from Oroleve Creek, and 4.0 mi northeast of Forbestown.

DRAINAGE AREA.—87.5 mi^2.

PERIOD OF RECORD.—July 1962 to current year. Records for Forbestown Powerplant from February 1963 to September 1966 in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder. Elevation of gage is 1,690 ft above NGVD of 1929, from topographic map.

REMARKS.—Flow regulated by Little Grass Valley Reservoir (station 11395020), Sly Creek Reservoir (station 11395400), and smaller reservoirs. Water from North Yuba River Basin is imported through Slate Creek Tunnel (station 11413250) to Sly Creek Reservoir. Oroville–Wyandotte Canal (station 11395500) diverts upstream from station. Tunnel 600 ft upstream from station diverts most flow through Forbestown Powerplant (station 11396290) except fishwater releases and uncontrolled spill over Forbestown Dam. See schematic diagram of South Fork Feather River Basin.

COOPERATION.—Records provided by South Feather Water and Power Agency, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2088.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 21,800 ft^3/s, Jan. 1, 1997, gage height, 17.64 ft, from rating curve extended above 5,400 ft^3/s, on basis of flow-over-dam measurement of peak flow; minimum daily, 0.60 ft^3/s, Apr. 4, 1963, during initial operation of Little Grass Valley Reservoir; since operation stabilized in 1964, 1.3 ft^3/s, Mar. 15, 1980.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	11	5.4	6.5	6.0	6.1	5.7	14	11	11	11	12
2	10	10	5.5	6.2	6.1	6.1	5.7	14	11	12	11	12
3	10	11	6.1	6.1	6.1	6.1	5.7	12	11	12	11	12
4	10	14	6.2	6.1	6.1	17	5.7	14	12	12	11	12
5	10	32	5.9	6.0	6.1	5.9	5.8	11	11	12	12	12
6	10	26	6.2	5.9	6.1	5.9	5.8	11	11	12	14	12
7	12	11	6.1	6.0	6.1	5.9	5.8	11	12	12	12	12
8	13	11	5.9	6.0	5.9	5.9	5.7	11	12	12	12	12
9	11	11	5.9	6.0	6.0	5.9	5.7	11	12	12	12	12
10	11	8.1	6.1	6.0	6.0	5.9	5.7	11	12	12	12	12
11	11	5.5	6.1	6.0	6.1	5.9	5.7	11	12	12	12	12
12	11	5.5	6.0	5.9	6.1	5.9	5.8	11	12	12	12	12
13	11	5.5	6.0	5.9	6.0	5.9	5.8	11	12	12	12	12
14	11	5.5	6.2	5.9	6.0	5.9	5.7	11	12	12	12	11
15	11	5.6	6.0	6.0	6.0	5.9	5.7	11	12	12	12	12
16	11	5.5	6.0	6.1	6.3	5.9	5.8	11	11	12	12	12
17	11	5.5	6.1	5.9	6.3	5.9	5.8	11	11	12	12	12
18	11	5.5	6.0	5.9	172	5.9	5.7	11	11	12	12	12
19	11	5.3	5.9	5.9	6.4	5.9	5.8	11	11	12	12	12
20	11	5.3	6.1	6.0	6.2	5.9	5.8	11	11	12	12	12
21	11	5.3	6.0	6.1	6.1	5.9	5.8	11	12	12	12	12
22	11	5.3	6.0	5.9	6.1	5.9	5.9	11	11	12	12	12
23	11	5.3	6.0	5.9	6.0	5.8	5.7	11	11	12	12	12
24	11	5.3	6.4	5.9	6.0	5.8	5.7	11	11	12	12	12
25	11	5.3	6.1	5.9	6.4	5.8	5.7	11	11	12	12	12
26	11	5.3	5.9	5.9	6.5	5.9	5.7	11	11	20	12	12
27	11	5.3	5.9	6.1	6.3	5.8	5.7	11	12	12	12	12
28	11	5.3	5.9	6.1	6.1	5.8	5.7	11	12	12	12	12
29	11	5.3	6.3	6.1	6.1	5.9	5.8	11	12	11	12	12
30	11	5.3	6.1	6.1	---	194	11	11	12	11	12	12
31	11	---	6.0	5.9	---	5.9	---	11	---	11	12	---
TOTAL	338	252.8	186.3	186.2	343.5	382.2	177.6	351	345	376	370	359
MEAN	10.9	8.43	6.01	6.01	11.8	12.3	5.92	11.3	11.5	12.1	11.9	12.0
MAX	13	32	6.4	6.5	172	194	11	14	12	20	14	12
MIN	10	5.3	5.4	5.9	5.9	5.8	5.7	11	11	11	11	11
AC-FT	670	501	370	369	681	758	352	696	684	746	734	712
a	9340	6660	23420	36490	25830	35540	34240	14060	13020	17830	20420	14400

a Diversion, in acre-feet, to Forbestown Powerplant (station 11396290), provided by South Feather Water and Power Agency.

11396200 SOUTH FORK FEATHER RIVER BELOW FORBESTOWN DAM, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	14.7	17.3	84.6	157	161	157	85.9	95.1	41.9	11.7	10.8	13.9
MAX	76.1	240	1262	2059	2000	1472	718	990	617	30.6	27.3	120
(WY)	1966	1982	1997	1997	1986	1995	1982	1996	1998	1986	1986	1996
MIN	4.21	3.68	3.37	4.06	4.46	4.47	4.06	4.02	2.90	4.04	3.37	3.84
(WY)	1978	1976	1976	1976	1972	1972	1964	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1964 - 2004	
ANNUAL TOTAL	9815.7		3667.6			
ANNUAL MEAN	26.9		10.0		70.6	
HIGHEST ANNUAL MEAN					325	1997
LOWEST ANNUAL MEAN					4.36	1977
HIGHEST DAILY MEAN	513	May 15	194	Mar 30	17300	Jan 1 1997
LOWEST DAILY MEAN	5.3	Nov 19	5.3	Nov 19	1.3	Mar 15 1980
ANNUAL SEVEN-DAY MINIMUM	5.3	Nov 19	5.3	Nov 19	1.7	Mar 25 1980
MAXIMUM PEAK FLOW			636	Mar 30	21800	Jan 1 1997
MAXIMUM PEAK STAGE			7.54	Mar 30	17.64	Jan 1 1997
ANNUAL RUNOFF (AC-FT)	19470		7270		51120	
TOTAL DIVERSION (AC-FT) a	298800		251200			
10 PERCENT EXCEEDS	11		12		102	
50 PERCENT EXCEEDS	10		11		10	
90 PERCENT EXCEEDS	6.0		5.7		5.1	

a Diversion, in acre-feet, to Forbestown Powerplant (station 11396290), provided by South Feather Water and Power Agency.

11396310 MINERS RANCH CANAL BELOW PONDEROSA DAM, NEAR FORBESTOWN, CA

LOCATION.—Lat 39°33'00", long 121°18'20", in SE 1/4 NW 1/4 sec.33, T.20 N., R.6 E., Butte County, Hydrologic Unit 18020123, on right bank, 800 ft downstream from Ponderosa Dam, and 3 mi northwest of Forbestown.

PERIOD OF RECORD.—October 1962 to current year.

REVISED RECORDS.—WDR CA-88-4: diversion only.

GAGE.—Water-stage recorder and concrete control. Elevation of gage is 975 ft above NGVD of 1929, from topographic map.

REMARKS.—Canal diverts from South Fork Feather River at Ponderosa Dam. Water is used for power development and irrigation. See schematic diagram of South Fork Feather River Basin.

COOPERATION.—Records provided by South Feather Water and Power Agency, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2088.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 314 ft^3/s, May 13, 1984; no flow at times in most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	100	268	25	267	266	265	275	275	280	284	285	277
2	0.00	98	26	232	266	265	273	274	281	284	285	277
3	0.00	73	130	266	267	265	273	279	227	284	285	278
4	0.00	71	99	266	267	265	273	284	285	284	285	274
5	0.00	73	22	266	266	265	273	284	284	284	285	270
6	0.00	89	23	266	266	265	272	285	274	284	285	271
7	90	68	185	267	266	265	273	284	260	284	285	271
8	124	229	184	267	266	265	273	284	269	284	285	271
9	0.00	268	259	267	267	265	273	284	281	284	285	271
10	47	272	270	267	267	265	272	284	284	284	285	270
11	285	271	271	267	267	266	272	284	284	284	285	270
12	285	271	271	266	266	220	272	284	284	284	285	271
13	285	268	270	267	267	198	273	284	284	283	285	270
14	275	273	272	150	267	265	273	284	284	242	284	270
15	281	242	271	266	265	266	273	284	284	285	284	266
16	285	265	270	267	267	265	273	284	284	285	285	271
17	285	261	269	267	266	265	273	284	284	285	283	271
18	285	270	268	267	213	219	273	283	284	285	280	271
19	285	131	267	267	258	268	272	284	284	285	223	270
20	102	24	264	267	259	272	272	284	284	285	280	35
21	0.00	24	251	267	259	274	174	284	284	285	279	0.00
22	107	25	264	266	260	275	176	284	282	285	279	0.00
23	70	25	264	267	260	277	274	284	284	285	279	0.00
24	0.00	25	264	267	262	276	273	283	284	285	279	141
25	0.00	25	264	267	260	276	274	284	284	285	279	1.0
26	80	25	264	267	260	276	274	284	284	285	278	0.00
27	105	25	264	267	260	275	274	284	284	285	277	0.00
28	100	25	267	267	261	276	277	284	284	285	278	0.00
29	49	25	267	267	263	276	279	284	284	285	278	0.00
30	113	25	267	267	---	277	278	280	284	285	278	114
31	172	---	266	266	---	276	---	273	---	285	277	---
TOTAL	3810.00	4034	6818	8117	7604	8188	8009	8764	8403	8778	8685	5451.00
MEAN	123	134	220	262	262	264	267	283	280	283	280	182
MAX	285	273	272	267	267	277	279	285	285	285	285	278
MIN	0.00	24	22	150	213	198	174	273	227	242	223	0.00
AC-FT	7560	8000	13520	16100	15080	16240	15890	17380	16670	17410	17230	10810
a	5470	7420	12490	15510	14690	15440	14790	15650	14620	15220	15100	9390

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 2004, BY WATER YEAR (WY)

MEAN	169	183	195	200	216	220	215	223	239	249	248	185
MAX	263	269	264	264	267	269	276	283	285	284	289	270
(WY)	1980	1992	1999	1999	2002	1998	1987	2004	2000	2001	1986	1980
MIN	26.6	20.9	18.1	16.6	10.5	16.8	14.5	22.2	51.9	49.3	43.0	25.0
(WY)	1987	1978	1977	1977	1977	1977	1977	1977	1977	1977	1977	1992

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1963 - 2004	
ANNUAL TOTAL	88897.00		86661.00			
ANNUAL MEAN	244		237		212	
HIGHEST ANNUAL MEAN					262	2003
LOWEST ANNUAL MEAN					52.2	1977
HIGHEST DAILY MEAN	286	Jun 25	285	Oct 11	314	May 13 1984
LOWEST DAILY MEAN	0.00	Oct 2	0.00	Oct 2	0.00	Nov 21 1962
ANNUAL SEVEN-DAY MINIMUM	19	Sep 30	20	Sep 21	0.00	Dec 6 1976
ANNUAL RUNOFF (AC-FT)	176300		171900		153800	
TOTAL DIVERSION (AC-FT) a	161900		155800			
10 PERCENT EXCEEDS	284		285		280	
50 PERCENT EXCEEDS	270		271		249	
90 PERCENT EXCEEDS	95		69		46	

a Discharge, in acre-feet, through Kelly Ridge Powerplant (station 11396329), provided by South Feather Water and Power Agency.

11396330 BANGOR CANAL BELOW MINERS RANCH RESERVOIR, NEAR OROVILLE, CA

LOCATION.—Lat 39°30'15", long 121°27'16", in NE 1/4 SW 1/4 sec.18, T.19 N., R.5 E., Butte County, Hydrologic Unit 18020124, on left bank, 400 ft downstream from outlet at Miners Ranch Dam, and 5 mi east of Oroville.

PERIOD OF RECORD.—January 1963 to current year.

GAGE.—Water-stage recorder and Parshall flume. Elevation of gage is 815 ft above NGVD of 1929, from topographic map.

REMARKS.—Flow regulated by Miners Ranch Reservoir, capacity, 912 acre-ft. Canal completed in November 1962. Water is used for irrigation. See schematic diagram of South Fork Feather River Basin.

COOPERATION.—Records provided by South Feather Water and Power Agency, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2088.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 65 ft^3/s, Aug. 17–20, 1963; no flow for several days in 1965, 1969.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	15	8.0	8.0	8.3	6.6	10	16	16	23	19	19
2	19	15	8.1	8.0	8.3	6.5	10	15	16	23	19	19
3	19	12	8.1	8.0	8.3	6.5	10	15	16	23	19	19
4	19	10	8.6	7.9	8.4	7.9	10	15	16	23	20	19
5	19	8.9	8.6	8.2	8.7	9.0	10	15	16	23	20	19
6	19	8.4	8.6	8.6	7.4	9.7	10	15	16	23	20	19
7	19	8.4	8.4	8.2	6.6	9.5	10	15	16	23	19	19
8	19	7.8	8.3	8.0	6.4	9.7	10	15	16	20	19	19
9	19	8.2	8.3	8.6	6.4	9.7	10	15	16	18	19	19
10	19	8.3	8.3	8.6	6.5	9.7	10	15	17	18	19	19
11	19	8.3	8.3	8.6	6.5	11	10	15	17	18	19	19
12	19	8.5	8.3	8.6	6.4	11	10	15	17	18	20	19
13	19	8.4	8.3	8.6	6.5	11	10	15	17	18	21	19
14	17	8.0	8.5	8.2	6.7	11	10	15	17	18	22	19
15	16	8.0	8.6	8.1	6.7	10	10	16	17	18	21	20
16	16	8.3	8.6	8.6	6.7	11	10	16	18	18	21	21
17	16	8.3	8.6	8.6	6.7	11	10	16	19	18	21	21
18	16	8.6	8.3	8.2	6.4	11	10	16	19	18	21	21
19	16	8.5	8.0	8.0	6.4	11	10	16	18	18	21	20
20	16	8.3	8.0	8.3	6.5	11	10	16	19	19	21	19
21	16	8.4	8.3	8.3	6.5	11	10	16	19	19	21	18
22	16	8.6	8.6	8.3	6.6	11	10	16	18	20	21	19
23	16	8.4	8.6	8.3	6.5	11	10	16	19	19	20	19
24	16	8.0	8.6	8.3	6.4	11	10	16	19	19	19	19
25	16	8.0	8.6	8.3	6.3	11	10	16	19	19	19	19
26	16	8.0	8.6	8.3	6.3	11	10	16	19	19	19	19
27	16	8.0	8.6	8.3	6.3	11	13	16	19	19	20	19
28	16	8.0	8.6	8.3	6.2	11	15	16	19	19	21	19
29	16	8.0	8.6	8.3	6.7	11	16	16	21	19	21	18
30	16	8.0	8.4	8.3	---	10	16	16	23	19	20	17
31	15	---	8.0	8.3	---	10	---	16	---	19	19	---
TOTAL	535	266.6	260.3	257.2	198.6	312.8	320	483	534	608	621	574
MEAN	17.3	8.89	8.40	8.30	6.85	10.1	10.7	15.6	17.8	19.6	20.0	19.1
MAX	19	15	8.6	8.6	8.7	11	16	16	23	23	22	21
MIN	15	7.8	8.0	7.9	6.2	6.5	10	15	16	18	19	17
AC-FT	1060	529	516	510	394	620	635	958	1060	1210	1230	1140

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 2004, BY WATER YEAR (WY)

MEAN	16.6	8.06	5.87	4.92	4.50	4.96	8.73	15.8	21.1	23.5	23.7	21.6
MAX	29.7	14.3	11.2	12.0	7.68	10.1	20.3	27.8	42.0	56.4	53.4	36.2
(WY)	1965	1972	1975	1963	1980	2004	1970	1970	1963	1963	1963	1963
MIN	5.42	1.47	0.04	0.30	0.25	0.20	2.65	6.41	11.0	16.0	16.0	14.4
(WY)	1985	1969	1966	1966	1966	1966	1983	1995	1998	1982	2001	1993

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1963 - 2004	
ANNUAL TOTAL	4432.3		4970.5			
ANNUAL MEAN	12.1		13.6		13.1	
HIGHEST ANNUAL MEAN					18.0	1977
LOWEST ANNUAL MEAN					8.95	1993
HIGHEST DAILY MEAN	20	Jul 27	23	Jun 30	65	Aug 17 1963
LOWEST DAILY MEAN	7.2	Jan 9	6.2	Feb 28	0.00	Jan 7 1965
ANNUAL SEVEN-DAY MINIMUM	7.2	Jan 28	6.4	Feb 22	0.00	Jan 7 1965
ANNUAL RUNOFF (AC-FT)	8790		9860		9500	
10 PERCENT EXCEEDS	19		19		27	
50 PERCENT EXCEEDS	8.6		15		11	
90 PERCENT EXCEEDS	7.2		8.0		3.1	

11396395 SUCKER RUN AT KANAKA DIVERSION, NEAR FEATHER FALLS, CA

LOCATION.—Lat 39°33'44", long 121°16'46", in SE 1/4 NE 1/4 sec.27, T.20 N., R.6 E., Butte County, Hydrologic Unit 18020123, on left bank, at Kanaka Diversion Measuring Weir, 2.5 mi upstream from confluence with South Fork Feather River, and 2.5 mi southwest of Feather Falls.

DRAINAGE AREA.—15.5 mi^2.

PERIOD OF RECORD.—March 1989 to September 1998, October 1999 to current year.

GAGE.—Water-stage recorder and 120° V-notch weir. Elevation of gage is 1,660 ft above NGVD of 1929, from topographic map.

REMARKS.—Water from creek is diverted upstream from gage to Kanaka Powerplant (station 11396396). See schematic diagram of South Fork Feather River Basin.

COOPERATION.—Records provided by STS Hydro Power Ltd., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project nos. 7120 and 7242.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 1,500 ft^3/s, Jan. 1, 1997, gage height, 4.40 ft; minimum daily, 1.2 ft^3/s, Aug. 21, 22, 27, 1992, Aug. 13, 1994.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.5	4.2	5.9	74	14	19	15	10	8.1	5.6	3.9	2.7
2	3.5	4.2	5.8	14	15	15	15	10	7.9	5.4	3.9	2.7
3	3.6	5.2	6.2	5.2	14	13	14	10	7.7	5.3	3.9	2.7
4	3.6	4.8	5.6	5.1	13	14	14	9.9	7.5	5.1	3.9	2.6
5	3.5	4.5	6.6	5.1	13	14	14	9.7	7.4	5.1	3.8	2.5
6	3.5	4.4	8.1	5.1	13	14	14	9.5	7.4	5.0	3.8	2.6
7	3.4	5.8	5.3	5.3	13	13	14	9.5	7.5	4.9	3.7	2.6
8	3.4	5.6	5.2	5.2	13	13	14	9.3	7.7	4.8	3.7	2.5
9	3.4	5.3	7.7	5.2	13	14	13	9.3	7.7	4.8	3.6	2.5
10	3.4	6.3	5.9	5.2	13	13	13	10	7.8	4.8	3.5	2.5
11	3.3	5.6	5.4	5.2	15	13	13	11	7.7	4.7	3.4	2.5
12	3.3	5.1	5.2	5.2	16	15	12	9.7	7.5	4.5	3.3	2.5
13	3.3	4.9	6.1	5.1	15	13	12	9.2	7.3	4.3	3.3	2.6
14	3.2	5.4	15	5.1	15	13	12	8.8	7.2	4.3	3.3	2.6
15	3.3	6.5	5.1	5.1	15	15	13	8.7	6.9	4.2	3.4	2.5
16	3.4	6.4	5.2	5.1	28	14	12	8.7	6.7	4.2	3.4	2.5
17	3.4	6.5	5.2	5.1	64	14	13	8.7	6.6	4.2	3.4	2.6
18	3.4	5.8	5.1	5.1	237	14	13	8.8	6.5	4.0	3.4	2.6
19	3.3	5.4	5.1	5.1	61	16	13	8.8	6.5	4.0	3.3	3.6
20	3.4	5.3	5.2	5.1	23	13	14	9.2	6.5	4.0	3.3	4.0
21	3.3	5.2	5.2	5.1	14	13	16	9.8	6.4	4.0	3.3	3.4
22	3.3	5.1	5.2	5.1	13	14	14	9.4	6.3	3.9	3.4	3.2
23	3.3	5.1	5.2	5.1	13	17	13	9.0	6.2	3.9	3.6	3.1
24	3.2	5.0	20	5.1	18	16	12	9.0	6.1	3.8	3.3	3.0
25	3.1	5.0	6.2	5.2	72	15	11	9.0	6.0	3.7	3.1	2.9
26	3.0	5.0	5.4	5.2	104	13	11	8.6	5.9	3.7	2.9	2.8
27	3.0	5.0	5.3	5.4	59	13	11	8.4	5.8	4.0	2.9	2.8
28	3.1	5.0	5.2	5.4	31	13	11	9.1	5.7	4.0	2.8	2.8
29	3.1	5.1	9.2	5.3	17	16	11	11	5.6	3.9	2.8	3.0
30	3.2	5.1	9.7	5.2	---	16	10	8.8	5.6	3.9	2.8	3.1
31	3.9	---	5.2	5.4	---	16	---	8.4	---	3.9	2.7	---
TOTAL	103.6	157.8	206.7	238.1	964	444	387	289.3	205.7	135.9	104.8	84.0
MEAN	3.34	5.26	6.67	7.68	33.2	14.3	12.9	9.33	6.86	4.38	3.38	2.80
MAX	3.9	6.5	20	74	237	19	16	11	8.1	5.6	3.9	4.0
MIN	3.0	4.2	5.1	5.1	13	13	10	8.4	5.6	3.7	2.7	2.5
AC-FT	205	313	410	472	1910	881	768	574	408	270	208	167

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 2004, BY WATER YEAR (WY)

MEAN	4.18	5.41	11.1	26.9	27.6	23.5	16.1	12.2	7.64	6.09	4.23	3.77
MAX	7.19	7.32	51.7	128	91.7	92.0	37.5	45.5	10.4	13.7	8.09	7.58
(WY)	1990	1990	1997	1997	1998	1995	1995	1995	1998	1995	1995	1998
MIN	2.35	3.44	4.34	4.44	5.11	12.1	9.83	6.40	4.24	2.85	1.55	1.33
(WY)	2002	1993	1991	1991	1991	1994	1994	1992	1992	1994	1994	1992

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1989 - 2004	
ANNUAL TOTAL	3069.0		3320.9			
ANNUAL MEAN	8.41		9.07		12.4	
HIGHEST ANNUAL MEAN					28.2	1995
LOWEST ANNUAL MEAN					6.29	1992
HIGHEST DAILY MEAN	83	Mar 15	237	Feb 18	1100	Jan 1 1997
LOWEST DAILY MEAN	3.0	Oct 26	2.5	Sep 5	1.2	Aug 21 1992
ANNUAL SEVEN-DAY MINIMUM	3.1	Oct 24	2.5	Sep 5	1.3	Aug 21 1992
MAXIMUM PEAK FLOW			418	Feb 18	1500	Jan 1 1997
MAXIMUM PEAK STAGE			3.37	Feb 18	4.40	Jan 1 1997
ANNUAL RUNOFF (AC-FT)	6090		6590		8960	
10 PERCENT EXCEEDS	14		14		16	
50 PERCENT EXCEEDS	6.3		5.4		6.7	
90 PERCENT EXCEEDS	3.5		3.1		2.6	

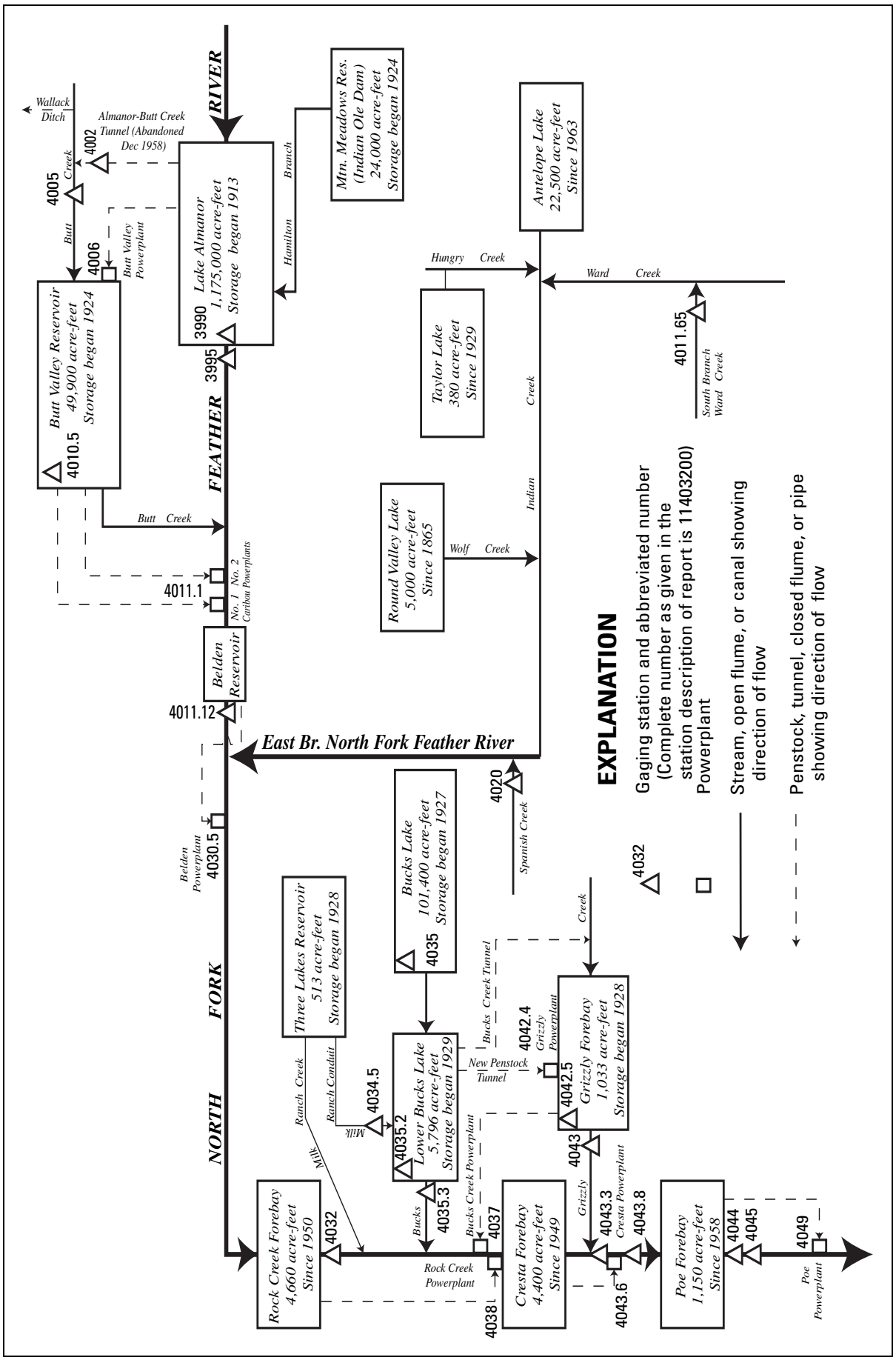


Figure 29. Diversions and storage in North Fork Feather River Basin.

11399000 LAKE ALMANOR AT PRATTVILLE, CA

LOCATION.—Lat 40°12'46", long 121°09'43", in SW 1/4 NE 1/4 sec.11, T.27 N., R.7 E., Plumas County, Hydrologic Unit 18020121, Lassen National Forest, at intake tower to Butt Valley Tunnel at Prattville, 4.7 mi northwest of Lake Almanor Dam, and 5.6 mi northwest of Canyondam.

DRAINAGE AREA.—491 mi^2.

PERIOD OF RECORD.—July 1913 to current year. Monthly contents only for some periods, published in WSP 1315-A. Published as "near Prattville" 1937–60. Prior to October 1964, records published as usable contents.

REVISED RECORDS.—WSP 1931: Drainage area.

GAGE.—Datum of gage is 10.23 ft below NGVD of 1929 (levels by Pacific Gas & Electric Co.). Prior to June 1, 1965, nonrecording gage at site 4.7 mi southeast at same datum.

REMARKS.—Lake is formed by earthfill dam; storage began in July 1913; dam raised to gage height 4,455 ft in 1917 and 4,515 ft in 1927. Usable capacity, 1,175,000 acre-ft, between gage heights 4,422 ft, invert of outlet, and 4,495.5 ft, maximum storage limit. Dead storage, 8,948 acre-ft. Water is diverted by tunnel and penstock to Butt Valley Powerplant (station 11400600) and then is used for power development in the North Fork Feather River. Figures given, including extremes, represent total contents at 2400 hours. See schematic diagram of North Fork Feather River Basin.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2105. Contents not rounded to U.S. Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 1,142,960 acre-ft, June 8, 1982, gage height, 4,494.00 ft; minimum, 5,230 acre-ft, Feb. 5, 1918, gage height, 4,416.1 ft.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 1,006,248 acre-ft, June 10, 11, gage height, 4,488.85 ft; minimum, 708,763 acre-ft, Feb. 8, gage height, 4,476.61 ft.

Capacity table (gage height, in feet, and contents, in acre-feet)
(Based on surveys by Pacific Gas & Electric Co. in 1924 and 1926)

4,422	8,948	4,432	34,173	4,445	156,414	4,470	565,519
4,424	10,067	4,434	49,510	4,450	220,848	4,480	787,304
4,426	11,260	4,437	74,189	4,455	294,531	4,490	1,036,269
4,428	13,480	4,440	101,869	4,460	376,686	4,495.5	1,183,835
4,430	21,200						

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	868474	830182	791961	787017	717405	771987	840054	914432	991756	989432	931199	853381
2	866274	827784	791254	785607	717405	773635	842230	917432	993308	987884	928189	852171
3	866030	826108	790076	783730	715125	774813	844652	920438	995120	986595	925435	849994
4	867007	824422	787957	781621	714214	776464	847563	923435	996674	985564	922686	848292
5	866518	822974	787722	779049	712167	777645	850236	927438	999008	984277	920438	846592
6	866030	820082	791254	776936	711258	779049	852897	930195	1000303	982219	917432	844895
7	865541	818639	792669	775284	709443	780685	855320	932706	1002627	980164	915182	843441
8	865053	817917	792197	773399	708763	782324	857747	935975	1004178	979394	912435	841505
9	864321	818158	793141	771517	709670	784199	860179	939251	1005212	978368	909445	839813
10	863101	818398	795032	769167	710577	786077	862614	942534	1006248	978111	906708	838123
11	862858	818158	796924	766822	711486	787252	865297	945823	1006248	977599	904225	836917
12	861883	817437	797398	764949	712394	789134	867496	948611	1005730	976830	902241	834989
13	860665	817917	798109	762611	713759	792433	870923	950889	1005730	975293	899764	833305
14	859692	817917	800480	761211	714442	793378	872885	953415	1005212	974013	898026	831142
15	858476	815996	800006	758647	716264	795741	876078	956198	1004954	973757	895299	829462
16	856776	813118	799531	756553	721062	798820	877554	958478	1003661	971201	893071	828024
17	855320	811682	798583	754231	730715	801668	879771	960507	1001852	970435	890353	826587
18	854350	810247	797161	752144	736258	804521	881734	963047	1001335	968649	888132	826348
19	852897	808813	796688	751218	740383	807143	884192	964573	1000303	964828	885422	826348
20	851687	807143	795268	747288	743601	810486	886653	966865	999527	962031	882962	824422
21	850477	805712	793850	744061	748443	813597	889118	969159	998749	960000	880016	823457
22	848535	803569	791490	741532	749829	816476	891588	970946	997711	957717	877308	823457
23	847078	802143	789134	738548	751449	819120	893566	972990	996933	955185	874849	822251
24	845379	800480	790782	736716	755391	821768	896042	974525	995897	952910	872394	821286
25	843925	798346	790076	733949	761444	825388	898771	976317	995379	950889	869698	819842
26	842714	797161	788192	731638	764949	827784	901249	978111	994602	947850	867252	818398
27	841263	795978	786312	729792	766588	829462	903977	980678	993308	945317	864565	816956
28	839330	794795	784668	727489	768229	831863	906708	984020	990723	942534	862370	815516
29	836676	793850	787017	725190	769637	834027	908947	986079	990981	939756	859935	814556
30	834027	792669	787017	722895	---	835712	911936	987626	990465	936731	857747	813597
31	832584	---	785607	720147	---	837882	---	989690	---	934214	855320	---
MAX	868474	830182	800480	787017	769637	837882	911936	989690	1006248	989432	931199	853381
MIN	832584	792669	784668	720147	708763	771987	840054	914432	990465	934214	855320	813597
a	4481.90	4480.23	4479.93	4477.11	4479.25	4482.12	4485.14	4488.21	4488.24	4486.03	4482.84	4481.11
b	-37359	-39915	-7062	-65460	+49490	+68245	+74054	+77754	+775	-56251	-78894	-41723

CAL YR 2003 MAX 1037316 MIN 761911 b +25096
WTR YR 2004 MAX 1006248 MIN 708763 b -56346

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

11399500 NORTH FORK FEATHER RIVER NEAR PRATTVILLE, CA

LOCATION.—Lat 40°10'06", long 121°05'31", in NE 1/4 SW 1/4 sec.28, T.27 N., R.8 E., Plumas County, Hydrologic Unit 18020121, Plumas National Forest, on left bank, 0.4 mi downstream from Almanor Dam, 4.5 mi southeast of Prattville, and 9 mi upstream from Butt Creek.

DRAINAGE AREA.—493 mi^2.

PERIOD OF RECORD.—June 1905 to current year. Published as "below Prattville" prior to 1911. No record for January, February, or March 1911. Estimated mean discharge for water year 1911 published in WSP 1315-A.

REVISED RECORDS.—WSP 1245: 1951 (yearly summaries). WSP 1285: 1952 (yearly summaries). WDR CA-88-4: 1987 (monthly and yearly totals for Butt Valley Powerplant).

GAGE.—Water-stage recorder and broad-crested weir. Datum of gage is 4,390.09 ft above NGVD of 1929. Prior to Oct. 1, 1936, nonrecording gages or water-stage recorders at several sites within 0.5 mi of present site at various datums.

REMARKS.—Flow regulated since 1913 by Lake Almanor (station 11399000) 0.5 mi upstream and since 1924 by Mountain Meadows Reservoir, capacity, 24,000 acre-ft, 12 mi upstream on Hamilton Branch. Water diverted from Lake Almanor to Butt Valley Reservoir (station 11401050) through old Almanor–Butt Creek Tunnel from May 1921 to December 1958, for use at Caribou Powerplant. Old tunnel closed Dec. 30, 1958, and diversion began Dec. 31, 1958, to Butt Valley Powerplant (station 11400600) at upstream end of Butt Valley Reservoir. See schematic diagram of North Fork Feather River Basin.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2105.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 10,000 ft^3/s, Mar. 19, 1907, before construction of dam, gage height, 16.2 ft, at former site, from rating curve extended above 3,700 ft^3/s; no flow at times during 1914, 1919, 1923.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	35	35	37	37	41	37	38	36	35	36	38
2	37	35	37	37	37	41	37	38	36	34	37	38
3	37	35	37	37	37	41	37	39	36	34	37	38
4	37	35	37	36	37	41	37	39	36	34	36	38
5	37	35	37	36	36	41	37	37	36	34	36	38
6	37	35	37	36	36	41	37	35	35	34	36	38
7	37	35	37	36	36	41	37	35	35	34	36	38
8	37	35	37	37	36	41	37	35	35	34	36	38
9	37	36	37	36	36	41	37	35	36	34	36	38
10	37	36	37	36	36	42	37	36	36	34	36	38
11	36	36	37	36	37	42	37	36	36	34	36	38
12	36	36	37	36	37	42	38	35	36	34	35	38
13	36	36	37	36	37	42	38	35	36	34	35	38
14	36	36	37	36	37	42	38	35	35	34	36	37
15	36	36	37	36	37	40	38	35	36	34	36	37
16	36	36	37	36	37	37	38	35	36	34	36	37
17	36	36	37	36	38	36	38	35	35	34	36	37
18	36	35	37	36	40	36	38	35	35	33	36	37
19	36	35	37	36	40	36	38	35	35	35	35	37
20	36	35	37	36	40	37	38	35	35	37	35	37
21	36	35	37	36	40	37	38	35	35	37	35	37
22	36	35	37	36	40	37	38	35	35	37	35	37
23	36	35	37	35	40	37	38	35	35	37	35	37
24	36	35	37	35	40	37	38	35	35	37	35	37
25	36	35	37	35	41	37	38	35	35	37	35	37
26	36	35	37	35	41	37	38	35	35	37	36	37
27	36	35	37	35	41	37	38	35	35	37	38	37
28	36	35	37	35	41	37	38	36	35	37	38	37
29	36	35	37	36	41	37	38	36	35	37	38	37
30	35	35	37	37	---	37	38	36	35	37	38	37
31	35	---	37	37	---	37	---	36	---	36	38	---
TOTAL	1123	1059	1145	1116	1109	1208	1129	1107	1062	1090	1119	1123
MEAN	36.2	35.3	36.9	36.0	38.2	39.0	37.6	35.7	35.4	35.2	36.1	37.4
MAX	37	36	37	37	41	42	38	39	36	37	38	38
MIN	35	35	35	35	36	36	37	35	35	33	35	37
AC-FT	2230	2100	2270	2210	2200	2400	2240	2200	2110	2160	2220	2230
a	61230	69700	78330	110400	24470	0	0	0	38300	78320	99370	67630

a Diversion, in acre-feet, to Butt Valley Powerplant (station 11400600), provided by Pacific Gas & Electric Co.

11399500 NORTH FORK FEATHER RIVER NEAR PRATTVILLE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 1958, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	498	393	371	282	349	272	318	327	349	479	602	569
MAX	1607	1414	1418	1489	2124	1609	1852	2206	1065	1280	1755	1762
(WY)	1931	1931	1938	1946	1938	1929	1938	1938	1935	1929	1929	1929
MIN	3.80	3.32	3.41	3.20	3.20	3.61	2.63	2.02	2.11	8.02	3.72	3.16
(WY)	1942	1940	1937	1944	1944	1944	1939	1939	1939	1943	1937	1937

SUMMARY STATISTICS	WATER YEARS 1925 - 1958	
ANNUAL TOTAL		
ANNUAL MEAN	401	
HIGHEST ANNUAL MEAN	1061	1929
LOWEST ANNUAL MEAN	27.1	1937
HIGHEST DAILY MEAN	2670	May 17 1942
LOWEST DAILY MEAN	.50	Apr 28 1949
ANNUAL SEVEN-DAY MINIMUM	.87	Apr 25 1949
MAXIMUM PEAK FLOW	2710	May 22 1941
MAXIMUM PEAK STAGE	6.95	May 22 1941
ANNUAL RUNOFF (AC-FT)	290600	
10 PERCENT EXCEEDS	1060	
50 PERCENT EXCEEDS	60	
90 PERCENT EXCEEDS	4.4	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	46.7	44.0	33.5	75.4	74.3	37.4	41.4	49.1	64.7	60.3	57.1	43.8
MAX	510	546	59.6	1901	1800	163	293	352	660	688	596	415
(WY)	1997	1997	1997	1997	1997	1997	1983	1996	1996	1996	1996	1996
MIN	17.3	8.65	7.47	8.67	10.0	9.90	10.1	15.7	16.0	15.4	14.9	15.0
(WY)	1978	1960	1960	1960	1962	1964	1964	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1960 - 2004	
ANNUAL TOTAL	13509		13390			
ANNUAL MEAN	37.0		36.6		52.2	
HIGHEST ANNUAL MEAN					459	1997
LOWEST ANNUAL MEAN					22.3	1962
HIGHEST DAILY MEAN	229	Feb 11	42	Mar 10	2140	Jan 5 1997
LOWEST DAILY MEAN	34	Apr 1	33	Jul 18	2.9	Jan 9 1960
ANNUAL SEVEN-DAY MINIMUM	35	Mar 29	34	Jul 12	4.7	Oct 26 1966
MAXIMUM PEAK FLOW			58	Dec 2	10000	Mar 19 1907
MAXIMUM PEAK STAGE			2.78	Dec 2	16.20	Mar 19 1907
ANNUAL RUNOFF (AC-FT)	26800		26560		37800	
ANNUAL DIVERSION (AC-FT) a	583100		627800			
10 PERCENT EXCEEDS	39		38		40	
50 PERCENT EXCEEDS	36		36		36	
90 PERCENT EXCEEDS	35		35		33	

a Diversion, in acre-feet, to Butt Valley Powerplant (station 11400600), provided by Pacific Gas & Electric Co.

11400500 BUTT CREEK BELOW ALMANOR–BUTT CREEK TUNNEL, NEAR PRATTVILLE, CA

LOCATION.—Lat 40°11'14", long 121°11'13", in NE 1/4 NW 1/4 sec.22, T.27 N., R.7 E., Plumas County, Hydrologic Unit 18020121, on right bank, 500 ft downstream from outlet of old Almanor–Butt Creek Tunnel, and 2.2 mi southwest of Prattville.

DRAINAGE AREA.—69.3 mi^2.

PERIOD OF RECORD.—October 1936 to September 1959, October 1964 to current year. Published as "below tunnel No. 1" 1938–40. Records for water years 1937–38 published in WSP 1515. Records prior to 1964 not equivalent owing to inflow from Almanor–Butt Creek Tunnel.

GAGE.—Water-stage recorder and concrete control. Elevation of gage is 4,300 ft above NGVD of 1929, from topographic map. Prior to Oct. 5, 1937, at site 200 ft downstream at datum 4 ft lower.

REMARKS.—No regulation upstream from station. Howell–Bunger valve in conduit from Lake Almanor (station 11399000) to Butt Valley Powerplant (station 11400600) is opened for short periods several times a year, causing sharp peaks. Wallack Ditch upstream from station diverts about 3 ft^3/s during each irrigation season into Yellow Creek Basin. Some inflow 500 ft upstream that is the leakage from the abandoned Almanor–Butt Creek Tunnel at Outlet (station 11400200) is included in the table below. See schematic diagram of North Fork Feather River Basin.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2105.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 4,080 ft^3/s, Jan. 1, 1997, gage height, 6.22 ft, from rating curve extended above 1,400 ft^3/s; minimum daily, 26 ft^3/s, several days during May and June 1976.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	53	74	55	52	84	205	155	85	63	49	45
2	50	53	69	57	51	79	192	159	82	58	49	45
3	50	55	63	57	54	76	198	167	80	59	49	45
4	51	54	60	59	50	74	212	172	78	58	49	45
5	50	55	67	56	50	74	212	170	76	57	49	45
6	50	54	131	61	50	79	203	159	73	56	48	45
7	51	57	143	60	50	86	196	151	72	55	49	45
8	52	61	79	61	49	99	198	145	72	54	49	45
9	51	68	69	66	50	117	198	140	73	54	48	45
10	52	63	70	67	49	137	194	152	73	54	48	45
11	52	60	67	66	50	145	191	146	70	55	48	45
12	51	59	65	63	50	150	189	130	68	54	47	45
13	51	57	79	62	50	160	187	124	66	53	46	45
14	51	60	128	60	51	174	176	121	65	53	47	45
15	51	67	86	60	52	195	178	120	65	53	46	45
16	52	61	76	58	74	203	158	118	62	52	46	45
17	52	62	71	57	321	209	151	115	62	52	46	45
18	52	59	67	57	344	228	145	112	63	52	46	45
19	51	57	65	57	207	255	139	108	63	52	46	46
20	52	57	67	57	157	250	145	114	62	52	46	48
21	52	56	68	54	130	254	156	121	61	52	46	47
22	52	54	66	53	115	279	141	128	60	51	46	46
23	52	53	66	53	105	292	136	110	60	50	47	46
24	52	54	115	54	101	277	136	104	58	50	47	46
25	52	53	102	53	102	255	143	99	58	50	46	46
26	52	53	76	52	114	211	151	95	57	49	46	46
27	52	53	64	54	99	192	161	95	58	50	46	46
28	52	55	66	53	90	189	171	120	59	50	46	46
29	52	62	61	52	85	195	162	106	60	49	46	45
30	52	65	69	53	---	213	154	94	61	49	45	46
31	53	---	65	52	---	216	---	89	---	49	45	---
TOTAL	1595	1730	2414	1779	2802	5447	5178	3939	2002	1645	1457	1364
MEAN	51.5	57.7	77.9	57.4	96.6	176	173	127	66.7	53.1	47.0	45.5
MAX	53	68	143	67	344	292	212	172	85	63	49	48
MIN	50	53	60	52	49	74	136	89	57	49	45	45
AC-FT	3160	3430	4790	3530	5560	10800	10270	7810	3970	3260	2890	2710
a	502	473	490	479	450	480	467	506	495	512	491	464

a Inflow, in acre-feet, from Almanor–Butt Creek Tunnel at Outlet (station 11400200), provided by Pacific Gas & Electric Co.

11400500 BUTT CREEK BELOW ALMANOR–BUTT CREEK TUNNEL, NEAR PRATTVILLE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1937 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	347	322	334	285	283	319	327	359	347	363	356	352
MAX	995	1073	1419	1098	1025	1050	1178	1176	1092	1038	1019	990
(WY)	1943	1938	1959	1953	1941	1953	1952	1956	1958	1953	1953	1953
MIN	32.3	39.2	39.3	39.4	38.0	47.8	47.5	42.7	32.9	28.7	27.8	29.4
(WY)	1989	1992	1991	1992	1937	1977	1977	1976	1976	1977	1977	1992

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1937 - 2004	
ANNUAL TOTAL	38594		31352			
ANNUAL MEAN	106		85.7		333	
HIGHEST ANNUAL MEAN					974	1953
LOWEST ANNUAL MEAN					40.1	1977
HIGHEST DAILY MEAN	551	Mar 15	344	Feb 18	2830	Feb 17 1986
LOWEST DAILY MEAN	50	Oct 1	45	Aug 30	26	May 26 1976
ANNUAL SEVEN-DAY MINIMUM	50	Oct 1	45	Aug 30	26	May 30 1976
MAXIMUM PEAK FLOW			440	Feb 18	4080	Jan 1 1997
MAXIMUM PEAK STAGE			2.02	Feb 18	6.22	Jan 1 1997
ANNUAL RUNOFF (AC-FT)	76550		62190		241400	
ANNUAL INFLOW (AC-FT) a	5720		5810			
10 PERCENT EXCEEDS	202		173		986	
50 PERCENT EXCEEDS	76		60		94	
90 PERCENT EXCEEDS	53		46		43	

a Inflow, in acre-feet, from Almanor–Butt Creek Tunnel at Outlet (station 11400200), provided by Pacific Gas & Electric Co.

11401050 BUTT VALLEY RESERVOIR NEAR CARIBOU, CA

LOCATION.—Lat 40°06'59", long 121°08'42", in SE 1/4 SW 1/4 sec.12, T.26 N., R.7 E., Plumas County, Hydrologic Unit 18020121, on center intake tower in Butt Valley Reservoir, 2.5 mi north of Caribou, and 5.4 mi southwest of Canyon Dam.

DRAINAGE AREA.—83.5 mi^2.

PERIOD OF RECORD.—October 1985 to current year. Unpublished records for water years 1983–85 available in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder. Datum of gage is 10.23 ft below NGVD of 1929 (levels by Great Western Power Co.).

REMARKS.—Lake is formed by earthfill dam. Storage began in 1924. Usable capacity, 49,900 acre-ft, between elevations 4,075.9 ft, invert of outlet tunnel, and 4,132.1 ft, crest of spillway. Water is diverted by tunnel and penstock to Caribou Powerplants (station 11401110). Figures given, including extremes, represent total contents at 2400 hours. See schematic diagram of North Fork Feather River Basin.

REVISED RECORDS.—WDR CA-00-4 (discharge through Caribou Powerplants).

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2105. Contents not rounded to U.S. Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 52,667 acre-ft, Feb. 18, 19, 1986, elevation, 4,133.80 ft; minimum, 4,284 acre-ft, Mar. 3, 1997, elevation, 4,094.95 ft.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 49,450 acre-ft, Nov. 9, elevation, 4,131.80 ft; minimum, 35,384 acre-ft, May 22, elevation, 4,122.63 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on surveys by Great Western Power Co. in 1923 and 1924)

4,090	1,754	4,110	18,395	4,130	46,591	4,137	57,891
4,100	8,024	4,120	31,592				

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48080	47494	47383	42557	46434	45147	46829	38847	35557	45053	46513	47478
2	48621	48175	47146	43979	47779	44647	47162	38074	35543	45445	47035	47067
3	48892	49115	47288	45273	48526	43933	47557	37556	35442	45916	47193	47225
4	48844	48765	47257	45618	48366	43249	47953	37363	35456	46371	47446	47225
5	48366	47336	47304	44616	48494	42849	48223	37244	35485	46750	46798	46940
6	48510	47272	47763	44399	48334	42480	48573	37229	35514	46940	47193	46529
7	48382	46956	47826	44041	48828	42188	48972	37185	35514	48605	47589	46057
8	48462	48319	48637	43404	48812	42095	49306	37036	35528	48637	47747	45398
9	47937	49450	47937	43142	47969	42188	49306	36829	35456	48526	48350	45398
10	47700	48191	48350	43373	47209	42572	49211	36561	35878	48048	48653	45367
11	47399	47969	48223	43917	46592	42911	49067	36175	36339	47510	48701	45383
12	47193	46798	48255	44057	45885	42896	48908	36056	37852	46576	48064	46246
13	47003	44616	46042	43995	45132	43003	48924	35848	38297	46120	48143	47130
14	46671	43824	47573	44181	44585	43420	48573	35702	38652	46042	47573	48127
15	46655	44959	47162	44243	43933	43917	48048	35760	39621	45100	47605	48287
16	46671	45759	45320	44135	43777	44057	47620	35615	40682	44896	47209	48828
17	46640	46592	43560	44026	45367	44212	47177	35572	41834	44554	46908	48478
18	46671	46861	42172	43731	46592	44383	46829	35543	42957	44508	46671	47858
19	46893	47193	41378	43188	47114	44725	46104	35499	43265	44803	46418	47320
20	46766	47241	40651	42711	47336	45132	45022	35442	44104	44865	45979	48303
21	46387	47257	39696	42418	47067	45289	44181	35456	44321	45900	46057	47858
22	46481	47083	38802	42111	46687	45445	43482	35384	44601	45414	46403	46529
23	46418	46988	37778	41911	46481	45838	42942	35427	44943	44943	46529	46340
24	46403	46845	40136	41409	45618	46104	42249	35427	44896	44803	46561	45995
25	45587	46924	42280	41545	45822	46340	41363	35471	44679	44430	46576	46481
26	45006	47067	43157	41605	46089	46199	40121	35471	44539	44197	46687	46671
27	44912	46988	43188	42141	46042	44818	39075	35485	43715	44461	46988	47446
28	45430	46988	43142	42526	45916	45147	38999	35557	45634	44772	46988	47858
29	45838	47162	43126	42926	45602	45555	38771	35572	44570	44818	47288	47874
30	46545	47209	42388	44135	---	45979	38756	35557	44741	45147	47415	47351
31	47083	---	41424	45383	---	46403	---	35557	---	45571	47620	---
MAX	48892	49450	48637	45618	48828	46403	49306	38847	45634	48637	48701	48828
MIN	44912	43824	37778	41409	43777	42095	38756	35384	35442	44197	45979	45367
a	4130.31	4130.39	4126.67	4129.23	4129.37	4129.88	4124.91	4122.75	4128.82	4129.35	4130.52	4130.48
b	-648	+126	-5785	+3959	+219	+801	-7647	-3199	+9184	+830	+2049	-269
c	63890	75120	80090	106600	32290	11760	17830	8980	29370	76370	93700	60400

CAL YR 2003 MAX 49450 MIN 30499 b +4759 c 648000
WTR YR 2004 MAX 49450 MIN 35384 b -380 c 656400

a Elevation, in feet, at end of month.
b Change in contents, in acre-feet.
c Discharge, in acre-feet, through Caribou Powerplants (station 11401110), provided by Pacific Gas & Electric Co.

11401112 NORTH FORK FEATHER RIVER BELOW BELDEN DAM, CA

LOCATION.—Lat 40°04'17", long 121°09'49", in NE 1/4 NW 1/4 sec.35, T.26 N., R.7 E., Plumas County, Hydrologic Unit 18020121, Plumas National Forest, on left bank, 0.4 mi downstream from Belden Dam, 0.5 mi upstream from Deadwood Canyon, and 6.4 mi northeast of Belden.

DRAINAGE AREA.—612 mi^2.

PERIOD OF RECORD.—October 1969 to current year. Records for July 1959 to September 1969 available in files of Pacific Gas & Electric Co.

REVISED RECORDS.—WDR CA-78-4: 1977 (monthly and yearly summaries).

GAGE.—Water-stage recorder. Datum of gage is 2,800.77 ft above NGVD of 1929 (levels by Pacific Gas & Electric Co.).

REMARKS.—Flow regulated by Butt Valley Reservoir (station 11401050), Lake Almanor (station 11399000), Belden Reservoir, and Mountain Meadows Reservoir, combined capacity, 1,267,000 acre-ft. Diversion to Belden Powerplant (station 11403050) began on Aug. 27, 1969. See schematic diagram of North Fork Feather River Basin.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2105.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 3,460 ft^3/s, Jan. 1, 1997, gage height, 9.17 ft; minimum daily, 2.3 ft^3/s, Oct. 25, 1981.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	64	64	64	63	66	138	150	147	147	145	146
2	64	65	64	64	64	66	138	151	148	145	145	145
3	64	65	64	64	64	65	137	152	148	144	145	145
4	62	65	64	64	63	65	133	152	149	144	144	144
5	63	65	64	64	64	66	135	152	148	144	146	146
6	63	65	65	63	64	65	142	151	148	144	145	127
7	63	64	64	64	63	67	144	151	147	146	144	66
8	64	65	64	63	63	68	135	151	146	145	144	68
9	63	66	64	64	63	69	68	151	146	145	144	67
10	63	65	65	63	64	69	68	151	144	145	144	67
11	64	65	64	63	64	69	68	152	145	145	144	67
12	64	65	63	63	64	68	67	151	147	144	144	67
13	64	65	64	63	64	67	69	149	144	144	145	68
14	63	66	65	63	64	68	68	147	145	144	145	65
15	63	65	64	63	65	69	68	150	145	145	146	67
16	63	64	64	63	65	65	69	150	145	145	146	68
17	63	65	66	63	67	66	68	152	145	144	146	65
18	63	65	65	63	65	66	68	149	145	146	146	65
19	63	63	64	64	66	66	68	148	145	144	145	65
20	63	63	64	63	66	66	69	148	144	145	145	66
21	63	61	64	63	66	66	69	149	144	148	144	65
22	63	63	63	63	66	66	134	149	144	143	143	66
23	63	62	65	62	65	66	146	147	144	144	146	66
24	63	63	65	62	66	66	151	147	145	143	146	66
25	64	63	66	63	67	66	149	147	145	145	146	66
26	64	65	64	63	67	66	151	147	144	144	145	66
27	64	64	65	63	67	67	150	147	144	142	146	66
28	64	64	64	62	67	66	150	148	144	142	144	66
29	64	64	64	63	66	97	151	148	145	145	144	65
30	64	64	65	62	---	140	150	148	145	146	143	66
31	64	---	64	63	---	139	---	149	---	144	146	---
TOTAL	1967	1928	1994	1957	1882	2241	3321	4634	4365	4481	4491	2442
MEAN	63.5	64.3	64.3	63.1	64.9	72.3	111	149	146	145	145	81.4
MAX	65	66	66	64	67	140	151	152	149	148	146	146
MIN	62	61	63	62	63	65	67	147	144	142	143	65
AC-FT	3900	3820	3960	3880	3730	4450	6590	9190	8660	8890	8910	4840
a	62330	73880	75150	106900	34970	15190	16760	4090	24860	69570	88170	64160

a Diversion, in acre-feet, to Belden Powerplant (station 11403050), provided by Pacific Gas & Electric Co.

11401112 NORTH FORK FEATHER RIVER BELOW BELDEN DAM, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	125	132	114	128	106	104	168	167	146	140	137	117
MAX	1414	2487	1664	1200	616	591	743	549	374	199	173	1134
(WY)	1975	1975	1975	1997	1997	1975	1983	1995	1995	1970	1970	1987
MIN	57.8	38.4	45.2	51.6	51.2	50.0	63.1	62.2	56.5	64.2	89.0	61.9
(WY)	1985	1981	1976	1976	1976	1976	1972	1971	1971	1971	1972	1976

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1970 - 2004	
ANNUAL TOTAL	34023		35703			
ANNUAL MEAN	93.2		97.5		132	
HIGHEST ANNUAL MEAN					745	1975
LOWEST ANNUAL MEAN					76.3	1977
HIGHEST DAILY MEAN	147	Jun 7	152	May 3	2800	Nov 20 1974
LOWEST DAILY MEAN	61	Apr 22	61	Nov 21	2.3	Oct 25 1981
ANNUAL SEVEN-DAY MINIMUM	63	Nov 19	63	Nov 19	3.5	Oct 25 1981
MAXIMUM PEAK FLOW			328	Apr 22	3460	Jan 1 1997
MAXIMUM PEAK STAGE			4.41	Apr 22	9.17	Jan 1 1997
ANNUAL RUNOFF (AC-FT)	67480		70820		95680	
ANNUAL DIVERSION (AC-FT) a	628600		636000			
10 PERCENT EXCEEDS	144		148		148	
50 PERCENT EXCEEDS	65		67		68	
90 PERCENT EXCEEDS	63		63		60	

a Diversion, in acre-feet, to Belden Powerplant (station 11403050), provided by Pacific Gas & Electric Co.

11401165 SOUTH BRANCH WARD CREEK BELOW DIVERSION DAM, NEAR GENESEE, CA

LOCATION.—Lat 40°00'07", long 120°42'07", in SE 1/4 NE 1/4 sec.26, T.25 N., R.11 E., Plumas County, Hydrologic Unit 18020122, on left bank, 20 ft downstream from diversion dam, 30 ft downstream from Nye Creek, 3.5 mi upstream from Indian Creek, and 3.8 mi southeast of Genesee.

DRAINAGE AREA.—6.74 mi^2.

PERIOD OF RECORD.—October 1990 to current year (low-flow records only).

GAGE.—Water-stage recorder and V-notch sharp-crested weir in concrete control. Elevation of gage is 5,300 ft above NGVD of 1929, from topographic map.

REMARKS.—No records computed above 12 ft^3/s. Flow regulated at diversion dam 20 ft upstream. Some water is diverted to Five Bears Powerplant and bypasses this gage. See schematic diagram of North Fork Feather River Basin.

COOPERATION.—Records were collected by Five Bears Hydro, Inc., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 6281.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.7	2.7	3.3	3.5	3.8	7.1	10	10	4.8	3.6	3.0	2.9
2	2.7	2.7	3.3	3.4	3.7	6.9	10	10	4.7	3.5	3.0	3.0
3	2.7	2.7	3.2	3.4	3.7	7.1	10	11	4.6	3.5	3.0	3.0
4	2.7	2.7	3.2	3.3	3.7	7.9	10	11	4.4	3.5	3.0	2.9
5	2.7	2.7	3.4	3.4	3.7	9.2	10	12	4.3	3.4	3.0	2.9
6	2.7	2.7	3.8	3.3	3.7	10	10	11	4.3	3.4	3.0	2.9
7	2.7	2.8	3.7	3.5	e3.4	11	11	9.4	4.3	3.3	3.0	2.9
8	2.7	3.1	3.5	3.5	e3.4	12	10	8.9	4.3	3.3	3.0	2.9
9	2.7	3.4	3.6	3.6	e3.4	12	10	8.0	4.4	3.3	3.0	2.9
10	2.7	3.2	3.5	3.7	e3.4	11	10	7.7	4.4	3.3	3.0	2.9
11	2.7	3.1	3.4	3.6	e3.4	10	10	7.7	4.2	3.2	2.9	2.9
12	2.7	3.1	3.5	3.6	e3.4	10	10	7.2	4.2	3.2	2.9	2.9
13	2.7	3.1	3.7	3.6	3.4	10	10	6.8	4.1	3.2	2.9	2.9
14	2.7	3.3	3.8	3.6	3.6	10	10	6.7	4.0	3.2	2.9	2.9
15	2.6	3.2	3.5	4.2	3.6	10	10	6.6	3.9	3.2	3.0	2.9
16	2.7	3.2	3.4	4.5	3.7	10	10	6.5	3.9	3.2	3.0	2.9
17	2.7	3.3	3.4	4.4	4.0	10	10	6.3	3.8	3.2	3.0	2.9
18	2.7	3.2	3.4	4.1	3.7	10	10	6.2	3.8	3.2	2.9	2.9
19	2.7	3.2	3.4	4.0	3.5	10	10	6.0	3.7	3.1	2.9	3.0
20	2.7	3.4	3.5	4.0	3.4	10	10	5.9	3.7	3.1	2.9	3.0
21	2.7	3.3	3.5	3.9	3.3	10	10	5.8	3.6	3.1	2.9	3.0
22	2.7	3.2	3.5	3.9	3.3	11	10	5.8	3.5	3.1	2.9	2.9
23	2.7	3.1	3.5	3.9	3.4	10	10	5.6	3.6	3.1	3.0	2.9
24	2.7	3.1	3.8	3.9	3.4	10	10	5.4	3.4	3.1	3.0	2.9
25	2.7	3.1	3.4	3.9	3.4	10	10	5.3	3.5	3.0	3.0	2.9
26	2.7	3.1	3.4	3.9	3.3	10	10	5.2	3.5	3.0	3.0	2.9
27	2.7	3.1	3.3	3.9	3.4	10	10	5.2	3.5	3.0	2.9	2.9
28	2.7	3.2	3.5	3.9	3.3	10	10	5.8	3.6	3.0	2.9	2.9
29	2.7	3.2	3.5	3.9	3.9	10	10	5.7	3.6	3.0	2.9	3.0
30	2.7	3.2	3.4	3.8	---	10	10	5.2	3.6	3.0	2.9	3.0
31	2.7	---	3.4	3.8	---	10	---	4.9	---	3.0	2.9	---
TOTAL	83.6	92.4	107.7	116.9	102.3	305.2	301	224.8	119.2	99.3	91.6	87.7
MEAN	2.70	3.08	3.47	3.77	3.53	9.85	10.0	7.25	3.97	3.20	2.95	2.92
MAX	2.7	3.4	3.8	4.5	4.0	12	11	12	4.8	3.6	3.0	3.0
MIN	2.6	2.7	3.2	3.3	3.3	6.9	10	4.9	3.4	3.0	2.9	2.9
AC-FT	166	183	214	232	203	605	597	446	236	197	182	174

e Estimated.

11402000 SPANISH CREEK ABOVE BLACKHAWK CREEK, AT KEDDIE, CA

LOCATION.—Lat 40°00'11", long 120°57'12", in SE 1/4 NE 1/4 sec.27, T.25 N., R.9 E., Plumas County, Hydrologic Unit 18020122, on right bank, 200 ft upstream from Blackhawk Creek, and 0.9 mi southeast of Keddie.

DRAINAGE AREA.—184 mi^2.

PERIOD OF RECORD.—October 1933 to current year.

REVISED RECORDS.—WSP 1041: 1938(M).

GAGE.—Water-stage recorder. Datum of gage is 3,129.86 ft above NGVD of 1929.

REMARKS.—Records good. Low flow regulated by five small reservoirs having a combined capacity of 800 acre-ft. Approximately 4,600 acres irrigated upstream from station (from information provided by U.S. Forest Service). City of Quincy diverts about 450 acre-ft annually for municipal supply. See schematic diagram of North Fork Feather River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 22,100 ft^3/s, Jan. 2, 1997, gage height, 15.68 ft, from rating curve extended above 5,200 ft^3/s, on basis of slope-area measurement of peak flow; minimum daily, 3.0 ft^3/s, Sept. 4, 5, 1988.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 1,700 ft^3/s, or maximum:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 18	0315	6,740	9.15	Feb. 25	1830	3,480	6.70

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	47	56	487	162	508	448	241	122	52	23	16
2	28	46	76	370	211	450	391	246	118	48	23	22
3	29	49	67	237	258	391	374	243	112	51	21	22
4	23	49	61	190	221	352	411	245	103	52	21	27
5	30	47	64	170	194	325	426	257	101	48	19	27
6	30	46	229	160	179	311	422	237	99	37	20	26
7	30	46	424	169	182	338	386	219	93	36	18	25
8	30	53	184	195	170	400	390	207	89	36	18	23
9	24	108	129	258	159	507	391	203	92	34	17	22
10	32	102	155	364	153	599	381	211	101	36	17	14
11	32	71	192	330	147	601	368	211	94	32	20	12
12	24	62	140	270	143	582	359	192	88	34	23	14
13	25	59	152	233	140	571	355	180	81	36	13	15
14	33	58	552	213	138	584	327	173	74	36	18	17
15	32	80	266	200	138	637	314	173	66	35	20	17
16	31	72	175	197	695	640	278	171	65	35	21	16
17	21	62	144	189	3800	621	257	167	59	34	11	15
18	28	61	127	182	4520	640	242	158	61	32	16	17
19	23	58	115	180	1780	712	229	151	56	31	12	25
20	24	56	134	174	979	686	257	147	55	27	11	23
21	31	56	154	167	689	665	264	153	50	24	12	22
22	39	54	144	159	555	706	264	152	49	20	19	21
23	36	53	136	153	471	692	238	148	47	22	21	21
24	35	53	695	151	503	642	228	141	44	21	14	24
25	34	53	634	147	1700	632	233	134	44	22	15	22
26	34	53	320	139	1880	571	247	124	42	21	14	20
27	35	52	216	153	1080	465	277	126	41	21	14	25
28	36	52	179	176	738	432	306	153	43	21	16	23
29	33	52	206	160	579	423	274	161	51	20	17	23
30	33	53	215	167	---	459	245	134	49	19	17	30
31	41	---	201	174	---	465	---	122	---	24	16	---
TOTAL	945	1763	6542	6514	22564	16607	9582	5580	2189	997	537	626
MEAN	30.5	58.8	211	210	778	536	319	180	73.0	32.2	17.3	20.9
MAX	41	108	695	487	4520	712	448	257	122	52	23	30
MIN	21	46	56	139	138	311	228	122	41	19	11	12
AC-FT	1870	3500	12980	12920	44760	32940	19010	11070	4340	1980	1070	1240

11402000 SPANISH CREEK ABOVE BLACKHAWK CREEK, AT KEDDIE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	57.0	127	283	437	523	558	552	420	169	51.8	28.7	30.3
MAX	702	1015	1498	2657	2843	2043	1715	1301	755	187	74.6	63.8
(WY)	1963	1982	1956	1997	1986	1995	1952	1938	1983	1983	1983	1983
MIN	18.4	34.9	35.3	37.5	50.5	56.1	44.3	50.6	18.6	10.8	5.10	7.57
(WY)	1989	1991	1977	1937	1991	1977	1977	1977	1977	1934	1934	1934

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1934 - 2004	
ANNUAL TOTAL	83141		74446			
ANNUAL MEAN	228		203		268	
HIGHEST ANNUAL MEAN					641	1995
LOWEST ANNUAL MEAN					34.1	1977
HIGHEST DAILY MEAN	2770	Mar 15	4520	Feb 18	18000	Jan 2 1997
LOWEST DAILY MEAN	18	Aug 20	11	Aug 17	3.0	Sep 4 1988
ANNUAL SEVEN-DAY MINIMUM	21	Sep 20	15	Aug 16	4.4	Aug 18 1934
MAXIMUM PEAK FLOW			6740	Feb 18	22100	Jan 2 1997
MAXIMUM PEAK STAGE			9.15	Feb 18	15.68	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	164900		147700		194400	
10 PERCENT EXCEEDS	554		476		640	
50 PERCENT EXCEEDS	144		102		89	
90 PERCENT EXCEEDS	29		20		24	

11403200 NORTH FORK FEATHER RIVER BELOW ROCK CREEK DIVERSION DAM, CA

LOCATION.—Lat 39°58'49", long 121°16'33", in SW 1/4 NW 1/4 sec.35, T.25 N., R.6 E., Plumas County, Hydrologic Unit 18020121, Plumas National Forest, on left bank, 0.7 mi downstream from Rock Creek Diversion Dam, and 5.0 mi northeast of Storrie.

DRAINAGE AREA.—1,773 mi^2.

PERIOD OF RECORD.—October 1985 to February 1986, October 1986 to current year. Unpublished records for water years 1982–85 available in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder. Elevation of gage is 2,120 ft above NGVD of 1929, from topographic map.

REMARKS.—Low and medium flow regulated by Rock Creek Forebay 0.7 mi upstream. Most of the flow is diverted to Rock Creek Powerplant (station 11403800). Diversion to Rock Creek Powerplant began Feb. 28, 1950. See schematic diagram of North Fork Feather River Basin.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 1962.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 91,600 ft^3/s, Jan. 2, 1997, gage height, 31.85 ft; minimum daily, 50 ft^3/s, Feb. 7, 1989.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	208	213	284	291	271	347	316	314	305	281	256	257
2	209	214	278	277	275	330	303	296	290	263	254	258
3	210	215	265	271	990	329	316	315	287	257	256	257
4	201	212	263	262	924	326	328	315	285	255	256	259
5	208	212	273	251	271	329	313	308	286	263	254	260
6	209	212	299	266	276	327	312	309	287	263	254	255
7	210	210	273	271	276	327	304	302	288	258	255	256
8	211	209	273	281	276	332	330	310	285	261	256	244
9	209	216	270	284	268	334	327	300	277	259	257	245
10	209	211	280	276	267	335	301	302	278	262	258	238
11	209	209	272	265	274	344	308	298	285	253	258	239
12	209	211	265	259	272	947	314	294	280	259	256	239
13	211	212	268	248	270	1240	333	286	285	258	256	237
14	212	214	278	900	270	347	328	294	288	257	255	232
15	209	214	257	959	269	478	315	297	291	249	255	231
16	208	207	259	280	296	617	307	295	283	255	255	242
17	208	206	256	274	9090	510	324	290	283	255	256	232
18	206	205	259	256	13900	1020	319	292	278	249	254	234
19	206	202	258	260	6080	1150	318	290	280	250	253	232
20	205	202	260	267	2200	757	324	290	274	251	255	230
21	205	199	260	261	730	620	313	306	283	250	256	229
22	204	198	256	257	291	762	318	320	280	254	257	236
23	206	201	251	255	269	724	325	318	282	251	252	235
24	206	202	260	253	266	524	318	316	273	251	253	237
25	207	201	256	255	1670	390	323	315	272	803	256	235
26	689	200	249	256	3930	329	329	317	275	262	253	690
27	210	204	249	260	1790	318	327	314	1120	255	253	264
28	209	213	247	1010	505	313	325	325	332	254	253	253
29	210	241	256	892	276	314	314	320	285	259	707	255
30	212	280	266	274	---	324	305	319	284	258	262	252
31	212	---	271	272	---	323	---	318	---	258	259	---
TOTAL	6937	6345	8211	10943	46742	15667	9537	9485	9381	8513	8370	7763
MEAN	224	212	265	353	1612	505	318	306	313	275	270	259
MAX	689	280	299	1010	13900	1240	333	325	1120	803	707	690
MIN	201	198	247	248	266	313	301	286	272	249	252	229
AC-FT	13760	12590	16290	21710	92710	31080	18920	18810	18610	16890	16600	15400
a	77000	88440	128100	154300	122000	161800	108700	68490	46860	81580	97390	72190

a Diversion, in acre-feet, to Rock Creek Powerplant (station 11403800), provided by Pacific Gas & Electric Co.

11403200 NORTH FORK FEATHER RIVER BELOW ROCK CREEK DIVERSION DAM, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	133	103	317	1023	790	1213	728	754	406	141	136	150
MAX	224	226	3012	12700	3378	8612	5384	7371	2684	275	270	313
(WY)	2004	1999	1997	1997	1996	1995	1995	1995	1995	2004	2004	1997
MIN	52.7	53.2	52.4	52.0	52.9	52.9	54.2	55.3	55.7	55.3	53.0	53.0
(WY)	1988	1988	1995	1992	1994	1994	1990	1987	1987	1987	1987	1987

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1987 - 2004	
ANNUAL TOTAL	111686		147894			
ANNUAL MEAN	306		404		491	
HIGHEST ANNUAL MEAN					2333	1995
LOWEST ANNUAL MEAN					77.7	1988
HIGHEST DAILY MEAN	5070	Mar 15	13900	Feb 18	74400	Jan 2 1997
LOWEST DAILY MEAN	197	Aug 15	198	Nov 22	50	Feb 7 1989
ANNUAL SEVEN-DAY MINIMUM	199	Aug 14	200	Nov 20	51	Dec 22 1993
MAXIMUM PEAK FLOW			21000	Feb 18	91600	Jan 2 1997
MAXIMUM PEAK STAGE			18.46	Feb 18	31.85	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	221500		293300		355500	
ANNUAL DIVERSION (AC-FT) a	1380000		1207000			
10 PERCENT EXCEEDS	345		338		581	
50 PERCENT EXCEEDS	245		267		111	
90 PERCENT EXCEEDS	204		210		53	

a Diversion, in acre-feet, to Rock Creek Powerplant (station 11403800), provided by Pacific Gas & Electric Co.

11403450 MILK RANCH CONDUIT AT OUTLET, NEAR BUCKS LODGE, CA

LOCATION.—Lat 39°54'09", long 121°13'36", in SW 1/4 SW 1/4 sec.29, T.24 N., R.7 E., Plumas County, Hydrologic Unit 18020121, Plumas National Forest, on left bank, 150 ft upstream from right abutment of Lower Bucks Lake Dam, 200 ft upstream from outlet, and 3.4 mi northwest of Bucks Lodge.

PERIOD OF RECORD.—October 1969 to September 1971, October 1975 to September 1984, October 1986 to current year. Unpublished records for water years 1981–84 available in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder in 3-ft steel pipe. Elevation of gage is 5,050 ft above NGVD of 1929.

REMARKS.—Conduit diverts from channel below Three Lakes Reservoir, capacity, 513 acre-ft, and from 12 additional diversions along the conduit. Water is used for power at Bucks Creek Powerplant (station 11403700) and Grizzly Powerplant (station 11404240). See schematic diagram of North Fork Feather River Basin.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 619.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 71 ft^3/s, Apr. 29, 1995, May 17, 1996; no flow for many days in water years 1997–2000, and several days in May 2001.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.3	0.48	1.1	1.8	1.9	6.7	27	38	22	3.7	0.73	0.49
2	7.1	0.52	1.9	1.7	1.9	6.5	25	42	21	3.5	0.75	0.53
3	6.6	0.57	1.3	1.6	1.9	5.8	28	44	20	3.3	0.73	0.54
4	6.0	0.60	1.1	1.6	1.8	5.7	31	46	18	3.1	0.77	0.54
5	5.2	0.64	4.4	1.6	1.8	5.6	33	43	17	2.8	0.75	0.52
6	4.4	0.69	30	1.6	1.7	5.7	32	43	16	2.6	0.74	0.51
7	1.8	1.0	12	1.5	1.7	6.9	33	43	15	2.5	0.72	0.50
8	0.82	1.9	4.9	2.1	1.7	9.2	35	42	16	2.2	0.67	3.1
9	0.68	2.4	3.7	2.8	1.7	11	37	40	15	2.1	0.65	8.5
10	0.60	2.1	3.4	2.8	1.7	13	37	41	14	2.0	0.65	8.6
11	0.52	1.7	3.0	3.1	1.7	12	36	32	12	1.8	0.62	8.6
12	0.52	1.6	2.8	2.8	1.7	13	37	28	12	1.7	0.61	8.6
13	0.50	1.1	4.4	2.6	1.7	14	35	29	11	1.6	0.59	8.6
14	0.46	0.95	3.7	2.5	1.7	16	30	32	10	1.5	0.58	8.5
15	0.46	0.92	2.3	2.6	1.7	19	24	35	9.2	1.4	0.56	8.4
16	0.46	0.89	2.0	2.8	11	20	18	35	8.5	1.4	0.56	8.3
17	0.46	1.9	1.9	2.7	24	23	17	33	7.8	1.3	0.56	8.1
18	0.46	1.1	1.8	2.7	15	28	16	31	7.2	1.3	0.55	8.1
19	0.46	1.1	1.8	2.7	9.0	33	16	28	6.9	1.2	0.55	8.1
20	0.46	1.2	2.8	2.7	7.5	31	17	27	6.4	1.3	0.53	8.1
21	0.46	1.0	2.4	2.6	6.7	35	17	27	5.9	1.2	0.53	8.1
22	0.46	0.78	2.1	2.4	6.1	38	17	29	5.6	1.0	0.57	7.9
23	0.46	0.67	2.0	2.4	5.7	38	19	27	5.2	0.99	0.58	7.9
24	0.45	0.64	3.9	2.4	5.3	37	21	26	4.8	0.95	0.67	7.7
25	0.41	0.64	2.7	2.2	5.4	33	26	25	4.5	0.90	0.63	7.6
26	0.40	0.64	2.2	2.1	9.9	26	32	25	4.1	0.86	0.62	7.5
27	0.36	0.60	1.9	2.0	8.6	23	42	28	3.9	0.83	0.60	7.5
28	0.36	0.58	1.9	2.0	7.1	22	44	37	4.1	0.80	0.56	7.5
29	0.36	0.77	1.9	1.9	6.6	25	38	31	4.2	0.77	0.53	7.4
30	0.36	0.88	1.8	2.0	---	28	36	25	4.0	0.78	0.50	7.2
31	0.40	---	1.7	2.0	---	29	---	24	---	0.77	0.50	---
TOTAL	49.74	30.56	114.8	70.3	154.2	619.1	856	1036	311.3	52.15	19.16	183.53
MEAN	1.60	1.02	3.70	2.27	5.32	20.0	28.5	33.4	10.4	1.68	0.62	6.12
MAX	7.3	2.4	30	3.1	24	38	44	46	22	3.7	0.77	8.6
MIN	0.36	0.48	1.1	1.5	1.7	5.6	16	24	3.9	0.77	0.50	0.49
AC-FT	99	61	228	139	306	1230	1700	2050	617	103	38	364

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2004, BY WATER YEAR (WY)

MEAN	3.24	3.72	5.66	6.33	8.84	16.3	26.2	26.7	12.1	5.03	2.68	3.72
MAX	9.22	8.15	27.5	19.2	38.7	42.7	59.6	66.6	57.3	30.5	7.35	8.65
(WY)	2000	1990	1997	1995	1996	1989	1989	1993	1993	1995	1992	2003
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
(WY)	1998	1998	1998	1998	1997	1997	1997	1997	1997	1997	1997	1997

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1987 - 2004	
ANNUAL TOTAL	4129.52		3496.84			
ANNUAL MEAN	11.3		9.55		10.0	
HIGHEST ANNUAL MEAN					21.6	1993
LOWEST ANNUAL MEAN					0.00	1998
HIGHEST DAILY MEAN	66	Jun 4	46	May 4	71	Apr 29 1995
LOWEST DAILY MEAN	0.03	Jun 25	0.36	Oct 27	0.00	Jan 2 1997
ANNUAL SEVEN-DAY MINIMUM	0.12	Jun 19	0.38	Oct 25	0.00	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	8190		6940		7270	
10 PERCENT EXCEEDS	28		31		30	
50 PERCENT EXCEEDS	7.6		2.8		4.4	
90 PERCENT EXCEEDS	0.51		0.55		0.00	

11403500 BUCKS LAKE NEAR BUCKS LODGE, CA

LOCATION.—Lat 39°53'45", long 121°12'08", in SE 1/4 NW 1/4 sec.33, T.24 N., R.7 E., Plumas County, Hydrologic Unit 18020121, Plumas National Forest, in outlet structure, 100 ft upstream from dam on Bucks Creek, 2.0 mi northwest of Bucks Lodge, and 15 mi west of Quincy.

DRAINAGE AREA.—28.6 mi^2.

PERIOD OF RECORD.—Water years 1927–28 (year-end contents only, published in WSP 1315-A), October 1928 to current year. Prior to October 1954, published as "Bucks Creek Reservoir near Bucks Ranch".

GAGE.—Water-stage recorder. Datum of gage is 3.50 ft below NGVD of 1929 (levels by Feather River Power Co.).

REMARKS.—Reservoir is formed by concrete-faced, rockfill dam, completed in 1927; storage began in May 1927. Capacity, 101,400 acre-ft, between elevations 5,064.75 ft, sill of outlet gate, and 5,154.85 ft, spillway crest. Storage of 274 acre-ft is not available for release. Released water flows down Bucks Creek to Lower Bucks Lake (station 11403520), where most of the water is diverted to Bucks Creek Tunnel or Grizzly Powerplant (station 11404240), which discharges into Grizzly Creek. Figures given, including extremes, represent total contents at 2400 hours. See schematic diagram of North Fork Feather River Basin.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 619. Contents not rounded to U.S. Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 107,278 acre-ft, May 17, 1996, elevation, 5,157.9 ft; minimum, 12,330 acre-ft, Feb. 27, 1929, elevation, 5,090.7 ft.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 102,531 acre-ft, June 7, elevation, 5,155.33 ft; minimum, 50,030 acre-ft, Jan. 13, elevation, 5,123.25 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey by Feather River Power Co. in 1927)

5,090	11,742	5,110	32,519	5,130	59,997	5,150	92,950
5,095	16,183	5,120	45,472	5,140	75,894	5,160	111,220
5,100	21,180						

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	76589	63593	54890	53749	51984	60903	70535	85596	102311	99111	92317	80722
2	76341	63108	54579	53506	52358	61071	70921	86248	102293	99147	91843	80420
3	75845	62830	54195	53141	52488	61209	71244	86989	102348	99219	91385	80403
4	75517	62398	53809	52683	52576	61316	71666	87816	102476	99020	91333	80387
5	75435	61964	53673	52329	52652	61499	72184	88527	102403	98821	90808	79984
6	74926	61530	54947	51955	52790	61639	72703	89221	102384	98858	90267	79817
7	74532	61133	55314	51753	52866	61809	73193	89935	102531	98677	90127	79834
8	74268	61071	55399	51521	52973	61933	73682	90616	102348	98243	89813	79632
9	73747	61102	55513	51274	53080	62119	74171	91227	102036	98243	89342	79196
10	73225	60734	55902	51001	53141	62320	74778	91878	102201	98243	88839	78930
11	72768	60258	55633	50631	53217	62614	75320	92388	102238	98064	88666	78914
12	72298	59906	55399	50317	53293	62861	75878	92950	101890	97705	88180	78764
13	71958	59755	55258	50030	53354	63171	76407	93357	101853	97705	87643	78231
14	71520	59421	55427	50088	53445	63468	76937	93941	101708	97705	87609	78165
15	71180	59163	55455	50202	53597	63749	77366	94437	101325	97705	87144	78065
16	70873	58752	55215	50317	54621	64108	77765	94970	101125	97669	86903	77565
17	70423	58358	55116	50402	56602	64372	78165	95558	101052	97346	86351	77465
18	69956	58268	54820	50488	57592	64779	78564	96057	100688	97346	85835	77449
19	69537	57848	54479	50602	58013	65189	79030	96556	100542	97130	85287	77465
20	69089	57757	54295	50702	58313	65613	79565	97005	100524	96556	85116	77482
21	68579	57501	53961	50773	58646	66069	80169	97489	100342	96449	84637	77482
22	68115	57441	53612	50844	58874	66528	80554	98046	100342	96217	84243	77482
23	67605	57441	53567	50930	59133	66972	80906	98532	99997	95718	83614	77036
24	67162	57064	54337	51015	59527	67494	81311	98966	99942	95237	83274	76970
25	66671	56632	54380	51129	60243	68163	81750	99382	99906	94809	83019	76953
26	66226	56230	54280	51216	60320	68563	82425	99725	99382	94632	82493	76953
27	65770	55812	54295	51449	60397	68914	83087	100214	99346	94260	82358	76755
28	65315	55455	54266	51564	60504	69217	83818	100870	99273	93711	82189	76341
29	64889	55032	54337	51695	60581	69585	84277	101343	99038	93216	81784	76341
30	64450	54862	54022	51767	---	69988	84962	101799	99093	93074	81210	76358
31	64014	---	53703	51897	---	70342	---	102201	---	92792	80990	---
MAX	76589	63593	55902	53749	60581	70342	84962	102201	102531	99219	92317	80722
MIN	64014	54862	53567	50030	51984	60903	70535	85596	99038	92792	80990	76341
a	5132.60	5126.56	5125.76	5124.55	5130.38	5136.59	5145.40	5155.15	5153.44	5149.91	5143.06	5140.28
b	-13005	-9152	-1159	-1806	+8684	+9761	+14620	+17239	-3108	-6301	-11802	-4632

CAL YR 2003 MAX 104867 MIN 53567 b -3136
WTR YR 2004 MAX 102531 MIN 50030 b -661

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

11403520 LOWER BUCKS LAKE NEAR BUCKS LODGE, CA

LOCATION.—Lat 39°53'59", long 121°13'32", in NE 1/4 NW 1/4 sec.32, T.24 N., R.7 E., Plumas County, Hydrologic Unit 18020121, Plumas National Forest, in outlet tower for Bucks Creek Tunnel, 900 ft upstream from Buck Diversion Dam, 1.3 mi downstream from Bucks Lake Dam, and 3.2 mi northwest of Bucks Lodge.

DRAINAGE AREA.—31.3 mi^2.

PERIOD OF RECORD.—October 1985 to current year. Unpublished records for water years 1981–85 available in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder. Datum of gage is 3.50 ft below NGVD of 1929 (levels by Pacific Gas & Electric Co.).

REMARKS.—Lake is formed by concrete dam. Storage began in October 1929. Usable capacity, 5,796 acre-ft, between elevations 4,952 ft, point of lowest drawdown, and 5,021.95 ft, crest of spillway. Water is received from Bucks Lake (station 11403500) and from Milk Ranch Conduit (station 11403450). Most of the water is diverted through Bucks Creek Tunnel or Grizzly Powerplant (station 11404240) and discharges into Grizzly Creek for power development downstream. Figures given, including extremes, represent total contents at 2400 hours. See schematic diagram of North Fork Feather River Basin.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 619. Contents not rounded to U.S. Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 6,203 acre-ft, May 18, 1996, elevation, 5,024.6 ft; minimum, 99 acre-ft, Sept. 9, 1993, elevation, 4,956.1 ft.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 5,757 acre-ft, Mar. 17, elevation, 5,020.78 ft; minimum, 4,190 acre-ft, Dec. 28, elevation, 5,008.77 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey by Feather River Power Co. in 1928)

4,950	24	4,980	1,314	5,000	3,175	5,020	5,573
4,960	194	4,990	2,171	5,010	4,307	5,030	6,981
4,970	624						

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5403	5159	5192	4395	5040	5406	4852	4400	4962	4990	5015	4919
2	5235	5213	5216	4450	5056	5413	4566	4252	5272	4979	5125	5318
3	5203	5226	5247	4424	5040	5319	4531	4346	5089	4965	5345	5192
4	5450	5221	5288	4311	5028	5323	4524	4488	4979	5128	4939	4933
5	5244	5166	5393	4381	5089	5327	4520	4605	5218	5144	5061	5184
6	5317	5152	5549	4537	5084	5332	4497	4716	4965	4951	5176	5123
7	5385	5273	5487	4610	5073	5341	4546	4817	4944	5015	4940	4975
8	5246	5352	5204	4649	5061	5356	4631	4912	5140	5326	4921	4951
9	5272	5166	5104	4702	5156	5376	4717	5021	5256	5156	5030	5158
10	5269	5223	4866	4704	5324	5404	4796	5140	4996	4976	5084	5117
11	5334	5355	4961	4784	5440	5444	4875	5227	4931	5048	4901	4972
12	5357	5367	5090	4849	5525	5470	4958	5305	5164	5326	5040	4981
13	5334	5214	5208	5195	5546	5499	5048	5381	4934	5234	5320	5250
14	5345	5246	5189	5187	5475	5534	5124	5461	4908	5059	4948	5115
15	5314	5331	4941	5179	5401	5575	5048	5542	5154	5039	5055	4979
16	5135	5340	5173	5171	5327	5663	5096	5668	5061	5011	4944	5250
17	5123	5435	4919	5163	5251	5757	5115	5554	4940	5189	5048	5115
18	5065	5231	4957	5155	5259	5639	5166	5277	5131	5006	5113	5104
19	5019	5359	5001	5147	5315	5639	5235	5225	5094	4961	5204	5097
20	4981	5210	5036	5138	5333	5592	5315	5199	5129	5255	4921	5089
21	5011	5304	5074	5128	5346	5471	5381	5179	5131	5044	4990	5080
22	5025	5237	5100	5119	5357	5463	5444	5162	4965	4900	5010	4947
23	4994	5217	5030	5109	5366	5376	5419	5156	5243	5040	5159	5223
24	4967	5244	4921	5103	5374	5372	5346	5127	5058	5081	5191	5022
25	4950	5364	4827	5093	5431	5376	5278	5175	4923	5163	4986	5012
26	4976	5342	4630	5084	5467	5220	5150	5221	5251	4951	5201	5003
27	4992	5398	4306	5088	5481	5184	4996	5199	5070	4884	5069	5136
28	5007	5372	4190	5076	5488	5151	4948	5200	5003	5008	4946	5323
29	5011	5420	4218	5065	5495	5191	4899	5172	5324	5218	5103	5185
30	5043	5395	4295	5062	---	5127	4599	5100	5081	4946	5163	5040
31	5168	---	4292	5050	---	4947	---	5067	---	4887	5021	---
MAX	5450	5435	5549	5195	5546	5757	5444	5668	5324	5326	5345	5323
MIN	4950	5152	4190	4311	5028	4947	4497	4252	4908	4884	4901	4919
a	5016.79	5018.55	5009.83	5015.91	5019.36	5015.17	5012.20	5016.04	5016.14	5014.67	5015.70	5015.84
b	-93	+227	-1103	+758	+445	-548	-348	+468	+14	-194	+134	+19

CAL YR 2003 MAX 6079 MIN 3643 b -318
WTR YR 2004 MAX 5757 MIN 4190 b -221

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

11403530 BUCKS CREEK BELOW DIVERSION DAM, NEAR BUCKS LODGE, CA

LOCATION.—Lat 39°54'16", long 121°13'47", in NW 1/4 SW 1/4 sec.29, T.24 N., R.7 E., Plumas County, Hydrologic Unit 18020121, Plumas National Forest, on left bank, 20 ft upstream from unnamed tributary, 0.2 mi downstream from diversion dam, and 3.6 mi northwest of Bucks Lodge.

DRAINAGE AREA.—31.5 mi^2.

PERIOD OF RECORD.—October 1990 to current year. Unpublished records for water years 1981–90 available in files of the U.S. Geological Survey. Seasonal records only for water years 1986–98.

GAGE.—Water-stage recorder and concrete control with V-notch sharp-crested weir Sept. 19, 1990, to Sept. 24, 1998. Ultrasonic-velocity meter since Sept. 24, 1998. Elevation of gage is 4,850 ft above NGVD of 1929, from topographic map.

REMARKS.—Flow regulated by diversion dam at Lower Bucks Lake 0.2 mi upstream, where most of the flow is diverted to Grizzly Creek via Bucks Creek Tunnel outlet or Grizzly Powerplant (station 11404240). Low flows regulated by fixed-plate orifice at outlet of diversion dam. See schematic diagram of North Fork Feather River Basin.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 619.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge recorded, 5,870 ft^3/s, Feb. 17, 1986, gage height, 9.54 ft; no flow on several days in February 1986.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e4.1	e4.1	e2.6	1.5	1.6	1.6	4.0	3.9	4.0	4.1	4.0	4.0
2	e4.1	e4.1	e1.6	1.5	1.6	1.6	4.0	3.9	4.1	4.0	4.0	4.1
3	e4.1	e4.1	e1.6	1.6	1.6	1.6	3.9	3.9	4.1	4.0	4.1	4.1
4	e4.1	e4.1	e1.6	1.5	1.6	1.6	3.9	3.9	4.0	4.0	4.1	4.1
5	e4.1	e4.1	e1.6	1.5	1.6	1.6	3.9	3.9	4.1	4.1	4.0	4.1
6	e4.1	e4.1	e1.6	1.6	1.6	1.6	3.9	3.9	4.1	4.1	4.1	4.1
7	e4.1	e4.1	e1.6	1.6	1.6	1.6	3.9	4.0	4.0	4.0	4.1	4.1
8	e4.1	e4.1	e1.6	1.6	1.6	1.6	3.9	4.0	4.0	4.1	4.0	4.0
9	e4.1	e4.1	e1.6	1.6	1.6	1.6	4.0	4.0	4.1	4.1	4.1	4.1
10	e4.1	e4.1	e1.6	1.6	1.6	1.6	4.0	4.0	4.1	4.0	4.1	4.1
11	e4.1	e4.1	e1.6	1.6	1.6	1.6	4.0	4.1	4.0	4.0	4.0	4.1
12	e4.1	e4.1	e1.6	1.6	1.6	1.6	4.0	4.1	4.1	4.1	4.1	4.0
13	e4.1	e4.1	e1.6	1.6	1.6	1.6	4.0	4.1	4.1	4.1	4.1	4.0
14	e4.1	e4.1	e1.6	1.6	1.6	1.6	4.0	4.1	4.0	4.1	4.1	e4.1
15	e4.1	e4.1	e1.6	1.6	1.6	1.6	4.1	4.1	4.0	4.1	4.1	e4.1
16	e4.1	e4.1	e1.6	1.6	1.6	1.6	4.0	4.2	4.1	4.0	4.1	e4.1
17	e4.1	e4.1	e1.6	1.6	1.6	1.6	4.1	4.2	4.0	4.1	4.1	e4.1
18	e4.1	e4.1	e1.6	1.6	1.6	1.7	4.1	4.1	4.1	4.1	4.1	e4.1
19	e4.1	e4.1	e1.6	1.6	1.6	1.6	4.1	4.1	4.1	4.0	4.1	e4.1
20	e4.1	e4.1	e1.6	1.6	1.6	1.7	4.1	4.1	4.0	4.1	4.1	e4.1
21	e4.1	e4.1	e1.6	1.6	1.6	1.6	4.1	4.1	4.1	4.1	4.1	e4.1
22	e4.1	e4.1	e1.6	1.6	1.6	1.6	4.1	4.1	4.1	4.0	4.1	e4.1
23	e4.1	e4.1	1.6	1.6	1.6	1.6	4.1	4.1	4.1	4.0	4.1	e4.1
24	e4.1	e4.1	1.6	1.6	1.6	1.6	4.1	4.1	4.1	4.0	4.1	e4.1
25	e4.1	e4.1	1.6	1.6	1.6	1.6	4.1	4.1	4.0	4.1	4.0	e4.1
26	e4.1	e4.1	1.6	1.6	1.6	1.6	4.1	4.1	4.1	4.1	4.1	e4.1
27	e4.1	e4.1	1.6	1.6	1.6	1.6	4.0	4.1	4.1	4.0	4.1	e4.1
28	e4.1	e4.1	1.5	1.6	1.6	1.6	4.0	4.1	4.0	4.0	4.0	e4.1
29	e4.1	e4.1	1.5	1.6	1.6	1.6	4.0	4.1	4.1	4.0	4.1	e4.1
30	e4.1	e4.1	1.5	1.6	---	1.6	4.0	4.1	4.1	4.1	4.1	e4.1
31	e4.1	---	1.5	1.6	---	3.0	---	4.1	---	4.0	4.1	---
TOTAL	127.1	123.0	50.2	49.2	46.4	51.2	120.5	125.7	121.9	125.6	126.4	122.6
MEAN	4.10	4.10	1.62	1.59	1.60	1.65	4.02	4.05	4.06	4.05	4.08	4.09
MAX	4.1	4.1	2.6	1.6	1.6	3.0	4.1	4.2	4.1	4.1	4.1	4.1
MIN	4.1	4.1	1.5	1.5	1.6	1.6	3.9	3.9	4.0	4.0	4.0	4.0
AC-FT	252	244	100	98	92	102	239	249	242	249	251	243
a	12830	10750	13220	5020	572	2780	3170	2220	8550	7040	11060	4720

e Estimated.
a Diversion, in acre-feet, to Grizzly Powerplant (station 11404240), provided by Pacific Gas & Electric Co.

11403530 BUCKS CREEK BELOW DIVERSION DAM, NEAR BUCKS LODGE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3.41	3.22	1.68	1.51	9.50	1.66	3.73	20.2	24.2	3.65	3.94	4.14
MAX	4.30	4.10	1.82	1.59	57.9	1.85	4.02	187	167	4.70	9.06	11.6
(WY)	1994	2004	2001	2004	1986	2002	2004	1995	1995	1991	1993	1993
MIN	1.54	1.64	1.54	1.50	1.50	1.52	2.70	1.78	1.47	1.45	1.45	1.51
(WY)	1995	1996	1999	1999	1999	1999	1999	1994	1994	1994	1994	1994

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1986 - 2004	
ANNUAL TOTAL	1535.8		1189.8			
ANNUAL MEAN	4.21		3.25		3.29	
HIGHEST ANNUAL MEAN					4.18	2003
LOWEST ANNUAL MEAN					2.87	1999
HIGHEST DAILY MEAN	133	Jun 4	4.2	May 16	1340	May 18 1996
LOWEST DAILY MEAN	1.5	Jan 1	1.5	Dec 28	0.00	Feb 1 1986
ANNUAL SEVEN-DAY MINIMUM	1.5	Jan 1	1.5	Dec 27	0.00	Feb 1 1986
MAXIMUM PEAK FLOW					5870	Feb 17 1986
MAXIMUM PEAK STAGE					9.54	Feb 17 1986
ANNUAL RUNOFF (AC-FT)	3050		2360		2380	
ANNUAL DIVERSION (AC-FT) a	97190		81930			
10 PERCENT EXCEEDS	4.1		4.1		4.1	
50 PERCENT EXCEEDS	4.0		4.0		3.8	
90 PERCENT EXCEEDS	1.5		1.6		1.5	

a Diversion, in acre-feet, to Grizzly Powerplant (station 11404240), provided by Pacific Gas & Electric Co.

11404250 GRIZZLY FOREBAY NEAR STORRIE, CA

LOCATION.—Lat 39°53'32", long 121°17'25", in SW 1/4 NE 1/4 sec.34, T.24 N., R.6 E., Plumas County, Hydrologic Unit 18020121, Plumas National Forest, in outlet tower for Bucks Creek Powerplant, 100 ft upstream from Grizzly Diversion Dam, 2.4 mi southeast of Storrie, and 6.2 mi west of Bucks Lodge.

DRAINAGE AREA.—14.4 mi^2.

PERIOD OF RECORD.—October 1986 to current year. Unpublished records for water years 1981–86 available in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder. Datum of gage is 3.50 ft below NGVD of 1929 (levels by Pacific Gas & Electric Co.).

REMARKS.—Lake is formed by concrete dam. Storage began in July 1928. Usable capacity, 1,033 acre-ft, between elevations 4,271 ft, bottom of diversion tunnel, and 4,316.0 ft, crest of spillway. Water is received from Bucks Creek via Bucks Creek Tunnel and Grizzly Powerplant (station 11404240) which enter Grizzly Creek upstream. Most of the water is diverted through tunnel to Bucks Creek Powerplant (station 11403700) for power development downstream on North Fork Feather River. Figures given, including extremes, represent total contents at 2400 hours. See schematic diagram of North Fork Feather River Basin.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 619. Contents not rounded to U.S. Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 1,329 acre-ft, Dec. 30, 1996, elevation, 4,321.5 ft; minimum, 216 acre-ft, Sept. 20, 1991, elevation, 4,282.8 ft.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 1,180 acre-ft, Feb. 17, elevation, 4,317.78 ft; minimum, 786 acre-ft, July 3, elevation, 4,306.57 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey by Feather River Power Co. in 1928)

4,290	350	4,300	592	4,310	898	4,320	1,268
4,295	464	4,305	736				

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1005	925	920	854	980	947	1000	858	936	953	957	944
2	1035	884	958	837	988	925	957	831	916	885	1001	881
3	1064	861	969	868	1001	966	1035	844	871	786	808	864
4	1057	852	980	964	998	953	968	961	832	813	912	908
5	1005	858	1014	905	985	931	1012	1032	863	881	946	908
6	1022	848	1143	856	974	910	1044	1067	914	934	971	911
7	1011	984	921	847	964	896	997	1088	927	966	1010	897
8	985	996	992	871	952	924	1016	1105	925	982	1034	866
9	999	1041	911	889	942	1000	1032	1093	982	1010	1058	868
10	1022	1006	910	964	928	1034	1029	1074	1073	1036	1045	908
11	986	983	895	945	918	1024	1068	1023	1039	1028	1059	884
12	964	999	884	921	914	1032	953	954	1009	1052	1070	888
13	987	957	969	921	907	1060	1004	829	1047	1005	945	924
14	987	1018	956	924	900	1030	874	808	1050	1036	972	949
15	853	1015	1020	939	901	1014	1003	819	1053	924	981	982
16	857	1084	967	954	1153	1002	938	805	987	867	975	1009
17	872	1051	945	964	1180	999	962	925	1034	853	977	1035
18	954	1048	928	970	1105	1073	885	1088	1072	847	984	992
19	1019	1005	900	977	884	1089	836	1006	998	897	958	952
20	1055	966	950	987	824	965	896	963	1018	952	951	915
21	1027	1034	963	985	847	879	1018	1020	1068	944	964	870
22	1027	1034	991	950	840	876	1011	1072	998	920	1003	934
23	1042	858	991	951	814	922	1037	1075	941	925	922	982
24	1064	1008	979	953	834	858	937	1084	901	967	804	1003
25	959	990	835	954	875	882	842	1011	932	909	903	960
26	982	1016	906	948	922	968	914	962	974	918	912	907
27	1033	976	900	959	908	1011	1078	1000	1056	959	936	894
28	1049	1032	835	964	879	951	986	1001	1074	969	887	897
29	1058	1010	884	965	858	1033	836	999	954	912	891	887
30	1056	886	824	972	---	1040	892	993	999	939	961	867
31	956	---	867	977	---	1060	---	947	---	950	958	---
MAX	1064	1084	1143	987	1180	1089	1078	1105	1074	1052	1070	1035
MIN	853	848	824	837	814	858	836	805	832	786	804	864
a	4311.68	4309.69	4309.10	4312.27	4308.81	4314.60	4309.86	4311.43	4312.92	4311.50	4311.75	4309.09
b	-79	-70	-19	+110	-119	+202	-168	+55	+52	-49	+8	-91

CAL YR 2003 MAX 1148 MIN 745 b -11
WTR YR 2004 MAX 1180 MIN 786 b -168

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

11404300 GRIZZLY CREEK BELOW DIVERSION DAM, NEAR STORRIE, CA

LOCATION.—Lat 39°53'29", long 121°17'35", in SW 1/4 NE 1/4 sec.34, T.24 N., R.6 E., Plumas County, Hydrologic Unit 18020121, Plumas National Forest, on right bank, 0.2 mi downstream from diversion dam, and 2.4 mi southeast of Storrie.

DRAINAGE AREA.—14.4 mi^2.

PERIOD OF RECORD.—October 1985 to current year. Unpublished records for water years 1970, 1976–85 available in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder and concrete control with V-notch sharp-crested weir, since Oct. 8, 1987. Elevation of gage is 4,320 ft above NGVD of 1929, from topographic map. Prior to Oct. 8, 1987, at datum 1.79 ft higher.

REMARKS.—Flow regulated by diversion dam 0.2 mi upstream. There is considerable inflow upstream from the diversion dam from Bucks Creek Tunnel outlet and Grizzly Powerplant (station 11404240). Most of the flow is diverted to Bucks Creek Powerplant (station 11403700) on North Fork Feather River. See schematic diagram of North Fork Feather River Basin.

REVISED RECORDS.—WDR CA-01-4 (discharge through Bucks Creek Powerplant).

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 619.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 6,300 ft^3/s, Jan. 1, 1997, gage height, 7.33 ft, from rating curve extended above 260 ft^3/s, on basis of computation of peak flow over dam, maximum gage height, 9.54 ft, Feb. 17, 1986, datum then in use; minimum daily, 1.9 ft^3/s, June 14, 1988.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.6	4.5	3.4	2.4	2.4	2.8	5.0	4.7	4.6	4.5	4.4	4.4
2	4.6	4.5	2.2	2.3	2.4	2.8	4.9	4.7	4.6	4.5	4.5	4.4
3	4.6	4.5	2.1	2.3	2.4	2.7	4.9	4.6	4.5	4.4	4.5	4.4
4	4.7	4.5	2.2	2.3	2.4	2.7	4.9	4.7	4.5	4.4	4.4	4.4
5	4.6	4.4	2.2	2.3	2.4	2.7	4.9	4.8	4.5	4.3	4.4	4.4
6	4.6	4.4	138	2.3	2.3	2.6	4.9	4.8	4.5	4.4	4.5	4.4
7	4.6	4.6	16	2.3	2.3	2.6	4.9	4.9	4.6	4.5	4.5	4.4
8	4.6	4.7	2.2	2.3	2.3	2.6	4.9	4.9	4.6	4.5	4.5	4.4
9	4.6	4.7	2.2	2.3	2.3	2.7	4.9	4.9	4.6	4.5	4.5	4.4
10	4.6	4.6	2.3	2.3	2.3	2.7	4.9	4.9	4.6	4.5	4.5	4.4
11	4.6	4.6	2.2	2.3	2.3	2.7	4.9	4.9	4.7	4.5	4.5	4.4
12	4.6	4.6	2.2	2.3	2.3	2.7	4.9	4.8	4.7	4.6	4.6	4.4
13	4.6	4.6	2.4	2.3	2.3	2.7	4.8	4.7	4.6	4.6	4.5	4.4
14	4.6	4.6	2.8	2.3	2.3	2.7	4.8	4.6	4.7	4.5	4.5	4.4
15	4.6	4.7	2.5	2.3	2.3	2.7	4.8	4.6	4.7	4.5	4.5	4.4
16	4.4	4.6	2.4	2.3	21	2.7	4.9	4.6	4.7	4.4	4.5	4.4
17	4.4	4.7	2.3	2.3	352	2.7	4.8	4.6	4.6	4.4	4.5	4.5
18	4.5	4.6	2.3	2.4	241	2.7	4.9	4.8	4.7	4.4	4.5	4.5
19	4.6	4.6	2.3	2.4	4.0	2.7	4.8	4.8	4.7	4.4	4.5	4.5
20	4.6	4.6	2.3	2.4	3.4	2.7	4.8	4.7	4.7	4.4	4.5	4.4
21	4.7	4.6	2.3	2.4	3.1	2.5	4.9	4.8	4.6	4.4	4.4	4.4
22	4.6	4.7	2.3	2.4	3.0	2.5	4.9	4.7	4.7	4.4	4.5	4.4
23	4.6	4.6	2.3	2.4	2.9	2.6	4.9	4.8	4.6	4.4	4.5	4.4
24	4.7	4.5	3.0	2.4	2.9	2.5	4.9	4.8	4.5	4.4	4.4	4.5
25	4.6	4.6	2.8	2.4	3.4	2.6	4.8	4.8	4.5	4.4	4.4	4.5
26	4.5	4.6	2.5	2.4	3.3	2.6	4.7	4.7	4.5	4.4	4.4	4.4
27	4.6	4.6	2.4	2.4	3.1	2.6	4.8	4.7	4.6	4.4	4.4	4.4
28	4.6	4.6	2.4	2.4	3.0	2.5	4.9	4.7	4.6	4.4	4.4	4.4
29	4.6	4.6	2.4	2.4	2.9	2.5	4.8	4.7	4.6	4.5	4.4	4.4
30	4.7	4.6	2.3	2.4	---	2.5	4.6	4.7	4.5	4.4	4.4	4.4
31	4.7	---	2.3	2.4	---	3.9	---	4.7	---	4.4	4.4	---
TOTAL	142.5	137.6	223.5	72.8	684.0	83.2	145.7	147.1	138.1	137.7	138.4	132.5
MEAN	4.60	4.59	7.21	2.35	23.6	2.68	4.86	4.75	4.60	4.44	4.46	4.42
MAX	4.7	4.7	138	2.4	352	3.9	5.0	4.9	4.7	4.6	4.6	4.5
MIN	4.4	4.4	2.1	2.3	2.3	2.5	4.6	4.6	4.5	4.3	4.4	4.4
AC-FT	283	273	443	144	1360	165	289	292	274	273	275	263
a	13690	12500	14710	7490	6030	11050	13070	9830	10580	8140	12010	5200

a Diversion, in acre-feet, to Bucks Creek Powerplant (station 11403700), provided by Pacific Gas & Electric Co.

11404300 GRIZZLY CREEK BELOW DIVERSION DAM, NEAR STORRIE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	4.61	4.94	21.1	43.8	52.6	37.7	17.1	30.0	30.9	8.39	4.02	3.96
MAX	11.8	19.7	284	650	396	174	215	277	286	61.0	5.49	5.57
(WY)	1996	1999	1997	1997	1997	1995	1995	1995	1998	1998	1991	1999
MIN	2.01	2.01	2.09	2.11	2.17	2.20	2.10	2.03	2.01	2.08	2.03	2.00
(WY)	1995	1988	1994	1994	1994	1988	1987	1987	1992	1992	1992	1992

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1986 - 2004	
ANNUAL TOTAL	4510.4		2183.1			
ANNUAL MEAN	12.4		5.96		21.4	
HIGHEST ANNUAL MEAN					125	1997
LOWEST ANNUAL MEAN					2.58	1994
HIGHEST DAILY MEAN	277	Mar 15	352	Feb 17	4810	Jan 1 1997
LOWEST DAILY MEAN	2.1	Dec 3	2.1	Dec 3	1.9	Jun 14 1988
ANNUAL SEVEN-DAY MINIMUM	2.3	Dec 17	2.3	Dec 17	2.0	May 2 1987
MAXIMUM PEAK FLOW			777	Feb 18	6300	Jan 1 1997
MAXIMUM PEAK STAGE			3.27	Feb 18	9.54	Feb 17 1986
ANNUAL RUNOFF (AC-FT)	8950		4330		15540	
ANNUAL DIVERSION (AC-FT) a	140200		124300			
10 PERCENT EXCEEDS	5.2		4.8		5.0	
50 PERCENT EXCEEDS	4.6		4.5		3.3	
90 PERCENT EXCEEDS	2.4		2.3		2.1	

a Diversion, in acre-feet, to Bucks Creek Powerplant (station 11403700), provided by Pacific Gas & Electric Co.

11404330 NORTH FORK FEATHER RIVER BELOW GRIZZLY CREEK, CA

LOCATION.—Lat 39°51'09", long 121°23'29", in NE 1/4 NW 1/4 sec.14, T.23 N., R.5 E., Butte County, Hydrologic Unit 18020121, Lassen National Forest, on left bank, 0.7 mi upstream from Bear Ranch Creek, 1.6 mi downstream from Grizzly Creek, and 2.1 mi downstream from Cresta Dam.

DRAINAGE AREA.—1,914 mi^2.

PERIOD OF RECORD.—October 1985 to February 1986, October 1986 to current year. Unpublished records for water years 1982–85 available in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder. Elevation of gage is 1,480 ft above NGVD of 1929, from topographic map.

REMARKS.—Flow regulated by numerous reservoirs upstream, combined capacity, 1,386,000 acre-ft. Most of the flow bypasses this station through Cresta Powerplant (station 11404360). Diversion through Cresta Powerplant began in 1949. See schematic diagram of North Fork Feather River Basin.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 1962.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 115,000 ft^3/s, Jan. 1, 1997, gage height, 29.97 ft; minimum daily, 37 ft^3/s, July 25, 1994.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	296	298	358	629	387	593	492	392	371	261	271	264
2	294	293	366	512	426	547	449	399	361	260	270	264
3	284	297	335	439	1070	521	461	391	314	267	265	266
4	290	289	322	424	1020	515	477	399	277	261	263	268
5	283	296	350	409	406	481	476	389	278	251	266	264
6	269	289	933	392	406	469	489	377	280	263	261	264
7	265	292	572	423	408	499	480	376	274	253	267	264
8	275	282	427	443	409	496	479	364	269	279	255	269
9	271	334	403	455	393	500	491	369	279	283	236	260
10	258	295	491	487	379	521	470	376	280	273	263	260
11	258	263	480	460	383	542	477	358	275	267	261	259
12	270	275	420	438	391	1020	488	344	275	265	258	265
13	266	273	488	435	391	1130	486	337	254	269	259	275
14	260	285	777	945	366	577	443	323	287	267	254	274
15	292	333	468	1050	375	896	413	329	287	264	257	276
16	289	298	429	440	1030	1100	402	334	269	265	255	260
17	291	304	415	417	11900	1010	403	331	259	256	251	268
18	288	302	394	404	16500	1220	404	338	269	256	253	268
19	289	295	393	398	7410	1430	410	329	269	256	255	273
20	291	287	412	401	3280	1440	487	317	290	255	256	263
21	286	285	390	404	1480	1350	476	334	285	255	254	257
22	288	279	385	389	784	1440	443	332	271	248	262	267
23	288	282	412	385	609	1450	421	352	262	266	254	257
24	288	284	898	376	604	1200	425	378	265	553	249	254
25	723	281	656	379	2250	1010	429	384	263	275	245	712
26	286	268	502	376	4960	731	429	372	255	270	243	277
27	285	275	450	426	2610	589	434	361	251	264	242	272
28	284	285	437	1030	1090	600	413	390	262	266	712	271
29	282	315	469	950	648	544	398	384	259	267	272	275
30	282	324	457	400	---	524	393	368	265	270	274	279
31	289	---	441	377	---	497	---	376	---	269	268	---
TOTAL	9160	8758	14730	15493	62365	25442	13438	11203	8355	8474	8451	8445
MEAN	295	292	475	500	2151	821	448	361	278	273	273	282
MAX	723	334	933	1050	16500	1450	492	399	371	553	712	712
MIN	258	263	322	376	366	469	393	317	251	248	236	254
AC-FT	18170	17370	29220	30730	123700	50460	26650	22220	16570	16810	16760	16750
a	85670	98880	158600	173900	141300	198200	153500	108600	70470	91460	108600	76650

a Diversion, in acre-feet, to Cresta Powerplant (station 11404360), provided by Pacific Gas & Electric Co.

11404330 NORTH FORK FEATHER RIVER BELOW GRIZZLY CREEK, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	114	150	522	1461	1299	1823	1019	1066	527	126	110	109
MAX	302	588	5071	16310	6576	10220	6777	9322	3842	307	292	282
(WY)	2000	1999	1997	1997	1997	1995	1995	1995	1995	2003	2003	2004
MIN	57.4	57.8	59.0	55.7	61.5	86.0	78.0	67.7	55.6	54.3	54.6	56.0
(WY)	1992	1993	1990	1991	1991	1988	1988	1992	1988	2001	2001	1991

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1986 - 2004	
ANNUAL TOTAL	175962		194314			
ANNUAL MEAN	482		531		697	
HIGHEST ANNUAL MEAN					3115	1995
LOWEST ANNUAL MEAN					75.2	1994
HIGHEST DAILY MEAN	6840	Mar 15	16500	Feb 18	96900	Jan 1 1997
LOWEST DAILY MEAN	180	Sep 28	236	Aug 9	37	Jul 25 1994
ANNUAL SEVEN-DAY MINIMUM	259	Sep 15	250	Aug 21	52	Dec 10 1989
MAXIMUM PEAK FLOW			21900	Feb 18	115000	Jan 1 1997
MAXIMUM PEAK STAGE			17.79	Feb 18	29.97	Jan 1 1997
ANNUAL RUNOFF (AC-FT)	349000		385400		505100	
ANNUAL DIVERSION (AC-FT) a	1668000		1466000			
10 PERCENT EXCEEDS	856		712		1100	
50 PERCENT EXCEEDS	337		334		99	
90 PERCENT EXCEEDS	272		260		57	

a Diversion, in acre-feet, to Cresta Powerplant (station 11404360), provided by Pacific Gas & Electric Co.

11404400 NORTH FORK FEATHER RIVER BELOW POE DAM, CA

LOCATION.—Lat 39°48'32", long 121°26'04", in SW 1/4 NE 1/4 sec.32, T.23 N., R.5 E., Butte County, Hydrologic Unit 18020121, Plumas National Forest, on right bank, 900 ft downstream from Poe Dam, 0.4 mi upstream from Mill Creek, and 0.8 mi northeast of Pulga.

DRAINAGE AREA.—1,942 mi^2.

PERIOD OF RECORD.—October 1999 to current year (low-flow records only). Records for water years 1976–99 available in the files of the U.S. Geological Survey.

GAGE.—Non-recording gage read nearly daily. Elevation of gage is 1,350 ft above NGVD of 1929, from topographic map.

REMARKS.—Records not computed above 137 ft^3/s. See schematic diagram of North Fork Feather River Basin.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2107.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	128	120	128	124	124	---	---	105	113	109	116	113
2	128	120	120	124	128	---	---	105	113	109	128	113
3	120	128	116	128	124	---	133	105	113	109	124	113
4	128	128	116	133	120	128	---	105	109	120	105	113
5	124	128	120	128	128	133	---	116	116	120	120	109
6	133	116	---	120	128	---	---	113	116	113	116	113
7	124	116	---	120	133	---	---	113	120	109	116	113
8	133	120	124	120	124	116	---	113	120	113	116	120
9	133	128	133	120	124	133	133	116	120	113	116	109
10	133	133	128	120	128	---	---	120	124	113	120	113
11	133	116	124	120	128	---	---	113	120	109	116	113
12	116	124	120	124	120	---	133	113	113	120	116	109
13	124	133	120	120	128	---	---	124	113	120	120	120
14	124	120	---	120	124	---	---	113	116	109	116	109
15	133	120	116	120	128	---	---	113	113	109	120	102
16	124	120	116	124	133	---	102	116	113	124	120	102
17	124	120	120	124	---	---	116	116	113	113	109	105
18	128	124	128	124	---	---	102	116	113	113	109	116
19	128	128	120	128	---	---	116	113	113	113	113	116
20	137	133	124	120	---	---	124	109	113	109	113	105
21	128	133	116	120	---	---	120	116	109	120	113	116
22	124	---	116	128	---	---	116	116	113	113	109	109
23	128	116	116	120	---	---	116	120	109	109	113	102
24	124	116	137	120	---	---	120	120	109	113	113	113
25	113	128	---	124	---	---	124	116	113	109	113	105
26	109	124	120	133	---	---	113	116	105	120	124	102
27	124	116	120	133	---	---	116	113	109	105	113	102
28	116	120	128	120	---	133	113	120	109	109	113	102
29	116	120	120	116	---	133	120	116	113	116	116	105
30	124	116	116	124	---	---	109	113	113	113	120	105
31	116	---	124	137	---	---	---	116	---	124	113	---
TOTAL	3877	---	---	3836	---	---	---	3539	3406	3518	3589	3287
MEAN	125	---	---	124	---	---	---	114	114	113	116	110
MAX	137			137				124	124	124	128	120
MIN	109			116				105	105	105	105	102
AC-FT	7690	---	---	7610	---	---	---	7020	6760	6980	7120	6520

11404500 NORTH FORK FEATHER RIVER AT PULGA, CA

LOCATION.—Lat 39°47'40", long 121°27'02", in SE 1/4 NE 1/4 sec.6, T.22 N., R.5 E., Butte County, Hydrologic Unit 18020121, Plumas National Forest, on left bank, between railroad and highway bridges, 0.6 mi downstream from Flea Valley Creek and Pulga, and 1.6 mi downstream from Poe Dam.

DRAINAGE AREA.—1,953 mi^2.

PERIOD OF RECORD.—October 1910 to current year. Monthly discharge only for some periods and yearly estimates for water years 1911 and 1938, published in WSP 1315-A. Prior to October 1960, published as "at Big Bar."
CHEMICAL DATA: Water years 1963–66, 1972, 1977.
WATER TEMPERATURE: Water years 1963–83.

REVISED RECORDS.—WSP 931: 1938(M), 1940. WSP 1515: 1935. WDR CA-77-4: 1976 (yearly summaries).

GAGE.—Water-stage recorder. Datum of gage is 1,305.62 ft above NGVD of 1929. Prior to Oct. 1, 1937, at site 1.1 mi upstream at different datum. Oct. 1, 1937, to Sept. 30, 1958, at present site at datum 5.00 ft higher.

REMARKS.—Flow regulated by Lake Almanor, Bucks Lake, Butt Valley Reservoir (stations 11399000, 11403500, and 11401050, respectively), Mountain Meadows Reservoir, and five forebays, combined capacity, 1,386,000 acre-ft. Diversion through Poe Powerplant (station 11404900) began on May 29, 1958. See schematic diagram of North Fork Feather River Basin.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2107.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 105,400 ft^3/s, Jan. 1, 1997, gage height, 41.65 ft, from rating curve extended above 32,000 ft^3/s, on basis of slope area measurement of peak discharge; minimum daily, 5.4 ft^3/s, Sept. 18, 1977.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	127	126	135	306	157	255	534	130	126	113	116	112
2	127	121	133	227	186	235	715	129	126	114	117	111
3	120	128	128	186	187	225	303	131	124	114	118	112
4	127	129	126	169	178	209	1080	129	122	117	113	115
5	130	128	132	164	175	199	345	129	126	117	115	113
6	129	124	2030	156	171	191	1830	129	127	115	115	117
7	128	129	886	172	175	190	527	131	125	114	116	114
8	125	129	140	169	168	180	161	131	127	114	117	113
9	125	138	139	171	164	181	161	128	125	117	117	111
10	127	129	184	175	161	265	159	134	128	114	117	115
11	126	124	175	172	157	636	156	131	124	114	118	114
12	123	124	143	170	152	724	154	132	123	114	115	116
13	122	127	164	160	155	1180	232	131	122	114	114	113
14	126	130	495	157	152	784	162	129	124	117	115	112
15	129	140	160	157	156	1060	158	131	121	120	115	106
16	125	130	145	158	678	2390	181	131	119	122	113	107
17	129	130	142	153	14100	1130	137	133	120	115	112	108
18	127	130	142	152	20000	1120	132	131	122	113	114	112
19	129	127	135	156	8290	1410	144	129	120	114	113	112
20	128	130	145	146	3490	1510	164	126	118	115	113	111
21	129	128	142	149	1560	1400	156	129	116	117	111	113
22	126	126	138	149	805	1490	150	131	118	114	110	110
23	127	127	146	146	281	1500	144	129	118	114	114	111
24	126	127	723	145	244	1250	145	131	119	114	115	111
25	120	127	644	146	2700	1090	141	130	117	115	112	108
26	118	125	171	149	5590	809	141	127	114	118	112	108
27	124	126	158	173	2940	634	138	126	114	116	114	107
28	119	126	150	164	1300	367	136	130	115	114	112	107
29	122	125	183	152	596	163	136	130	116	115	116	107
30	125	124	186	155	---	197	134	127	117	114	116	108
31	125	---	174	162	---	334	---	125	---	118	114	---
TOTAL	3890	3834	8694	5166	65068	23308	8856	4020	3633	3576	3549	3334
MEAN	125	128	280	167	2244	752	295	130	121	115	114	111
MAX	130	140	2030	306	20000	2390	1830	134	128	122	118	117
MIN	118	121	126	145	152	163	132	125	114	113	110	106
AC-FT	7720	7600	17240	10250	129100	46230	17570	7970	7210	7090	7040	6610
a	82070	103800	158100	174500	149700	201900	152200	112900	76080	92760	106600	75210

a Diversion, in acre-feet, to Poe Powerplant (station 11404900), provided by Pacific Gas & Electric Co.

11404500 NORTH FORK FEATHER RIVER AT PULGA, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	906	1095	1645	2164	2685	2780	3340	2899	1538	916	860	819
MAX	2943	4594	10690	14120	14320	11960	13580	12460	7689	2771	2441	2430
(WY)	1963	1951	1956	1997	1986	1995	1952	1922	1911	1952	1952	1952
MIN	16.4	26.4	50.7	52.6	56.0	58.2	54.9	41.7	34.0	32.6	13.3	14.2
(WY)	1978	1978	1977	1977	1990	1977	1990	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1911 - 2004	
ANNUAL TOTAL	120989		136928			
ANNUAL MEAN	331		374		1775	
HIGHEST ANNUAL MEAN					5320	1952
LOWEST ANNUAL MEAN					42.7	1977
HIGHEST DAILY MEAN	7720	Mar 15	20000	Feb 18	101000	Jan 1 1997
LOWEST DAILY MEAN	118	Oct 26	106	Sep 15	5.4	Sep 18 1977
ANNUAL SEVEN-DAY MINIMUM	122	Oct 25	108	Sep 24	12	Aug 10 1977
MAXIMUM PEAK FLOW			26300	Feb 18	105000	Jan 1 1997
MAXIMUM PEAK STAGE			20.79	Feb 18	41.65	Jan 1 1997
ANNUAL RUNOFF (AC-FT)	240000		271600		1286000	
ANNUAL DIVERSION (AC-FT) a	1662000		1486000			
10 PERCENT EXCEEDS	890		553		4400	
50 PERCENT EXCEEDS	142		129		1200	
90 PERCENT EXCEEDS	125		114		56	

a Diversion, in acre-feet, to Poe Powerplant (station 11404900), provided by Pacific Gas & Electric Co.

11405120 PHILBROOK CREEK BELOW PHILBROOK DAM, NEAR BUTTE MEADOWS, CA

LOCATION.—Lat 40°01'48", long 121°28'36", unsurveyed, T.25 N., R.4 E., Butte County, Hydrologic Unit 18020121, Lassen National Forest, on right bank, 500 ft downstream from outlet structure on Philbrook Dam, and 5.4 mi southeast of Butte Meadows.

DRAINAGE AREA.—5.05 mi^2.

PERIOD OF RECORD.—July 1989 to current year (no winter records). Unpublished records for water years 1986–89 available in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder, Parshall flume, and V-notch sharp-crested weir. Elevation of gage is 5,490 ft above NGVD of 1929, from topographic map. October 1985 to July 1989, nonrecording gage at same site and datum. In June 1989, V-notch sharp-crested weir installed in flume to be used at low flows.

REMARKS.—Records not computed for winter months. Flow completely regulated by Philbrook Reservoir (station 11405100), usable capacity, 5,370 acre-ft, 500 ft upstream. Spillwater from Philbrook Reservoir bypasses this station.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 803.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	2.7	---	---	---	---	---	4.3	4.3	2.5	20	47
2	2.8	2.7	---	---	---	---	---	4.3	4.3	2.5	20	46
3	2.8	2.7	---	---	---	---	---	4.3	4.3	2.5	20	46
4	2.8	4.1	---	---	---	---	---	4.3	4.3	2.5	20	46
5	2.8	12	---	---	---	---	---	4.4	4.3	2.5	24	45
6	2.8	12	---	---	---	---	---	4.4	4.3	2.5	26	45
7	2.8	12	---	---	---	---	---	4.4	4.3	2.5	26	44
8	2.8	12	---	---	---	---	---	4.4	4.3	2.5	26	44
9	2.8	12	---	---	---	---	---	4.4	4.3	2.5	26	40
10	2.8	12	---	---	---	---	---	4.4	4.3	2.5	26	36
11	2.8	12	---	---	---	---	---	4.4	4.2	2.5	26	35
12	2.8	11	---	---	---	---	---	4.3	4.1	2.5	31	35
13	2.8	11	---	---	---	---	---	4.3	4.1	2.5	36	34
14	2.8	11	---	---	---	---	---	4.3	4.1	2.5	36	30
15	2.8	11	---	---	---	---	---	4.3	4.1	2.5	36	21
16	2.8	11	---	---	---	---	---	4.3	4.1	2.5	36	15
17	2.8	11	---	---	---	---	---	4.3	4.1	2.5	36	15
18	2.8	11	---	---	---	---	---	4.3	4.1	2.5	36	15
19	2.8	7.0	---	---	---	---	---	4.3	4.1	2.5	41	15
20	2.8	2.7	---	---	---	---	---	4.3	4.1	9.7	46	15
21	2.8	2.7	---	---	---	---	---	4.4	4.1	17	45	15
22	2.8	2.7	---	---	---	---	---	4.4	4.1	17	45	15
23	2.8	2.7	---	---	---	---	---	4.4	3.4	17	45	15
24	2.8	---	---	---	---	---	---	4.4	2.4	17	45	15
25	2.8	---	---	---	---	---	---	4.3	2.4	26	44	14
26	2.8	---	---	---	---	---	---	4.3	2.4	32	44	14
27	2.7	---	---	---	---	---	---	4.3	2.4	28	44	14
28	2.7	---	---	---	---	---	---	4.3	2.4	25	43	14
29	2.7	---	---	---	---	---	---	4.3	2.4	23	43	14
30	2.7	---	---	---	---	---	4.3	4.3	2.4	20	44	2.8
31	2.7	---	---	---	---	---	---	4.3	---	20	47	---
TOTAL	86.3	---	---	---	---	---	---	134.4	112.5	299.2	1083	801.8
MEAN	2.78	---	---	---	---	---	---	4.34	3.75	9.65	34.9	26.7
MAX	2.8	--	---	---	---	---	--	4.4	4.3	32	47	47
MIN	2.7	--	---	---	---	---	--	4.3	2.4	2.5	20	2.8
AC-FT	171	---	---	---	---	---	---	267	223	593	2150	1590
a	875	576	e1610	2020	3580	3650	e4170	e4910	5050	4440	2140	463

a Contents, in acre-feet, at end of month from Philbrook Reservoir (station 11405100), provided by Pacific Gas & Electric Co.
e Estimated.

11405200 WEST BRANCH FEATHER RIVER BELOW HENDRICKS DIVERSION DAM, NEAR STIRLING CITY, CA

LOCATION.—Lat 39°56'03", long 121°31'43", in NW 1/4 SE 1/4 sec.16, T.24 N., R.4 E., Butte County, Hydrologic Unit 18020121, on right bank, 200 ft upstream from road bridge, 1,800 ft downstream from Hendricks Diversion Dam, and 1.9 mi north of Stirling City.

DRAINAGE AREA.—46.1 mi^2.

PERIOD OF RECORD.—August 1986 to current year (low-flow records only).

GAGE.—Water-stage recorder. Elevation of gage is 3,210 ft above NGVD of 1929, from topographic map.

REMARKS.—Flows computed to 100 ft^3/s. Most of the water is diverted at Hendricks Diversion Dam to the Hendricks Canal and Toadtown Canal (station 11389800) and then to De Sabla Powerplant (station 11389750) on Butte Creek.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 803.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	17	17	19	20	24	---	24	20	17	17	18
2	17	17	18	19	20	24	23	24	20	17	17	18
3	17	17	17	19	20	24	23	24	20	17	17	18
4	17	17	17	19	20	24	24	24	20	16	17	18
5	17	17	19	19	20	23	24	24	20	15	17	18
6	17	17	21	19	20	23	22	23	20	17	17	18
7	17	17	21	19	20	23	21	20	20	17	17	18
8	17	17	20	19	20	---	21	18	20	17	18	18
9	17	20	20	19	20	---	21	18	19	17	18	18
10	17	17	20	19	20	---	21	18	20	17	18	18
11	17	17	20	19	20	---	21	19	19	17	18	18
12	17	17	19	19	20	---	21	18	18	17	18	18
13	17	17	21	19	20	---	21	18	17	17	18	18
14	17	17	21	20	20	---	21	18	17	17	18	18
15	17	19	21	21	20	---	21	18	18	17	18	17
16	17	17	21	21	21	---	21	18	17	17	18	17
17	17	17	20	21	22	---	21	18	17	17	18	18
18	17	17	20	21	23	---	21	18	17	17	18	19
19	17	17	20	21	27	---	21	18	17	17	18	19
20	17	16	21	20	29	---	21	18	17	18	18	19
21	17	16	21	20	29	---	21	18	17	18	18	19
22	17	16	21	20	28	---	21	18	17	18	18	19
23	17	17	21	20	25	---	21	18	17	18	18	19
24	17	17	21	20	23	---	21	18	17	18	18	19
25	17	17	20	20	20	---	21	18	18	18	18	19
26	17	17	20	20	22	---	22	18	18	18	18	19
27	17	17	19	20	25	---	23	18	17	17	18	19
28	17	17	19	20	25	---	23	18	17	17	18	19
29	17	17	19	20	25	---	24	18	17	17	18	24
30	17	17	19	20	---	---	24	18	17	17	18	19
31	17	---	19	20	---	---	---	19	---	17	18	---
TOTAL	527	512	613	612	644	---	---	597	545	531	551	556
MEAN	17.0	17.1	19.8	19.7	22.2	---	---	19.3	18.2	17.1	17.8	18.5
MAX	17	20	21	21	29			24	20	18	18	24
MIN	17	16	17	19	20			18	17	15	17	17
AC-FT	1050	1020	1220	1210	1280	---	---	1180	1080	1050	1090	1100

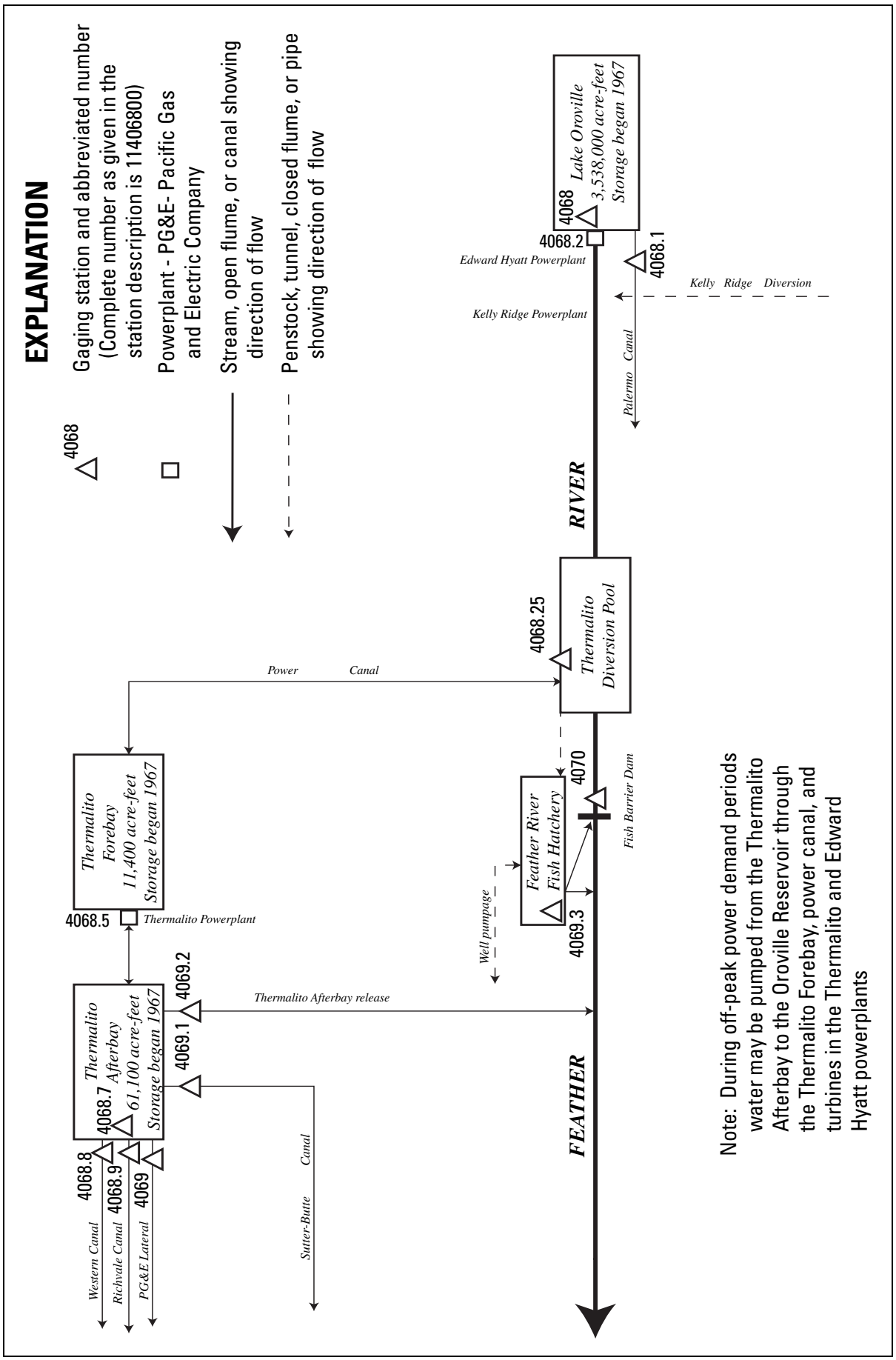


Figure 30. Diversions and storage from Feather River at Lake Oroville.

11406800 LAKE OROVILLE NEAR OROVILLE, CA

LOCATION.—Lat 39°32'06", long 121°28'25", in NE 1/4 SW 1/4 sec.1, T.19 N., R.4 E., Butte County, Hydrologic Unit 18020123, near intake structure, at left end of Oroville Dam on Feather River, 1.0 mi downstream from North Fork Feather River, and 4.2 mi east of Oroville.

DRAINAGE AREA.—3,607 mi^2.

PERIOD OF RECORD.—November 1967 to current year.

GAGE.—Water-stage recorder. Datum of gage is 0.47 ft above NGVD of 1929 (levels by California Department of Water Resources). Contents based on capacity table in use since Sept. 21, 1967.

REMARKS.—Reservoir is formed by an earthfill dam with concrete chute-type sidehill spillway completed May 13, 1968; storage began Nov. 14, 1967. Usable capacity, 2,685,385 acre-ft, between elevations 640.0 ft, minimum power pool, and 900.0 ft, normal maximum pool. Dead storage, 852,192 acre-ft. Total capacity at normal maximum pool, 3,537,577 acre-ft; temporary detention storage occurred at times during construction; maximum was 155,200 acre-ft, Dec. 23, 1964. Water is released to Edward Hyatt Powerplant (station 11406820) through penstock in left abutment of dam and to Palermo Canal (station 11406810) through concrete tunnel also in left abutment of dam. Three of the total of six turbines in the Edward Hyatt Powerplant are reversible and during periods of low power demand water is pumped at times from the river back into Lake Oroville. Records, including extremes, represent total contents at 2400 hours. Maximum inflow of 266,000 ft^3/s during a 2-hour period Feb. 17, 1986. See schematic diagram showing diversions and storage from Feather River at Lake Oroville.

COOPERATION.—Records were collected by California Department of Water Resources, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2100. Contents not rounded to U.S. Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 3,536,000 acre-ft, June 4, 1973, gage height, 899.88 ft; minimum since initial storage began, 882,395 acre-ft, Sept. 7, 1977, gage height, 645.11 ft.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 3,090,478 acre-ft, Apr. 4, gage height, 870.33 ft; minimum, 1,752,980 acre-ft, Sept. 30, gage height, 757.96 ft.

Capacity table (gage height, in feet, and contents, in acre-feet)
(Based on table provided by California Department of Water Resources, dated Sept. 21, 1967)

640	852,192	710	1,332,547	780	1,974,240	850	2,808,349
650	911,975	720	1,413,685	790	2,080,969	860	2,944,741
660	974,560	730	1,498,175	800	2,191,742	870	3,085,747
670	1,040,003	740	1,586,086	810	2,306,597	880	3,231,454
680	1,108,406	750	1,677,554	820	2,425,571	890	3,382,038
690	1,179,915	760	1,772,690	830	2,548,850	900	3,537,577
700	1,254,634	770	1,871,511	840	2,676,446		

11406800 LAKE OROVILLE NEAR OROVILLE, CA—Continued

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2279932	2187233	2067192	2265930	2464311	2858149	3073293	3054183	3036574	2746857	2247049	1880193
2	2276687	2183517	2065245	2271015	2470563	2849061	3077011	3062444	3032324	2730515	2232503	1870201
3	2272634	2179020	2061786	2277845	2481379	2844457	3083596	3064583	3023414	2714503	2218023	1860551
4	2272056	2171390	2058439	2282020	2489636	2844998	3090478	3064298	3016919	2698818	2202477	1850037
5	2269396	2166464	2052941	2283297	2498282	2847164	3084456	3065724	3014521	2683846	2190276	1844048
6	2265122	2158753	2069033	2285852	2505091	2845675	3081734	3065867	3008745	2668796	2174867	1836284
7	2262352	2154292	2081514	2292015	2514645	2846081	3070721	3061446	3000587	2649805	2162774	1829237
8	2255440	2153289	2081079	2295625	2520490	2845946	3059451	3066723	2993005	2628344	2150950	1823990
9	2251874	2151507	2077927	2301690	2523727	2856656	3051195	3073579	2978581	2606622	2139284	1819839
10	2246704	2144723	2081296	2313618	2525595	2871070	3050058	3072864	2966017	2587940	2124350	1814020
11	2245327	2137954	2083364	2324061	2528213	2884989	3058596	3069436	2952518	2566326	2106527	1816484
12	2242346	2129209	2082928	2332063	2531083	2899916	3056602	3065296	2948491	2548348	2095578	1811656
13	2239252	2123467	2091865	2339729	2533205	2918478	3050627	3060733	2930070	2531207	2078362	1803598
14	2233531	2119058	2108173	2345874	2540831	2937955	3042104	3054894	2913382	2511292	2062866	1797327
15	2229191	2115425	2109051	2354164	2549979	2950573	3036290	3060733	2902935	2491487	2045734	1790583
16	2224400	2115535	2110039	2362475	2570487	2964484	3026099	3064012	2892514	2477196	2031910	1786585
17	2220982	2111138	2114875	2366876	2649032	2974109	3021436	3059308	2881983	2464679	2017301	1780842
18	2222349	2107405	2119609	2375098	2755319	2985016	3014380	3061446	2874341	2447813	2006156	1782204
19	2219274	2104553	2122254	2379993	2800040	2996934	3011139	3053898	2874205	2431151	1993156	1782398
20	2213703	2101704	2127662	2384297	2818958	3002976	3012548	3047216	2869436	2416627	1980847	1781620
21	2208028	2100719	2138286	2389804	2831755	3005648	3014663	3044659	2859507	2403250	1970683	1777054
22	2202817	2102361	2144390	2397961	2837290	3012126	3022001	3051764	2852043	2391962	1963998	1774822
23	2198292	2101595	2148725	2404573	2840804	3021012	3026947	3054183	2840398	2377604	1953585	1769202
24	2194902	2096453	2171951	2410956	2846623	3022425	3037424	3046789	2830406	2364972	1943522	1766104
25	2197726	2091101	2191178	2420009	2865217	3023979	3047784	3044375	2818555	2349306	1934013	1765040
26	2197726	2088265	2201006	2427028	2877478	3029069	3046932	3043665	2802584	2336778	1922586	1760402
27	2191516	2085105	2208822	2436372	2871343	3040685	3052333	3041537	2793487	2321712	1913048	1757894
28	2189487	2082167	2219957	2442210	2866713	3050769	3052333	3038558	2780412	2308467	1905382	1756448
29	2185881	2083146	2232960	2448423	2862905	3049489	3050058	3042956	2768310	2293528	1898655	1754810
30	2184756	2072284	2242460	2453182	---	3058311	3048779	3042530	2757436	2277961	1891031	1752980
31	2185994	---	2248197	2458925	---	3066010	---	3041820	---	2265237	1885961	---
MAX	2279932	2187233	2248197	2458925	2877478	3066010	3090478	3073579	3036574	2746857	2247049	1880193
MIN	2184756	2072284	2052941	2265930	2464311	2844457	3011139	3038558	2757436	2265237	1885961	1752980
a	799.49	789.20	804.96	822.74	854.01	868.62	867.41	866.92	846.18	806.44	771.43	757.96
b	-97767	-113710	+175913	+210728	+403980	+203105	-17231	-6959	-284384	-492199	-379276	-132981
c	6378	1545	787	827	1535	4766	6012	7595	9296	9724	8484	7328
d	213400	256800	207500	168500	255100	376400	411000	270900	410600	612700	519100	238700

CAL YR 2003 b +623861
WTR YR 2004 b -530781
ANNUAL DIVERSION (AC-FT) CAL YR 2003 d 3354000
ANNUAL DIVERSION (AC-FT) WTR YR 2004 d 3941000

a Gage height, in feet, at end of month.
b Change in contents, in acre-feet.
c Total evaporation, in acre-feet, provided by California Department of Water Resources; not reviewed by the U.S. Geological Survey.
d Diversion, in acre-feet, to Edward Hyatt Powerplant (station 11406820), provided by California Department of Water Resources.

11406810 PALERMO CANAL NEAR OROVILLE, CA

LOCATION.—Lat 39°31'59", long 121°28'54", in SW 1/4 SW 1/4 sec.1, T.19 N., R.4 E., Butte County, Hydrologic Unit 18020106, on right bank, 50 ft downstream from Oroville Dam, and 4.4 mi east of Oroville.

PERIOD OF RECORD.—April 1965 to current year. Daily discharge records of diversion from Kelly Ridge Penstock for period April 1965 to October 1968, when Kelly Ridge Penstock supplied the entire flow of Palermo Canal, are in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder and Parshall flume. Datum of gage is 547.67 ft above NGVD of 1929 (levels by California Department of Water Resources). April 1965 to October 1968, water-stage recorder and Parshall flume at site of diversion from Kelly Ridge Penstock, 0.4 mi downstream at different datum.

REMARKS.—Canal diverts from left end of Oroville Dam. Water is used for irrigation near Oroville. During period of construction of Oroville Dam, water was released from Kelly Ridge Penstock to meet irrigation requirements. See schematic diagram showing diversions and storage from Feather River at Lake Oroville.

COOPERATION.—Records were provided by California Department of Water Resources, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2100.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 28 ft^3/s, several days July to September 1967; no flow at times in some years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	5.7	2.9	1.2	1.3	0.00	2.9	13	15	16	16	16
2	15	5.7	2.9	1.2	1.3	0.00	2.9	13	15	16	16	16
3	15	5.7	2.9	1.2	1.3	0.00	2.9	14	15	16	16	16
4	15	5.7	2.9	1.2	1.3	0.00	2.9	15	15	16	16	16
5	15	3.8	2.9	1.2	1.3	0.00	3.0	15	15	16	16	16
6	15	2.9	2.9	1.2	1.3	0.00	3.0	15	15	16	16	16
7	15	2.9	2.9	1.2	1.3	0.00	4.5	15	15	16	16	16
8	12	2.9	2.9	1.3	1.3	0.00	5.1	15	15	16	16	16
9	9.9	2.9	2.9	1.3	1.3	1.6	5.1	15	15	16	16	16
10	9.9	2.9	2.9	1.3	1.3	3.0	5.1	15	15	16	16	16
11	9.9	3.0	2.9	1.3	1.3	3.3	5.1	15	15	16	16	16
12	9.9	3.0	2.9	1.3	1.3	3.2	5.1	15	15	16	16	16
13	9.9	3.0	2.9	1.3	1.3	3.1	5.1	15	16	16	16	16
14	9.9	3.0	2.9	1.3	1.3	3.0	3.6	15	16	16	16	16
15	9.9	3.0	2.9	1.3	1.1	3.0	3.1	15	16	16	16	16
16	9.9	3.0	2.9	1.3	1.1	3.0	3.1	15	15	16	16	16
17	9.9	3.0	2.9	1.3	1.1	3.0	3.1	15	15	16	16	16
18	9.9	3.0	2.9	1.3	0.76	3.0	3.1	15	15	16	16	16
19	9.9	3.0	2.9	1.3	0.00	3.0	3.0	15	15	16	16	16
20	9.9	3.0	2.9	1.3	0.00	3.0	2.9	15	15	16	16	16
21	9.9	3.0	2.9	1.3	0.00	3.0	2.9	15	15	16	16	16
22	9.9	3.0	2.7	1.3	0.00	3.0	2.9	15	15	16	16	15
23	10	2.9	2.7	1.3	0.00	3.0	2.9	15	15	16	16	14
24	10	2.9	2.8	1.4	0.00	3.0	2.9	15	15	16	16	14
25	10	2.9	2.8	1.4	0.00	3.2	2.9	15	15	16	16	14
26	10	2.9	2.9	1.4	0.00	3.4	2.9	15	15	16	16	14
27	10	2.9	2.9	1.3	0.00	3.4	7.4	15	15	16	16	14
28	10	2.9	2.9	1.3	0.00	2.9	13	15	16	16	16	14
29	10	2.9	2.9	1.3	0.00	2.9	13	15	16	16	16	14
30	9.5	2.9	1.9	1.3	---	2.9	13	15	16	16	16	14
31	6.8	---	1.2	1.3	---	2.9	---	15	---	16	16	---
TOTAL	341.9	100.3	86.6	39.9	22.26	68.80	138.4	460	456	496	496	463
MEAN	11.0	3.34	2.79	1.29	0.77	2.22	4.61	14.8	15.2	16.0	16.0	15.4
MAX	15	5.7	2.9	1.4	1.3	3.4	13	15	16	16	16	16
MIN	6.8	2.9	1.2	1.2	0.00	0.00	2.9	13	15	16	16	14
AC-FT	678	199	172	79	44	136	275	912	904	984	984	918

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 2004, BY WATER YEAR (WY)

MEAN	12.4	4.90	3.09	2.47	2.03	2.49	5.74	14.0	18.3	19.1	19.4	18.5
MAX	18.0	8.56	5.94	5.12	5.33	6.22	19.1	22.3	24.5	24.5	24.5	22.8
(WY)	1979	1994	1975	1971	1974	1988	1970	1976	1976	1975	1978	1975
MIN	6.85	0.57	0.00	0.00	0.00	0.00	0.00	3.21	11.3	15.0	15.0	13.8
(WY)	1973	2003	1982	2003	1975	1979	1991	1995	1998	2003	2003	1985

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1969 - 2004	
ANNUAL TOTAL	2459.40		3169.16			
ANNUAL MEAN	6.74		8.66		10.2	
HIGHEST ANNUAL MEAN					13.3	1970
LOWEST ANNUAL MEAN					6.64	2003
HIGHEST DAILY MEAN	15	May 30	16	Jun 13	26	Jul 2 1975
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Feb 19	0.00	Jan 15 1970
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Feb 19	0.00	Jan 15 1970
ANNUAL RUNOFF (AC-FT)	4880		6290		7410	
10 PERCENT EXCEEDS	15		16		20	
50 PERCENT EXCEEDS	2.9		9.9		8.1	
90 PERCENT EXCEEDS	0.00		1.3		1.1	

11406870 THERMALITO AFTERBAY NEAR OROVILLE, CA

LOCATION.—Lat 39°27'30", long 121°38'17", in NE 1/4 SE 1/4 sec.33, T.19 N., R.3 E., Butte County, Hydrologic Unit 18020106, at dam, 195 ft northeast of centerline of outlet structure, and 5.7 mi southwest of Oroville.

PERIOD OF RECORD.—October 1967 to current year.
WATER TEMPERATURE: Water year 1968.

GAGE.—Water-stage recorder. Datum of gage is 100.47 ft above NGVD of 1929 (levels by California Department of Water Resources). Auxiliary water-stage recorder 90 ft southwest of centerline of Western Canal outlet and 7.2 mi west of Oroville.

REMARKS.—Reservoir is formed by an earthfill dam completed in 1967. Diversion from the reservoir began Oct. 12, 1967. Usable capacity, 61,144 acre-ft, between gage heights 120.0 and 139.0 ft, extreme operating levels. Normal operating range is from 123 to 136.5 ft. Water is released to four canals (stations 11406880, 11406890, 11406900, and 11406910) and to the Feather River (station 11406920) from the reservoir. Total maximum release to the four canals is approximately 4,000 ft^3/s. Water is pumped, at times, from Thermalito Afterbay back into Thermalito Forebay (station 11406840) during off-peak periods to be re-released through Thermalito Powerplant (station 11406850) for power generation during peak-demand periods. Records, including extremes, represent total contents at 2400 hours. See schematic diagram showing diversions and storage from Feather River at Lake Oroville.

COOPERATION.—Records were collected by California Department of Water Resources, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2100. Contents not rounded to U.S. Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 57,300 acre-ft, May 24, 1969, gage height, 136.56 ft; minimum since initial operation began, 5,590 acre-ft, Mar. 1, 1968, gage height, 119.09 ft.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 55,756 acre-ft, Apr. 2, gage height, 136.20 ft; minimum, 15,297 acre-ft, Nov. 3, gage height, 124.06 ft.

Capacity table (gage height, in feet, and contents, in acre-feet)
(Based on table provided by California Department of Water Resources, dated Oct. 10, 1968)

119	5,465	124	15,157	128	25,832	134	46,719
120	7,054	126	20,171	130	32,150	139	68,198
122	10,792						

11406870 THERMALITO AFTERBAY NEAR OROVILLE, CA—Continued

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33358	16299	31886	28155	44995	37675	51850	44028	31457	30510	27689	36396
2	33122	16130	31721	33460	50698	37175	55756	38214	31129	32719	27720	37140
3	32318	15297	33055	34175	50249	33325	52680	40887	32887	32652	29130	38070
4	27442	19116	35765	35208	50576	32218	47671	42652	32987	31556	30899	39631
5	26615	19064	37247	39229	49599	35243	49844	43912	27782	30802	30802	39302
6	28093	20978	31064	41297	49114	38901	46997	43416	23401	30154	30868	40036
7	28374	22748	30802	42652	46918	42997	45619	47472	22355	30445	29704	42349
8	30058	19483	31688	44839	45619	50985	45267	43111	21223	33156	27751	40777
9	31096	20520	34966	46444	47552	48751	45893	35939	23602	36220	26951	42538
10	32887	23573	35521	43912	48671	45034	40146	36115	26373	35312	28312	42731
11	29929	27257	36785	42311	49114	42918	29290	39741	31194	38142	32151	37962
12	30445	30122	38575	41709	50657	39521	28625	42198	26615	37747	31653	35905
13	31556	34209	35590	42198	51358	34380	33291	45112	35347	38178	33765	39815
14	33055	35590	36467	41409	46758	26403	39229	48671	43032	39083	36080	41185
15	34312	35835	40036	41110	40963	24150	37962	41073	44413	40516	38792	43490
16	36256	35243	42425	39888	40331	25353	36045	35940	46050	38106	40516	45423
17	36998	34827	42652	42010	41859	30025	36010	37890	46996	32954	41589	46484
18	33562	36080	41260	40220	42425	31853	39778	35451	46403	30348	40961	42463
19	31721	35556	41859	42047	40442	32185	43953	41709	36891	29577	41073	39448
20	35625	36185	39229	45580	42047	37675	45854	44724	31919	26981	41411	36537
21	36891	34277	35000	47116	41634	44452	48030	46090	30283	25474	39193	36185
22	38142	28625	32920	46444	44880	49315	45697	38503	28218	23803	32886	38070
23	38358	24910	33663	47116	45697	43185	44182	34414	31998	24295	33257	40184
24	38938	26707	32318	48190	41521	43452	36010	37568	32585	24034	32485	42160
25	32819	26676	27782	45345	37175	44568	28061	39631	34277	25205	32021	40479
26	28625	26161	27411	43989	36750	42845	32185	37603	39302	23404	35173	40036
27	29545	25921	24470	42576	36820	38142	34277	36785	39816	26403	36045	39595
28	28468	26464	19456	45267	38070	37496	38938	38214	39925	26011	36115	38829
29	27349	22833	20762	45658	36432	46365	43452	32986	37460	25801	37532	38296
30	23116	29004	21966	47751	---	46642	47353	31951	34689	25922	37998	36291
31	19747	---	24383	46326	---	49073	---	28941	---	24706	37890	---
MAX	38938	36185	42652	48190	51358	50985	55756	48671	46996	40516	41589	46484
MIN	19747	15297	19456	28155	36432	24150	28061	28941	21223	23404	26951	35905
a	125.84	129.03	127.51	133.90	131.25	134.59	134.16	129.01	130.75	127.62	131.66	131.21
b	-12604	+9257	-4621	+21943	-9894	+12641	-1720	-18412	+5748	-9983	+13184	-1599
c	1579	485	223	224	472	991	1700	2033	2119	2156	2340	2187
d	180500	228400	184000	142800	251200	349100	393000	255600	388200	591100	505700	209400

CAL YR 2003 b -2660
WTR YR 2004 b +3940
ANNUAL DIVERSION (AC-FT) CAL YR 2003 d 3099000
ANNUAL DIVERSION (AC-FT) WTR YR 2004 d 3679000

a Gage height, in feet, at end of month.
b Change in contents, in acre-feet.
c Total evaporation, in acre-feet, provided by California Department of Water Resources; not reviewed by the U.S. Geological Survey.
d Diversion, in acre-feet, to Thermalito Powerplant (station 11406850), provided by California Department of Water Resources.

11406880 WESTERN CANAL AT INTAKE, NEAR OROVILLE, CA

LOCATION.—Lat 39°30'19", long 121°41'06", in SW 1/4 NW 1/4 sec.18, T.19 N., R.3 E., Butte County, Hydrologic Unit 18020105, on left bank, 500 ft downstream from Thermalito Afterbay Dam, and 7.3 mi west of Oroville.

PERIOD OF RECORD.—October 1967 to current year.

GAGE.—Water-stage recorder. Datum of gage is 100.47 ft above NGVD of 1929 (levels by California Department of Water Resources).

REMARKS.—Water is diverted from Thermalito Afterbay (station 11406870) and is used for irrigation. See schematic diagram showing diversions and storage from Feather River at Lake Oroville.

COOPERATION.—Records collected by California Department of Water Resources, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2100.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 1,230 ft^3/s, May 11, 12, 2001; no flow at times each year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	215	797	361	138	0.00	0.00	0.00	1000	864	997	937	228
2	283	797	347	138	0.00	0.00	0.00	1060	922	997	922	222
3	298	791	347	137	0.00	0.00	0.00	1130	936	997	900	201
4	297	740	331	137	0.00	0.00	0.00	1150	982	997	874	180
5	297	768	307	136	0.00	0.00	0.00	1160	982	996	877	167
6	297	828	297	138	0.00	0.00	0.00	1170	962	997	865	159
7	297	810	297	138	0.00	0.00	0.00	1190	964	997	844	128
8	298	772	297	137	0.00	0.00	0.00	1190	972	997	837	116
9	299	772	297	138	0.00	0.00	0.00	1130	972	982	824	112
10	307	695	282	135	0.00	0.00	0.00	1070	972	967	804	94
11	317	580	272	138	0.00	0.00	0.00	1060	972	967	787	86
12	338	536	263	138	0.00	0.00	119	1070	956	976	777	86
13	348	522	238	138	0.00	0.00	178	1040	953	987	768	88
14	390	494	233	138	0.00	0.00	210	1030	962	987	762	88
15	437	473	233	114	0.00	0.00	275	1050	984	987	762	75
16	447	472	232	37	0.00	0.00	332	999	996	987	724	69
17	465	488	232	0.00	0.00	0.00	370	926	1010	986	681	99
18	471	497	221	0.00	0.00	0.00	398	841	1050	987	664	114
19	472	482	213	0.00	0.00	0.00	423	798	1070	979	640	117
20	488	456	212	0.00	0.00	0.00	447	786	1070	963	609	137
21	510	433	212	0.00	0.00	0.00	478	755	1030	957	567	147
22	523	422	205	0.00	0.00	0.00	513	734	1010	957	542	149
23	523	422	188	0.00	0.00	0.00	571	734	1040	957	513	148
24	572	423	177	0.00	0.00	0.00	657	794	1050	956	439	148
25	597	423	177	0.00	0.00	0.00	696	822	1050	957	407	157
26	611	411	178	0.00	0.00	0.00	748	793	1050	963	383	179
27	638	398	178	0.00	0.00	0.00	831	758	1050	967	329	195
28	702	397	177	0.00	0.00	0.00	848	708	1050	967	289	198
29	780	385	165	0.00	0.00	0.00	859	672	1020	967	277	204
30	797	378	158	0.00	---	0.00	940	672	996	962	264	228
31	797	---	144	0.00	---	0.00	---	734	---	952	239	---
TOTAL	14111	16862	7471	2075.00	0.00	0.00	9893.00	29026	29897	30292	20107	4319
MEAN	455	562	241	66.9	0.00	0.00	330	936	997	977	649	144
MAX	797	828	361	138	0.00	0.00	940	1190	1070	997	937	228
MIN	215	378	144	0.00	0.00	0.00	0.00	672	864	952	239	69
AC-FT	27990	33450	14820	4120	0.00	0.00	19620	57570	59300	60080	39880	8570

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 2004, BY WATER YEAR (WY)

MEAN	297	271	128	32.5	0.00	0.36	147	704	716	808	660	169
MAX	706	607	403	155	0.00	12.4	566	947	997	1032	890	305
(WY)	2002	1975	2000	1977	1968	1972	1977	1999	2004	1981	1981	1995
MIN	95.2	38.9	0.00	0.00	0.00	0.00	1.00	271	477	504	456	49.9
(WY)	1990	1974	1971	1969	1968	1968	1982	1995	1983	1970	1970	1977

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1968 - 2004	
ANNUAL TOTAL	140347.00		164053.00			
ANNUAL MEAN	385		448		330	
HIGHEST ANNUAL MEAN					448	2004
LOWEST ANNUAL MEAN					217	1983
HIGHEST DAILY MEAN	1200	May 27	1190	May 7	1230	May 11 2001
LOWEST DAILY MEAN	0.00	Jan 16	0.00	Jan 17	0.00	Dec 4 1967
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 16	0.00	Jan 17	0.00	Jan 5 1968
ANNUAL RUNOFF (AC-FT)	278400		325400		239100	
10 PERCENT EXCEEDS	901		996		862	
50 PERCENT EXCEEDS	297		347		215	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

11406890 RICHVALE CANAL AT INTAKE, NEAR OROVILLE, CA

LOCATION.—Lat 39°30'19", long 121°41'06", in SW 1/4 NW 1/4 sec.18, T.19 N., R.3 E., Butte County, Hydrologic Unit 18020105, on right bank, 500 ft downstream from axis of Thermalito Afterbay Dam, and 7.3 mi west of Oroville.

PERIOD OF RECORD.—April 1968 to current year.

REVISED RECORDS.—WDR CA-91-4: 1990.

GAGE.—Water-stage recorder. Datum of gage is 100.47 ft above NGVD of 1929 (levels by California Department of Water Resources).

REMARKS.—Canal diverts from Thermalito Afterbay (station 11406870); water is used for irrigation. See schematic diagram showing diversions and storage from Feather River at Lake Oroville.

COOPERATION.—Records collected by California Department of Water Resources, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2100.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 511 ft^3/s, May 16, 1974; no flow for many days each year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	333	275	215	0.00	0.00	0.00	443	357	453	425	102
2	74	334	274	215	0.00	0.00	0.00	455	358	454	417	94
3	73	334	274	214	0.00	0.00	0.00	459	359	446	402	95
4	72	335	244	214	0.00	0.00	0.00	459	373	444	391	94
5	74	324	229	214	0.00	0.00	0.00	429	384	444	399	94
6	74	319	228	215	0.00	0.00	0.00	418	387	444	399	83
7	75	329	228	215	0.00	0.00	0.00	400	388	444	391	71
8	94	333	229	214	0.00	0.00	0.00	427	390	444	389	69
9	100	334	229	214	0.00	0.00	0.00	449	401	444	374	68
10	98	334	229	213	0.00	0.00	0.00	454	413	444	350	69
11	99	334	229	213	0.00	0.00	0.00	434	445	444	344	68
12	97	323	221	213	0.00	0.00	52	440	452	444	333	70
13	98	319	213	214	0.00	0.00	95	393	441	444	329	52
14	121	319	214	214	0.00	0.00	169	415	462	444	329	35
15	141	319	215	213	0.00	0.00	204	427	464	444	329	32
16	155	312	214	219	0.00	0.00	223	399	463	443	329	38
17	192	309	214	224	0.00	0.00	241	371	464	443	303	17
18	203	309	214	223	0.00	0.00	226	314	463	444	272	7.0
19	204	309	213	224	0.00	0.00	219	306	462	444	264	7.0
20	205	309	213	225	0.00	0.00	192	358	463	444	264	7.0
21	204	316	213	224	0.00	0.00	179	355	464	436	264	20
22	204	319	213	226	0.00	0.00	241	317	462	434	237	25
23	203	318	214	54	0.00	0.00	264	288	464	434	229	41
24	222	315	213	0.00	0.00	0.00	282	336	449	434	229	50
25	250	298	213	0.00	0.00	0.00	344	403	444	434	221	51
26	258	279	213	0.00	0.00	0.00	405	418	444	434	207	50
27	309	274	213	0.00	0.00	0.00	430	419	444	434	204	50
28	334	274	212	0.00	0.00	0.00	433	407	444	434	178	110
29	333	273	214	0.00	0.00	0.00	420	391	451	434	168	154
30	333	275	213	0.00	---	0.00	435	359	454	434	157	175
31	333	---	214	0.00	---	0.00	---	348	---	434	132	---
TOTAL	5295	9412	6944	4829.00	0.00	0.00	5054.00	12291	12909	13675	9259	1898.0
MEAN	171	314	224	156	0.00	0.00	168	396	430	441	299	63.3
MAX	334	335	275	226	0.00	0.00	435	459	464	454	425	175
MIN	63	273	212	0.00	0.00	0.00	0.00	288	357	434	132	7.0
AC-FT	10500	18670	13770	9580	0.00	0.00	10020	24380	25600	27120	18370	3760

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 2004, BY WATER YEAR (WY)

MEAN	58.8	90.5	79.3	34.4	0.00	0.21	72.0	287	301	331	280	76.7
MAX	334	328	297	185	0.00	6.32	201	436	430	444	397	154
(WY)	2003	2000	2001	2000	1969	1972	1972	1974	2004	1999	1999	1995
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	104	129	140	130	8.43
(WY)	1972	1969	1969	1969	1969	1969	1983	1991	1991	1991	1991	1977

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1968 - 2004	
ANNUAL TOTAL	67891.00		81566.00			
ANNUAL MEAN	186		223		136	
HIGHEST ANNUAL MEAN					223	2004
LOWEST ANNUAL MEAN					66.4	1991
HIGHEST DAILY MEAN	430	Jun 2	464	Jun 15	511	May 16 1974
LOWEST DAILY MEAN	0.00	Jan 25	0.00	Jan 24	0.00	Sep 25 1968
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 25	0.00	Jan 24	0.00	Oct 5 1968
ANNUAL RUNOFF (AC-FT)	134700		161800		98540	
10 PERCENT EXCEEDS	369		444		367	
50 PERCENT EXCEEDS	214		222		67	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

11406900 PACIFIC GAS & ELECTRIC CO. LATERAL AT INTAKE, NEAR OROVILLE, CA

LOCATION.—Lat 39°29'22", long 121°41'12", in SE 1/4 NW 1/4 sec.19, T.19 N., R.3 E., Butte County, Hydrologic Unit 18020106, on right bank, 82 ft downstream from axis of Thermalito Afterbay Dam, and 7.2 mi west of Oroville.

PERIOD OF RECORD.—April 1968 to current year.

GAGE.—Water-stage recorder. Datum of gage is 113.47 ft above NGVD of 1929 (levels by California Department of Water Resources).

REMARKS.—Flow regulated at outlet works from Thermalito Afterbay (station 11406870); water is used for irrigation. See schematic diagram showing diversions and storage from Feather River at Lake Oroville.

COOPERATION.—Records collected by California Department of Water Resources, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2100.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 46 ft^3/s, Apr. 24, 1977, May 16, 1978; no flow for many days each year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	3.0	10	1.6	0.00	0.00	0.00	6.0	17	16	16	2.0
2	0.00	2.7	6.8	1.6	0.00	0.00	0.00	10	17	15	16	1.6
3	0.00	2.6	1.9	1.6	0.00	0.00	0.00	15	15	15	15	1.6
4	0.00	2.5	1.9	1.6	0.00	0.00	0.00	14	14	15	15	1.3
5	0.00	2.6	1.8	1.6	0.00	0.00	0.00	13	14	15	15	0.94
6	0.00	2.6	1.7	1.7	0.00	0.00	0.00	12	13	15	15	0.87
7	0.00	2.7	1.5	1.6	0.00	0.00	0.00	11	16	15	15	0.87
8	0.00	2.7	1.4	1.6	0.00	0.00	0.00	10	19	15	15	0.74
9	0.00	2.8	1.8	1.6	0.00	0.00	0.00	10	19	14	15	0.69
10	0.00	1.3	3.1	1.7	0.00	0.00	0.00	8.9	19	14	15	0.95
11	0.00	0.00	4.1	1.6	0.00	0.00	0.00	8.6	19	14	15	1.2
12	0.00	0.00	3.0	1.6	0.00	0.00	0.00	7.4	19	14	15	1.1
13	0.00	0.00	1.6	1.5	0.00	0.00	0.00	5.8	19	14	15	0.29
14	0.00	0.00	1.6	1.4	0.00	0.00	0.00	10	19	14	15	0.00
15	0.00	0.00	1.6	1.8	0.00	0.00	0.00	15	19	14	15	0.00
16	0.00	0.00	1.6	1.2	0.00	0.00	0.00	14	19	14	14	0.00
17	0.00	0.00	1.6	0.00	0.00	0.00	0.00	10	19	14	14	0.00
18	0.00	0.00	1.5	0.00	0.00	0.00	0.00	11	16	14	12	0.00
19	0.00	0.00	1.5	0.00	0.00	0.00	0.00	15	13	14	11	0.00
20	0.00	4.8	1.5	0.00	0.00	0.00	0.00	14	12	14	11	0.00
21	0.00	8.8	1.5	0.00	0.00	0.00	0.00	13	12	14	11	0.00
22	0.00	9.6	1.4	0.00	0.00	0.00	21	13	12	14	11	0.00
23	0.00	9.6	3.5	0.00	0.00	0.00	31	12	12	14	11	0.00
24	0.00	10	6.0	0.00	0.00	0.00	31	13	13	14	11	0.00
25	0.00	9.5	5.8	0.00	0.00	0.00	33	15	15	15	11	0.00
26	0.00	9.5	5.6	0.00	0.00	0.00	31	14	16	15	11	0.00
27	0.00	9.5	5.7	0.00	0.00	0.00	29	12	16	15	5.9	0.00
28	0.00	9.5	5.4	0.00	0.00	0.00	25	10	18	16	2.6	0.00
29	0.00	9.8	6.2	0.00	0.00	0.00	20	8.9	18	16	2.7	0.00
30	0.00	10	6.4	0.00	---	0.00	11	10	17	16	2.7	0.00
31	2.1	---	3.2	0.00	---	0.00	---	13	---	16	2.7	---
TOTAL	2.10	126.10	102.2	25.30	0.00	0.00	232.00	354.6	486	454	371.6	14.15
MEAN	0.07	4.20	3.30	0.82	0.00	0.00	7.73	11.4	16.2	14.6	12.0	0.47
MAX	2.1	10	10	1.8	0.00	0.00	33	15	19	16	16	2.0
MIN	0.00	0.00	1.4	0.00	0.00	0.00	0.00	5.8	12	14	2.6	0.00
AC-FT	4.2	250	203	50	0.00	0.00	460	703	964	901	737	28

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 2004, BY WATER YEAR (WY)

MEAN	0.67	2.21	1.01	0.16	0.00	0.00	3.55	12.4	12.7	13.8	11.1	1.23
MAX	7.14	6.58	5.74	1.00	0.00	0.00	14.8	23.2	18.3	17.1	15.4	3.31
(WY)	2002	1996	2000	2000	1969	1969	1977	1975	1981	1981	2003	2003
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.55	8.40	9.37	7.12	0.00
(WY)	1969	1969	1969	1969	1969	1969	1974	1994	1998	1970	1988	1994

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1968 - 2004	
ANNUAL TOTAL	1949.06		2168.05			
ANNUAL MEAN	5.34		5.92		4.97	
HIGHEST ANNUAL MEAN					6.18	2002
LOWEST ANNUAL MEAN					3.67	1983
HIGHEST DAILY MEAN	40	May 25	33	Apr 25	46	Apr 24 1977
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Oct 1	0.00	Sep 9 1968
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Oct 1	0.00	Sep 9 1968
ANNUAL RUNOFF (AC-FT)	3870		4300		3600	
10 PERCENT EXCEEDS	17		15		15	
50 PERCENT EXCEEDS	1.4		1.6		0.00	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

11406910 SUTTER–BUTTE CANAL AT INTAKE, NEAR OROVILLE, CA

LOCATION.—Lat 39°27'01", long 121°39'27", in NW corner of Boga Fernandez Grant, T.18 N., R.3 E., Butte County, Hydrologic Unit 18020105, on left bank, 675 ft downstream from Thermalito Afterbay Dam, and 6.8 mi southwest of Oroville.

PERIOD OF RECORD.—November 1967 to current year.

GAGE.—Water-stage recorder. Datum of gage is 109.97 ft above NGVD of 1929 (levels by California Department of Water Resources). Prior to May 1, 1970, at datum 109.50 ft lower.

REMARKS.—Water is diverted from Thermalito Afterbay and is used for irrigation. See schematic diagram showing diversions and storage from Feather River at Lake Oroville.

COOPERATION.—Records collected by California Department of Water Resources, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2100.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 2,110 ft^3/s, Apr. 22–24, 1968; no flow for many days each year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	660	699	866	678	0.00	0.00	0.00	1850	1460	1670	1610	973
2	639	700	854	679	0.00	0.00	0.00	1860	1480	1660	1590	952
3	574	810	849	678	0.00	0.00	0.00	1790	1530	1630	1560	930
4	529	919	841	677	0.00	0.00	0.00	1770	1590	1610	1560	853
5	528	923	840	678	0.00	0.00	0.00	1770	1610	1610	1560	817
6	508	953	839	678	0.00	0.00	0.00	1740	1570	1610	1560	796
7	491	997	839	678	0.00	0.00	148	1730	1540	1610	1550	776
8	491	1010	828	679	0.00	0.00	200	1730	1530	1620	1540	767
9	493	1010	815	679	0.00	0.00	198	1730	1540	1620	1560	718
10	479	975	799	677	0.00	0.00	221	1700	1540	1620	1560	703
11	463	960	799	678	0.00	0.00	221	1680	1540	1620	1540	658
12	462	954	769	679	0.00	0.00	280	1690	1540	1640	1530	658
13	480	930	753	679	0.00	0.00	396	1660	1540	1650	1530	650
14	503	876	755	678	0.00	0.00	421	1630	1550	1670	1520	632
15	522	855	751	678	0.00	0.00	553	1630	1550	1670	1490	623
16	525	853	730	655	0.00	0.00	671	1600	1550	1680	1460	609
17	524	835	741	640	0.00	0.00	789	1560	1590	1680	1480	583
18	522	825	730	638	0.00	0.00	825	1480	1610	1660	1450	576
19	523	824	731	417	0.00	0.00	879	1460	1630	1640	1430	576
20	524	865	732	167	0.00	0.00	1010	1430	1640	1650	1390	570
21	599	885	731	173	0.00	0.00	1120	1430	1640	1650	1370	583
22	640	883	731	169	0.00	0.00	1170	1380	1660	1650	1370	576
23	642	883	732	56	0.00	0.00	1260	1360	1670	1630	1360	522
24	672	860	719	0.00	0.00	0.00	1390	1360	1670	1630	1310	507
25	669	845	715	0.00	0.00	0.00	1500	1390	1660	1620	1230	507
26	659	859	716	0.00	0.00	0.00	1500	1450	1650	1630	1160	509
27	686	865	715	0.00	0.00	0.00	1510	1430	1660	1630	1120	508
28	742	865	714	0.00	0.00	0.00	1620	1410	1670	1620	1090	507
29	765	865	710	0.00	0.00	0.00	1700	1430	1680	1610	1060	525
30	782	865	694	0.00	---	0.00	1790	1430	1680	1590	992	515
31	723	---	690	0.00	---	0.00	---	1470	---	1600	976	---
TOTAL	18019	26448	23728	13088.00	0.00	0.00	21372.00	49030	47770	50680	43508	19679
MEAN	581	882	765	422	0.00	0.00	712	1582	1592	1635	1403	656
MAX	782	1010	866	679	0.00	0.00	1790	1860	1680	1680	1610	973
MIN	462	699	690	0.00	0.00	0.00	0.00	1360	1460	1590	976	507
AC-FT	35740	52460	47060	25960	0.00	0.00	42390	97250	94750	100500	86300	39030

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 2004, BY WATER YEAR (WY)

MEAN	421	231	179	74.5	20.3	82.1	522	1393	1402	1491	1364	736
MAX	844	882	765	422	374	571	1294	1815	1643	1709	1608	986
(WY)	2003	2004	2004	2004	1977	1976	1968	1975	1975	1981	1982	2003
MIN	77.2	0.00	0.00	0.00	0.00	0.00	0.00	519	826	834	776	283
(WY)	1978	1975	1971	1969	1969	1978	1983	1977	1992	1991	1991	1977

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1968 - 2004	
ANNUAL TOTAL	273980.00		313322.00			
ANNUAL MEAN	751		856		662	
HIGHEST ANNUAL MEAN					856	2004
LOWEST ANNUAL MEAN					401	1992
HIGHEST DAILY MEAN	1880	May 30	1860	May 2	2110	Apr 22 1968
LOWEST DAILY MEAN	0.00	Jan 24	0.00	Jan 24	0.00	Jan 8 1968
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 24	0.00	Jan 24	0.00	Jan 8 1968
ANNUAL RUNOFF (AC-FT)	543400		621500		479400	
10 PERCENT EXCEEDS	1570		1640		1560	
50 PERCENT EXCEEDS	731		779		479	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

11406920 THERMALITO AFTERBAY RELEASE TO FEATHER RIVER, NEAR OROVILLE, CA

LOCATION.—Lat 39°27'23", long 121°38'10", in NW 1/4 SE 1/4 sec.33, T.19 N., R.3 E., Butte County, Hydrologic Unit 18020106, on left bank of outlet channel, 955 ft downstream from centerline of Thermalito Afterbay Dam, and 5.7 mi southwest of Oroville.

PERIOD OF RECORD.—November 1967 to current year.
WATER TEMPERATURE: Water years 1969–92.

GAGE.—Water-stage recorder. Datum of gage is 113.47 ft above NGVD of 1929 (levels by California Department of Water Resources). Prior to May 1, 1970, at datum 13.00 ft lower.

REMARKS.—Flow regulated by gates of Thermalito Afterbay outlet 955 ft upstream. See schematic diagram showing diversions and storage from Feather River at Lake Oroville.

COOPERATION.—Records collected by California Department of Water Resources, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2100.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 21,600 ft^3/s, Jan. 28, 1970, gage height, 23.30 ft, datum then in use, 21,600 ft^3/s, Jan. 2, 1997, gage height, 11.45 ft; no flow for many days during water year 1968.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1890	1850	1860	1860	598	12100	1900	1080	1410	5410	5710	4390
2	1890	1850	1850	1860	795	12300	2630	1080	1900	5710	5780	4390
3	1890	1850	1840	1860	998	12500	4400	1080	2410	6350	5810	4390
4	1890	1850	1850	1850	1130	6650	6410	1250	2900	6220	5750	4390
5	1890	1850	1840	1860	1140	3800	8510	1390	2890	6220	5710	3880
6	1890	1850	1840	1860	1140	4020	10500	1390	3110	6300	5710	3880
7	1890	1850	1850	1850	1130	4220	12000	1390	3910	7080	5710	3880
8	1890	1840	1850	1860	1140	4370	11900	1400	3910	7320	5780	3120
9	1890	1840	1850	1850	1130	3920	10700	1390	3890	7400	5810	2390
10	1890	1850	1850	1690	1140	3400	9650	1400	3410	7430	5880	2400
11	1890	1850	1840	1540	1130	3400	8630	1400	3400	7430	5880	2400
12	1890	1850	1850	1410	1140	3400	6880	1390	3400	7370	5810	2400
13	1890	1850	1850	1240	1140	3400	6430	1390	3410	7280	5810	2400
14	1890	1850	1840	1140	1130	3400	7130	1400	3380	7230	5810	2390
15	1870	1850	1850	1140	1130	3410	9440	1390	3310	7220	5810	2390
16	1850	1850	1840	1130	1130	3410	9410	1390	3270	7220	5810	2400
17	1840	1850	1860	1130	1140	3410	6810	1390	3210	7220	5860	2370
18	1830	1840	1850	1130	1870	3400	4630	1400	3210	7260	5920	1890
19	1840	1850	1850	1130	5310	4400	3630	1390	3310	7310	5920	1890
20	1830	1850	1840	1140	6420	4410	2890	1390	3400	6600	5920	1890
21	1840	1850	1840	1130	6410	4420	2390	1390	3400	5870	5920	1890
22	1840	1850	1840	1130	6430	5650	1890	1400	3400	5810	5920	1890
23	1840	1850	1850	1130	6670	9440	1690	1390	3400	5890	5920	1890
24	1840	1850	1850	1140	9930	9440	1480	1390	3400	5930	5420	1890
25	1840	1850	1840	1140	13500	9440	1280	1390	3400	5920	4900	1890
26	1840	1850	1850	1140	15100	7970	1090	1390	3410	5920	4410	1890
27	1840	1850	1850	1080	16200	4920	1080	1390	3400	5920	4390	1890
28	1850	1860	1850	300	11700	3670	1090	1390	4600	5910	3900	1890
29	1850	1850	1860	70	11900	3410	1090	1390	5310	5920	3390	1890
30	1840	1860	1850	193	---	2890	1090	1390	5390	5920	3390	1890
31	1840	---	1860	396	---	2400	---	1390	---	5830	3650	---
TOTAL	57780	55490	57290	39379	129721	166970	158650	42080	102150	202420	167410	78430
MEAN	1864	1850	1848	1270	4473	5386	5288	1357	3405	6530	5400	2614
MAX	1890	1860	1860	1860	16200	12500	12000	1400	5390	7430	5920	4390
MIN	1830	1840	1840	70	598	2400	1080	1080	1410	5410	3390	1890
AC-FT	114600	110100	113600	78110	257300	331200	314700	83470	202600	401500	332100	155600

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 2004, BY WATER YEAR (WY)

MEAN	1919	2232	3880	4238	5215	5453	4317	3341	3157	4113	3594	2860
MAX	5867	11020	15120	14700	14600	16890	15410	12340	9717	8678	7043	7085
(WY)	1975	1974	1984	1997	1983	1983	1983	1983	1983	2003	1974	1974
MIN	145	336	56.7	391	345	239	207	549	337	0.13	116	398
(WY)	1978	1978	1968	1993	1968	1992	1992	1977	1990	1968	1968	1968

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1968 - 2004	
ANNUAL TOTAL	1044567		1257770			
ANNUAL MEAN	2862		3437		3769	
HIGHEST ANNUAL MEAN					9352	1983
LOWEST ANNUAL MEAN					970	1991
HIGHEST DAILY MEAN	9450	Jul 8	16200	Feb 27	21200	Jan 28 1970
LOWEST DAILY MEAN	422	Apr 16	70	Jan 29	0.00	Nov 16 1967
ANNUAL SEVEN-DAY MINIMUM	428	Apr 16	479	Jan 28	0.00	Nov 16 1967
MAXIMUM PEAK FLOW			17300	Feb 26	21600	Jan 28 1970
MAXIMUM PEAK STAGE			8.95	Feb 26	23.30	Jan 28 1970
ANNUAL RUNOFF (AC-FT)	2072000		2495000		2730000	
10 PERCENT EXCEEDS	7420		6940		9160	
50 PERCENT EXCEEDS	1850		1890		2250	
90 PERCENT EXCEEDS	433		1140		586	

11407000 FEATHER RIVER AT OROVILLE, CA

LOCATION.—Lat 39°31'18", long 121°32'48", in Boga Fernandez Grant, T.19 N., R.4 E., Butte County, Hydrologic Unit 18020106, on right bank, 300 ft upstream from fish barrier dam on Feather River, 0.4 mi downstream from Thermalito Diversion Dam, 0.8 mi northeast of Oroville Post Office, and 4.8 mi downstream from Oroville Dam.

DRAINAGE AREA.—3,624 mi^2.

PERIOD OF RECORD.—October 1901 to current year. Monthly discharge only for some periods, published in WSP 1315-A. October 1934 to September 1961 published as "near Oroville."
CHEMICAL DATA: Water years 1906–07, 1951–77.
SPECIFIC CONDUCTANCE: Water years 1972–78.
WATER TEMPERATURE: Water years 1954–92.
SEDIMENT DATA: Water years 1957–79.

REVISED RECORDS.—WSP 843: 1907(M), 1909(M), 1914–15(M), 1919(M), 1927–28(M). WSP 881: 1913–28 (yearly summaries). WSP 1515: 1906–8. WSP 1931: Drainage area. WDR CA-74-2: 1968–70, adjusted monthly discharge.

GAGE.—Water-stage recorder. Datum of gage is 148.97 ft above NGVD of 1929 (levels by California Department of Water Resources). See WSP 1931 for history of changes prior to Oct. 1, 1964.

REMARKS.—Flow completely regulated by Lake Oroville (station 11406800), beginning November 1967, and Thermalito Diversion Pool (station 11406825), capacity 13,500 acre-ft. Diversions upstream from station for power and irrigation. Feather River Fish Hatchery (station 11406930) diverts up to 120 ft^3/s at Thermalito Diversion Dam 0.4 mi upstream from gage. Daily figures shown are combined figures of river flow and diversion to fish hatchery. See schematic diagram showing diversions and storage from Feather River at Lake Oroville.

COOPERATION.—Records were collected by California Department of Water Resources, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2100.

EXTREMES FOR PERIOD OF RECORD.—Prior to completion of Oroville Dam: Maximum discharge observed, 230,000 ft^3/s, Mar. 19, 1907, elevation, 167.5 ft above NGVD of 1929, site and datum then in use, maximum discharge (since completion of Oroville Dam), 161,000 ft^3/s, Jan. 2, 1997, gage height, 25.45 ft; minimum, 300 ft^3/s, estimated, Nov. 9, 1931.
Combined flow (since completion of Oroville Dam): Maximum daily discharge, 132,000 ft^3/s, Feb. 18, 1986; minimum daily, 222 ft^3/s, Sept. 19, 1972.

EXTREMES OUTSIDE OF PERIOD OF RECORD.—Flood on Feb. 12, 1879, reached a stage of 11.7 ft; discharge not determined; flood in February 1881, reached a stage of 25.0 ft; discharge not determined; flood on Mar. 9, 1884, reached a stage of 13.0 ft, discharge not determined; flood on Dec. 23, 1884, reached a stage of 13.8 ft; discharge not determined; flood on Dec. 25, 1885, reached a stage of 15.7 ft, discharge not determined; information supplied from Magnitude and Frequency of Floods in the United States, Part 11, Vol. 2 (USGS Water-Supply Paper 1686).

EXTREMES FOR CURRENT YEAR.—River only: Maximum discharge, 2,970 ft^3/s, Feb. 27, gage height, 2.36. ft; minimum daily, 515 ft^3/s, Feb. 20.
Combined flow: Maximum daily discharge, 2,880 ft^3/s, Feb. 20; minimum daily, 615 ft^3/s, Dec. 13.

11407000 FEATHER RIVER AT OROVILLE, CA—Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	631	627	630	646	1210	2040	631	631	635	631	833	631
2	633	621	641	631	1010	1850	634	632	639	632	769	635
3	634	622	645	629	800	1620	634	633	635	735	740	633
4	631	625	648	627	634	1460	639	637	637	823	809	634
5	631	621	645	628	620	1240	643	634	637	818	840	631
6	630	628	644	632	624	1040	645	633	629	769	835	634
7	625	625	643	634	624	845	638	633	632	741	837	634
8	633	625	641	626	625	672	640	633	625	734	769	633
9	630	626	635	630	622	631	639	631	631	667	739	688
10	629	623	645	625	624	630	638	633	632	635	664	665
11	627	629	635	628	629	630	642	630	633	632	686	629
12	623	625	620	633	633	631	643	634	631	710	741	661
13	626	623	615	634	620	633	643	628	630	792	742	664
14	629	624	620	628	623	633	643	629	670	839	744	662
15	631	625	621	628	629	635	646	632	724	841	740	650
16	625	623	620	628	637	637	635	628	778	843	742	631
17	623	625	621	629	635	631	637	629	812	845	687	635
18	624	631	623	628	637	637	636	630	812	803	638	679
19	626	626	624	628	618	635	636	630	719	740	636	635
20	625	624	627	625	613	635	638	631	634	672	641	637
21	630	627	631	622	617	637	639	630	636	701	641	637
22	625	625	626	624	621	628	638	629	638	750	645	636
23	626	627	629	628	622	631	637	627	639	670	646	632
24	626	629	640	633	627	635	640	630	638	637	641	634
25	620	626	626	627	642	642	638	634	640	641	640	634
26	623	627	629	630	1420	635	635	634	643	639	639	635
27	624	627	628	1130	2880	638	637	633	677	640	639	638
28	621	627	625	1840	2460	633	636	634	742	640	640	638
29	623	633	638	1820	2260	633	636	634	743	640	641	649
30	625	626	631	1620	---	635	636	635	673	641	641	638
31	630	---	633	1420	---	634	---	637	---	761	647	---
TOTAL	19439	18772	19579	24191	25816	25346	19152	19588	20044	22262	21892	19272
MEAN	627	626	632	780	890	818	638	632	668	718	706	642
MAX	634	633	648	1840	2880	2040	646	637	812	845	840	688
MIN	620	621	615	622	613	628	631	627	625	631	636	629
AC-FT	38560	37230	38830	47980	51210	50270	37990	38850	39760	44160	43420	38230
MEAN a	2053	2549	6525	6502	12267	9838	6969	4723	2664	2391	2759	2065
AC-FTa	126200	151700	401200	399800	705600	604900	414700	290400	158500	147000	169700	122900

a Adjusted for unreviewed evaporation, change in contents, and diversions in and out of Lake Oroville, Thermalito Diversion Pool, Thermalito Forebay, and Thermalito Afterbay (station 11406870).

11407000 FEATHER RIVER AT OROVILLE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1902 - 1967, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2085	3069	5296	6790	9463	10080	12120	9930	5176	2505	1980	1792
MAX	12370	19710	28410	39860	28030	39760	30100	25150	15650	5999	3265	2883
(WY)	1963	1904	1956	1909	1904	1904	1911	1938	1911	1907	1967	1967
MIN	745	853	1102	1350	1714	1564	2146	1246	924	852	956	992
(WY)	1933	1933	1950	1947	1933	1924	1924	1924	1924	1924	1924	1924

SUMMARY STATISTICS	WATER YEARS 1902 - 1967	
ANNUAL MEAN	5834	
HIGHEST ANNUAL MEAN	12860	1907
LOWEST ANNUAL MEAN	1623	1924
HIGHEST DAILY MEAN	187000	Mar 19 1907
LOWEST DAILY MEAN	577	Oct 3 1932
ANNUAL SEVEN-DAY MINIMUM	652	Sep 30 1932
MAXIMUM PEAK FLOW	230000	Mar 19 1907
MAXIMUM PEAK STAGE	167.5	Mar 19 1907
ANNUAL RUNOFF (AC-FT)	4226000	
10 PERCENT EXCEEDS	13300	
50 PERCENT EXCEEDS	2870	
90 PERCENT EXCEEDS	1470	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	569	737	1135	2815	2132	1926	958	750	528	532	523	515
MAX	1580	3313	7728	26750	25180	18870	7064	7916	998	775	799	659
(WY)	1996	1982	1997	1997	1986	1995	1982	1995	1989	1992	2002	1999
MIN	399	397	392	401	399	404	401	387	405	404	393	389
(WY)	1969	1979	1979	1976	1978	1978	1977	1969	1974	1981	1979	1972

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1969 - 2004	
ANNUAL TOTAL	234075		255353			
ANNUAL MEAN	641		698		1090	
ANNUAL MEAN a	5823		5086			
HIGHEST ANNUAL MEAN					3936	1997
LOWEST ANNUAL MEAN					404	1976
HIGHEST DAILY MEAN	771	Aug 20	2880	Feb 27	132000	Feb 18 1986
LOWEST DAILY MEAN	613	Jun 7	613	Feb 20	222	Sep 19 1972
ANNUAL SEVEN-DAY MINIMUM	619	Jun 7	620	Dec 12	337	Sep 13 1972
MAXIMUM PEAK FLOW					161000	Jan 2 1997
MAXIMUM PEAK STAGE					25.45	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	464300		506500		789600	
ANNUAL RUNOFF (AC-FT) a	4216000		3693000		b 4410000	
10 PERCENT EXCEEDS	675		769		655	
50 PERCENT EXCEEDS	630		634		568	
90 PERCENT EXCEEDS	623		624		402	

a Adjusted for unreviewed evaporation, change in contents, and diversions in and out of Lake Oroville, Thermalito Diversion Pool, Thermalito Forebay, and Thermalito Afterbay (station 11406870).

b Includes water year 1968.

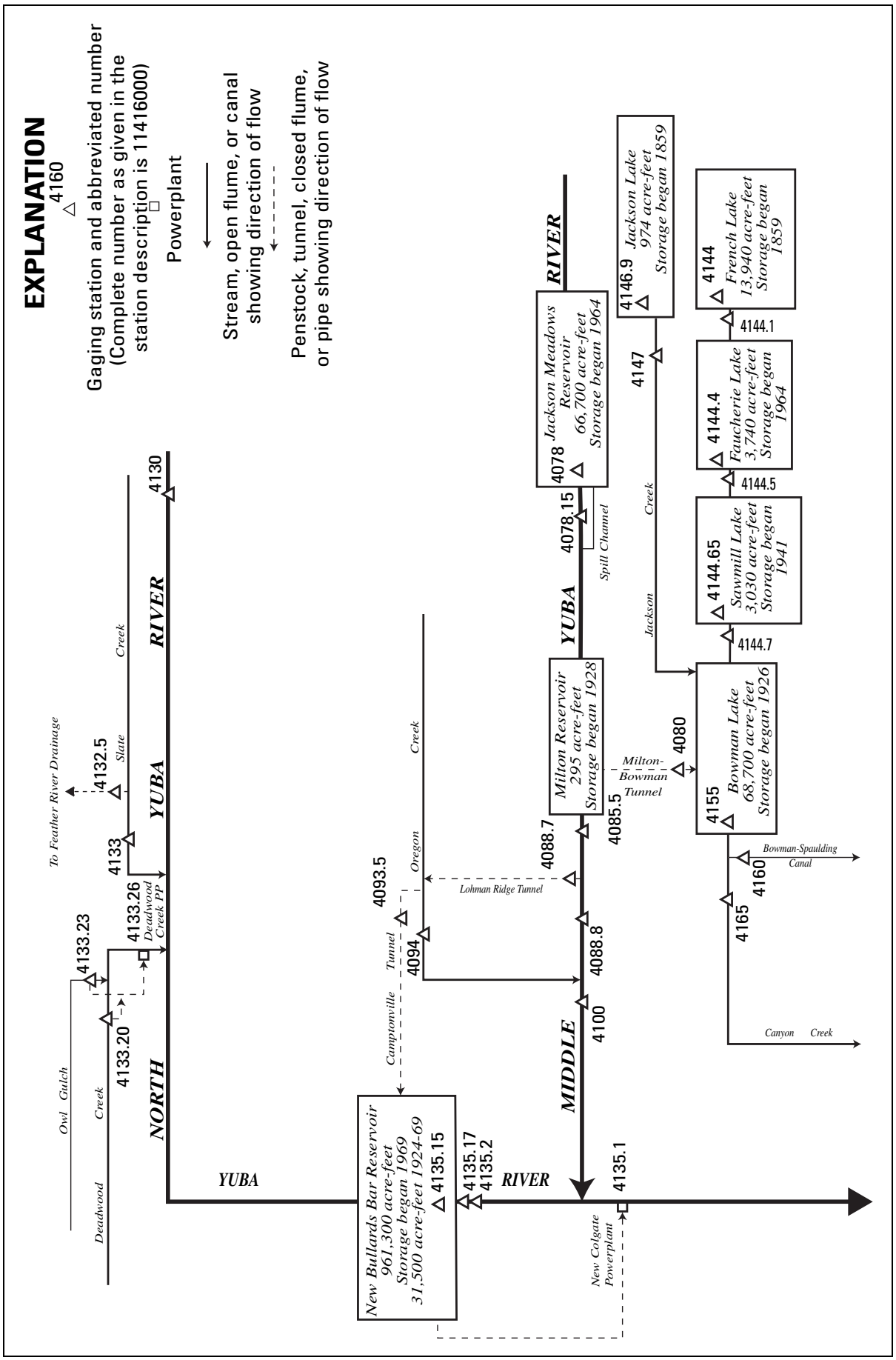


Figure 31. Diversions and storage in North and Middle Yuba River Basins.

11407800 JACKSON MEADOWS RESERVOIR NEAR SIERRA CITY, CA

LOCATION.—Lat 39°30'33", long 120°33'08", in NW 1/4 SE 1/4 sec.18, T.19 N., R.13 E., Sierra County, Hydrologic Unit 18020125, Tahoe National Forest, on right bank, at Jackson Meadows Dam on Middle Yuba River, 0.7 mi downstream from Pass Creek, and 5.7 mi southeast of Sierra City.

DRAINAGE AREA.—37.6 mi^2.

PERIOD OF RECORD.—November 1964 to current year.

GAGE.—Water-stage recorder. Datum of gage is NGVD of 1929 (levels by Nevada Irrigation District).

REMARKS.—Reservoir is formed by an earthfill dam. Storage began Nov. 9, 1964. Usable capacity, 66,700 acre-ft, between elevations 5,933.0 ft, bottom of intake tower, and 6,036.0 ft, top of radial spillway gates. Dead contents, 2,500 acre-ft. Records, including extremes, represent total contents. See schematic diagram of North and Middle Yuba River Basin.

COOPERATION.—Records were collected by Nevada Irrigation District, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2266.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 71,100 acre-ft, May 31, June 1, 1993, elevation, 6,037.78 ft; minimum since reservoir first filled, 2,500 acre-ft, Sept. 27–29, 1976, elevation, 5,933.1 ft.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 67,200 acre-ft, June 17, 18, elevation, 6,034.04 ft; minimum, 32,800 acre-ft, Mar. 13, 14, minimum elevation, 5996.92 ft, Mar. 14.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on table provided by Nevada Irrigation District, dated February 1965)

5,930	2,000	5,960	10,600	5,990	27,600	6,020	53,200
5,940	3,920	5,970	15,400	6,000	35,300	6,030	63,000
5,950	6,760	5,980	21,000	6,010	43,900	6,040	73,500

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44700	34800	34100	36200	36900	34500	36700	49600	65400	65100	57700	49800
2	44400	34500	34100	36300	37000	34300	36800	50300	65800	65000	57400	49600
3	44100	34400	34100	36300	37000	34100	37100	51200	66000	64700	57200	49300
4	43800	34300	34100	36300	37100	34000	37400	52200	66200	64500	56900	49000
5	43400	34300	34100	36300	37100	33700	37800	53100	66400	64300	56700	48800
6	43100	34300	34600	36400	37100	33600	38200	53900	66500	64000	56400	48500
7	42800	34300	34800	36400	37100	33400	38500	54700	66700	63800	56200	48200
8	42500	34300	34800	36400	37100	33200	39000	55400	66800	63600	55900	48000
9	42100	34300	34900	36400	37100	33100	39600	56100	66800	63300	55700	47700
10	41800	34300	35000	36500	37000	33000	40200	56700	66900	63100	55500	47500
11	41500	34300	35000	36500	36800	32900	40800	57200	67000	62800	55200	47200
12	41200	34300	35000	36500	36500	32900	41400	57600	67000	62600	55000	46900
13	40800	34300	35100	36500	36300	32800	42000	58000	67100	62300	54700	46700
14	40500	34300	35200	36500	36100	32800	42500	58500	67100	62100	54500	46400
15	40200	34300	35300	36500	35800	32900	42900	58900	67100	61900	54200	46200
16	39900	34300	35300	36500	35900	33000	43200	59400	67100	61600	54000	45900
17	39500	34300	35300	36500	36100	33100	43500	59900	67200	61400	53700	45700
18	39200	34300	35300	36600	36100	33300	43700	60300	67200	61100	53500	45400
19	38900	34300	35300	36600	36000	33500	43900	60600	67100	60900	53200	45100
20	38600	34200	35300	36600	35900	33800	44100	61000	67100	60600	53000	44900
21	38300	34200	35400	36600	35800	34100	44300	61400	67100	60400	52700	44600
22	37900	34200	35400	36600	35600	34600	44500	61700	67000	60200	52400	44400
23	37600	34200	35400	36600	35400	35000	44700	62000	66800	59900	52200	44100
24	37300	34200	35600	36600	35300	35400	45000	62300	66600	59700	51900	43800
25	37000	34100	35700	36700	35300	35700	45500	62700	66400	59400	51700	43500
26	36700	34100	35700	36700	35300	35800	46100	63100	66100	59200	51400	43200
27	36300	34100	35800	36800	35100	35900	46900	63500	65900	58900	51100	43000
28	36000	34100	35800	36800	34900	36000	47700	64000	65700	58700	50900	42800
29	35700	34100	36000	36800	34700	36100	48300	64400	65500	58400	50600	42500
30	35400	34100	36000	36800	---	36300	48900	64700	65400	58200	50300	42300
31	35100	---	36000	36800	---	36500	---	65100	---	57900	50100	---
MAX	44700	34800	36000	36800	37100	36500	48900	65100	67200	65100	57700	49800
MIN	35100	34100	34100	36200	34700	32800	36700	49600	65400	57900	50100	42300
a	5999.71	5998.45	6000.84	6001.81	5999.22	6001.41	6015.42	6032.05	6032.31	6024.92	6016.71	6008.11
b	-9700	-1000	+1900	+800	-2100	+1800	+12400	+16200	+300	-7500	-7800	-7800

CAL YR 2003 MAX 70200 MIN 34100 b -4300
WTR YR 2004 MAX 67200 MIN 32800 b -2500

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

11407815 MIDDLE YUBA RIVER CONTROLLED RELEASE AT JACKSON MEADOWS DAM, NEAR SIERRA CITY, CA

LOCATION.—Lat 39°30'36", long 120°33'15", in NW 1/4 SE 1/4 sec.18, T.19 N., R.13 E., Sierra County, Hydrologic Unit 18020125, Tahoe National Forest, in outlet structure, near right bank, below Jackson Meadows Dam on Middle Yuba River, 0.7 mi downstream from Pass Creek, and 5.7 mi southeast of Sierra City.

DRAINAGE AREA.—37.6 mi^2.

PERIOD OF RECORD.—July 1994 to current year.

GAGE.—Ultrasonic meter measures flow in two outlet pipes. Elevation of gage is 5,910 ft above NGVD of 1929, from topographic map.

REMARKS.—Flow regulated by Jackson Meadows Reservoir (station 11407800). Flow over the spillway bypasses this station. See schematic diagram of North and Middle Yuba River Basin.

COOPERATION.—Records were collected by Nevada Irrigation District, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2266.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 415 ft^3/s, May 23, 28, 1996; minimum daily, 7.9 ft^3/s, several days November 1994.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	154	152	9.7	e9.2	9.2	128	129	63	38	123	119	123
2	154	128	9.7	e9.2	9.2	128	129	63	38	123	119	123
3	154	67	9.4	e9.2	9.2	128	129	63	38	123	119	124
4	153	35	9.0	9.2	9.2	128	129	63	38	122	118	124
5	153	23	9.0	9.2	9.2	128	130	48	38	122	118	124
6	153	11	9.0	e9.2	9.2	127	130	36	38	122	118	124
7	156	11	9.1	e9.2	9.2	127	130	37	38	122	118	124
8	159	11	9.1	e9.2	9.2	127	91	37	38	122	118	123
9	159	11	9.1	e9.2	9.2	126	59	37	38	122	118	123
10	159	11	9.1	e9.2	69	126	60	37	38	122	118	123
11	158	11	9.1	e9.2	130	126	60	37	38	122	117	123
12	158	11	e9.2	9.2	130	126	60	37	38	122	117	123
13	158	11	e9.2	9.2	130	126	60	37	38	121	117	123
14	158	11	e9.1	9.2	129	126	60	37	38	121	117	122
15	158	11	9.1	9.2	129	126	61	37	38	121	117	123
16	158	11	9.1	9.2	129	126	61	37	38	121	117	124
17	157	11	9.2	9.2	129	126	61	37	38	121	122	124
18	157	9.9	9.2	9.2	129	126	61	38	38	121	124	124
19	156	9.6	9.1	9.2	129	126	61	38	38	121	124	124
20	156	9.6	e9.2	9.2	129	126	61	38	38	120	124	123
21	156	9.7	e9.1	9.2	129	127	61	38	38	120	124	123
22	155	9.7	9.2	9.2	129	127	61	38	87	120	124	123
23	155	9.7	e9.2	9.2	129	127	61	38	124	120	124	123
24	155	9.7	e9.1	9.2	129	128	61	38	124	120	123	123
25	154	9.6	e9.1	9.2	128	128	61	38	123	120	123	123
26	154	9.7	e9.1	9.2	128	128	61	38	123	120	123	123
27	154	9.7	9.2	9.2	128	128	62	38	123	120	123	124
28	153	9.7	e9.2	9.2	128	128	62	38	123	119	124	124
29	153	9.7	e9.2	9.2	128	129	62	38	123	119	124	124
30	153	9.7	e9.2	9.2	---	129	62	38	123	119	124	124
31	153	---	e9.2	9.2	---	129	---	38	---	119	123	---
TOTAL	4823	663.0	284.5	285.2	2600.8	3941	2336	1275	1871	3750	3738	3702
MEAN	156	22.1	9.18	9.20	89.7	127	77.9	41.1	62.4	121	121	123
MAX	159	152	9.7	9.2	130	129	130	63	124	123	124	124
MIN	153	9.6	9.0	9.2	9.2	126	59	36	38	119	117	122
AC-FT	9570	1320	564	566	5160	7820	4630	2530	3710	7440	7410	7340

CAL YR 2003 TOTAL 35518.5 MEAN 97.3 MAX 383 MIN 9.0 AC-FT 70450
WTR YR 2004 TOTAL 29269.5 MEAN 80.0 MAX 159 MIN 9.0 AC-FT 58060

e Estimated.

11408000 MILTON–BOWMAN TUNNEL OUTLET NEAR GRANITEVILLE, CA

LOCATION.—Lat 39°27'37", long 120°36'37", in NW 1/4 NE 1/4 sec.3, T.18 N., R.12 E., Nevada County, Hydrologic Unit 18020125, on right bank, 100 ft downstream from tunnel outlet, near upper end of Bowman Lake, and 6.9 mi east of Graniteville.

PERIOD OF RECORD.—May 1928 to September 1930, February 1931 to current year. Monthly discharge only for some periods, published in WSP 1315-A. Prior to October 1962, published as "Milton–Bowman tunnel at outlet."

GAGE.—Water-stage recorder and Parshall flume. Datum of gage is 5,592.51 ft above NGVD of 1929. Prior to Sept. 22, 1964, at datum 0.56 ft higher.

REMARKS.—Tunnel diverts from Middle Yuba River at Milton Reservoir, in sec.12, T.19 N., R.12 E., and discharges into Bowman Lake. Nearly the entire flow of Middle Yuba River is diverted during low and medium flows. Middle Yuba River is regulated by Jackson Meadows Reservoir (station 11407800) since November 1964. See schematic diagram of North and Middle Yuba River Basin.

COOPERATION.—Records were collected by Nevada Irrigation District, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2266.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 492 ft^3/s, Feb. 11, 1941; minimum daily, 0.4 ft^3/s, Oct. 7, 1944.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	152	151	9.0	14	10	132	154	91	46	123	117	120
2	152	141	11	12	11	131	152	93	46	122	117	120
3	151	85	9.3	11	11	131	155	95	45	122	117	120
4	151	36	7.3	11	10	130	160	96	44	121	116	121
5	151	31	8.7	10	10	130	162	86	44	121	116	121
6	151	13	28	10	9.9	130	161	65	43	120	116	121
7	150	10	37	10	9.9	131	159	62	43	120	116	121
8	152	10	14	11	9.7	132	138	60	42	120	116	121
9	156	13	11	12	9.6	134	95	58	42	120	116	120
10	154	11	12	11	35	137	94	59	42	120	115	120
11	156	10	10	11	124	140	93	61	42	120	115	120
12	156	9.6	9.2	11	130	141	94	57	41	119	115	120
13	156	9.2	12	11	128	143	93	54	41	119	115	120
14	155	9.4	16	11	128	145	90	55	41	119	115	120
15	155	10	12	11	128	149	88	55	40	119	115	120
16	156	9.6	11	11	149	152	83	54	42	119	115	121
17	156	9.9	10	11	165	154	81	54	41	119	118	121
18	155	9.7	10	11	151	157	79	53	39	118	121	121
19	155	9.3	9.8	11	143	160	78	52	39	118	122	122
20	154	9.3	12	11	140	161	83	51	39	118	121	122
21	154	9.2	13	11	138	165	83	50	39	118	121	121
22	154	8.9	12	11	136	167	79	50	45	118	121	121
23	153	8.6	11	11	135	168	82	49	119	118	121	121
24	153	8.7	23	11	135	165	84	48	122	118	121	121
25	152	8.5	22	10	140	161	88	48	122	117	121	121
26	152	8.4	16	10	139	154	93	47	122	117	121	121
27	152	8.4	14	11	134	151	97	47	122	117	120	121
28	151	8.5	13	11	133	150	98	52	122	117	121	122
29	151	8.9	15	10	132	152	92	50	122	117	121	122
30	151	8.8	13	10	---	154	90	47	123	117	121	122
31	152	---	12	10	---	155	---	47	---	117	120	---
TOTAL	4749	683.9	423.3	338	2734.1	4562	3178	1846	1900	3688	3663	3625
MEAN	153	22.8	13.7	10.9	94.3	147	106	59.5	63.3	119	118	121
MAX	156	151	37	14	165	168	162	96	123	123	122	122
MIN	150	8.4	7.3	10	9.6	130	78	47	39	117	115	120
AC-FT	9420	1360	840	670	5420	9050	6300	3660	3770	7320	7270	7190

11408000 MILTON–BOWMAN TUNNEL OUTLET NEAR GRANITEVILLE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1964, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	8.00	14.6	31.4	35.3	51.6	72.9	176	242	142	28.6	6.77	3.88
MAX	101	65.4	118	124	143	213	294	414	272	90.9	26.8	10.1
(WY)	1963	1951	1956	1942	1963	1940	1936	1937	1933	1938	1952	1952
MIN	.50	.50	.70	1.00	4.28	9.19	19.7	45.6	24.8	4.21	2.06	1.00
(WY)	1931	1931	1931	1931	1931	1933	1938	1936	1934	1939	1964	1931

SUMMARY STATISTICS	WATER YEARS 1928 - 1964	
ANNUAL MEAN	67.9	
HIGHEST ANNUAL MEAN	97.2	1930
LOWEST ANNUAL MEAN	33.5	1949
HIGHEST DAILY MEAN	492	Feb 11 1941
LOWEST DAILY MEAN	.40	Oct 7 1944
ANNUAL SEVEN-DAY MINIMUM	.50	Oct 1 1930
ANNUAL RUNOFF (AC-FT)	49180	
10 PERCENT EXCEEDS	220	
50 PERCENT EXCEEDS	20	
90 PERCENT EXCEEDS	3.0	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	148	116	53.0	34.8	40.4	64.7	63.7	101	79.6	70.6	91.5	149
MAX	310	368	357	211	197	265	225	333	280	174	253	300
(WY)	1981	1973	1973	1985	1985	1986	1999	1969	1998	1976	1968	1974
MIN	1.52	1.34	1.25	1.17	1.20	1.68	5.38	7.69	5.23	3.95	2.20	1.72
(WY)	1977	1977	1977	1977	1977	1977	1977	1986	1976	1977	1993	1981

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1966 - 2004	
ANNUAL TOTAL	35319.2		31390.3			
ANNUAL MEAN	96.8		85.8		84.5	
HIGHEST ANNUAL MEAN					133	1998
LOWEST ANNUAL MEAN					14.5	1977
HIGHEST DAILY MEAN	374	May 14	168	Mar 23	438	Nov 4 1972
LOWEST DAILY MEAN	7.3	Dec 4	7.3	Dec 4	1.1	Dec 11 1976
ANNUAL SEVEN-DAY MINIMUM	8.6	Nov 22	8.6	Nov 22	1.1	Dec 26 1976
ANNUAL RUNOFF (AC-FT)	70060		62260		61220	
10 PERCENT EXCEEDS	159		152		251	
50 PERCENT EXCEEDS	88		116		29	
90 PERCENT EXCEEDS	12		10		5.8	

11408550 MIDDLE YUBA RIVER BELOW MILTON DAM, NEAR SIERRA CITY, CA

LOCATION.—Lat 39°31'19", long 120°34'57", in SW 1/4 SW 1/4 sec.12, T.19 N., R.12 E., Sierra County, Hydrologic Unit 18020125, Tahoe National Forest, on right bank, 350 ft downstream from Milton Dam, and 4.1 mi southeast of Sierra City.

DRAINAGE AREA.—39.9 mi^2.

PERIOD OF RECORD.—October 1987 to current year. Peaks for water years 1926–64 published as "at Milton" (station 11408500). Unpublished records for water years 1965–87 available in files of the U.S. Geological Survey.

REVISED RECORDS.—WDR CA-88-4: Drainage area.

GAGE.—Water-stage recorder, sharp-crested weir, and crest-stage gage. Elevation of gage is 5,690 ft above NGVD of 1929, from topographic map. Prior to October 1987, nonrecording gage 450 ft downstream at different datum.

REMARKS.—Middle Yuba River is regulated by Jackson Meadows Reservoir (station 11407800) since November 1964 and Milton Reservoir. Tunnel diverts from Middle Yuba River at Milton Dam, in sec.12, T.19 N., R.12 E., and discharges into Bowman Lake via Milton–Bowman Tunnel (station 11408000). Practically the entire flow of Middle Yuba River is diverted during low and medium flows. See schematic diagram of North and Middle Yuba River Basins.

COOPERATION.—Records were collected by Nevada Irrigation District, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2266.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 8,610 ft^3/s, Jan. 2, 1997, gage height, 17.1 ft, from floodmarks; minimum daily, 0.77 ft^3/s, Nov. 3, 1990.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.5	3.5	3.2	5.0	5.1	5.6	4.3	4.2	3.8	3.9	3.9	3.8
2	3.5	3.5	3.1	5.0	5.2	5.6	4.1	4.1	3.8	3.9	3.9	3.8
3	3.5	3.4	4.2	5.0	5.2	5.6	4.2	4.1	3.8	3.9	3.9	3.8
4	3.5	3.3	5.2	4.8	5.2	5.5	4.3	4.1	3.8	3.9	3.9	3.8
5	3.5	3.2	5.3	5.0	5.2	5.4	4.4	4.1	3.8	3.9	3.9	3.8
6	3.5	3.2	5.6	5.1	5.2	5.4	4.3	4.0	3.8	3.9	3.9	3.8
7	3.5	3.1	5.4	5.1	5.3	5.4	4.3	4.0	3.7	3.9	3.9	3.8
8	3.5	3.2	5.2	5.0	5.3	5.3	4.3	4.0	3.8	3.9	3.8	3.8
9	3.5	3.2	5.2	5.0	5.3	5.4	4.2	4.0	3.8	3.9	3.8	3.8
10	3.5	3.1	5.2	5.0	5.4	5.3	4.2	4.0	3.8	3.9	3.8	3.8
11	3.6	3.1	5.2	5.0	5.6	5.3	4.3	4.1	3.8	3.9	3.8	3.8
12	3.6	3.1	5.2	5.0	5.6	5.3	4.3	4.0	3.8	3.9	3.8	3.8
13	3.6	3.1	5.2	5.0	5.6	5.2	4.3	4.0	3.8	3.9	3.8	3.8
14	3.6	3.1	5.3	5.0	5.6	5.0	4.3	4.0	3.8	3.9	3.8	3.8
15	3.5	3.1	5.3	5.0	5.5	5.0	4.3	4.0	4.1	3.9	3.8	3.8
16	3.5	3.1	5.2	5.0	5.7	5.0	4.3	3.9	4.1	3.9	3.8	3.8
17	3.5	3.1	5.2	5.0	5.6	4.9	4.3	3.9	4.0	3.9	3.8	3.8
18	3.5	3.1	5.2	5.0	5.6	4.9	4.2	3.9	4.3	3.9	3.8	3.8
19	3.5	3.1	5.2	5.0	5.6	4.9	4.2	3.9	4.3	3.9	3.8	3.8
20	3.5	3.1	5.2	5.0	5.6	4.9	4.2	3.9	4.3	3.9	3.8	3.8
21	3.5	3.1	5.2	5.1	5.6	5.0	4.2	3.9	4.3	3.9	3.8	3.8
22	3.5	3.1	5.2	5.1	5.6	5.0	4.2	3.9	4.1	3.9	3.8	3.8
23	3.6	3.1	5.2	5.1	5.5	4.9	4.2	3.8	3.9	3.9	3.8	3.8
24	3.6	3.1	5.4	5.0	5.5	4.9	4.1	3.8	3.9	3.9	3.8	3.8
25	3.6	3.1	5.3	5.1	5.6	4.9	4.1	3.8	3.9	3.9	3.8	3.8
26	3.6	3.2	5.2	5.1	5.6	4.8	4.2	3.8	3.9	3.9	3.8	3.8
27	3.5	3.2	5.1	5.1	5.6	4.7	4.2	3.8	3.9	3.9	3.8	3.8
28	3.6	3.2	5.1	5.1	5.6	4.7	4.1	3.8	3.9	3.9	3.8	3.8
29	3.6	3.2	5.1	5.1	5.6	4.8	4.1	3.8	3.9	3.9	3.8	3.8
30	3.6	3.2	5.0	5.1	---	4.7	4.1	3.8	3.9	3.9	3.8	3.8
31	3.6	---	4.9	5.1	---	4.7	---	3.8	---	3.9	3.8	---
TOTAL	109.7	95.2	156.5	156.0	158.6	158.0	126.8	122.2	117.8	120.9	118.5	114.0
MEAN	3.54	3.17	5.05	5.03	5.47	5.10	4.23	3.94	3.93	3.90	3.82	3.80
MAX	3.6	3.5	5.6	5.1	5.7	5.6	4.4	4.2	4.3	3.9	3.9	3.8
MIN	3.5	3.1	3.1	4.8	5.1	4.7	4.1	3.8	3.7	3.9	3.8	3.8
AC-FT	218	189	310	309	315	313	252	242	234	240	235	226

11408550 MIDDLE YUBA RIVER BELOW MILTON DAM, NEAR SIERRA CITY, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3.98	3.71	3.67	40.2	20.1	8.74	30.8	93.6	89.0	16.3	3.86	3.84
MAX	7.02	4.94	5.05	620	195	61.3	213	723	631	119	5.36	4.68
(WY)	1994	1994	2004	1997	1993	1995	1996	1995	1995	1995	1993	1993
MIN	3.39	3.17	3.26	3.24	3.19	3.45	3.09	3.16	3.38	3.37	3.39	3.42
(WY)	2001	2004	1989	1996	1989	1990	1994	2000	1990	1988	1995	1990

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1988 - 2004	
ANNUAL TOTAL	9096.5		1554.2			
ANNUAL MEAN	24.9		4.25		26.5	
HIGHEST ANNUAL MEAN					146	1995
LOWEST ANNUAL MEAN					3.53	1990
HIGHEST DAILY MEAN	534	Jun 4	5.7	Feb 16	6860	Jan 2 1997
LOWEST DAILY MEAN	3.1	Nov 7	3.1	Nov 7	0.77	Nov 3 1990
ANNUAL SEVEN-DAY MINIMUM	3.1	Nov 10	3.1	Nov 10	1.8	Apr 9 1994
MAXIMUM PEAK FLOW			13	Jun 15	8610	Jan 2 1997
MAXIMUM PEAK STAGE			5.33	Jun 15	17.10	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	18040		3080		19180	
10 PERCENT EXCEEDS	5.3		5.3		5.2	
50 PERCENT EXCEEDS	3.6		3.9		3.8	
90 PERCENT EXCEEDS	3.4		3.5		3.3	

11408870 LOHMAN RIDGE TUNNEL AT INTAKE, NEAR CAMPTONVILLE, CA

LOCATION.—Lat 39°24'45", long 120°59'43", in SW 1/4 NE 1/4 sec.20, T.18 N., R.8 E., Sierra County, Hydrologic Unit 18020125, Tahoe National Forest, at tunnel intake at Our House Dam, and 4.0 mi southeast of Camptonville.

PERIOD OF RECORD.—October 1988 to current year. Records of monthly diversion published with "Middle Yuba River below Our House Dam, near Camptonville" (station 11408880), for water years 1969–88.

GAGE.—Water-stage recorder. Datum of gage is 2,014.77 ft above NGVD of 1929.

REMARKS.—Tunnel diverts water from Middle Yuba River to New Bullards Bar Reservoir (station 11413515) for power development. See schematic diagram of North and Middle Yuba River Basins.

COOPERATION.—Records provided by Yuba County Water Agency, under general supervision of the U. S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2246.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 839 ft^3/s, Mar. 25, 1989; no flow for many days in most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	1.7	11	486	169	438	385	303	102	20	0.12	0.00
2	0.00	0.26	42	372	230	416	353	310	96	19	0.10	0.07
3	0.00	3.1	30	243	273	373	349	332	89	19	0.10	0.05
4	0.00	3.1	21	193	234	339	380	344	79	16	0.08	0.00
5	0.00	1.8	28	170	208	314	392	349	64	14	0.07	0.02
6	0.00	2.4	262	160	192	295	396	325	57	13	0.03	0.10
7	0.00	5.1	535	184	191	307	375	286	53	12	0.10	0.09
8	0.00	10	212	211	176	351	387	267	49	11	0.10	0.03
9	0.00	75	124	242	168	403	392	261	46	10	0.11	0.00
10	0.00	42	188	251	159	444	390	252	42	9.9	0.07	0.00
11	0.00	16	236	231	149	473	381	243	37	9.0	0.00	0.00
12	0.00	10	152	222	146	465	376	216	33	7.9	0.05	0.00
13	0.00	8.2	351	210	142	470	378	196	29	6.8	0.11	0.04
14	0.00	10	527	208	139	482	345	189	27	6.2	0.09	0.11
15	0.00	43	293	208	134	521	326	188	23	5.7	0.04	0.13
16	0.00	31	187	208	400	543	285	187	31	5.1	0.11	0.12
17	0.00	26	146	195	797	541	260	188	38	4.9	0.17	0.14
18	0.00	24	126	191	802	551	235	182	34	4.3	0.19	0.16
19	0.00	17	116	189	764	568	222	171	33	3.3	0.19	1.9
20	0.00	13	157	183	584	558	301	165	31	2.8	0.18	3.0
21	0.00	12	256	172	482	572	299	161	29	2.6	0.17	0.20
22	0.00	11	202	160	418	588	299	150	28	1.9	0.14	0.02
23	0.00	9.2	176	149	380	585	264	143	26	1.2	0.18	0.00
24	0.00	8.0	523	152	380	554	256	135	24	0.60	0.23	0.00
25	0.00	7.4	628	148	572	534	271	124	23	0.20	0.23	0.00
26	0.00	7.0	376	135	787	474	300	116	21	0.15	0.17	0.00
27	0.00	6.4	259	178	680	412	341	112	20	0.12	0.15	0.00
28	0.00	6.1	203	198	538	391	380	141	20	0.10	0.02	0.00
29	0.00	7.1	232	174	460	383	351	134	20	0.13	0.00	0.05
30	0.00	7.0	273	181	---	399	309	116	20	0.12	0.00	0.12
31	0.00	---	232	182	---	391	---	103	---	0.12	0.00	---
TOTAL	0.00	423.86	7104	6386	10754	14135	9978	6389	1224	207.14	3.30	6.35
MEAN	0.00	14.1	229	206	371	456	333	206	40.8	6.68	0.11	0.21
MAX	0.00	75	628	486	802	588	396	349	102	20	0.23	3.0
MIN	0.00	0.26	11	135	134	295	222	103	20	0.10	0.00	0.00
AC-FT	0.00	841	14090	12670	21330	28040	19790	12670	2430	411	6.5	13

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 2004, BY WATER YEAR (WY)

MEAN	8.96	38.2	139	227	313	394	429	330	175	51.7	9.62	4.38
MAX	51.4	112	486	509	649	644	688	701	503	269	41.4	23.6
(WY)	1990	1997	1997	1995	1998	1993	1995	1996	1993	1995	1998	1998
MIN	0.00	1.42	1.36	0.66	16.6	206	182	38.0	8.47	0.22	0.00	0.00
(WY)	1989	1991	1991	1997	1991	1997	1994	1995	2001	2001	1992	1992

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1989 - 2004	
ANNUAL TOTAL	88670.51		56610.65			
ANNUAL MEAN	243		155		176	
HIGHEST ANNUAL MEAN					305	1998
LOWEST ANNUAL MEAN					71.7	2001
HIGHEST DAILY MEAN	806	May 4	802	Feb 18	839	Mar 25 1989
LOWEST DAILY MEAN	0.00	Sep 24	0.00	Oct 1	0.00	Oct 1 1988
ANNUAL SEVEN-DAY MINIMUM	0.00	Sep 24	0.00	Oct 1	0.00	Oct 1 1988
ANNUAL RUNOFF (AC-FT)	175900		112300		127400	
10 PERCENT EXCEEDS	636		406		551	
50 PERCENT EXCEEDS	152		70		53	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

11408880 MIDDLE YUBA RIVER BELOW OUR HOUSE DAM, NEAR CAMPTONVILLE, CA

LOCATION.—Lat 39°24'42", long 120°59'49", in SW 1/4 NW 1/4 sec.20, T.18 N., R.9 E., Sierra County, Hydrologic Unit 18020125, Tahoe National Forest, on right bank, 300 ft downstream from Our House Dam, and 4.0 mi southeast of Camptonville.

DRAINAGE AREA.—145 mi^2.

PERIOD OF RECORD.—October 1968 to current year.

GAGE.—Water-stage recorder, sharp-crested weir since Oct. 16, 1990, and crest-stage gage. Datum of gage is 1,957.51 ft above NGVD of 1929. Prior to Nov. 4, 1970, water-stage recorder at datum 10 ft higher. Since Oct. 1, 1987, at site 75 ft upstream.

REMARKS.—Records good. Natural flow of stream affected by Jackson Meadows Reservoir (station 11407800), Milton–Bowman Tunnel (station 11408000), which diverts upstream from station to Bowman Lake (station 11415500), and Lohman Ridge Tunnel (station 11408870), which diverts 300 ft upstream to Oregon Creek and then to New Bullards Bar Reservoir (station 11413515) via Camptonville Tunnel (station 11409350). Other small diversions upstream from station. See schematic diagram of North and Middle Yuba River Basins.

COOPERATION.—Records were provided by Yuba County Water Agency, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2246.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 27,500 ft^3/s, Jan. 2, 1997, gage height, 30.7 ft, from floodmark, present datum, from rating curve extended above 8,600 ft^3/s, on basis of theoretical rating of Our House Dam spillway; minimum daily, 2.1 ft^3/s, Jan. 10, 1982.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	39	33	39	34	38	32	56	55	35	33	27
2	34	38	33	37	35	37	33	56	55	35	33	27
3	35	39	33	36	36	37	34	56	56	35	33	27
4	34	39	33	35	36	36	34	56	56	35	33	27
5	34	37	33	34	35	36	34	57	55	35	33	27
6	34	35	36	34	35	36	34	56	55	35	32	28
7	34	35	50	35	35	36	34	56	56	35	32	27
8	34	35	36	35	35	37	34	55	56	35	32	27
9	34	35	34	36	34	37	34	55	56	35	32	27
10	34	35	36	36	34	38	34	55	56	35	31	26
11	33	34	37	35	34	38	34	55	56	35	30	27
12	34	34	35	35	34	38	34	55	55	35	30	27
13	34	34	38	35	34	38	34	55	55	35	30	28
14	33	34	40	35	34	38	44	55	55	35	30	28
15	34	35	37	35	34	39	55	55	55	35	30	29
16	33	35	35	35	154	39	55	55	44	35	30	29
17	34	34	34	35	300	39	55	56	35	35	30	29
18	34	34	34	35	322	39	55	55	35	35	30	29
19	33	34	34	35	102	37	55	55	36	35	29	29
20	33	34	34	35	40	34	57	55	36	36	29	34
21	33	33	36	34	38	34	57	55	36	36	29	35
22	33	33	35	34	37	33	57	55	35	36	29	33
23	33	33	34	34	37	33	56	55	35	36	29	31
24	32	33	142	34	37	33	56	54	36	36	30	30
25	32	32	47	34	134	33	56	54	35	36	30	30
26	32	32	37	34	157	33	57	54	35	35	30	29
27	32	32	36	35	43	33	57	54	35	34	30	28
28	32	32	35	35	39	32	56	55	35	34	29	28
29	32	32	36	34	38	32	55	55	35	34	28	28
30	33	32	36	35	---	33	55	55	35	33	27	28
31	34	---	36	35	---	32	---	55	---	33	27	---
TOTAL	1034	1033	1225	1085	1997	1108	1377	1710	1370	1084	940	859
MEAN	33.4	34.4	39.5	35.0	68.9	35.7	45.9	55.2	45.7	35.0	30.3	28.6
MAX	35	39	142	39	322	39	57	57	56	36	33	35
MIN	32	32	33	34	34	32	32	54	35	33	27	26
AC-FT	2050	2050	2430	2150	3960	2200	2730	3390	2720	2150	1860	1700

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 2004, BY WATER YEAR (WY)

MEAN	31.1	71.2	150	337	223	217	145	201	111	33.9	30.4	30.1
MAX	52.7	462	1040	2973	1521	1228	1368	1697	994	49.6	42.1	39.6
(WY)	1983	1982	1982	1997	1986	1995	1982	1995	1995	1983	1984	1986
MIN	16.6	20.4	20.7	7.10	28.0	31.3	33.9	32.5	28.8	17.5	13.0	14.3
(WY)	1978	1978	1987	1987	1977	1976	1970	1970	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1969 - 2004	
ANNUAL TOTAL	16963		14822			
ANNUAL MEAN	46.5		40.5		132	
HIGHEST ANNUAL MEAN					481	1969
LOWEST ANNUAL MEAN					26.3	1977
HIGHEST DAILY MEAN	399	May 4	322	Feb 18	21000	Jan 2 1997
LOWEST DAILY MEAN	32	Oct 24	26	Sep 10	2.1	Jan 10 1982
ANNUAL SEVEN-DAY MINIMUM	32	Oct 23	27	Aug 30	3.2	Oct 21 1970
MAXIMUM PEAK FLOW			646	Feb 16	27500	Jan 2 1997
MAXIMUM PEAK STAGE			20.00	Feb 16	30.70	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	33650		29400		95270	
10 PERCENT EXCEEDS	56		55		123	
50 PERCENT EXCEEDS	38		35		35	
90 PERCENT EXCEEDS	34		30		27	

11409350 CAMPTONVILLE TUNNEL AT INTAKE, NEAR CAMPTONVILLE, CA

LOCATION.—Lat 39°26'25", long 121°03'30", in NW 1/4 SW 1/4 sec.11, T.18 N., R.8 E., Yuba County, Hydrologic Unit 18020125, Tahoe National Forest, at tunnel intake, at Log Cabin Dam, and 1.0 mi southwest of town of Camptonville.

PERIOD OF RECORD.—October 1988 to current year. Records of monthly diversion published with "Oregon Creek below Log Cabin Dam, near Camptonville" (station 11409400) for water years 1969–88.

GAGE.—Water-stage recorder. Datum of gage is 1,952.00 ft above NGVD of 1929 (from contractor's drawings).

REMARKS.—Water is diverted to Oregon Creek from the Middle Yuba River through Lohman Ridge Tunnel (station 11408870) 1,000 ft upstream. Camptonville Tunnel diverts water from Oregon Creek to New Bullards Bar Reservoir (station 11413515) for power development. See schematic diagram of North and Middle Yuba River Basins.

COOPERATION.—Records provided by Yuba County Water Agency, under general supervision of the U. S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2246.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 1,090 ft^3/s, Mar. 25, 1989, Feb. 3, 1998; no flow for many days each year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	7.3	636	223	616	471	348	88	14	0.00	0.00
2	0.00	0.00	46	513	308	601	433	354	80	14	0.00	0.00
3	0.00	1.4	26	339	390	543	421	376	71	12	0.00	0.00
4	0.00	2.8	16	249	344	492	454	387	62	9.6	0.00	0.00
5	0.00	0.26	20	205	298	453	467	392	55	7.3	0.00	0.00
6	0.00	1.1	287	185	260	425	473	364	48	6.1	0.00	0.00
7	0.00	4.0	625	238	256	433	446	321	43	4.9	0.00	0.00
8	0.00	8.8	260	292	228	479	457	298	40	3.6	0.00	0.00
9	0.00	83	131	340	211	539	462	287	36	3.0	0.00	0.00
10	0.00	45	258	350	194	581	460	280	33	2.8	0.00	0.00
11	0.00	14	321	329	183	613	447	273	29	2.1	0.00	0.00
12	0.00	7.4	181	317	177	603	441	237	25	1.7	0.00	0.00
13	0.00	5.7	488	294	171	603	442	206	21	0.57	0.00	0.00
14	0.00	6.8	683	283	164	610	403	190	19	0.07	0.00	0.00
15	0.00	44	409	279	161	641	376	185	15	0.00	0.00	0.00
16	0.00	36	237	281	515	660	329	188	23	0.22	0.00	0.00
17	0.00	27	170	266	950	657	305	189	32	1.3	0.00	0.00
18	0.00	26	141	254	1030	662	279	177	29	0.82	0.00	0.00
19	0.00	15	127	244	956	676	260	163	28	0.26	0.00	0.00
20	0.00	9.5	176	232	773	666	363	154	26	0.00	0.00	1.0
21	0.00	7.5	336	214	663	674	356	147	24	0.00	0.00	0.00
22	0.00	6.4	260	194	594	686	359	139	22	0.00	0.00	0.00
23	0.00	4.7	210	181	536	683	319	131	21	0.00	0.00	0.00
24	0.00	3.9	652	181	533	656	308	123	19	0.00	0.00	0.00
25	0.00	3.5	768	178	740	638	319	116	17	0.00	0.00	0.00
26	0.00	3.8	519	161	941	594	348	108	16	0.00	0.00	0.00
27	0.00	3.3	364	236	838	519	394	105	15	0.00	0.00	0.00
28	0.00	3.3	278	293	718	491	439	134	14	0.00	0.00	0.00
29	0.00	4.6	295	234	635	475	406	129	14	0.00	0.00	0.00
30	0.00	4.5	355	241	---	490	357	109	14	0.00	0.00	0.00
31	0.00	---	319	248	---	481	---	97	---	0.00	0.00	---
TOTAL	0.00	383.26	8965.3	8487	13990	17940	11794	6707	979	84.34	0.00	1.00
MEAN	0.00	12.8	289	274	482	579	393	216	32.6	2.72	0.00	0.03
MAX	0.00	83	768	636	1030	686	473	392	88	14	0.00	1.0
MIN	0.00	0.00	7.3	161	161	425	260	97	14	0.00	0.00	0.00
AC-FT	0.00	760	17780	16830	27750	35580	23390	13300	1940	167	0.00	2.0

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 2004, BY WATER YEAR (WY)

MEAN	8.51	44.0	169	311	418	539	520	383	189	56.7	7.28	2.69
MAX	54.9	127	628	695	865	793	867	820	542	347	37.8	19.8
(WY)	1990	1999	1997	1995	1998	1993	1995	1996	1993	1995	1998	1998
MIN	0.00	1.28	0.83	1.16	16.7	308	173	53.2	3.95	0.00	0.00	0.00
(WY)	1989	1991	1991	1991	1991	1994	1994	1992	2001	2001	1992	1991

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1989 - 2004	
ANNUAL TOTAL	107911.63		69330.90			
ANNUAL MEAN	296		189		220	
HIGHEST ANNUAL MEAN					364	1998
LOWEST ANNUAL MEAN					75.7	1994
HIGHEST DAILY MEAN	1050	May 4	1030	Feb 18	1090	Mar 25 1989
LOWEST DAILY MEAN	0.00	Sep 2	0.00	Oct 1	0.00	Oct 1 1988
ANNUAL SEVEN-DAY MINIMUM	0.00	Sep 2	0.00	Oct 1	0.00	Oct 1 1988
ANNUAL RUNOFF (AC-FT)	214000		137500		159100	
10 PERCENT EXCEEDS	771		540		710	
50 PERCENT EXCEEDS	170		58		61	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

11409400 OREGON CREEK BELOW LOG CABIN DAM, NEAR CAMPTONVILLE, CA

LOCATION.—Lat 39°26'22", long 121°03'29", in SW 1/4 SW 1/4 sec.11, T.18 N., R.8 E., Yuba County, Hydrologic Unit 18020125, Tahoe National Forest, on left bank, 500 ft downstream from Log Cabin Dam, 670 ft upstream from High Point Ravine, and 1.1 mi southwest of Camptonville.

DRAINAGE AREA.—29.1 mi^2.

PERIOD OF RECORD.—August 1968 to current year.
WATER TEMPERATURE: Water years 1971–79.

REVISED RECORDS.—WDR CA-81-4: 1980(M).

GAGE.—Water-stage recorder, sharp-crested weir since Nov. 13, 1990, and crest-stage gage. Datum of gage is 1,912.73 ft above NGVD of 1929 (levels by Yuba County Water Agency). Prior to July 24, 1973, at site 470 ft downstream at datum 8.40 ft lower. July 24, 1973, to Sept. 30, 1986, at site on right bank. Oct. 1, 1986, to Nov. 13, 1990, a sharp-crested weir was put in at same location and gage house located on left bank. The weir was deemed too shallow so a new sharp-crested weir was put in 70 ft downstream at a datum 7.24 ft lower.

REMARKS.—Lohman Ridge Tunnel (station 11408870) diverts water into the basin from the Middle Yuba River. Camptonville Tunnel (station 11409350), maximum capacity, about 1,000 ft^3/s, 520 ft upstream, diverts water out of the basin to New Bullards Bar Reservoir (station 11413515); diversion began October 1968. See schematic diagram of North and Middle Yuba River Basins.

COOPERATION.—Records provided by Yuba County Water Agency, under general supervsion of the U. S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2246.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 6,400 ft^3/s, Feb. 17, 1986, gage height, 11.24 ft, datum then in use, from rating curve extended above 50 ft^3/s, based on flow-over-dam computation, maximum gage height, 15.70 ft (from floodmark), Jan. 1, 1997; minimum daily, 0.34 ft^3/s, Sept. 18, 1972.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	6.1	8.2	23	12	15	11	16	15	10	2.2	1.6
2	3.1	5.8	8.7	20	12	15	10	16	15	10	2.2	1.6
3	3.1	5.9	8.5	17	13	14	11	16	16	10	2.2	1.5
4	3.2	6.8	8.5	16	13	14	11	16	18	10	2.2	1.4
5	3.2	6.0	8.9	16	12	13	11	16	18	10	2.1	1.6
6	3.1	6.0	11	15	12	13	11	16	18	10	2.1	1.6
7	3.1	6.2	12	16	12	13	11	15	18	10	2.1	1.6
8	3.1	6.1	9.9	16	12	13	11	15	17	10	2.0	1.6
9	3.1	7.6	9.0	16	12	14	11	15	18	9.9	2.0	1.5
10	3.1	9.6	9.8	16	11	14	11	15	18	9.9	1.9	1.5
11	3.0	9.9	10	16	11	14	11	15	17	9.8	1.9	1.5
12	3.1	8.9	9.4	16	11	14	11	15	17	9.7	1.8	1.5
13	3.1	7.8	11	15	11	14	11	15	17	9.6	1.8	1.5
14	3.1	7.7	12	15	11	14	13	17	17	9.3	1.8	1.6
15	3.1	8.4	9.2	14	11	15	15	18	17	8.6	1.7	1.6
16	3.1	8.2	9.1	13	35	15	15	17	13	6.9	1.7	1.6
17	3.2	8.1	9.5	12	21	15	15	17	11	6.4	1.7	1.6
18	3.2	8.9	9.3	12	89	15	15	16	11	6.5	1.8	1.6
19	3.1	9.9	9.3	12	21	13	15	15	11	6.2	1.7	2.0
20	3.1	9.9	9.6	12	17	11	16	15	11	5.6	1.7	6.3
21	3.1	9.9	10	12	16	11	16	15	11	5.3	1.7	4.3
22	3.1	10	9.9	11	15	11	16	16	11	4.8	1.7	2.8
23	3.0	10	9.7	11	14	11	16	16	11	4.0	1.8	2.4
24	3.0	9.6	15	11	14	11	16	15	11	3.2	1.9	2.2
25	3.0	9.3	12	11	17	11	16	16	11	2.6	1.9	2.1
26	2.9	8.6	9.2	11	20	10	16	15	10	2.3	1.9	2.0
27	2.9	8.5	9.8	12	18	11	16	16	10	2.3	1.9	2.0
28	2.9	8.1	10	12	16	11	16	16	10	2.2	1.8	2.0
29	3.0	8.0	18	12	15	11	16	16	11	2.2	1.8	2.0
30	3.0	8.0	22	12	---	11	16	16	10	2.2	1.7	2.0
31	3.6	---	20	12	---	11	---	15	---	2.2	1.6	---
TOTAL	95.7	243.8	338.5	435	504	398	406	488	419	211.7	58.3	60.1
MEAN	3.09	8.13	10.9	14.0	17.4	12.8	13.5	15.7	14.0	6.83	1.88	2.00
MAX	3.6	10	22	23	89	15	16	18	18	10	2.2	6.3
MIN	2.9	5.8	8.2	11	11	10	10	15	10	2.2	1.6	1.4
AC-FT	190	484	671	863	1000	789	805	968	831	420	116	119

11409400 OREGON CREEK BELOW LOG CABIN DAM, NEAR CAMPTONVILLE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	6.28	15.3	44.7	90.5	59.5	42.0	27.1	18.8	22.2	8.31	6.35	5.56
MAX	12.8	72.5	273	604	617	189	268	111	394	15.2	13.1	14.3
(WY)	1972	1982	1982	1969	1986	1969	1969	1969	1998	1983	1983	1984
MIN	1.95	2.27	1.97	4.57	3.39	7.14	8.11	8.00	4.89	1.82	1.32	1.37
(WY)	1989	1977	1977	1977	1977	1977	1986	1986	1987	1977	1977	1988

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1968 - 2004	
ANNUAL TOTAL	3704.8		3658.1			
ANNUAL MEAN	10.2		9.99		28.8	
HIGHEST ANNUAL MEAN					128	1969
LOWEST ANNUAL MEAN					4.20	1977
HIGHEST DAILY MEAN	46	May 4	89	Feb 18	5340	Feb 17 1986
LOWEST DAILY MEAN	2.9	Oct 26	1.4	Sep 4	0.34	Sep 18 1972
ANNUAL SEVEN-DAY MINIMUM	3.0	Oct 23	1.5	Sep 7	0.74	Sep 18 1972
MAXIMUM PEAK FLOW			192	Feb 18	6400	Feb 17 1986
MAXIMUM PEAK STAGE			8.58	Feb 18	15.70	Jan 1 1997
ANNUAL RUNOFF (AC-FT)	7350		7260		20850	
10 PERCENT EXCEEDS	15		16		18	
50 PERCENT EXCEEDS	10		11		10	
90 PERCENT EXCEEDS	3.2		1.9		3.2	

11410000 MIDDLE YUBA RIVER NEAR NORTH SAN JUAN, CA

LOCATION.—Lat 39°23'39", long 121°05'02", in NW 1/4 SE 1/4 sec.28, T.18 N., R.8 E., Yuba County, Hydrologic Unit 18020125, Tahoe National Forest, on right bank, 100 ft downstream of State Highway 49 bridge, 400 ft downstream from Oregon Creek, and 2 mi northeast of North San Juan.

DRAINAGE AREA.—198 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—July to September 1900 (monthly discharge only, September 1900), August 1911 to March 1941, October 2000 to current year.

GAGE.—Water-stage recorder and crest-stage gage. Elevation of gage is 1,450 ft above NGVD of 1929, from topographic map. July 1 to Sept. 30, 1900, and Aug. 1, 1911, to Oct. 7, 1930, nonrecording gage at site 0.5 mi downstream at different datum. Oct. 8, 1930, to Mar. 31, 1941, water-stage recorder 0.9 mi downstream at datum 1,400.62 ft above NGVD of 1929.

REMARKS.—Records good. Natural flow of stream affected by storage in Milton Reservoir beginning 1928 and Jackson Meadows Reservoir (station 11407800) beginning November 1964. Milton–Bowman Tunnel (station 11408000) diverts water from Milton Reservoir to Bowman Lake (station 11415500) beginning May 1928, and Lohman Ridge Tunnel (station 11408870) diverts water to Oregon Creek and then to New Bullards Bar Reservoir (station 11413515) via Camptonville Tunnel (station 11409350) beginning October 1968. Other small diversions upstream from station. See schematic diagram of North and Middle Yuba River Basins.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 26,000 ft^3/s, Mar. 25, 1928, gage height, 15.3 ft, site and datum then in use, from floodmarks, from rating curve extended above 1,200 ft^3/s; minimum daily, 14 ft^3/s, Aug. 27, 28, 1931.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	49	54	302	56	146	50	74	68	44	33	28
2	38	49	60	146	82	131	50	74	69	44	33	28
3	39	52	48	101	97	110	51	74	69	43	33	28
4	39	52	47	82	85	99	51	74	70	43	33	28
5	40	50	50	72	73	92	51	74	70	44	33	29
6	39	47	87	68	68	86	51	74	71	43	32	29
7	39	51	94	84	71	81	51	73	71	43	31	29
8	39	53	55	77	64	78	50	72	71	43	32	29
9	39	70	49	72	62	77	50	72	72	42	31	28
10	38	52	82	71	61	75	50	75	71	43	31	28
11	38	50	105	68	60	74	49	73	71	42	30	27
12	39	48	69	65	57	73	49	72	70	42	30	28
13	38	46	117	63	56	71	49	72	71	42	30	28
14	39	48	133	61	55	70	55	73	70	42	30	29
15	39	58	74	60	55	70	75	74	69	41	30	28
16	39	51	58	58	223	69	76	74	61	40	30	28
17	39	50	53	55	696	69	76	74	43	39	30	29
18	39	49	51	55	803	68	75	73	43	39	30	29
19	39	49	50	54	327	65	77	72	44	39	30	32
20	39	49	53	53	116	59	83	71	43	40	30	36
21	38	49	59	52	99	58	79	71	44	39	30	39
22	37	49	53	51	93	56	78	72	44	39	30	36
23	37	49	53	51	87	56	77	69	44	38	30	33
24	37	49	316	53	94	55	76	69	43	38	31	31
25	37	49	164	51	286	61	76	69	43	37	31	30
26	36	47	75	50	478	58	76	69	44	36	31	30
27	36	47	63	76	221	55	76	69	44	34	30	29
28	36	47	59	74	143	54	76	71	44	34	29	29
29	37	47	83	62	117	52	74	71	44	34	28	30
30	37	47	117	61	---	51	73	70	44	33	28	30
31	41	---	87	58	---	51	---	69	---	33	28	---
TOTAL	1185	1503	2518	2306	4785	2270	1930	2233	1725	1233	948	895
MEAN	38.2	50.1	81.2	74.4	165	73.2	64.3	72.0	57.5	39.8	30.6	29.8
MAX	41	70	316	302	803	146	83	75	72	44	33	39
MIN	36	46	47	50	55	51	49	69	43	33	28	27
AC-FT	2350	2980	4990	4570	9490	4500	3830	4430	3420	2450	1880	1780

11410000 MIDDLE YUBA RIVER NEAR NORTH SAN JUAN, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 1927, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	65.9	180	276	458	898	690	1132	1247	610	129	51.7	47.2
MAX	101	779	758	2286	2942	1643	1647	2673	1850	239	70.0	73.7
(WY)	1919	1927	1923	1914	1927	1916	1927	1915	1922	1922	1916	1918
MIN	42.1	54.5	78.4	77.4	104	116	315	180	45.3	25.7	23.5	24.9
(WY)	1914	1924	1924	1918	1920	1924	1924	1924	1924	1924	1924	1924

SUMMARY STATISTICS	WATER YEARS 1912 - 1927	
ANNUAL MEAN	479	
HIGHEST ANNUAL MEAN	830	1927
LOWEST ANNUAL MEAN	111	1924
HIGHEST DAILY MEAN	15300	Feb 21 1927
LOWEST DAILY MEAN	21	Aug 12 1924
ANNUAL SEVEN-DAY MINIMUM	22	Aug 8 1924
MAXIMUM PEAK FLOW	21900	Feb 21 1927
MAXIMUM PEAK STAGE	14.00	Feb 21 1927
ANNUAL RUNOFF (AC-FT)	346900	
10 PERCENT EXCEEDS	1270	
50 PERCENT EXCEEDS	156	
90 PERCENT EXCEEDS	44	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1940, BY WATER YEAR (WY)

MEAN	41.7	70.9	246	334	609	744	828	763	316	60.9	33.2	29.0
MAX	63.2	174	1152	941	1629	1937	1832	2215	1053	135	61.6	48.3
(WY)	1939	1938	1938	1936	1940	1940	1935	1938	1938	1938	1938	1938
MIN	31.9	26.0	39.3	56.3	111	269	164	107	52.8	20.7	15.5	16.2
(WY)	1935	1930	1931	1937	1933	1931	1931	1931	1931	1931	1931	1931

SUMMARY STATISTICS	WATER YEARS 1929 - 1940	
ANNUAL MEAN	338	
HIGHEST ANNUAL MEAN	818	1938
LOWEST ANNUAL MEAN	90.5	1931
HIGHEST DAILY MEAN	16100	Dec 11 1937
LOWEST DAILY MEAN	14	Aug 27 1931
ANNUAL SEVEN-DAY MINIMUM	15	Aug 22 1931
MAXIMUM PEAK FLOW	26000	Mar 25 1928
MAXIMUM PEAK STAGE	15.30	Mar 25 1928
ANNUAL RUNOFF (AC-FT)	244800	
10 PERCENT EXCEEDS	905	
50 PERCENT EXCEEDS	90	
90 PERCENT EXCEEDS	27	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2004, BY WATER YEAR (WY)

MEAN	36.4	50.2	115	86.6	107	90.3	81.1	97.5	65.8	44.2	37.4	33.2
MAX	45.0	50.6	215	111	165	117	113	167	83.5	52.9	51.9	41.5
(WY)	2001	2003	2003	2002	2004	2002	2003	2003	2003	2003	2003	2003
MIN	31.0	49.8	55.4	57.1	71.6	73.2	64.3	71.0	57.5	37.6	30.0	29.4
(WY)	2002	2001	2001	2001	2003	2004	2004	2001	2004	2001	2001	2001

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2001 - 2004	
ANNUAL TOTAL	29003		23531			
ANNUAL MEAN	79.5		64.3		70.2	
HIGHEST ANNUAL MEAN					90.3	2003
LOWEST ANNUAL MEAN					54.6	2001
HIGHEST DAILY MEAN	809	May 4	803	Feb 18	1390	Dec 16 2002
LOWEST DAILY MEAN	36	Oct 26	27	Sep 11	27	Aug 29 2001
ANNUAL SEVEN-DAY MINIMUM	37	Oct 22	28	Aug 29	28	Sep 4 2001
MAXIMUM PEAK FLOW			1320	Feb 18	2290	Dec 16 2002
MAXIMUM PEAK STAGE			10.03	Feb 18	11.06	Dec 16 2002
ANNUAL RUNOFF (AC-FT)	57530		46670		50880	
10 PERCENT EXCEEDS	133		83		94	
50 PERCENT EXCEEDS	58		51		55	
90 PERCENT EXCEEDS	39		30		31	

11410000 MIDDLE YUBA RIVER NEAR NORTH SAN JUAN, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—Water years 1974–77, 2000 to current year.
SPECIFIC CONDUCTANCE: December 2003 to September 2004.
WATER TEMPERATURE: Water years 1974–77, 2000 to current year.
SEDIMENT DATA:Water year 2001 (daily), 2002–04 (storm season only) (discontinued).

PERIOD OF DAILY RECORD.—
SPECIFIC CONDUCTANCE: December 2003 to September 2004.
WATER TEMPERATURE: September 1974 to September 1977, October 2000 to current year.
SUSPENDED-SEDIMENT DISCHARGE: November 2000 to September 2001 (daily), October 2001 to May 2004 (storm season only) (discontinued).

INSTRUMENTATION.—Water-temperature recorder September 1974–77 and since October 2000. Specific conductance recorder since December 2003.

REMARKS.—Specific conductance records rated excellent except for Mar. 4–19, Apr. 1–23, May 10–25, June 17–23, which are rated good. Water temperature records rated excellent. Interruptions in record were due to malfunction of the temperature probe.

EXTREMES FOR PERIOD OF DAILY RECORD.—
SPECIFIC CONDUCTANCE: Maximum recorded, 168 microsiemens, Sept. 18, 2004; minimum recorded, 51 microsiemens, Feb. 17, 18, 2004.
WATER TEMPERATURE: Maximum recorded, 30.5°C, June 25, 29, 1977; minimum recorded, 0.0°C, Dec. 24, 1974, Jan. 2, 3, 1975, Jan. 17, 1977.
SEDIMENT CONCENTRATION: Maximum daily mean, 404 mg/L, Dec. 16, 2002; minimum daily mean, 0 mg/L, several days during most years.
SEDIMENT LOAD: Maximum daily, 2,050 tons, Dec. 16, 2002; minimum daily, 0 ton, several days during most years.

EXTREMES FOR CURRENT YEAR.—
SPECIFIC CONDUCTANCE: Maimum recorded, 168 microsiemens, Sept. 18; minimum recorded, 51 microsiemens, Feb. 17, 18.
WATER TEMPERATURE: Maximum recorded, 26.5°C, several days in July; minimum recorded, 3.0°C, several days November to February.
SEDIMENT CONCENTRATION: Maximum daily mean, 59 mg/L, Jan. 1; minimum daily mean, 0 mg/L, several days November to March..
SEDIMENT LOAD: Maximum daily, 121 tons, Feb. 18; minimum daily, 0.02 ton, Nov. 30, Dec. 19.

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS

WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	---	---	---	---	93	58	97	96	81	69
2	---	---	---	---	---	---	82	67	97	82	80	71
3	---	---	---	---	---	---	93	82	86	82	83	80
4	---	---	---	---	---	---	99	93	91	83	85	83
5	---	---	---	---	---	---	102	99	95	91	87	85
6	---	---	---	---	---	---	104	102	97	95	88	86
7	---	---	---	---	---	---	103	97	98	95	89	87
8	---	---	---	---	---	---	100	98	99	97	89	87
9	---	---	---	---	---	---	101	99	101	99	88	85
10	---	---	---	---	---	---	100	98	102	100	85	81
11	---	---	---	---	100	89	100	97	103	102	81	78
12	---	---	---	---	106	98	98	97	104	102	79	76
13	---	---	---	---	103	90	99	97	104	103	76	74
14	---	---	---	---	101	77	98	97	105	104	75	73
15	---	---	---	---	95	89	98	97	106	104	75	73
16	---	---	---	---	104	95	98	97	104	62	73	70
17	---	---	---	---	108	103	98	96	62	51	72	69
18	---	---	---	---	112	108	97	95	59	51	71	69
19	---	---	---	---	114	112	96	95	71	58	71	68
20	---	---	---	---	113	111	95	94	77	71	71	69
21	---	---	---	---	112	110	96	94	79	76	71	69
22	---	---	---	---	110	101	97	96	80	79	71	69
23	---	---	---	---	102	100	98	97	82	79	70	68
24	---	---	---	---	100	62	98	96	82	78	70	68
25	---	---	---	---	81	67	98	97	82	57	70	65
26	---	---	---	---	88	80	97	96	65	62	71	63
27	---	---	---	---	94	88	97	83	72	63	73	71
28	---	---	---	---	96	93	91	79	79	72	74	72
29	---	---	---	---	96	85	95	91	81	78	76	74
30	---	---	---	---	87	79	96	95	---	---	76	75
31	---	---	---	---	94	87	97	96	---	---	75	74
MONTH	---	---	---	---	---	---	104	58	106	51	89	63

11410000 MIDDLE YUBA RIVER NEAR NORTH SAN JUAN, CA—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	75	74	69	67	87	86	134	132	150	148	163	161
2	83	74	70	69	89	87	134	132	150	148	162	160
3	76	75	70	69	90	89	134	132	149	147	161	159
4	76	75	69	68	92	90	132	131	149	147	160	158
5	76	73	68	66	93	91	132	130	149	147	160	158
6	74	72	66	65	95	93	132	131	149	148	160	158
7	73	71	67	66	97	95	133	132	150	148	160	158
8	73	72	69	67	98	96	134	132	150	148	160	158
9	74	72	70	69	99	97	134	133	151	149	160	158
10	74	71	74	69	102	99	135	133	151	149	160	158
11	71	70	73	71	104	102	136	134	152	150	160	158
12	73	70	73	72	107	104	136	135	153	151	160	158
13	72	71	74	72	108	105	137	136	156	153	160	158
14	72	69	76	74	110	108	138	136	158	155	162	160
15	69	67	78	76	113	110	138	137	158	154	164	162
16	69	68	79	78	115	112	139	138	156	155	166	164
17	69	68	79	77	116	114	142	139	158	155	167	164
18	70	69	79	78	117	115	145	142	159	157	168	166
19	72	70	79	78	118	117	147	144	161	159	166	162
20	75	70	80	79	120	118	149	147	167	160	165	162
21	75	70	82	79	121	119	150	148	163	161	167	162
22	73	70	82	80	122	121	151	148	164	161	163	160
23	73	71	83	82	123	122	150	148	164	161	163	162
24	74	72	83	81	124	123	152	150	164	161	163	161
25	75	73	85	83	126	124	152	150	164	162	162	160
26	74	73	86	85	127	126	152	151	165	163	161	159
27	74	70	87	85	129	127	153	151	164	161	161	159
28	71	68	87	86	130	128	154	151	162	159	160	159
29	68	66	88	86	132	130	153	149	161	159	160	158
30	67	66	86	84	133	131	161	148	163	161	160	158
31	---	---	87	85	---	---	154	148	163	161	---	---
MONTH	83	66	88	65	133	86	161	130	167	147	168	158

TEMPERATURE, WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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

11410000 MIDDLE YUBA RIVER NEAR NORTH SAN JUAN, CA—Continued

TEMPERATURE, WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	11.5	9.0	15.5	12.0	21.0	16.5	24.5	21.0	25.0	21.0	23.0	19.5
2	12.0	9.0	17.0	13.0	21.5	17.0	25.5	21.0	25.0	21.5	22.5	19.5
3	12.5	10.0	17.5	13.5	21.5	17.5	25.5	22.0	24.5	21.0	21.0	18.0
4	13.0	10.5	17.5	14.0	21.5	17.0	25.5	21.5	24.5	21.0	21.0	17.0
5	13.0	10.5	17.0	13.0	21.5	17.0	26.0	21.5	24.0	20.5	21.5	18.0
6	13.0	10.0	16.0	13.0	21.5	17.5	26.5	22.5	23.5	20.0	22.0	18.5
7	13.5	10.0	16.0	12.5	21.0	17.5	26.5	23.5	23.5	19.5	22.0	18.5
8	14.0	11.0	16.5	13.0	19.5	16.5	25.5	22.0	24.5	20.5	22.0	18.5
9	15.0	11.5	16.5	12.5	19.5	15.5	25.0	21.5	25.0	21.0	21.5	18.5
10	14.5	11.5	15.5	13.0	20.0	16.0	24.0	20.5	25.0	21.0	21.0	18.0
11	14.5	11.5	15.0	12.0	20.5	16.0	24.5	20.5	24.5	21.0	20.5	17.5
12	15.0	12.0	15.0	10.5	21.0	16.5	24.5	20.5	25.0	21.0	20.5	17.5
13	14.0	11.5	16.0	11.5	22.0	17.0	24.5	20.5	25.5	22.0	20.0	17.5
14	13.5	11.5	16.5	12.5	22.5	18.0	24.5	20.5	25.5	22.0	19.5	16.5
15	13.0	11.0	17.0	13.0	23.5	18.5	24.5	20.5	24.5	21.0	19.5	16.5
16	11.0	8.5	17.5	14.0	24.0	19.0	24.0	20.0	24.5	21.0	20.0	17.0
17	10.5	9.0	17.5	14.0	24.0	20.0	25.5	21.5	24.5	20.5	20.0	17.5
18	10.0	9.0	17.5	14.0	24.0	20.0	25.5	22.0	24.5	20.5	19.0	17.0
19	9.5	8.5	17.0	13.0	24.0	20.5	25.5	21.5	24.5	21.5	17.0	14.5
20	10.5	9.0	17.0	13.0	24.0	20.0	26.5	22.5	25.0	21.0	15.5	13.5
21	11.0	9.5	16.5	14.0	24.5	20.0	26.5	22.5	24.5	21.0	15.5	13.0
22	12.0	8.5	17.0	12.5	25.0	21.0	26.5	22.5	22.5	21.0	16.0	13.5
23	15.5	9.0	17.5	13.0	24.5	20.5	26.5	22.5	23.0	20.5	16.5	14.0
24	14.5	10.0	18.0	13.5	24.5	21.0	26.5	23.0	23.5	20.5	17.0	14.5
25	15.5	11.5	18.5	14.0	24.5	20.0	26.5	22.5	23.0	20.0	17.0	14.5
26	16.5	12.5	19.0	15.0	24.0	20.0	26.0	22.0	23.0	20.0	17.0	15.0
27	17.0	13.0	18.5	16.0	24.0	20.0	26.0	21.5	22.5	19.0	16.5	14.5
28	16.5	13.5	18.0	16.0	24.0	21.0	26.5	22.5	23.0	19.0	16.5	14.5
29	15.5	12.0	18.5	14.5	24.5	21.0	26.0	22.0	23.0	19.5	16.5	14.5
30	15.0	11.0	19.5	15.0	24.5	21.0	25.5	22.0	23.0	19.5	16.5	14.5
31	---	---	20.5	16.0	---	---	25.5	21.5	23.0	19.5	---	---
MONTH	17.0	8.5	20.5	10.5	25.0	15.5	26.5	20.0	25.5	19.0	23.0	13.0

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	TIME	Instantaneous discharge, cfs (00061)	Temperature, water, deg C (00010)	Suspnd. sediment, sieve diametr percent <.063mm (70331)	Suspnd. sediment, sieve diametr percent <.125mm (70332)	Suspnd. sediment, sieve diametr percent <.25mm (70333)	Suspnd. sediment, sieve diametr percent <.5 mm (70334)	Suspnd. sediment, sieve diametr percent <1 mm (70335)	Suspnd. sediment, sieve diametr percent <2 mm (70336)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)
NOV											
15...	0830	55	--	95	96	98	99	100	--	5	.74
19...	1200	49	7.5	--	--	--	--	--	--	2	.26
DEC											
07...	1230	78	10.0	--	--	--	--	--	--	8	1.7
14...	0815	210	7.5	98	99	100	--	--	--	13	7.4
30...	1200	115	5.5	95	--	--	--	--	--	5	1.6
JAN											
14...	1500	61	5.0	--	--	--	--	--	--	1	.16
FEB											
03...	1330	97	6.0	83	--	--	--	--	--	5	1.3
17...	1125	665	6.5	45	57	71	91	100	--	63	113
18...	1155	1320	7.5	56	66	80	95	99	100	97	346
18...	1715	1030	7.5	--	--	--	--	--	--	38	106
19...	1120	305	6.5	91	--	--	--	--	--	6	4.9
MAR											
19...	1330	68	12.0	--	--	--	--	--	--	2	.37
APR											
23...	1315	76	11.5	--	--	--	--	--	--	2	.41
MAY											
25...	1500	68	18.0	--	--	--	--	--	--	2	.37

11410000 MIDDLE YUBA RIVER NEAR NORTH SAN JUAN, CA—Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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	38	---	---	49	1	0.13	54	1	0.23
2	38	---	---	49	1	0.13	60	3	0.47
3	39	---	---	52	1	0.14	48	2	0.20
4	39	---	---	52	1	0.14	47	1	0.08
5	40	---	---	50	1	0.13	50	1	0.14
6	39	---	---	47	1	0.13	87	14	4.1
7	39	---	---	51	1	0.12	94	15	4.3
8	39	---	---	53	3	0.55	55	6	0.85
9	39	---	---	70	9	1.8	49	5	0.60
10	38	---	---	52	4	0.54	82	9	2.1
11	38	---	---	50	3	0.36	105	30	8.8
12	39	---	---	48	2	0.30	69	17	3.2
13	38	---	---	46	2	0.26	117	16	5.3
14	39	---	---	48	3	0.34	133	42	15
15	39	---	---	58	6	0.98	74	10	2.3
16	39	---	---	51	4	0.60	58	2	0.35
17	39	---	---	50	3	0.40	53	1	0.21
18	39	---	---	49	2	0.26	51	1	0.10
19	39	---	---	49	2	0.21	50	0	0.02
20	39	---	---	49	2	0.24	53	0	0.05
21	38	---	---	49	2	0.21	59	1	0.11
22	37	---	---	49	1	0.19	53	1	0.12
23	37	---	---	49	1	0.16	53	1	0.09
24	37	---	---	49	1	0.13	316	50	73
25	37	---	---	49	1	0.11	164	23	17
26	36	---	---	47	1	0.09	75	3	0.69
27	36	---	---	47	1	0.07	63	3	0.51
28	36	---	---	47	0	0.05	59	3	0.48
29	37	---	---	47	0	0.04	83	6	1.4
30	37	---	---	47	0	0.02	117	6	2.1
31	41	---	---	---	---	---	87	8	1.8
TOTAL	1185	---	---	1503	---	8.83	2518	---	145.70
		JANUARY			FEBRUARY			MARCH	
1	302	59	56	56	0	0.03	146	5	2.1
2	146	19	8.5	82	3	0.83	131	6	2.0
3	101	5	1.5	97	5	1.3	110	4	1.1
4	82	4	0.89	85	4	0.86	99	2	0.48
5	72	2	0.49	73	2	0.47	92	0	0.06
6	68	1	0.24	68	2	0.32	86	1	0.12
7	84	2	0.43	71	1	0.27	81	1	0.23
8	77	2	0.38	64	1	0.18	78	2	0.32
9	72	2	0.32	62	1	0.12	77	2	0.41
10	71	1	0.28	61	0	0.06	75	2	0.41
11	68	1	0.24	60	0	0.03	74	2	0.41
12	65	1	0.20	57	1	0.15	73	2	0.44
13	63	1	0.17	56	2	0.29	71	2	0.46
14	61	1	0.17	55	3	0.43	70	3	0.49
15	60	1	0.16	55	4	0.57	70	3	0.53
16	58	1	0.16	223	15	24	69	3	0.53
17	55	1	0.15	696	55	111	69	2	0.36
18	55	1	0.15	803	53	121	68	1	0.20
19	54	1	0.14	327	9	10	65	1	0.25
20	53	1	0.14	116	3	1.1	59	2	0.32
21	52	1	0.14	99	3	0.86	58	2	0.31
22	51	1	0.14	93	3	0.88	56	2	0.30
23	51	1	0.14	87	4	0.87	56	2	0.30
24	53	1	0.14	94	4	1.0	55	2	0.30
25	51	1	0.14	286	17	23	61	6	1.0
26	50	1	0.14	478	18	26	58	13	2.0
27	76	4	0.90	221	9	5.2	55	4	0.56
28	74	4	0.92	143	7	2.7	54	3	0.40
29	62	1	0.17	117	5	1.7	52	3	0.36
30	61	1	0.11	---	---	---	51	2	0.33
31	58	0	0.07	---	---	---	51	2	0.30
TOTAL	2306	---	73.72	4785	---	335.22	2270	---	17.38

11410000 MIDDLE YUBA RIVER NEAR NORTH SAN JUAN, CA—Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
	APRIL			MAY			JUNE		
1	50	2	0.27	74	3	0.53	68	---	---
2	50	2	0.27	74	3	0.57	69	---	---
3	51	2	0.27	74	3	0.60	69	---	---
4	51	2	0.28	74	3	0.58	70	---	---
5	51	2	0.28	74	3	0.56	70	---	---
6	51	2	0.28	74	3	0.54	71	---	---
7	51	2	0.27	73	3	0.51	71	---	---
8	50	2	0.27	72	2	0.49	71	---	---
9	50	2	0.27	72	2	0.47	72	---	---
10	50	2	0.27	75	2	0.47	71	---	---
11	49	2	0.27	73	2	0.43	71	---	---
12	49	2	0.26	72	2	0.41	70	---	---
13	49	2	0.26	72	2	0.40	71	---	---
14	55	2	0.30	73	2	0.43	70	---	---
15	75	2	0.40	74	2	0.48	69	---	---
16	76	2	0.41	74	3	0.52	61	---	---
17	76	2	0.41	74	3	0.56	43	---	---
18	75	2	0.41	73	3	0.58	43	---	---
19	77	2	0.42	72	3	0.55	44	---	---
20	83	2	0.45	71	3	0.51	43	---	---
21	79	2	0.43	71	2	0.48	44	---	---
22	78	2	0.42	72	2	0.45	44	---	---
23	77	2	0.42	69	2	0.40	44	---	---
24	76	2	0.41	69	2	0.37	43	---	---
25	76	2	0.41	69	2	0.31	43	---	---
26	76	2	0.41	69	1	0.24	44	---	---
27	76	2	0.42	69	2	0.31	44	---	---
28	76	2	0.44	71	2	0.38	44	---	---
29	74	2	0.47	71	2	0.38	44	---	---
30	73	3	0.50	70	2	0.38	44	---	---
31	---	---	---	69	2	0.37	---	---	---
TOTAL	1930	---	10.65	2233	---	14.26	1725	---	---
	JULY			AUGUST			SEPTEMBER		
1	44	---	---	33	---	---	28	---	---
2	44	---	---	33	---	---	28	---	---
3	43	---	---	33	---	---	28	---	---
4	43	---	---	33	---	---	28	---	---
5	44	---	---	33	---	---	29	---	---
6	43	---	---	32	---	---	29	---	---
7	43	---	---	31	---	---	29	---	---
8	43	---	---	32	---	---	29	---	---
9	42	---	---	31	---	---	28	---	---
10	43	---	---	31	---	---	28	---	---
11	42	---	---	30	---	---	27	---	---
12	42	---	---	30	---	---	28	---	---
13	42	---	---	30	---	---	28	---	---
14	42	---	---	30	---	---	29	---	---
15	41	---	---	30	---	---	28	---	---
16	40	---	---	30	---	---	28	---	---
17	39	---	---	30	---	---	29	---	---
18	39	---	---	30	---	---	29	---	---
19	39	---	---	30	---	---	32	---	---
20	40	---	---	30	---	---	36	---	---
21	39	---	---	30	---	---	39	---	---
22	39	---	---	30	---	---	36	---	---
23	38	---	---	30	---	---	33	---	---
24	38	---	---	31	---	---	31	---	---
25	37	---	---	31	---	---	30	---	---
26	36	---	---	31	---	---	30	---	---
27	34	---	---	30	---	---	29	---	---
28	34	---	---	29	---	---	29	---	---
29	34	---	---	28	---	---	30	---	---
30	33	---	---	28	---	---	30	---	---
31	33	---	---	28	---	---	---	---	---
TOTAL	1233	---	---	948	---	---	895	---	---

11410000 MIDDLE YUBA RIVER NEAR NORTH SAN JUAN, CA—Continued

CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	TIME	Depth at sample location, feet (81903)	Specif. conduc-tance, wat unf uS/cm 25 degC (00095)	Temper-ature, water, deg C (00010)	Location in X-sect. looking dwnstrm ft from l bank (00009)
MAY					
06...*	1156	3.00	63	14.1	72.0
06...*	1200	5.00	63	14.2	64.5
06...*	1203	7.00	62	14.2	57.0
06...*	1205	8.00	62	14.4	49.5
06...*	1208	4.00	61	14.5	42.0
06...*	1210	2.50	61	14.6	34.5
06...*	1213	3.00	61	14.6	27.0
06...*	1215	3.00	60	14.6	19.5
06...*	1216	2.00	60	14.7	12.0
06...*	1217	2.00	60	14.6	4.50
SEP					
03...*	1200	3.50	164	19.3	3.00
03...*	1202	5.00	164	19.3	9.00
03...*	1203	5.50	164	19.3	15.0
03...*	1204	5.00	164	19.2	21.0
03...*	1205	5.00	164	19.3	27.0
03...*	1206	4.50	164	19.4	33.0
03...*	1207	3.00	165	19.2	39.0
03...*	1208	2.00	165	19.1	45.0
03...*	1209	1.50	164	19.0	51.0
03...*	1210	1.50	164	19.1	57.0

* Instantaneous discharge at time of cross-sectional measurement: May 6, 76 ft^3/s; Sept. 3, 28 ft^3/s

11413000 NORTH YUBA RIVER BELOW GOODYEARS BAR, CA

LOCATION.—Lat 39°31'30", long 120°56'13", in NE 1/4 SW 1/4 sec.11, T.19 N., R.9 E., Sierra County, Hydrologic Unit 18020125, Tahoe National Forest, on right bank, 200 ft downstream from St. Catherine Creek, 3.1 mi southwest of Goodyears Bar, and 6.4 mi southwest of Downieville.

DRAINAGE AREA.—250 mi^2.

PERIOD OF RECORD.—October 1930 to current year. Prior to October 1949, published as "North Fork Yuba River below Goodyears Bar." Monthly and yearly discharge only for some periods, published in WSP 1315-A.

REVISED RECORDS.—WSP 1041: 1944. WSP 1931: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is 2,453.00 ft above NGVD of 1929 (river-profile survey).

REMARKS.—Records good. Several small diversions upstream from station for irrigation and mining. See schematic diagram of North and Middle Yuba River Basins.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 45,500 ft^3/s, Jan. 2, 1997, gage height, 25.65 ft, from rating curve extended above 11,900 ft^3/s, on basis of one float measurement at 17,900 ft^3/s and slope-area measurements at gage heights 19.15 and 23.8 ft; minimum daily, 60 ft^3/s, Sept. 7–14, 1977.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 6	2230	3,250	7.86	Feb. 16	2245	3,230	7.84

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	141	147	164	921	426	903	1300	1520	841	283	154	126
2	141	142	220	733	545	865	1190	1620	804	275	153	125
3	142	161	180	546	569	800	1220	1760	765	261	152	125
4	141	146	163	456	515	751	1390	1890	714	247	152	125
5	141	145	204	407	471	709	1470	1920	672	238	150	125
6	140	144	1470	381	442	687	1500	1790	640	231	148	125
7	139	150	1430	444	430	723	1410	1650	623	225	148	123
8	138	170	547	514	399	842	1490	1610	589	218	146	122
9	138	291	372	609	381	1000	1540	1540	553	215	143	122
10	138	197	463	600	364	1140	1530	1450	537	212	142	121
11	138	164	483	572	355	1220	1500	1320	505	208	141	120
12	139	157	371	553	350	1230	1520	1140	474	204	140	120
13	139	155	630	533	345	1270	1540	1100	451	199	138	120
14	137	160	1020	526	337	1340	1410	1110	438	194	138	121
15	137	219	606	528	337	1480	1340	1140	418	191	137	120
16	137	177	434	535	1270	1540	1160	1170	401	187	138	120
17	137	189	361	523	2520	1560	1070	1180	388	185	137	121
18	136	181	332	516	2310	1630	987	1110	373	183	135	121
19	135	169	319	508	1700	1770	942	1040	359	182	135	129
20	135	166	449	494	1290	1770	1100	1020	344	181	134	139
21	134	169	577	469	1080	1850	1080	974	331	179	133	136
22	133	156	458	444	954	1930	1040	947	319	175	133	129
23	133	148	414	428	866	1930	1010	948	308	171	135	126
24	132	149	1460	427	843	1850	1050	909	298	169	138	125
25	130	147	1130	418	1300	1760	1170	881	286	166	136	123
26	129	146	751	392	1580	1460	1350	859	278	163	134	122
27	130	143	574	473	1270	1280	1570	889	272	161	131	121
28	130	144	492	465	1070	1220	1730	1080	273	160	129	121
29	130	147	581	432	939	1250	1560	1070	275	158	128	121
30	131	148	588	459	---	1340	1450	928	276	156	127	123
31	144	---	566	450	---	1330	---	875	---	155	126	---
TOTAL	4225	4927	17809	15756	25258	40430	39619	38440	13805	6132	4311	3717
MEAN	136	164	574	508	871	1304	1321	1240	460	198	139	124
MAX	144	291	1470	921	2520	1930	1730	1920	841	283	154	139
MIN	129	142	163	381	337	687	942	859	272	155	126	120
AC-FT	8380	9770	35320	31250	50100	80190	78580	76250	27380	12160	8550	7370

11413000 NORTH YUBA RIVER BELOW GOODYEARS BAR, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	184	347	641	878	954	1072	1374	1783	1101	364	186	151
MAX	1407	2380	3830	4526	4367	3074	2822	3894	3627	1384	417	256
(WY)	1963	1951	1965	1997	1986	1995	1982	1952	1983	1983	1983	1983
MIN	71.8	107	97.3	117	138	151	241	335	170	82.7	66.8	71.0
(WY)	1978	1978	1977	1991	1977	1977	1977	1977	1992	1977	1977	1977

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1931 - 2004	
ANNUAL TOTAL	281534		214429			
ANNUAL MEAN	771		586		751	
HIGHEST ANNUAL MEAN					1566	1982
LOWEST ANNUAL MEAN					141	1977
HIGHEST DAILY MEAN	3060	May 28	2520	Feb 17	29600	Jan 2 1997
LOWEST DAILY MEAN	129	Oct 26	120	Sep 11	60	Sep 7 1977
ANNUAL SEVEN-DAY MINIMUM	130	Oct 24	120	Sep 10	60	Sep 7 1977
MAXIMUM PEAK FLOW			3250	Dec 6	45500	Jan 2 1997
MAXIMUM PEAK STAGE			7.86	Dec 6	25.65	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	558400		425300		544400	
10 PERCENT EXCEEDS	1780		1460		1850	
50 PERCENT EXCEEDS	513		381		332	
90 PERCENT EXCEEDS	143		130		127	

11413250 SLATE CREEK TUNNEL NEAR STRAWBERRY VALLEY, CA

LOCATION.—Lat 39°36'57", long 121°03'03", in SE 1/4 SW 1/4 sec.2, T.20 N., R.8 E., Plumas County, Hydrologic Unit 18020125, Plumas National Forest, on right bank, 30 ft upstream from diversion dam on Slate Creek, 0.3 mi upstream from Feney Ravine, and 4.5 mi northeast of town of Strawberry Valley.

PERIOD OF RECORD.—February 1962 to current year. Monthly discharge only published as adjustment to Slate Creek below diversion dam near Strawberry Valley (station 11413300) February 1962 to September 1966; records of daily discharge are in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder. Datum of gage is NGVD of 1929.

REMARKS.—Tunnel diverts water from Slate Creek to Sly Creek Reservoir (station 11395400) for power development. See schematic diagrams of South Fork Feather River Basin and North and Middle Yuba River Basins.

COOPERATION.—Records provided by South Feather Water and Power Agency, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2088.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 863 ft^3/s, Apr. 6, 1963; no flow for many days in each year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	15	102	89	241	383	288	74	16	0.00	0.00
2	0.00	0.00	47	96	105	212	342	292	69	16	0.00	0.00
3	0.00	0.00	30	81	99	190	343	298	65	15	0.00	0.00
4	0.00	0.00	20	72	87	175	373	303	60	14	0.00	0.00
5	0.00	0.00	40	65	82	165	381	289	56	13	0.00	0.00
6	0.00	0.00	453	63	78	163	373	257	53	12	0.00	0.00
7	0.00	0.00	399	65	75	188	352	233	51	11	0.00	0.00
8	0.00	0.00	153	78	70	243	380	222	48	3.8	0.00	0.00
9	0.00	0.00	90	122	68	312	413	204	46	0.00	0.00	0.00
10	0.00	12	99	126	66	393	409	191	45	0.00	0.00	0.00
11	0.00	14	97	129	65	440	394	176	41	0.00	0.00	0.00
12	0.00	10	74	124	67	457	389	150	39	0.00	0.00	0.00
13	0.00	10	235	117	67	471	380	142	37	0.00	0.00	0.00
14	0.00	13	514	114	65	507	339	138	35	0.00	0.00	0.00
15	0.00	43	214	115	65	595	319	137	34	0.00	0.00	0.00
16	0.00	23	131	117	359	641	273	134	32	0.00	0.00	0.00
17	0.00	35	97	113	341	646	248	127	30	0.00	0.00	0.00
18	0.00	26	82	113	431	673	225	80	29	0.00	0.00	0.00
19	0.00	17	73	113	739	707	221	92	28	0.00	0.00	0.00
20	0.00	14	141	110	567	694	349	95	26	0.00	0.00	0.00
21	0.00	14	169	103	385	712	341	98	25	0.00	0.00	0.00
22	0.00	11	131	97	320	656	321	96	24	0.00	0.00	0.00
23	0.00	7.8	117	92	274	585	291	92	23	0.00	0.00	0.00
24	0.00	7.7	323	92	264	550	285	85	21	0.00	0.00	0.00
25	0.00	7.0	307	87	508	528	304	82	20	0.00	0.00	0.00
26	0.00	6.4	251	80	686	467	335	78	19	0.00	0.00	0.00
27	0.00	4.7	174	92	418	404	367	79	18	0.00	0.00	0.00
28	0.00	5.7	136	86	313	383	371	97	17	0.00	0.00	0.00
29	0.00	6.3	124	82	263	390	324	121	18	0.00	0.00	0.00
30	0.00	5.9	113	92	---	414	289	86	17	0.00	0.00	0.00
31	0.00	---	97	93	---	403	---	78	---	0.00	0.00	---
TOTAL	0.00	293.50	4946	3031	7016	13605	10114	4840	1100	100.80	0.00	0.00
MEAN	0.00	9.78	160	97.8	242	439	337	156	36.7	3.25	0.00	0.00
MAX	0.00	43	514	129	739	712	413	303	74	16	0.00	0.00
MIN	0.00	0.00	15	63	65	163	221	78	17	0.00	0.00	0.00
AC-FT	0.00	582	9810	6010	13920	26990	20060	9600	2180	200	0.00	0.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 2004, BY WATER YEAR (WY)

MEAN	7.41	59.6	93.2	138	154	223	231	209	105	21.8	2.83	1.35
MAX	43.5	321	302	412	595	588	690	638	470	144	24.2	21.1
(WY)	1983	1984	1967	2003	1996	1993	1993	1973	1998	1983	1983	1986
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00
(WY)	1963	1963	1974	1965	1965	1969	1969	1977	1977	1966	1963	1963

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1963 - 2004	
ANNUAL TOTAL	51735.50		45046.30			
ANNUAL MEAN	142		123		104	
HIGHEST ANNUAL MEAN					209	1995
LOWEST ANNUAL MEAN					0.00	1977
HIGHEST DAILY MEAN	824	Jan 23	739	Feb 19	863	Apr 6 1963
LOWEST DAILY MEAN	0.00	Apr 26	0.00	Oct 1	0.00	Oct 1 1962
ANNUAL SEVEN-DAY MINIMUM	0.00	May 17	0.00	Oct 1	0.00	Oct 1 1962
ANNUAL RUNOFF (AC-FT)	102600		89350		75090	
10 PERCENT EXCEEDS	403		383		342	
50 PERCENT EXCEEDS	55		54		16	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

11413300 SLATE CREEK BELOW DIVERSION DAM, NEAR STRAWBERRY VALLEY, CA

LOCATION.—Lat 39°36'52", long 121°03'04", in SE 1/4 SW 1/4 sec.2, T.20 N., R.8 E., Plumas County, Hydrologic Unit 18020125, Plumas National Forest, on right bank, 300 ft downstream from diversion dam, 0.2 mi upstream from Feney Ravine, and 4.5 mi northeast of town of Strawberry Valley.

DRAINAGE AREA.—49.4 mi^2.

PERIOD OF RECORD.—October 1960 to current year.

GAGE.—Water-stage recorder and 130° V-notch weir since October 1982. Elevation of gage is 3,570 ft above NGVD of 1929, from topographic map.

REMARKS.—Slate Creek Tunnel (station 11413250) diverts up to 900 ft^3/s from Slate Creek Reservoir, capacity, 223 acre-ft, at diversion dam 300 ft upstream, to Sly Creek Reservoir (station 11395400). Diversion began in February 1962. See schematic diagrams of South Fork Feather River Basin and North and Middle Yuba River Basins.

COOPERATION.—Records provided by South Feather Water and Power Agency, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2088.

EXTREMES FOR PERIOD OF RECORD.—Creek only: Maximum discharge, 17,300 ft^3/s, Jan. 1, 1997, gage height, 17.20 ft, from rating curve extended above 5,500 ft^3/s, on basis of computed flow over dam at gage heights 12.75, 15.90, 16.89 and 17.20 ft; minimum, 0.3 ft^3/s, Mar. 4, 5, 1962.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.0	11	11	12	11	12	11	11	11	11	11	7.8
2	9.0	10	11	11	11	11	11	11	11	11	11	7.7
3	9.1	13	11	11	11	11	11	11	11	11	11	7.7
4	9.1	13	10	11	11	11	11	11	11	11	11	7.7
5	9.0	12	11	11	11	11	11	11	11	11	11	7.8
6	9.0	12	213	11	11	11	11	11	11	11	11	7.7
7	8.6	15	118	11	11	11	11	11	11	11	10	7.7
8	8.5	23	12	11	11	11	11	11	11	16	10	7.5
9	8.4	59	11	11	11	11	11	11	11	19	10	7.3
10	8.3	25	12	11	11	11	11	11	11	18	9.7	7.3
11	8.3	10	11	11	11	11	11	11	11	18	9.5	7.3
12	8.4	11	11	11	11	11	11	11	11	17	9.4	7.2
13	8.3	12	12	11	11	11	10	11	11	17	9.2	7.3
14	8.3	11	82	11	11	11	10	11	11	16	9.1	7.4
15	8.3	11	11	11	11	11	10	11	11	16	9.0	7.3
16	8.4	11	11	11	296	11	11	11	11	16	9.0	7.3
17	8.4	11	11	11	1210	11	11	11	11	15	9.0	7.3
18	8.3	11	11	11	1060	11	11	55	11	15	8.8	7.4
19	8.3	11	11	11	161	12	11	30	11	14	8.7	8.8
20	8.3	11	11	11	11	11	11	20	11	14	8.6	12
21	8.3	11	11	11	22	19	11	12	11	14	8.4	11
22	8.2	11	11	11	10	41	11	12	11	14	8.5	9.2
23	8.1	11	11	11	11	39	11	12	11	13	8.8	8.7
24	7.9	10	302	11	12	14	11	12	11	13	9.3	8.4
25	7.8	10	61	11	94	11	11	11	11	13	9.4	8.1
26	7.8	10	11	11	40	11	11	11	11	12	9.0	7.9
27	7.9	10	11	11	12	11	11	11	11	12	8.6	7.7
28	7.9	10	11	11	12	11	11	11	11	12	8.3	7.7
29	7.9	10	11	11	12	11	11	11	11	12	8.1	7.8
30	8.0	10	11	11	---	11	11	11	11	12	8.0	7.9
31	9.9	---	11	11	---	11	---	11	---	11	7.9	---
TOTAL	261.0	406	1064	342	3128	412	327	417	330	426	290.3	239.9
MEAN	8.42	13.5	34.3	11.0	108	13.3	10.9	13.5	11.0	13.7	9.36	8.00
MAX	9.9	59	302	12	1210	41	11	55	11	19	11	12
MIN	7.8	10	10	11	10	11	10	11	11	11	7.9	7.2
AC-FT	518	805	2110	678	6200	817	649	827	655	845	576	476

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 2004, BY WATER YEAR (WY)

MEAN	23.2	51.0	139	215	189	199	176	179	45.0	12.2	11.1	10.2
MAX	437	545	1303	1334	1415	901	753	795	481	21.3	19.3	17.7
(WY)	1963	1974	1965	1970	1986	1983	1982	1983	1983	1998	1965	1998
MIN	5.85	7.51	5.80	9.04	8.49	6.61	6.12	6.15	6.95	5.17	3.82	6.13
(WY)	1971	1977	1977	1975	1973	1968	1968	1968	1973	1977	1977	1987

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1963 - 2004	
ANNUAL TOTAL	18180.0		7643.2			
ANNUAL MEAN	49.8		20.9		104	
HIGHEST ANNUAL MEAN					352	1982
LOWEST ANNUAL MEAN					10.4	1976
HIGHEST DAILY MEAN	1510	Mar 15	1210	Feb 17	12100	Jan 1 1997
LOWEST DAILY MEAN	7.8	Oct 25	7.2	Sep 12	0.86	Feb 18 1975
ANNUAL SEVEN-DAY MINIMUM	7.9	Oct 24	7.3	Sep 9	0.95	Feb 21 1975
MAXIMUM PEAK FLOW			1900	Feb 18	17300	Jan 1 1997
MAXIMUM PEAK STAGE			9.11	Feb 18	17.20	Jan 1 1997
ANNUAL RUNOFF (AC-FT)	36060		15160		75340	
10 PERCENT EXCEEDS	116		14		286	
50 PERCENT EXCEEDS	11		11		11	
90 PERCENT EXCEEDS	9.2		8.3		8.3	

11413320 DEADWOOD CREEK NEAR STRAWBERRY VALLEY, CA

LOCATION.—Lat 39°33'00", long 121°05'36", in SW 1/4 SW 1/4 sec.33, T.20 N., R.8 E., Yuba County, Hydrologic Unit 18020125, Plumas National Forest, on right bank, 250 ft upstream of confluence with Owl Gulch, and 1.3 mi southeast of Strawberry Valley.

DRAINAGE AREA.—3.16 mi^2.

PERIOD OF RECORD.—October 1994 to current year.

GAGE.—Water-stage recorder and 120° V-notch weir. Elevation of gage is 3,275 ft above NGVD of 1929, from topographic map.

REMARKS.—Water from creek is diverted at gage to Deadwood Creek Powerplant (station 11413326). See schematic diagram of North and Middle Yuba River Basins.

COOPERATION.—Records provided by Yuba County Water Agency, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 6780.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 400 ft^3/s, Jan. 1, 1997; minimum daily, 1.7 ft^3/s, several days in February and March 1997.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	3.3	4.9	23	2.6	3.7	2.5	2.8	5.6	4.7	4.1	2.7
2	3.1	3.2	6.3	15	9.7	3.4	2.5	2.8	5.6	4.6	3.7	2.7
3	3.1	3.6	4.3	11	15	3.1	2.5	2.8	5.5	4.7	3.2	2.7
4	3.1	3.4	4.0	9.9	12	2.9	2.5	2.8	5.4	4.8	3.2	2.7
5	3.1	3.4	5.7	9.2	11	2.8	2.5	2.8	5.4	4.9	3.2	2.7
6	3.1	3.3	22	8.8	8.0	2.8	2.5	2.8	5.4	4.7	3.2	2.7
7	3.0	4.2	15	11	2.6	2.7	2.5	2.8	5.4	4.6	3.1	2.6
8	3.0	4.6	7.5	11	2.6	2.7	2.5	2.8	5.4	4.5	3.1	2.6
9	3.0	9.5	5.8	11	2.6	2.7	2.5	2.8	5.4	4.4	3.1	2.6
10	3.0	4.4	15	12	2.6	2.7	2.5	2.8	5.3	4.3	3.0	2.6
11	3.0	3.8	12	11	2.6	2.6	2.5	2.8	5.2	4.2	3.0	2.6
12	3.0	3.5	9.3	10	2.6	2.6	2.6	2.8	5.2	4.1	3.0	2.6
13	3.0	3.4	18	9.9	2.6	2.6	2.8	2.8	5.1	4.0	3.0	2.6
14	3.0	4.1	24	9.7	2.6	2.6	2.8	2.8	5.0	3.9	2.9	2.6
15	3.0	6.4	11	5.7	2.6	2.6	2.8	2.8	5.0	3.8	2.9	2.5
16	3.0	4.6	8.8	4.1	18	2.6	2.8	2.8	5.1	3.6	2.9	2.6
17	3.0	4.8	7.4	5.8	10	2.6	2.8	2.8	5.1	3.6	2.9	2.6
18	2.9	4.1	6.5	2.6	30	2.6	2.8	2.8	5.1	3.6	2.9	2.6
19	2.9	3.8	6.1	2.6	9.3	2.6	2.8	2.8	5.0	3.6	2.9	3.2
20	2.9	3.7	7.8	2.6	3.8	2.6	2.9	2.8	5.0	3.6	2.8	3.0
21	2.9	3.6	7.4	2.6	3.2	2.6	2.8	2.8	4.9	3.7	2.8	2.9
22	2.9	3.5	6.2	2.6	3.0	2.6	2.8	2.8	4.9	3.7	2.9	2.8
23	2.9	3.4	7.7	2.6	9.9	2.5	2.8	2.8	4.8	3.6	2.9	2.8
24	2.9	3.4	30	2.6	4.1	2.5	2.8	5.2	4.7	3.6	2.9	2.7
25	2.8	3.4	17	2.6	37	2.7	2.8	6.0	4.7	3.5	2.8	2.7
26	2.8	3.4	12	2.6	34	2.5	2.8	5.9	4.8	3.5	2.9	2.6
27	2.8	3.3	9.8	2.9	25	2.5	2.8	5.9	4.9	3.6	2.8	2.6
28	2.8	3.3	8.9	2.6	5.0	2.5	2.8	6.4	5.0	3.8	2.7	2.6
29	2.8	3.4	9.3	2.6	3.6	2.5	2.8	6.3	4.9	4.0	2.7	2.6
30	2.9	3.3	9.2	2.6	---	2.5	2.8	5.8	4.8	4.1	2.7	2.6
31	3.2	---	9.6	2.6	---	2.5	---	5.7	---	4.1	2.7	---
TOTAL	92.0	119.1	328.5	214.8	277.6	83.4	80.6	111.6	153.6	125.4	92.9	80.4
MEAN	2.97	3.97	10.6	6.93	9.57	2.69	2.69	3.60	5.12	4.05	3.00	2.68
MAX	3.2	9.5	30	23	37	3.7	2.9	6.4	5.6	4.9	4.1	3.2
MIN	2.8	3.2	4.0	2.6	2.6	2.5	2.5	2.8	4.7	3.5	2.7	2.5
AC-FT	182	236	652	426	551	165	160	221	305	249	184	159
a	0.00	0.00	0.00	404	1160	1590	652	285	0.00	0.00	0.00	0.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2004, BY WATER YEAR (WY)

MEAN	3.46	3.81	6.14	10.2	9.21	5.81	3.81	3.83	3.28	3.31	3.26	3.22
MAX	4.75	4.73	17.7	42.4	20.3	22.8	10.7	10.7	5.12	4.16	4.36	4.35
(WY)	1999	1997	1997	1997	1998	1995	1995	1995	2004	1997	2003	1996
MIN	2.04	3.09	2.75	3.34	2.82	2.69	2.69	2.60	2.54	2.57	2.17	1.96
(WY)	1995	1995	1998	2000	2002	2004	2004	2002	1999	1999	2001	2001

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1995 - 2004	
ANNUAL TOTAL	1537.4		1759.9			
ANNUAL MEAN	4.21		4.81		4.93	
HIGHEST ANNUAL MEAN					8.23	1997
LOWEST ANNUAL MEAN					2.95	2002
HIGHEST DAILY MEAN	30	Dec 24	37	Feb 25	400	Jan 1 1997
LOWEST DAILY MEAN	2.5	May 20	2.5	Mar 23	1.7	Feb 24 1997
ANNUAL SEVEN-DAY MINIMUM	2.6	May 28	2.5	Mar 26	1.7	Feb 23 1997
ANNUAL RUNOFF (AC-FT)	3050		3490		3570	
TOTAL DIVERSION (AC-FT) a	7050		4090		7780	
10 PERCENT EXCEEDS	6.4		9.4		6.0	
50 PERCENT EXCEEDS	3.1		3.1		2.9	
90 PERCENT EXCEEDS	2.6		2.6		2.6	

a Diversion, in acre-feet, to Deadwood Creek Powerplant (station 11413326), provided by Yuba County Water Agency.

11413323 OWL GULCH NEAR STRAWBERRY VALLEY, CA

LOCATION.—Lat 39°32'44", long 121°05'39", in SW 1/4 SW 1/4 sec.33, T.20 N., R.8 E., Yuba County, Hydrologic Unit 18020125, Plumas National Forest, on left bank, 250 ft upstream from Deadwood Creek, and 1.3 mi southeast of Strawberry Valley.

DRAINAGE AREA.—2.07 mi^2.

PERIOD OF RECORD.—October 1994 to current year.

GAGE.—Water-stage recorder and 120° V-notch weir. Elevation of gage is 3,050 ft above NGVD of 1929, from topographic map.

REMARKS.—Water from creek is diverted at gage to Deadwood Creek Powerplant (station 11413326). See schematic diagram of North and Middle Yuba River Basins.

COOPERATION.—Records provided by Yuba County Water Agency, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 6780.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 346 ft^3/s, Jan. 1, 1997; minimum daily, 0.58 ft^3/s, Sept. 17–22, 1997.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	1.2	2.1	12	1.6	7.8	1.7	1.8	2.7	1.8	1.3	1.1
2	1.3	1.2	2.6	10	6.3	6.2	1.7	1.8	2.6	1.8	1.3	1.1
3	1.3	1.3	1.8	7.8	10	4.7	1.7	1.7	2.5	1.7	1.3	1.0
4	1.3	1.3	1.7	6.6	9.1	4.0	1.7	1.7	2.4	1.7	1.3	1.1
5	1.3	1.3	2.2	5.9	8.2	3.5	1.7	1.7	2.4	1.7	1.3	1.1
6	1.3	1.2	8.3	5.5	6.2	3.2	1.7	1.7	2.3	1.7	1.3	1.1
7	1.2	1.5	6.5	6.6	1.9	3.0	1.7	1.7	2.4	1.7	1.2	1.0
8	1.2	1.7	3.2	6.7	1.8	2.7	1.7	1.7	2.3	1.6	1.2	0.97
9	1.2	3.5	2.5	6.6	1.8	2.6	1.8	1.7	2.3	1.6	1.2	0.96
10	1.2	1.8	6.8	7.1	1.8	2.4	1.7	1.7	2.3	1.6	1.2	0.95
11	1.2	1.5	5.6	6.8	1.8	2.3	1.7	1.8	2.3	1.6	1.2	0.94
12	1.2	1.4	4.1	6.5	1.8	2.2	1.7	1.7	2.3	1.6	1.2	0.94
13	1.2	1.4	7.6	6.2	1.8	2.1	1.7	1.7	2.2	1.6	1.1	0.93
14	1.2	1.6	10	6.1	1.9	2.0	1.7	1.6	2.2	1.6	1.1	0.92
15	1.2	2.6	6.0	3.9	1.8	1.9	1.7	1.6	2.2	1.6	1.1	0.90
16	1.1	1.9	4.3	2.8	8.4	1.9	1.7	1.6	2.1	1.6	1.1	0.92
17	1.1	2.0	3.6	3.7	9.3	1.9	1.7	1.6	2.1	1.5	1.1	0.93
18	1.1	1.8	3.2	1.7	15	1.9	1.8	1.6	2.1	1.5	1.1	0.97
19	1.1	1.7	2.9	1.8	10	1.8	1.7	1.6	2.0	1.5	1.1	1.2
20	1.1	1.7	3.4	2.7	7.9	1.8	1.7	1.6	2.0	1.5	1.1	1.2
21	1.1	1.6	3.2	1.8	5.2	1.8	1.7	1.6	2.0	1.5	1.1	1.1
22	1.1	1.6	2.9	1.9	4.1	1.8	1.8	1.6	2.0	1.4	1.1	1.0
23	1.1	1.6	3.5	1.6	10	1.8	1.7	1.6	1.9	1.4	1.1	1.0
24	1.1	1.6	12	1.5	5.3	1.8	1.8	2.6	1.9	1.4	1.1	0.98
25	1.1	1.5	9.5	1.6	15	1.9	1.7	2.9	1.9	1.4	1.1	0.97
26	1.1	1.5	6.8	1.6	13	1.8	1.7	2.8	1.9	1.4	1.0	0.93
27	1.1	1.5	5.4	2.6	13	1.8	1.8	2.9	1.9	1.4	1.1	0.93
28	1.1	1.5	4.7	1.6	9.8	1.8	1.9	3.1	1.9	1.4	1.0	0.93
29	1.1	1.5	4.8	1.6	7.8	1.7	2.0	3.0	1.8	1.3	1.0	0.93
30	1.1	1.5	4.6	1.6	---	1.7	1.8	2.9	1.8	1.3	1.0	0.93
31	1.2	---	4.8	1.6	---	1.7	---	2.8	---	1.3	1.1	---
TOTAL	36.3	49.0	150.6	136.0	191.6	79.5	52.1	61.4	64.7	47.7	35.5	29.93
MEAN	1.17	1.63	4.86	4.39	6.61	2.56	1.74	1.98	2.16	1.54	1.15	1.00
MAX	1.3	3.5	12	12	15	7.8	2.0	3.1	2.7	1.8	1.3	1.2
MIN	1.1	1.2	1.7	1.5	1.6	1.7	1.7	1.6	1.8	1.3	1.0	0.90
AC-FT	72	97	299	270	380	158	103	122	128	95	70	59

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2004, BY WATER YEAR (WY)

MEAN	1.46	1.72	3.62	8.21	7.76	5.17	3.07	3.17	2.07	1.79	1.46	1.33
MAX	2.85	2.17	14.2	35.3	23.7	16.3	8.74	10.6	2.87	2.10	1.90	2.09
(WY)	1999	1999	1997	1997	1998	1995	1995	1995	1998	2003	1998	1998
MIN	0.82	1.41	1.70	1.77	1.78	1.90	1.74	1.80	1.75	1.29	0.77	0.78
(WY)	2002	2003	2000	2001	2002	2001	2004	2002	2001	2001	1997	2001

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1995 - 2004	
ANNUAL TOTAL	884.3		934.33			
ANNUAL MEAN	2.42		2.55		3.39	
HIGHEST ANNUAL MEAN					6.02	1997
LOWEST ANNUAL MEAN					1.61	2001
HIGHEST DAILY MEAN	14	Jan 22	15	Feb 18	346	Jan 1 1997
LOWEST DAILY MEAN	1.1	Oct 16	0.90	Sep 15	0.58	Sep 17 1997
ANNUAL SEVEN-DAY MINIMUM	1.1	Oct 16	0.93	Sep 11	0.58	Sep 16 1997
ANNUAL RUNOFF (AC-FT)	1750		1850		2450	
10 PERCENT EXCEEDS	4.6		6.2		5.7	
50 PERCENT EXCEEDS	1.8		1.7		1.8	
90 PERCENT EXCEEDS	1.3		1.1		1.1	

11413510 NEW COLGATE POWERPLANT NEAR FRENCH CORRAL, CA

LOCATION.—Lat 39°19'51", long 121°11'23", in NE 1/4 SE 1/4 sec.16, T.17 N., R.7 E., Yuba County, Hydrologic Unit 18020125, at powerplant, on right bank of Yuba River, 0.3 mi upstream from Dobbins Creek, and 2.3 mi northwest of French Corral.

PERIOD OF RECORD.—October 1966 to current year. Prior to October 1969, published as "Colgate Powerplant."

GAGE.—Recorded output from powerplant turbines.

REMARKS.—Water is diverted from North Yuba River at New Bullards Bar Reservoir (station 11413515). Colgate Powerplant was rebuilt during the 1970 water year with an increased capacity. Prior to Oct. 31, 1973, Browns Valley Ditch diverted up to 10 ft^3/s at times from the head of the penstock for use in irrigation. See schematic diagram of North and Middle Yuba River Basins.

COOPERATION.—Records provided by Yuba County Water Agency, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2246.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	462	517	722	1510	1230	2090	2050	1130	2250	1980	1130	957
2	524	573	698	1530	1390	1840	2220	1840	1760	2080	914	584
3	554	638	648	1590	1310	1720	1480	2120	2030	1610	1890	684
4	448	666	640	1840	1630	1630	1560	2180	2070	1780	1910	756
5	675	725	634	1810	1500	1660	1980	2270	962	1460	1930	808
6	664	669	533	1920	1460	1090	2040	2080	1460	1680	1770	778
7	657	729	494	1730	664	1590	1410	2140	1920	2230	1200	737
8	634	767	623	1740	1340	1540	1460	1020	1370	2060	1060	643
9	708	770	651	1690	1480	2000	1510	1780	2010	2030	1920	666
10	696	819	646	1250	1130	2100	1250	2160	1720	1170	1820	672
11	655	759	648	1600	1560	1960	1690	2390	2050	1360	1770	327
12	1020	711	659	1810	1490	1890	1980	2500	1050	2130	1740	317
13	556	752	512	1590	1490	1580	1650	2390	1010	2130	1720	677
14	651	589	605	1480	716	1770	1840	2330	1940	2120	847	712
15	697	387	646	1390	1390	2020	2110	1690	1900	2150	822	714
16	622	606	721	1600	1190	1920	1650	1870	1980	2130	1760	682
17	754	742	686	1520	1390	1910	1130	2410	1740	1300	1640	820
18	628	689	809	1650	1350	1730	1650	2030	1550	1290	1690	0.00
19	690	693	1100	1580	1220	1680	2070	2090	990	2210	1690	0.00
20	778	646	962	1570	1640	976	1810	2040	1360	2140	1630	776
21	711	672	1080	1550	1400	1250	1580	1840	1930	2210	915	719
22	694	599	998	1560	1520	1700	2090	1050	1930	2310	746	653
23	566	728	1480	1610	1520	1750	2250	1730	1840	2160	1460	711
24	522	707	855	1820	1700	1780	1480	2150	1860	1270	1450	846
25	449	707	754	1630	1790	1620	1700	2180	1730	1240	1410	0.00
26	629	703	1110	1750	2000	1560	2210	2230	945	1890	1280	0.00
27	524	650	1100	1580	1740	1030	1490	2280	1030	1950	1530	799
28	861	618	1410	1540	1650	1540	1610	1970	1790	1980	892	750
29	1030	664	1410	1210	2040	1260	1840	1370	1720	1730	858	931
30	938	669	1710	1180	---	1740	1890	1620	1850	1630	953	1110
31	972	---	1490	900	---	1890	---	1730	---	1080	902	---
TOTAL	20969	20164	27034	48730	41930	51816	52680	60610	49747	56490	43249	18829.00
MEAN	676	672	872	1572	1446	1671	1756	1955	1658	1822	1395	628
MAX	1030	819	1710	1920	2040	2100	2250	2500	2250	2310	1930	1110
MIN	448	387	494	900	664	976	1130	1020	945	1080	746	0.00
AC-FT	41590	40000	53620	96660	83170	102800	104500	120200	98670	112000	85780	37350

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 2004, BY WATER YEAR (WY)

MEAN	1154	1081	1300	1495	1662	1694	1699	1572	1680	1799	1921	1286
MAX	2497	2433	3262	3496	3525	3519	3508	3565	3629	3057	3130	2995
(WY)	1976	1976	1975	1984	1998	1980	1993	1982	1983	1983	1984	1980
MIN	0.00	302	96.6	152	54.6	39.3	103	206	404	386	319	0.00
(WY)	1975	1978	1978	1977	1977	1977	1979	1977	1977	1977	1977	1974

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1971 - 2004	
ANNUAL TOTAL	570185		492248.00			
ANNUAL MEAN	1562		1345		1529	
HIGHEST ANNUAL MEAN					2686	1983
LOWEST ANNUAL MEAN					316	1977
HIGHEST DAILY MEAN	3310	Jun 2	2500	May 12	4200	Jun 2 1971
LOWEST DAILY MEAN	387	Nov 15	0.00	Sep 18	0.00	Mar 14 1971
ANNUAL SEVEN-DAY MINIMUM	557	Sep 28	515	Sep 13	0.00	Feb 29 1972
ANNUAL RUNOFF (AC-FT)	1131000		976400		1107000	
10 PERCENT EXCEEDS	2920		2070		3340	
50 PERCENT EXCEEDS	1370		1460		1280	
90 PERCENT EXCEEDS	624		645		165	

11413515 NEW BULLARDS BAR RESERVOIR NEAR NORTH SAN JUAN, CA

LOCATION.—Lat 39°23'34", long 121°08'25", in SE 1/4 NW 1/4 sec.25, T.18 N., R.7 E., Yuba County, Hydrologic Unit 18020125, Plumas National Forest, in center of dam on North Yuba River, 2.2 mi upstream from Middle Yuba River, and 2.4 mi northwest of North San Juan.

DRAINAGE AREA.—489 mi^2.

PERIOD OF RECORD.—January 1969 to current year.

GAGE.—Water-stage recorder. Datum of gage is NGVD of 1929 (levels by Yuba County Water Agency).

REMARKS.—Reservoir is formed by concrete-arch dam with a concrete-sidehill spillway. Spill controlled by three 30-ft by 53-ft radial gates. Storage began in January 1969. Usable capacity, 727,380 acre-ft, between elevations 1,732.0 ft, minimum power pool and 1,955.0 ft, normal gross pool. Dead storage, 233,920 acre-ft. Total capacity at normal gross pool, 961,300 acre-ft, elevation, 1,955.0 ft. Water is released to New Colgate Powerplant (station 11413510) through a tunnel at the dam. Water is diverted into the reservoir from Middle Yuba River via Lohman Ridge Tunnel to Oregon Creek then via Camptonville Tunnel (stations 11408870 and 11409350). Records, including extremes, represent total contents at 2400 hours. See schematic diagram of North and Middle Yuba River Basins.

COOPERATION.—Records provided by Yuba County Water Agency, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2246. Contents not rounded to U.S. Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 972,224 acre-ft, June 27, 1995, elevation, 1,957.27 ft; minimum since reservoir first filled, 178,230 acre-ft, Dec. 29, 1980, elevation, 1,700.00 ft.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 789,108 acre-ft, May 8, elevation, 1,916.48 ft; minimum, 487,350 acre-ft, Sept. 30, elevation, 1,834.05 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey by Yuba County Water Agency in 1969)

1,600	64,900	1,690	162,983	1,800	389,977	1,900	721,130
1,630	90,570	1,720	211,768	1,850	539,748	1,960	985,471
1,660	122,993	1,750	270,110				

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	637755	605578	582439	632308	610916	686542	755420	782821	758078	689582	593833	516301
2	637022	604940	581816	632235	611738	687888	756687	783533	755870	686964	590333	515178
3	636436	603983	581090	630923	611309	688849	758119	784327	753460	684047	586604	513864
4	635449	602885	580571	629359	610809	689543	759841	785081	753175	681672	583028	512489
5	634461	602319	586152	627507	610275	691162	760743	785835	751830	678884	579742	511212
6	633476	601082	592781	626637	611238	691819	762674	786087	752075	675190	577673	509969
7	632527	600446	594043	626310	610595	692978	764566	788394	748170	671547	575882	508918
8	631361	600446	594464	625658	609598	693867	766503	789108	745413	667955	572417	507806
9	630304	599634	596114	626200	609490	695029	768980	788814	743309	666145	569099	506694
10	629286	598542	597626	625947	607853	696890	770345	787806	740402	663886	565828	506282
11	627580	597591	598401	625114	606609	698831	771173	785961	739555	660058	562602	505902
12	626708	596536	601398	624571	605295	701399	772705	784160	738628	656244	559421	504793
13	625730	595938	607142	624066	605543	703739	773494	782404	735814	652371	558004	503528
14	624752	596325	609241	623812	604479	706084	773577	782028	733006	648476	556635	502359
15	623812	595798	609989	623089	610060	708826	773950	781401	730045	644595	553362	501256
16	622620	595131	610346	622475	623848	711496	775112	779648	727490	642420	550315	499807
17	621645	594358	610203	621537	638892	714764	774988	778607	725340	640324	547112	499996
18	620563	593482	610203	620671	647439	718398	774158	777149	724306	636253	543987	500405
19	619375	592711	609562	619807	651665	723313	774697	775736	722439	632344	540939	499273
20	618296	591906	610095	618763	654977	727929	775403	774780	719426	628305	539418	498079
21	617218	591067	610203	617649	657365	731964	774905	775071	716302	624066	538165	497106
22	616356	590054	609348	616248	659048	735773	773867	774158	713463	620095	535466	495978
23	615602	589042	617289	614528	660733	739193	774365	772167	710435	617972	532841	494445
24	614957	588031	623017	613131	665803	743107	774656	770055	707689	615854	530290	494664
25	613990	587021	624897	611309	672988	745697	774490	767823	706475	612417	528007	494945
26	613310	586083	625621	611202	677969	748698	776151	765349	705067	608742	525146	493664
27	611845	585318	625259	610738	681367	750324	778190	764196	702139	605117	523687	492354
28	610024	584346	626200	610488	682974	752441	779273	764072	699414	602036	522198	490734
29	608494	583444	626164	610453	684929	753868	779773	763332	696346	599106	520550	488683
30	607070	582890	626092	610881	---	755012	781902	762016	693016	597204	518971	487350
31	606395	---	630559	610559	---	755583	---	759636	---	595306	517297	---
MAX	637755	605578	630559	632308	684929	755583	781902	789108	758078	689582	593833	516301
MIN	606395	582890	580571	610453	604479	686542	755420	759636	693016	595306	517297	487350
a	1869.45	1862.75	1876.17	1870.62	1890.72	1908.56	1914.93	1909.55	1892.82	1866.31	1843.11	1833.62
b	-32093	-23505	+47669	-20000	+74370	+70654	+26319	-22266	-66620	-97710	-78009	-29947

CAL YR 2003 b +14813
WTR YR 2004 b -151138

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

11413520 NORTH YUBA RIVER BELOW NEW BULLARDS BAR DAM, NEAR NORTH SAN JUAN, CA

LOCATION.—Lat 39°23'26", long 121°08'36", in SE 1/4 NW 1/4 sec.25, T.18 N., R.7 E., Yuba County, Hydrologic Unit 18020125, Plumas National Forest, on right bank, at old Colgate Dam, 0.2 mi downstream from New Bullards Bar Dam, and 2.5 mi northwest of North San Juan.

DRAINAGE AREA.—490 mi^2.

PERIOD OF RECORD.—August 1966 to current year.
WATER TEMPERATURE: Water years 1967–69, 1971–79.

GAGE.—Water-stage recorder and sharp-crested low-water control since Oct. 1, 1986. Elevation of gage is 1,350 ft above NGVD of 1929, from topographic map. Auxiliary water-stage recorder for high flow 0.9 mi downstream at different datum.

REMARKS.—Flow regulated by New Bullards Bar Reservoir (station 11413515) since 1969. Prior to 1969, flow regulated by Bullards Bar Reservoir (usable capacity, 31,500 acre-ft). New Colgate Powerplant (station 11413510) diverts at New Bullards Bar Dam 0.2 mi upstream. Water is diverted to Feather River Basin through Slate Creek Tunnel (station 11413250). Camptonville Tunnel (station 11409350) diverts water from Middle Yuba River to New Bullards Bar Reservoir. Records include flow over New Bullards Bar Reservoir spillway. See schematic diagram of North and Middle Yuba River Basins.

COOPERATION.—Records provided by Yuba County Water Agency, under general supervision of the U. S. Geological Survey, in connection with Federal Energy Regulatory Commission project 2246.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 56,200 ft^3/s, Jan. 22, 1970, gage height, 35.29 ft, at auxiliary gage, from rating curve extended above 40,000 ft^3/s, on basis of computation of flow over old Colgate Dam; minimum daily, 0.42 ft^3/s, Nov. 5, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood of Dec. 22, 1964, reached a stage of 49.8 ft, from floodmarks, discharge, 91,600 ft^3/s, at auxiliary gage, from computation of flow over old Colgate Dam.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.0	6.6	6.7	8.2	6.2	7.1	6.5	6.4	6.6	6.4	6.4	6.4
2	7.0	6.6	6.6	7.0	6.6	6.8	7.3	6.4	6.5	6.4	6.4	6.4
3	7.0	6.7	6.4	6.7	6.7	6.6	6.4	6.4	6.4	6.4	6.4	6.4
4	7.0	6.4	6.5	6.5	6.5	6.4	6.4	6.4	6.4	6.4	6.4	6.4
5	7.0	6.3	6.5	6.3	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4
6	7.0	6.3	7.7	6.7	6.4	6.4	6.4	6.4	7.2	6.4	6.4	6.4
7	7.0	6.4	6.8	6.7	6.3	6.4	8.5	6.4	9.3	6.4	6.4	6.4
8	6.9	6.5	6.7	6.7	6.2	6.2	6.4	6.4	9.3	6.4	6.4	6.4
9	6.8	6.9	6.8	6.6	6.2	6.2	6.2	6.4	7.8	6.4	6.4	6.4
10	6.9	6.4	7.0	6.6	6.2	6.3	6.2	6.4	6.4	6.4	6.4	6.4
11	6.8	6.4	7.0	6.6	6.2	6.3	6.4	6.4	6.4	6.4	7.7	6.4
12	6.8	6.3	6.8	6.6	6.2	6.3	6.2	6.5	6.4	6.4	8.4	6.4
13	6.8	6.4	7.3	6.5	6.2	6.3	6.9	6.6	6.4	6.4	8.4	6.4
14	6.8	6.5	7.3	6.5	6.2	6.3	6.0	6.6	6.4	6.4	8.4	6.4
15	6.9	6.9	6.5	6.2	6.2	6.3	6.1	6.6	6.4	6.4	8.4	6.4
16	6.4	6.6	6.5	6.2	7.2	9.0	6.1	6.6	6.4	6.4	8.4	6.4
17	6.4	6.5	6.4	6.2	6.9	9.6	6.0	6.6	6.4	6.4	8.4	6.4
18	6.4	6.4	6.4	6.2	7.8	6.4	6.1	6.6	6.4	6.4	8.4	6.4
19	6.4	6.4	6.3	6.2	6.8	6.4	6.2	7.5	6.4	6.4	8.4	6.5
20	6.4	6.4	6.5	6.2	6.5	6.4	6.5	6.6	6.4	6.4	8.4	6.5
21	6.4	6.4	6.5	6.2	6.3	6.4	6.4	6.6	6.4	6.4	8.4	6.4
22	6.4	6.5	6.4	6.2	6.3	6.4	6.4	6.6	6.4	6.4	8.4	6.4
23	6.4	6.5	6.5	6.2	6.3	6.4	6.4	6.6	6.4	6.4	8.4	6.4
24	6.4	6.4	8.0	6.2	6.6	6.5	6.4	6.6	6.4	6.4	7.5	6.4
25	6.5	6.4	6.9	6.2	7.3	6.8	6.4	6.6	6.4	6.4	6.4	6.4
26	6.4	6.4	6.8	6.2	7.5	6.6	6.4	6.6	6.4	6.4	6.4	6.4
27	6.4	6.5	6.7	7.0	7.1	6.5	6.4	6.6	6.4	6.4	6.4	6.4
28	6.4	6.5	6.7	6.5	6.6	6.5	6.4	6.6	6.4	6.4	6.4	6.4
29	6.4	6.5	6.8	6.4	6.4	6.5	6.4	6.6	6.4	6.4	6.4	6.4
30	6.4	6.4	6.8	6.4	---	6.5	6.4	6.6	6.4	6.4	6.4	6.4
31	6.5	---	6.6	6.2	---	6.5	---	6.6	---	6.4	6.4	---
TOTAL	206.3	194.4	209.4	201.1	190.3	205.7	193.2	203.2	200.3	198.4	224.8	192.2
MEAN	6.65	6.48	6.75	6.49	6.56	6.64	6.44	6.55	6.68	6.40	7.25	6.41
MAX	7.0	6.9	8.0	8.2	7.8	9.6	8.5	7.5	9.3	6.4	8.4	6.5
MIN	6.4	6.3	6.3	6.2	6.2	6.2	6.0	6.4	6.4	6.4	6.4	6.4
AC-FT	409	386	415	399	377	408	383	403	397	394	446	381

11413520 NORTH YUBA RIVER BELOW NEW BULLARDS BAR DAM, NEAR NORTH SAN JUAN, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	16.9	32.4	254	716	783	617	343	463	234	33.6	7.52	7.89
MAX	381	404	3570	8990	7457	4648	4144	4289	3759	759	25.4	45.9
(WY)	1975	1967	1984	1970	1986	1995	1982	1967	1967	1967	1967	1969
MIN	2.60	3.41	4.97	4.65	2.10	5.32	3.09	4.12	1.92	3.48	3.21	2.89
(WY)	1971	1971	1978	1981	1971	1976	1970	1970	1970	1977	1977	1966

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1966 - 2004	
ANNUAL TOTAL	16927.4		2419.3			
ANNUAL MEAN	46.4		6.61		290	
HIGHEST ANNUAL MEAN					1560	1967
LOWEST ANNUAL MEAN					4.62	1977
HIGHEST DAILY MEAN	1940	May 6	9.6	Mar 17	48200	Feb 19 1986
LOWEST DAILY MEAN	5.7	Jan 17	6.0	Apr 14	0.42	Nov 5 1966
ANNUAL SEVEN-DAY MINIMUM	5.8	Jan 3	6.1	Apr 14	0.68	Nov 1 1966
MAXIMUM PEAK FLOW			15	Apr 13	56200	Jan 22 1970
MAXIMUM PEAK STAGE			7.29	Apr 13	35.29	Jan 22 1970
ANNUAL RUNOFF (AC-FT)	33580		4800		210300	
10 PERCENT EXCEEDS	8.2		7.0		24	
50 PERCENT EXCEEDS	6.8		6.4		6.7	
90 PERCENT EXCEEDS	6.0		6.3		5.1	

11413940 KIDD LAKE NEAR SODA SPRINGS, CA

LOCATION.—Lat 39°18'41", long 120°25'54", in SW 1/4 NW 1/4 sec.29, T.17 N., R.14 E., Placer County, Hydrologic Unit 18020125, on outlet structure, on Kidd Lake Dam, and 3.0 mi west of Soda Springs.

DRAINAGE AREA.—1.00 mi^2.

PERIOD OF RECORD.—July 1991 to September 2000, October 2001 to current year. Unpublished records for water years 1966–91 available in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder. Datum of gage is 6,600.3 ft above NGVD of 1929 (levels by Pacific Gas & Electric Co.). Prior to July 1991, nonrecording gage at same site and datum.

REMARKS.—Records not collected during winter months. Reservoir is formed on natural lake by rock-fill dam completed in 1855. Usable capacity, 1,505 acre-ft, between gage heights 0.0 ft, invert of outlet, and 27.3 ft, crest of spillway. Water is used for power development downstream. Records represent usable contents at 2400 hours.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2310.

Capacity table (gage height, in feet, and contents, in acre-feet)
(Based on survey by Pacific Gas & Electric Co., dated April 1965)

0	0	8	259	20	918	28	1,568
4	117	16	654				

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	423	30	---	---	---	---	---	989	1130	1060	861	598
2	407	---	---	---	---	---	---	1000	1130	1060	848	591
3	393	---	---	---	---	---	---	1020	1130	1050	835	583
4	379	---	---	---	---	---	---	1030	1130	1050	824	575
5	366	---	---	---	---	---	---	1050	1130	1040	814	565
6	353	---	---	---	---	---	---	1060	1120	1040	809	552
7	339	---	---	---	---	---	---	1070	1120	1040	803	542
8	324	---	---	---	---	---	---	1070	1120	1030	793	531
9	310	---	---	---	---	---	---	1080	1120	1030	783	519
10	296	---	---	---	---	---	---	1090	1120	1020	776	508
11	283	---	---	---	---	---	---	1100	1120	1020	769	498
12	272	---	---	---	---	---	---	1100	1110	1010	763	486
13	260	---	---	---	---	---	---	1110	1110	1010	753	478
14	247	---	---	---	---	---	---	1110	1110	1000	746	467
15	235	---	---	---	---	---	---	1120	1110	994	739	455
16	221	---	---	---	---	---	---	1120	1110	991	731	445
17	206	---	---	---	---	---	---	1130	1100	988	723	436
18	192	---	---	---	---	---	---	1130	1100	985	712	425
19	178	---	---	---	---	---	---	1130	1100	977	692	412
20	165	---	---	---	---	---	---	1130	1090	966	678	404
21	152	---	---	---	---	---	---	1130	1090	955	677	393
22	138	---	---	---	---	---	---	1130	1080	944	677	382
23	124	---	---	---	---	---	---	1130	1080	932	669	371
24	107	---	---	---	---	---	---	1130	1070	922	658	360
25	56	---	---	---	---	---	---	1130	1070	914	650	350
26	41	---	---	---	---	---	---	1130	1070	906	643	339
27	35	---	---	---	---	---	---	1130	1070	899	635	329
28	34	---	---	---	---	---	---	1130	1060	895	627	321
29	32	---	---	---	---	---	963	1130	1060	886	620	312
30	31	---	---	---	---	---	975	1130	1060	878	615	304
31	31	---	---	---	---	---	---	1130	---	871	606	---
MAX	423	---	---	---	---	---	---	1130	1130	1060	861	598
MIN	31	---	---	---	---	---	---	989	1060	871	606	304
a	1.14	---	---	---	---	---	20.78	22.83	21.94	19.34	15.20	9.16
b	-408	---	---	---	---	---	---	+155	-70	-189	-265	-302

WTR YR 2004 b -135

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

11413943 UPPER CASCADE LAKE NEAR SODA SPRINGS, CA

LOCATION.—Lat 39°18'02", long 120°26'02", in NW 1/4 NW 1/4 sec.32, T.17 N., R.14 E., Placer County, Hydrologic Unit 18020125, Tahoe National Forest, on outlet structure on Upper Cascade Lake Dam, and 3.4 mi southwest of Soda Springs.

DRAINAGE AREA.—0.62 mi^2.

PERIOD OF RECORD.—October 1999 to current year. Unpublished records for water years 1966–99 available in files of the U.S. Geological Survey.

GAGE.—Nonrecording gage observed intermittently during the summer months. Datum of gage is 6,607 ft above NGVD of 1929 (levels by Pacific Gas & Electric Co.).

REMARKS.—Reservoir is formed by an earthfill dam completed in 1850. Usable capacity, 1,740 acre-ft, between gage heights 0.0 ft, invert of outlet, and 34.9 ft, crest of spillway. Water is used for power development downstream.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2310.

Capacity table (gage height, in feet, and contents, in acre-feet)
(Based on survey by Pacific Gas & Electric Co., dated April 1965)

0	0	16	557	32	1,507	35	1,744
8	246	24	971				

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	36	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	1660	---	1510	1190
3	468	---	---	---	---	---	---	---	---	1610	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	1170
6	---	---	---	---	---	---	---	---	---	---	---	---
7	392	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	1120
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	1610	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	1630	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	1590	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	1600	---	1580	---	953
17	---	---	---	---	---	---	---	1610	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	1310	889
19	---	---	---	---	---	---	---	---	---	1580	---	---
20	250	---	---	---	---	---	---	---	---	---	1300	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	195	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	1580	---	---
25	---	---	---	---	---	---	---	---	1630	---	---	---
26	---	---	---	---	---	---	---	---	1630	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MAX	---	---	---	---	---	---	---	---	---	---	---	---
MIN	---	---	---	---	---	---	---	---	---	---	---	---

11413945 LOWER CASCADE LAKE NEAR SODA SPRINGS, CA

LOCATION.—Lat 39°18'12", long 120°26'19", in SE 1/4 SE 1/4 sec.30, T.17 N., R.14 E., Placer County, Hydrologic Unit 18020125, Tahoe National Forest, on outlet structure, on Lower Cascade Lake Dam, and 3.6 mi southwest of Soda Springs.

DRAINAGE AREA.—1.02 mi^2.

PERIOD OF RECORD.—July 1991 to current year. Unpublished records for water years 1966–90 available in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder. Datum of gage is 6,560.4 ft above NGVD of 1929 (levels by Pacific Gas & Electric Co.). Prior to July 1991, nonrecording gage at same site and datum.

REMARKS.—No records computed during the winter months. Reservoir is formed on natural lake by rock-fill dam completed in 1860. Usable capacity, 484 acre-ft, between gage heights 0.0 ft, invert of outlet, and 21.5 ft, crest of spillway. Water is used for power development downstream.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2310.

Capacity table (gage height, in feet, and contents, in acre-feet)
(Based on survey by Pacific Gas & Electric Co., dated April 1965)

0	0	8	133	16	318	22	500
4	62	12	218	20	435	23	530

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	286	9	---	---	---	---	---	487	490	481	425	400
2	281	---	---	---	---	---	---	487	490	481	424	394
3	274	---	---	---	---	---	---	487	490	481	426	389
4	265	---	---	---	---	---	---	487	489	480	428	383
5	257	---	---	---	---	---	---	487	489	480	430	384
6	248	---	---	---	---	---	---	487	489	479	432	394
7	243	---	---	---	---	---	---	488	488	478	436	403
8	242	---	---	---	---	---	---	488	488	478	442	402
9	242	---	---	---	---	---	---	488	488	478	448	390
10	241	---	---	---	---	---	---	488	488	477	453	377
11	241	---	---	---	---	---	---	488	487	476	457	365
12	240	---	---	---	---	---	---	488	487	475	461	353
13	240	---	---	---	---	---	---	488	487	475	465	342
14	239	---	---	---	---	---	---	488	487	474	468	331
15	239	---	---	---	---	---	---	488	486	471	472	322
16	246	---	---	---	---	---	---	489	486	469	475	317
17	254	---	---	---	---	---	---	489	486	469	479	312
18	260	---	---	---	---	---	---	489	485	468	480	315
19	264	---	---	---	---	---	---	489	485	467	480	328
20	265	---	---	---	---	---	---	489	484	465	477	338
21	263	---	---	---	---	---	---	490	484	462	470	347
22	258	---	---	---	---	---	---	490	484	460	463	354
23	251	---	---	---	---	---	---	490	483	456	457	360
24	243	---	---	---	---	---	---	490	482	452	450	364
25	229	---	---	---	---	---	---	490	482	448	444	368
26	206	---	---	---	---	---	---	490	482	444	438	370
27	182	---	---	---	---	---	---	490	481	441	432	371
28	157	---	---	---	---	---	---	490	481	438	426	371
29	133	---	---	---	---	---	486	490	481	435	420	370
30	111	---	---	---	---	---	487	490	481	432	414	369
31	66	---	---	---	---	---	---	490	---	429	407	---
MAX	286	---	---	---	---	---	---	490	490	481	480	403
MIN	66	---	---	---	---	---	---	487	481	429	407	312
a	4.25	---	---	---	---	---	21.58	21.69	21.39	19.79	19.06	17.78
b	-226	---	---	---	---	---	---	+3	-9	-52	-22	-38

WTR YR 2004 b +77

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

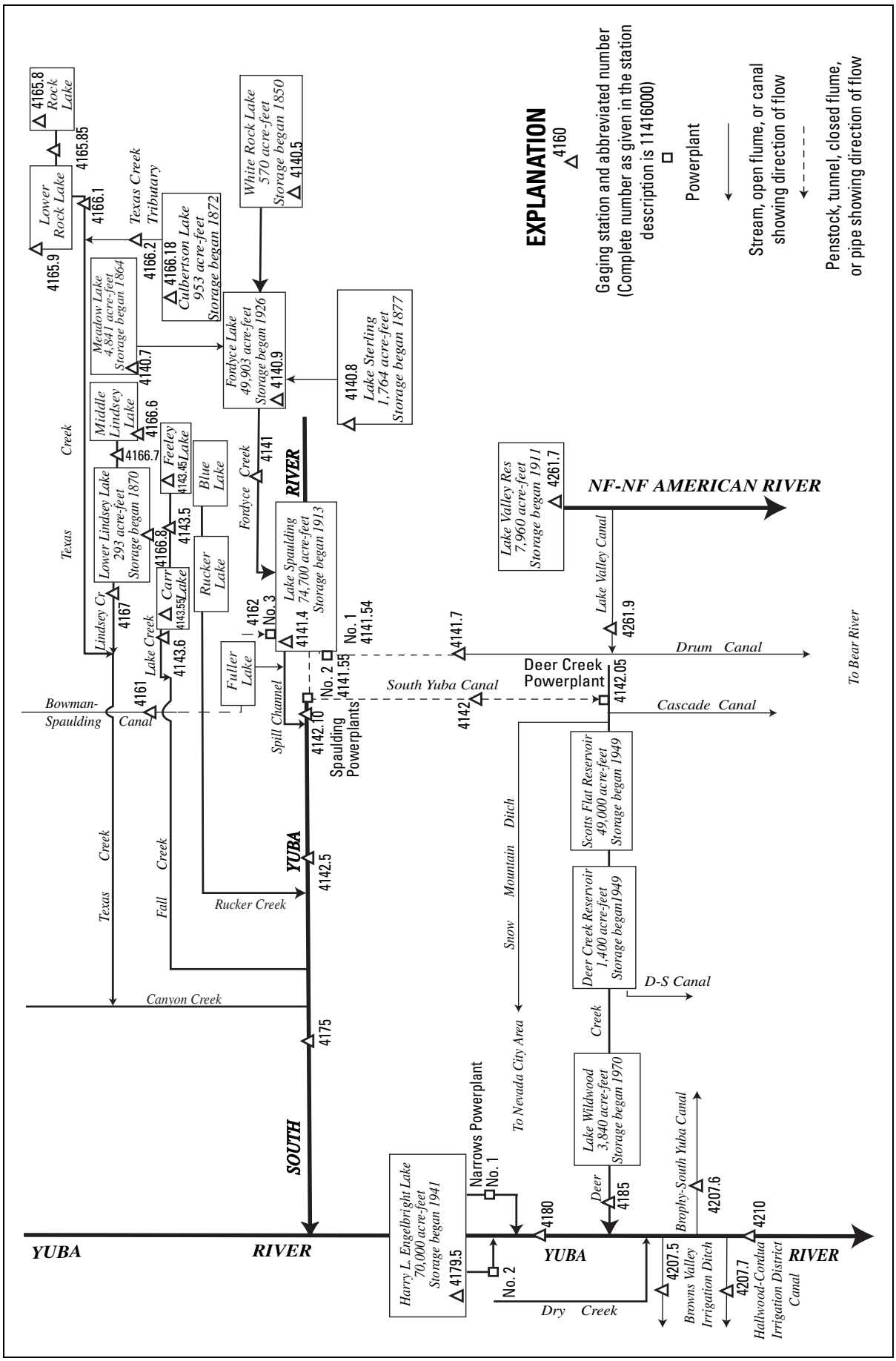


Figure 32. Diversions and storage in South Yuba River Basin.

11414050 WHITE ROCK LAKE NEAR SODA SPRINGS, CA

LOCATION.—Lat 39°25'05", long 120°23'16", in NW 1/4 NE 1/4 sec.22, T.18 N., R.14 E., Nevada County, Hydrologic Unit 18020125, on outlet structure on White Rock Lake Dam, and 6.5 mi north of Soda Springs.

DRAINAGE AREA.—1.18 mi^2.

PERIOD OF RECORD.—October 1999 to current year. Unpublished records for water years 1965–99 available in the files of the U.S. Geological Survey.

GAGE.—Staff gage read occasionally. Elevation of gage is 7,818 ft above NGVD of 1929, from topographic map.

REMARKS.—Lake is formed by an earth fill dam; storage began in 1850. The dam was rebuilt by Pacific Gas & Electric Co. in 1984. Capacity, 570 acre-ft, between elevation 7,810.5 ft, invert of outlet, and 7,820.0 ft, spillway crest. Released water is used downstream in a power and irrigation system. See schematic diagram of South Yuba River Basin.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2310. Contents not rounded to U.S. Geological Survey standards.

Capacity table (gage height, in feet, and contents, in acre-feet)
(Based on table provided by Pacific Gas & Electric Co., dated 1965)

3.1	0	6.0	223	8.0	387	10.0	561
4.0	68	7.0	304	9.0	472	11.0	654
5.0	145						

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	561	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	570	552	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	438	141
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MAX	---	---	---	---	---	---	---	---	---	---	---	---
MIN	---	---	---	---	---	---	---	---	---	---	---	---

11414070 MEADOW LAKE NEAR CISCO, CA

LOCATION.—Lat 39°24'12", long 120°29'48", in NW 1/4 NE 1/4 sec.27, T.18 N., R.13 E., Nevada County, Hydrologic Unit 18020125, Tahoe National Forest, on outlet structure on Meadow Lake Dam, 1.4 mi upstream from Fordyce Lake, and 7.5 mi northeast of Cisco.

DRAINAGE AREA.—1.98 mi^2.

PERIOD OF RECORD.—October 1999 to current year. Unpublished records for water years 1966–99 available in the files of the U.S. Geological Survey.

GAGE.—Staff gage read intermittently during the summer months. Elevation of gage is 7,287 ft above NGVD of 1929, from topographic map.

REMARKS.—Lake is formed by an earth-fill dam; storage began in 1864. The dam was rebuilt by Pacific Gas & Electric Co. in 1973. Capacity, 4,841 acre-ft, between gage height 2.19 ft, invert of outlet valve, and 31.3 ft, spillway crest. Released water is used downstream in a power and irrigation system. See schematic diagram of South Yuba River Basin.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2310. Contents not rounded to U.S. Geological Survey standards.

Capacity table (gage height, in feet, and contents, in acre-feet)
(Based on table provided by Pacific Gas & Electric Co., dated December 1978)

2.2	1.0	10.0	774	18.0	2017	26.0	3611
4.0	133	12.0	1045	20.0	2384	28.0	4059
6.0	317	14.0	1345	22.0	2772	30.0	4527
8.0	531	16.0	1671	24.0	3181	31.3	4841

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	4130	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	4170	4130	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	3920	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	2480
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MAX	---	---	---	---	---	---	---	---	---	---	---	---
MIN	---	---	---	---	---	---	---	---	---	---	---	---

11414080 LAKE STERLING NEAR CISCO, CA

LOCATION.—Lat 39°21'27", long 120°29'30", in NE 1/4 NE 1/4 sec.10, T.17 N., R.13 E., Nevada County, Hydrologic Unit 18020125, Tahoe National Forest, on outlet structure on Lake Sterling Dam, 0.3 mi upstream from Fordyce Lake, and 4.7 mi northeast of Cisco.

DRAINAGE AREA.—1.02 mi^2.

PERIOD OF RECORD.—October 1999 to current year. Unpublished records for water years 1966–99 available in the files of the U.S. Geological Survey.

GAGE.—Staff gage read occasionally. Elevation of gage is 6,987 ft above NGVD of 1929, from topographic map.

REMARKS.—Lake is formed by an earth fill dam; storage began in 1877. Capacity, 1,764 acre-ft, between elevation 6,965.97 ft, invert of outlet valve, and 6,987.9 ft, spillway crest. Released water is used downstream in a power and irrigation system. See schematic diagram of South Yuba River Basin.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2310. Contents not rounded to U.S. Geological Survey standards.

Capacity table (gage height, in feet, and contents, in acre-feet)
(Based on table provided by Pacific Gas & Electric Co., dated December 1978)

0.0	0	7.0	469	13.0	934	19.0	1474
2.5	159	9.0	619	15.0	1104	21.0	1674
4.5	293	11.0	772	17.0	1282	23.0	1874

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY INSTANTANEOUS VALUE

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	588
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	506
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	1040	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	1610	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	853	---	---
21	---	---	---	---	---	---	---	---	---	829	---	---
22	---	---	---	---	---	---	---	---	---	---	702	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MAX	---	---	---	---	---	---	---	---	---	---	---	---
MIN	---	---	---	---	---	---	---	---	---	---	---	---

11414090 FORDYCE LAKE NEAR CISCO, CA

LOCATION.—Lat 39°22'44", long 120°29'40", in NE 1/4 SE 1/4 sec.34, T.18 N., R.12 E., Nevada County, Hydrologic Unit 18020125, near left abutment of Fordyce Dam, on Fordyce Creek, and 5.3 mi northeast of Cisco.

DRAINAGE AREA.—31.7 mi^2.

PERIOD OF RECORD.—October 1977 to current year. Periodic gage heights only for October 1965 to September 1976 and daily contents for water year 1977 are in the files of the U.S. Geological Survey.

GAGE.—Water-stage recorder. Datum of gage is 6,290.5 ft above NGVD of 1929 (levels by Pacific Gas & Electric Co.). Prior to Nov. 29, 1976, nonrecording gage on upstream side of dam at same datum.

REMARKS.—Lake is formed by a rockfill dam; storage began in 1926. In 1980 the capacity of Fordyce Lake was increased by the addition of 3 ft of flashboards. Capacity, 49,903 acre-ft, between gage heights 0.85 ft, bottom of outlet valve, and 114.6 ft, top of flashboards in spillway. Released water flows down Fordyce Creek (station 11414100) to Lake Spaulding (station 11414140) for use in a power and irrigation system. See schematic diagram of South Yuba River Basin.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2310.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 50,100 acre-ft, June 4, 2000, June 7, 2002, maximum gage height, 114.88 ft, June 4, 2000; minimum, 250 acre-ft, Oct. 31 to Nov. 7, 1979.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 49,400 acre-ft, June 6, 7, maximum gage height, 113.92 ft, June 7; minimum, 9,760 acre-ft, Feb. 15, gage height, 44.62 ft.

Capacity table (gage height, in feet, and contents, in acre-feet)
(Based on table provided by Pacific Gas & Electric Co., dated October 1992)

4	219	20	2,608	40	8,185	80	26,770
5	278	25	3,827	50	11,797	90	32,820
10	774	30	5,170	60	16,174	100	39,342
15	1,572	35	6,628	70	21,196	114.6	49,903

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e19100	16400	13400	11100	10100	11000	16800	28300	48700	33800	27600	21400
2	e19000	16300	13300	11000	10100	11000	17000	29300	49000	33600	27600	21200
3	e18900	16200	13100	10900	10100	11000	17300	30400	49100	33400	27500	21000
4	e18900	16100	13000	10800	10100	11000	17700	31500	49200	33200	27500	20700
5	e18800	16000	12900	10700	10000	11000	18200	32700	49300	33000	27400	20500
6	e18700	15900	13200	10600	10000	11000	18700	33800	49400	32800	27400	20300
7	e18600	15900	13300	10600	9980	11000	19100	34700	49400	32600	27300	20100
8	e18500	15800	13200	10600	9950	11000	19600	35700	49300	32400	27300	19900
9	e18400	15800	13100	10600	9920	11100	20100	36600	49100	32200	27100	19800
10	e18300	15700	13000	10600	9890	11300	20700	37300	48800	31900	26900	19600
11	e18200	15600	12900	10500	9860	11400	21200	37700	48000	31700	26600	19500
12	e18200	15500	12800	10500	9830	11600	21800	38100	47300	31500	26400	19400
13	18100	15400	12700	10500	9800	11800	22300	38600	46600	31300	26100	19200
14	18000	15300	12700	10500	9780	12000	22600	39200	45900	31000	25800	19000
15	17900	15200	12600	10400	9760	12300	22900	40000	45200	30800	25600	18900
16	17800	15100	12500	10400	9950	12500	23000	40700	44500	30600	25300	18700
17	17700	15100	12300	10400	10300	12700	23100	41400	43800	30400	25100	18600
18	17600	15000	12200	10400	10500	13000	23100	42000	43000	30200	24800	18400
19	17500	14900	12100	10400	10600	13300	23100	42400	42300	30000	24600	18300
20	17500	14800	12000	10300	10700	13700	23200	42800	41500	29800	24300	18100
21	17400	14700	11900	10300	10700	14100	23200	43200	40700	29700	24100	18000
22	17300	14600	11800	10300	10700	14600	23200	43500	39900	29500	23800	17800
23	17200	14500	11800	10200	10800	15100	23300	44000	39200	29200	23600	17700
24	17100	14300	11700	10200	10800	15500	23500	44300	38400	28900	23300	17500
25	17000	14200	11700	10200	10900	15800	24000	44700	37600	28700	23100	17400
26	16900	14100	11600	10200	11000	16000	24600	45100	36800	28400	22800	17200
27	16800	13900	11400	10200	11000	16000	25500	45700	36000	28200	22600	17100
28	16700	13800	11300	10200	11000	16100	26400	46800	35200	27900	22400	16900
29	16600	13600	11300	10100	11000	16200	27000	47400	34400	27800	22100	16800
30	16500	13500	11200	10100	---	16500	27600	47800	34000	27700	21900	16600
31	16500	---	11100	10100	---	16700	---	48200	---	27700	21700	---
MAX	19100	16400	13400	11100	11000	16700	27600	48200	49400	33800	27600	21400
MIN	16500	13500	11100	10100	9760	11000	16800	28300	34000	27700	21700	16600
a	60.64	54.09	48.29	45.55	47.85	61.04	81.34	112.43	91.80	81.58	70.86	60.91
b	-2700	-3000	-2400	-1000	+900	+5700	+10900	+20600	-14200	-6300	-6000	-5100

WTR YR 2004 b -2600

e Estimated.
a Gage height, in feet, at end of month.
b Change in contents, in acre-feet.

11414100 FORDYCE CREEK BELOW FORDYCE DAM, NEAR CISCO, CA

LOCATION.—Lat 39°22'48", long 120°29'54", in NW 1/4 SE 1/4 sec.34, T.18 N., R.13 E., Nevada County, Hydrologic Unit 18020125, Tahoe National Forest, on right bank, 850 ft downstream from Fordyce Dam, and 5.3 mi northeast of Cisco.

DRAINAGE AREA.—31.7 mi^2.

PERIOD OF RECORD.—June 1966 to current year.

GAGE.—Water-stage recorder. Elevation of gage is 6,250 ft above NGVD of 1929, from topographic map.

REMARKS.—Flow regulated by Fordyce Lake (station 11414090). See schematic diagram of South Yuba River Basin.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2310.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 4,660 ft^3/s, July 9, 1974, gage height, 7.90 ft, in gage well, 6.82 ft, from high-water marks, from rating curve extended above 1,000 ft^3/s, on basis of slope-area measurement of peak flow; minimum daily, 3.5 ft^3/s, Jan. 2–9, 1979.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	82	79	75	72	26	25	92	110	94	121	22	116
2	82	79	75	71	26	25	92	110	152	120	22	116
3	82	79	75	71	26	25	93	111	190	119	22	116
4	82	79	75	71	26	25	93	112	187	119	22	115
5	82	78	75	70	25	25	94	81	186	119	22	115
6	82	78	81	47	25	25	94	29	186	119	22	114
7	81	78	76	26	25	26	95	29	183	119	22	114
8	81	78	75	26	25	26	96	30	190	115	22	113
9	81	78	75	26	25	26	96	30	197	123	80	113
10	81	78	75	26	25	27	97	31	275	122	121	113
11	81	77	74	26	25	26	98	32	470	122	121	112
12	81	77	74	26	25	27	99	32	467	121	121	112
13	81	77	75	26	25	27	99	32	463	121	121	112
14	81	77	75	26	25	27	100	32	460	121	120	112
15	80	77	75	26	25	28	101	32	458	121	120	113
16	80	77	75	26	25	65	101	33	454	120	120	114
17	80	77	74	26	26	86	101	34	450	120	119	113
18	80	77	74	26	26	87	101	70	450	119	119	113
19	80	77	74	26	26	87	101	95	449	119	119	113
20	80	76	74	26	26	87	101	96	444	88	119	113
21	80	76	74	26	26	89	101	96	442	60	118	113
22	80	76	73	26	26	89	102	96	438	127	118	113
23	80	76	73	26	26	90	101	97	436	127	119	112
24	80	76	73	26	26	90	101	98	432	127	119	112
25	80	76	73	26	26	91	102	100	431	127	119	112
26	79	76	73	26	26	91	102	101	427	127	119	112
27	79	75	73	26	25	91	104	99	426	126	118	111
28	79	75	73	26	25	91	106	99	424	126	117	112
29	79	75	73	26	25	91	108	101	421	63	117	113
30	79	75	72	26	---	92	108	95	265	22	117	113
31	79	---	71	26	---	92	---	94	---	22	117	---
TOTAL	2494	2309	2302	1052	739	1799	2979	2237	10547	3422	2874	3395
MEAN	80.5	77.0	74.3	33.9	25.5	58.0	99.3	72.2	352	110	92.7	113
MAX	82	79	81	72	26	92	108	112	470	127	121	116
MIN	79	75	71	26	25	25	92	29	94	22	22	111
AC-FT	4950	4580	4570	2090	1470	3570	5910	4440	20920	6790	5700	6730

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 2004, BY WATER YEAR (WY)

MEAN	86.6	47.3	30.8	36.5	54.7	69.2	67.4	177	356	275	206	141
MAX	428	236	173	278	328	353	315	727	957	542	403	497
(WY)	1976	1977	1982	1997	1984	1984	1986	1996	1995	1995	1983	1980
MIN	4.35	3.90	3.75	4.76	4.78	5.07	9.21	17.0	36.4	21.7	11.4	4.84
(WY)	1978	1979	1979	1981	1977	1977	1977	1977	1976	1981	1987	1977

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1966 - 2004	
ANNUAL TOTAL	43980		36149			
ANNUAL MEAN	120		98.8		129	
HIGHEST ANNUAL MEAN					288	1982
LOWEST ANNUAL MEAN					49.3	1981
HIGHEST DAILY MEAN	863	Jun 4	470	Jun 11	3750	May 17 1996
LOWEST DAILY MEAN	24	Aug 7	22	Jul 30	3.5	Jan 2 1979
ANNUAL SEVEN-DAY MINIMUM	30	Mar 11	22	Jul 30	3.5	Jan 2 1979
MAXIMUM PEAK FLOW			484	Jun 11	4660	Jul 9 1974
MAXIMUM PEAK STAGE			3.82	Jun 11	7.90	Jul 9 1974
ANNUAL RUNOFF (AC-FT)	87230		71700		93800	
10 PERCENT EXCEEDS	238		124		397	
50 PERCENT EXCEEDS	77		81		36	
90 PERCENT EXCEEDS	38		26		7.2	

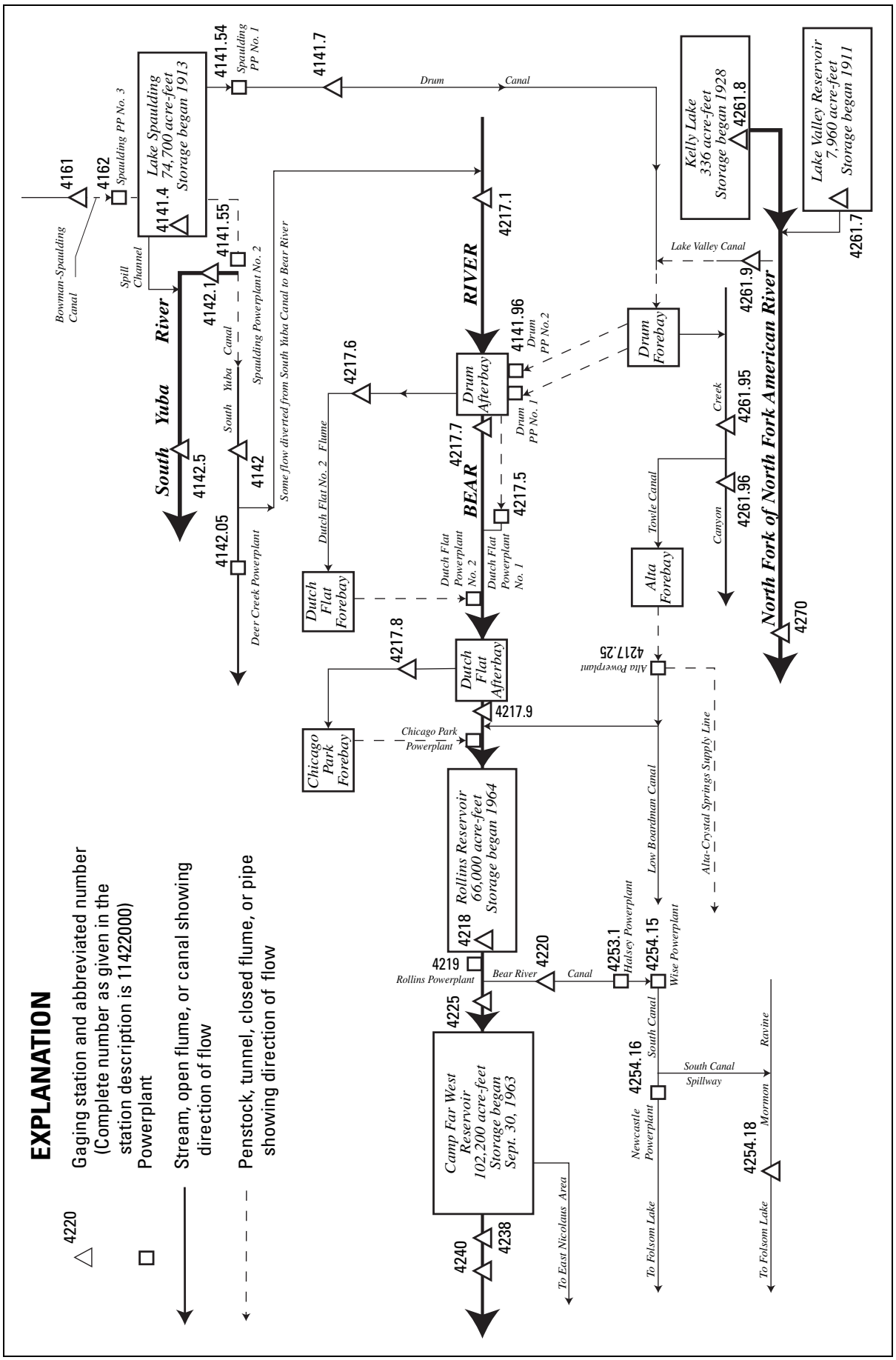


Figure 33. Diversions and storage in Bear River Basin.

11414140 LAKE SPAULDING NEAR EMIGRANT GAP, CA

LOCATION.—Lat 39°19'35", long 120°38'32", in SE 1/4 NE 1/4 sec.20, T.17 N., R.12 E., Nevada County, Hydrologic Unit 18020125, near center of Spaulding Dam, on South Yuba River, and 2.5 mi northeast of Emigrant Gap.

DRAINAGE AREA.—118 mi^2.

PERIOD OF RECORD.—October 1964 to current year.

GAGE.—Water-stage recorder. Datum of gage is 4,809.6 ft above NGVD of 1929 (levels by Pacific Gas & Electric Co.). Prior to July 1968, nonrecording gage at same site and datum.

REMARKS.—Lake is formed by three concrete-arch dams with spillway on the middle arch. Storage began in 1913. Capacity, 74,700 acre-ft, between gage heights 0.6 ft, bottom of outlet, and 205.0 ft, top of radial gates. Released water flows through Spaulding Powerplants Nos. 1 and 2 (stations 11414154 and 11414155). Flow through Powerplant No. 1 is transported out of Yuba River Basin by Drum Canal to Bear River Basin. See schematic diagrams of South Yuba River and Bear River Basins.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2310.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 75,100 acre-ft, July 13, 1967, gage height, 205.5 ft; minimum, 914 acre-ft, Feb. 28, 1976, gage height, 25.5 ft.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 68,200 acre-ft, May 10, gage height, 195.84 ft; minimum, 11,500 acre-ft, Feb. 15, gage height, 76.65 ft.

Capacity table (gage height, in feet, and contents, in acre-feet)
(Based on survey by Pacific Gas & Electric Co., dated Apr. 23, 1965)

20	566	40	2,741	100	19,541	200	71,328
25	874	50	4,578	150	41,545	206	75,473
30	1,352	70	9,631				

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56900	50600	33600	29800	14900	19200	36300	60000	65000	60300	49100	36800
2	57300	50300	33000	29600	14700	18900	36600	61200	64800	60000	48600	36500
3	57600	50000	32300	29200	14400	18500	37200	62600	64600	59600	48000	36100
4	57900	49700	31700	28600	14100	18200	38300	64600	64300	59300	47500	35700
5	58100	49300	31200	28100	13700	17900	39500	65900	64000	58900	47000	35300
6	58100	48900	32800	27700	13400	17600	40600	66700	63600	58600	46500	35000
7	57800	48600	33700	27200	13200	17400	41500	67300	63200	58200	45900	34900
8	57600	48300	33300	26700	13000	17600	42700	67800	62900	57900	45500	34800
9	57300	48000	32900	26400	12800	18100	43900	68100	62400	57500	44900	34600
10	57000	47700	32400	26000	12600	18700	45000	68200	62000	57200	44500	34400
11	56700	47300	32100	25600	12300	19100	46000	67900	61900	56900	44200	34200
12	56500	46600	31800	25100	12100	19600	47100	67400	61900	56600	43900	34000
13	56200	45900	31800	24500	11900	20000	48100	67100	61800	56200	43500	33800
14	55900	45300	32000	23900	11700	20600	48900	66900	61700	55900	43200	33600
15	55600	44700	31800	23400	11500	21500	49700	66800	61600	55600	43000	33500
16	55400	44100	31500	22900	13300	22400	50200	66600	61500	55200	42600	33300
17	55100	43500	31200	22500	16000	23300	50600	66700	61300	54900	42300	33100
18	54800	42800	30900	22200	17200	24400	50800	66600	61200	54500	41900	32900
19	54500	42200	30600	21600	17800	25600	51000	66500	61000	54200	41600	33200
20	54200	41500	30800	21000	18100	26800	51600	66300	60800	53800	41200	33700
21	53900	40800	30900	20300	18200	28300	51700	66000	60600	53300	40900	34300
22	53700	40200	30800	19700	18300	29900	51800	65600	60400	53000	40500	34700
23	53400	39500	30400	19000	18300	31300	51900	65400	60200	52700	40200	35200
24	53100	38900	31600	18500	18300	32400	52200	65000	59900	52300	39800	35700
25	52800	38100	31800	18000	18800	33300	53000	64700	59700	52000	39400	36300
26	52500	37300	31600	17400	19200	33700	54200	64300	59800	51700	39100	36700
27	52100	36400	31200	17000	19300	33700	55900	64300	60100	51300	38700	37200
28	51800	35500	31000	16500	19400	33800	57400	65200	60300	51000	38300	37700
29	51500	34800	30700	16000	19400	34300	58400	65400	60600	50600	38000	38200
30	51200	34200	30300	15600	---	35100	59100	65300	60600	50100	37600	38700
31	50900	---	30000	15200	---	35800	---	65200	---	49600	37200	---
MAX	58100	50600	33700	29800	19400	35800	59100	68200	65000	60300	49100	38700
MIN	50900	34200	30000	15200	11500	17400	36300	60000	59700	49600	37200	32900
a	167.84	135.66	126.43	88.33	100.21	138.99	181.58	191.26	184.12	165.50	141.96	144.99
b	-6000	-16700	-4200	-14800	+4200	+16400	+23300	+6100	-4600	-11000	-12400	+1500
c	0	11270	27160	22070	8370	19870	32850	40340	30430	30700	29420	13450
d	0	1190	2740	2660	1770	5000	0	5460	5950	5870	6170	6990

CAL YR 2003 MAX 74600 MIN 18500 b -3500 c 297500 d 47280
WTR YR 2004 MAX 68200 MIN 11500 b -18200 c 265900 d 43790

a Gage height, in feet, at end of month.
b Change in contents, in acre-feet.
c Diversion, in acre-feet, to Spaulding No. 1 Powerplant (station 11414154), provided by Pacific Gas & Electric Co.
d Diversion, in acre-feet, to Spaulding No. 2 Powerplant (station 11414155), provided by Pacific Gas & Electric Co.

11414170 DRUM CANAL AT TUNNEL OUTLET, NEAR EMIGRANT GAP, CA

LOCATION.—Lat 39°19'03", long 120°39'08", in SE 1/4 SW 1/4 sec.20, T.17 N., R.12 E., Nevada County, Hydrologic Unit 18020125, Tahoe National Forest, 100 ft downstream from tunnel outlet, 1.0 mi downstream from Spaulding No. 1 Powerplant, and 1.7 mi northeast of Emigrant Gap.

PERIOD OF RECORD.—October 1964 to current year. Prior to October 1972, published as "Drum Canal at intake."

GAGE.—Water-stage recorder. Elevation of gage is 4,880 ft above NGVD of 1929, from topographic map. Prior to Oct. 1, 1968, in powerplant 0.7 mi upstream at different datum.

REMARKS.—Canal diverts from Spaulding No. 1 Powerplant (station 11414154) at Lake Spaulding Dam. Most of the water from Drum Canal enters Bear River via Drum No. 1 and 2 Powerplants (station 11414196) at Drum Afterbay. Some of the water is diverted out of Drum Forebay to Alta Powerplant (station 11421725). See schematic diagrams of South Yuba River Basin and Bear River Basin.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2310.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 864 ft^3/s, May 1, 1998; no flow for several days in most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	98	403	481	569	467	479	795	810	536	532	530	530
2	115	401	478	565	464	547	792	807	536	532	529	531
3	73	411	476	563	461	544	795	808	536	531	529	533
4	75	410	473	573	462	538	798	568	542	531	531	530
5	103	412	469	579	459	535	792	813	547	531	529	528
6	338	429	465	577	455	551	796	824	552	530	531	521
7	497	451	472	573	363	697	799	761	547	530	547	382
8	486	473	473	579	363	700	805	800	474	529	543	352
9	487	496	470	576	361	705	810	812	512	528	533	351
10	486	519	468	571	357	767	805	815	511	528	534	353
11	488	543	465	575	371	806	808	815	511	527	532	367
12	480	567	464	634	370	806	807	800	512	526	531	374
13	474	588	465	680	367	804	809	782	512	525	530	372
14	474	587	466	673	368	803	696	787	512	524	526	361
15	474	585	463	689	365	796	568	791	513	534	516	360
16	471	583	462	608	320	784	569	784	513	540	529	356
17	448	580	470	555	320	793	570	683	513	535	531	356
18	419	577	486	558	387	785	571	681	513	533	529	354
19	419	567	490	665	393	795	571	680	513	532	529	101
20	424	566	486	669	368	782	590	680	513	530	535	0.00
21	421	575	484	675	378	789	811	680	513	528	537	0.00
22	418	572	475	666	379	792	793	681	513	526	535	0.00
23	415	569	604	674	379	782	779	681	513	525	533	0.00
24	414	570	556	607	383	786	793	690	513	524	535	0.00
25	414	572	550	565	378	668	799	704	513	523	532	0.00
26	412	572	558	564	375	545	809	687	513	522	538	0.00
27	409	566	560	589	357	699	814	531	515	530	536	0.00
28	409	569	565	558	358	797	808	533	516	530	541	0.00
29	408	491	569	553	365	798	813	535	520	553	541	0.00
30	407	478	567	548	---	792	811	535	532	532	536	0.00
31	404	---	571	470	---	793	---	536	---	530	533	---
TOTAL	11860	15682	15501	18500	11193	22258	22576	22094	15579	16431	16521	7612.00
MEAN	383	523	500	597	386	718	753	713	519	530	533	254
MAX	497	588	604	689	467	806	814	824	552	553	547	533
MIN	73	401	462	470	320	479	568	531	474	522	516	0.00
AC-FT	23520	31110	30750	36690	22200	44150	44780	43820	30900	32590	32770	15100
a	21570	29630	32370	37390	23600	45440	45010	43440	29830	30110	30430	13850
b	1590	840	492	335	592	961	628	711	1270	1570	1410	1200

a Discharge, in acre-feet, to Drum No. 1 and 2 Powerplants (station 11414196), provided by Pacific Gas & Electric Co.
b Discharge, in acre-feet, to Alta Powerplant (station 11421725), provided by Pacific Gas & Electric Co.

11414170 DRUM CANAL AT TUNNEL OUTLET, NEAR EMIGRANT GAP, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	397	414	451	454	470	532	612	660	642	613	577	357
MAX	817	824	835	837	833	838	839	855	851	820	820	661
(WY)	1983	1984	1984	1984	1984	1984	1996	1998	1999	1983	1998	1986
MIN	0.00	29.5	31.1	30.2	0.00	22.6	22.9	5.77	166	178	0.00	0.00
(WY)	1966	1987	1977	1997	1991	1988	1988	1976	1977	1977	1965	1965

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1965 - 2004	
ANNUAL TOTAL	213807.00		195807.00			
ANNUAL MEAN	586		535		515	
HIGHEST ANNUAL MEAN					796	1984
LOWEST ANNUAL MEAN					101	1977
HIGHEST DAILY MEAN	861	May 17	824	May 6	864	May 1 1998
LOWEST DAILY MEAN	0.00	Sep 15	0.00	Sep 20	0.00	Jul 31 1965
ANNUAL SEVEN-DAY MINIMUM	0.00	Sep 15	0.00	Sep 20	0.00	Jul 31 1965
ANNUAL RUNOFF (AC-FT)	424100		388400		373300	
ANNUAL DISCHARGE (AC-FT) a	413500		382700			
ANNUAL DISCHARGE (AC-FT) b	9940		11610			
10 PERCENT EXCEEDS	805		794		826	
50 PERCENT EXCEEDS	600		531		562	
90 PERCENT EXCEEDS	314		366		55	

a Discharge, in acre-feet, to Drum No. 1 and 2 Powerplants (station 11414196), provided by Pacific Gas & Electric Co.

b Discharge, in acre-feet, to Alta Powerplant (station 11421725), provided by Pacific Gas & Electric Co.

11414200 SOUTH YUBA CANAL NEAR EMIGRANT GAP, CA

LOCATION.—Lat 39°18'49", long 120°39'43", in SE 1/4 NE 1/4 sec.30, T.17 N., R.12 E., Nevada County, Hydrologic Unit 18020125, on left bank of concrete flume, 400 ft downstream from Bowman Lake Road, and 2.5 mi northeast of Emigrant Gap.

PERIOD OF RECORD.—October 1964 to current year.

GAGE.—Water-stage recorder and concrete control. Elevation of gage is 4,590 ft above NGVD of 1929, from topographic map.

REMARKS.—Canal diverts from Spaulding No. 2 Powerplant (station 11414155) at Lake Spaulding Dam. Downstream from the gage, some flow is diverted to Bear River. The remainder of the water enters Deer Creek at Deer Creek Powerplant (station 11414205). See schematic diagrams of South Yuba River Basin and Bear River Basin.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2310.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 165 ft^3/s, Aug. 3, 1965; no flow at times in some years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	74	55	45	38	39	43	2.1	44	82	82	80	90
2	74	55	41	38	39	43	2.0	55	82	81	80	90
3	73	55	41	38	40	43	2.0	65	82	82	80	89
4	74	55	43	38	41	43	2.0	69	82	82	80	89
5	74	55	45	37	41	43	2.0	76	82	81	79	89
6	67	55	45	37	41	43	2.0	81	82	81	79	89
7	65	55	43	37	41	44	4.7	84	82	82	79	89
8	68	56	43	37	41	44	5.6	85	82	81	79	91
9	67	56	43	37	41	43	5.6	85	81	81	79	91
10	68	55	43	37	41	43	5.6	85	86	81	78	91
11	70	55	43	36	37	43	5.7	63	90	80	78	92
12	69	54	43	36	42	43	5.9	81	88	80	79	92
13	69	50	44	36	44	43	5.9	74	87	80	80	92
14	71	47	44	34	44	43	5.7	83	82	81	80	92
15	e50	47	42	38	44	91	5.6	83	80	81	80	92
16	e32	47	42	38	34	123	5.4	83	80	80	79	92
17	e33	47	42	38	20	125	5.4	83	80	75	79	91
18	e39	47	42	37	26	126	5.4	83	80	80	79	91
19	e61	51	42	37	26	128	5.5	83	80	80	86	91
20	e76	46	43	39	31	129	5.8	83	80	79	92	91
21	e65	47	42	40	40	130	6.1	83	80	79	93	91
22	e58	48	42	40	39	132	5.9	83	80	79	92	93
23	56	48	42	40	39	135	5.8	83	80	79	92	92
24	56	48	33	40	41	91	5.6	83	80	79	92	92
25	56	48	33	40	44	138	5.7	82	80	79	92	92
26	56	48	38	39	38	136	5.9	82	80	79	91	92
27	56	51	39	40	38	134	5.9	82	81	79	91	93
28	56	50	38	39	41	47	5.9	82	81	79	91	93
29	56	50	38	39	43	2.2	6.0	82	81	79	90	93
30	55	49	38	39	---	2.2	30	82	81	81	90	94
31	56	---	38	39	---	2.2	---	82	---	81	90	---
TOTAL	1900	1530	1280	1178	1116	2275.6	172.7	2434	2454	2483	2609	2739
MEAN	61.3	51.0	41.3	38.0	38.5	73.4	5.76	78.5	81.8	80.1	84.2	91.3
MAX	76	56	45	40	44	138	30	85	90	82	93	94
MIN	32	46	33	34	20	2.2	2.0	44	80	75	78	89
AC-FT	3770	3030	2540	2340	2210	4510	343	4830	4870	4930	5170	5430
a	3030	2550	2230	655	1820	2240	0	3840	4180	4280	4490	4720

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2004, BY WATER YEAR (WY)

MEAN	77.2	65.3	68.1	70.7	75.5	82.0	72.7	107	107	94.8	90.0	87.0
MAX	158	157	157	155	151	147	146	156	163	160	155	152
(WY)	1966	1966	1966	1984	1984	1980	1967	1980	1965	1965	1965	1965
MIN	35.9	14.7	33.4	18.2	11.4	15.6	5.76	27.2	7.92	46.1	41.7	38.0
(WY)	1978	1995	1978	1997	1997	1997	2004	1977	2001	1977	1977	1977

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1965 - 2004	
ANNUAL TOTAL	25702.8		22171.3			
ANNUAL MEAN	70.4		60.6		83.1	
HIGHEST ANNUAL MEAN					124	1967
LOWEST ANNUAL MEAN					47.2	1977
HIGHEST DAILY MEAN	145	May 2	138	Mar 25	165	Aug 3 1965
LOWEST DAILY MEAN	2.9	Mar 25	2.0	Apr 2	0.00	Apr 20 1966
ANNUAL SEVEN-DAY MINIMUM	4.0	Apr 6	2.0	Mar 31	0.00	Apr 5 1986
ANNUAL RUNOFF (AC-FT)	50980		43980		60230	
ANNUAL DISCHARGE (AC-FT) a	36250		34020			
10 PERCENT EXCEEDS	141		91		141	
50 PERCENT EXCEEDS	65		56		75	
90 PERCENT EXCEEDS	32		31		38	

e Estimated.
a Discharge, in acre-feet, to Deer Creek Powerplant (station 11414205), provided by Pacific Gas & Electric Co.

11414210 SOUTH YUBA RIVER CONTROLLED RELEASE AT LAKE SPAULDING, NEAR EMIGRANT GAP, CA

LOCATION.—Lat 39°19'28", long 120°38'42", in NE 1/4 SE 1/4 sec.20, T.17 N., R.12 E., Nevada County, Hydrologic Unit 18020125, on left bank, 200 ft downstream from Spaulding No. 2 Powerplant, 0.2 mi downstream from Spaulding Dam, and 2.3 mi northeast of Emigrant Gap.

DRAINAGE AREA.—118 mi^2.

PERIOD OF RECORD.—October 1985 to September 2003. October 2003 to September 2004 (low flow records only). Unpublished records for water years 1965–85 in files of the U.S. Geological Survey. Prior to October 2000, published as "South Yuba River below Spaulding No. 2 Powerplant, near Emigrant Gap."

GAGE.—Water-stage recorder, V-notch sharp-crested weir, and steel-lipped rectangular weir. Elevation of gage is 4,670 ft above NGVD of 1929, from topographic map. Prior to June 1988, at same site, different datum.

REMARKS.—Records not computed above 3.6 ft^3/s. Flow regulated by Lake Spaulding (station 11414140) 0.2 mi upstream. Water is released at the intake to South Yuba Canal (station 11414200) 100 ft upstream. Flow over Lake Spaulding spillway bypasses this station. See schematic diagrams of South Yuba River and Bear River Basins.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2310.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	3.5	3.0	2.9	2.7	2.4	---	---	3.1	---	---	---
2	---	3.5	3.0	2.9	2.9	2.5	---	---	3.0	---	---	---
3	---	3.4	2.9	2.9	2.8	2.4	---	---	3.0	---	---	---
4	---	3.4	2.8	2.8	2.8	2.5	---	---	3.0	---	---	---
5	---	3.4	3.1	2.8	2.8	2.5	---	---	3.0	---	---	---
6	---	3.3	---	2.8	2.8	2.8	---	---	3.0	---	---	---
7	3.5	3.3	---	2.9	2.8	2.9	---	---	3.0	---	---	---
8	3.5	---	3.0	3.2	2.8	---	---	---	3.0	---	---	---
9	3.5	---	2.9	3.2	2.7	3.1	---	3.4	3.0	---	---	---
10	3.5	3.3	2.9	3.0	2.7	3.1	---	3.2	---	---	---	---
11	3.6	3.3	3.0	3.0	2.3	2.8	---	---	---	---	---	---
12	3.6	3.3	3.0	2.9	2.7	2.8	---	---	---	---	---	---
13	---	3.2	---	2.9	2.8	2.7	---	---	---	---	---	---
14	---	---	---	2.7	2.8	2.9	---	2.6	---	---	---	---
15	---	3.4	2.9	3.0	2.9	3.1	---	2.5	---	---	---	---
16	---	3.2	2.8	3.0	---	3.1	---	2.5	---	---	---	---
17	---	3.2	2.8	2.9	---	2.9	---	2.5	---	---	---	---
18	3.6	3.2	2.9	2.9	---	3.0	---	2.4	---	---	---	---
19	3.5	3.0	2.9	2.9	---	2.9	---	2.4	---	---	---	---
20	3.5	2.8	---	2.9	---	2.9	---	2.4	---	---	---	---
21	3.4	3.0	---	2.8	2.8	2.9	---	2.4	---	---	---	---
22	3.3	3.0	2.9	2.8	2.5	2.8	---	2.4	---	---	---	---
23	3.2	3.0	---	2.7	2.5	---	---	2.4	---	---	---	---
24	3.2	3.0	---	2.7	2.6	---	---	2.7	---	---	---	---
25	3.2	3.0	3.2	2.7	---	---	---	3.1	---	---	---	---
26	3.2	3.0	2.9	2.7	2.6	---	---	3.1	---	---	---	---
27	3.3	3.0	2.8	2.9	2.5	---	---	3.0	---	---	---	---
28	3.5	3.0	2.8	2.8	2.4	---	2.9	3.1	---	---	---	---
29	3.4	3.0	2.8	2.8	2.4	---	---	3.1	---	---	---	---
30	3.4	2.9	2.8	2.9	---	---	2.0	3.1	---	---	---	---
31	3.5	---	2.9	2.8	---	---	---	3.1	---	---	---	---
TOTAL	---	---	---	89.1	---	---	---	---	---	---	---	---
MEAN	---	---	---	2.87	---	---	---	---	---	---	---	---
MAX	---	---	---	3.2	---	---	---	---	---	---	---	---
MIN	---	---	---	2.7	---	---	---	---	---	---	---	---
AC-FT	---	---	---	177	---	---	---	---	---	---	---	---

11414250 SOUTH YUBA RIVER AT LANGS CROSSING, NEAR EMIGRANT GAP, CA

LOCATION.—Lat 39°19'07", long 120°39'24", in SW 1/4 SW 1/4 sec.20, T.17 N., R.12 E., Nevada County, Hydrologic Unit 18020125, on right bank, 50 ft downstream from road bridge, 0.8 mi downstream from Spaulding Nos. 1 and 2 Powerplants, and 1.6 mi northeast of Emigrant Gap.

DRAINAGE AREA.—120 mi^2.

PERIOD OF RECORD.—December 1965 to current year.

GAGE.—Water-stage recorder. Datum of gage is 4,432.44 ft above NGVD of 1929 (levels by Pacific Gas & Electric Co.).

REMARKS.—Flow regulated by Lake Spaulding (station 11414140) 0.8 mi upstream. Lake Spaulding receives water from Canyon Creek via the Bowman–Spaulding Canal (station 11416100). Most of the water is diverted out of the Yuba River just downstream from Spaulding Dam via Drum Canal (station 11414170) and South Yuba Canal (station 11414200). See schematic diagrams of South Yuba River and Bear River Basins.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2310.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, about 34,200 ft^3/s, Jan. 1, 1997, gage height, 23.60 ft, from rating curve extended above 8,800 ft^3/s, on basis of spillway rating at Spaulding Dam; minimum daily, 2.1 ft^3/s, on several days during July and September 1977.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.1	8.7	8.5	16	13	16	14	7.7	8.9	13	11	12
2	8.0	8.4	11	15	17	16	13	9.4	8.8	13	11	13
3	7.8	9.3	8.7	14	15	15	12	9.0	8.5	12	12	13
4	14	8.6	8.5	13	14	15	12	11	8.3	12	12	12
5	20	8.6	12	12	13	16	12	8.7	8.2	12	11	12
6	17	8.6	57	12	12	19	12	9.9	8.0	12	11	12
7	16	9.5	60	13	12	24	11	10	8.0	12	11	12
8	16	11	19	17	12	29	11	10	8.0	12	11	12
9	14	17	14	19	12	30	11	10	8.0	12	11	17
10	12	11	15	19	11	30	11	11	10	12	12	19
11	11	10	15	17	11	28	11	12	13	12	12	14
12	11	9.3	15	17	11	26	11	18	13	12	11	14
13	11	8.8	36	16	12	24	11	9.6	13	12	12	14
14	11	10	48	15	12	25	12	9.3	13	12	12	14
15	10	12	23	16	12	25	15	9.0	13	12	12	14
16	8.6	10	17	16	83	24	12	8.9	13	11	12	14
17	7.7	9.9	15	15	49	22	12	8.5	13	11	12	12
18	7.0	8.8	15	15	50	21	12	8.5	13	11	12	11
19	6.3	8.1	14	15	32	19	13	8.6	13	11	12	11
20	6.0	7.3	27	14	24	18	20	8.6	12	11	12	11
21	8.0	7.2	27	13	20	18	16	8.8	12	11	12	10
22	8.8	7.2	19	12	18	17	15	8.5	12	11	12	10
23	9.1	7.2	17	12	17	16	13	8.0	12	11	12	10
24	9.1	7.1	79	12	18	16	13	8.3	12	11	13	10
25	9.0	6.9	36	12	42	18	12	8.8	12	11	12	10
26	9.0	7.0	24	12	33	17	12	8.5	12	11	12	10
27	8.7	6.5	18	15	23	16	9.7	8.3	12	12	12	9.8
28	8.2	6.6	16	14	19	16	7.8	9.6	13	12	12	9.8
29	8.3	6.7	16	14	17	17	8.5	9.0	13	10	13	9.8
30	8.6	6.9	15	15	---	16	6.0	9.0	13	11	13	9.7
31	8.7	---	15	14	---	15	---	9.0	---	11	12	---
TOTAL	318.0	264.2	720.7	451	634	624	361.0	293.5	336.7	359	367	362.1
MEAN	10.3	8.81	23.2	14.5	21.9	20.1	12.0	9.47	11.2	11.6	11.8	12.1
MAX	20	17	79	19	83	30	20	18	13	13	13	19
MIN	6.0	6.5	8.5	12	11	15	6.0	7.7	8.0	10	11	9.7
AC-FT	631	524	1430	895	1260	1240	716	582	668	712	728	718

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 2004, BY WATER YEAR (WY)

MEAN	7.25	38.0	45.2	109	85.6	81.6	77.8	309	400	63.4	6.40	6.68
MAX	18.8	683	685	2465	1626	1304	620	1734	2613	822	11.8	12.1
(WY)	1972	1984	1982	1997	1986	1986	1982	1996	1983	1983	2004	2004
MIN	2.68	4.51	5.44	4.51	5.58	5.10	3.41	5.29	3.05	2.34	2.43	2.73
(WY)	1978	1978	1977	1976	1977	1977	1977	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1966 - 2004	
ANNUAL TOTAL	27284.8		5091.2			
ANNUAL MEAN	74.8		13.9		105	
HIGHEST ANNUAL MEAN					448	1997
LOWEST ANNUAL MEAN					4.35	1977
HIGHEST DAILY MEAN	1850	Jun 4	83	Feb 16	25400	Jan 1 1997
LOWEST DAILY MEAN	5.2	Mar 10	6.0	Oct 20	2.1	Jul 15 1977
ANNUAL SEVEN-DAY MINIMUM	6.1	Jun 30	6.8	Nov 24	2.1	Sep 22 1977
MAXIMUM PEAK FLOW			211	Feb 16	34200	Jan 1 1997
MAXIMUM PEAK STAGE			4.19	Feb 16	23.60	Jan 1 1997
ANNUAL RUNOFF (AC-FT)	54120		10100		75870	
10 PERCENT EXCEEDS	49		19		82	
50 PERCENT EXCEEDS	11		12		7.9	
90 PERCENT EXCEEDS	6.9		8.5		5.4	

11414260 BLUE LAKE NEAR EMIGRANT GAP, CA

LOCATION.—Lat 39°21'31", long 120°38'07", in NE 1/4 NW 1/4 sec.9, T.17 N., R.12 E., Nevada County, Hydrologic Unit 18020125, Tahoe National Forest, on outlet structure on Blue Lake Dam, 0.7 mi upstream from Rucker Lake, and 4.6 mi northeast of Emigrant Gap.

DRAINAGE AREA.—0.27 mi^2.

PERIOD OF RECORD.—October 1999 to current year. Unpublished records for water years 1966–99 available in the files of the U.S. Geological Survey.

GAGE.—Nonrecording gage observed intermittently during the summer months. Datum of gage is 5,932 ft above NGVD of 1929 (levels by Pacific Gas & Electric Co.).

REMARKS.—Reservoir is formed by an earth-fill dam completed in 1870, reconstructed in 2000. Usable capacity, 1,163 acre-ft, between gage heights 0.0 ft, invert of outlet valve, and 20.8 ft, crest of spillway. Figures given represent usable contents. Released water is used for hydroelectric power and irrigation downstream.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2310.

Capacity table (gage height, in feet, and contents, in acre-feet)
(Based on survey by Nevada Irrigation District in 1964)

0	0	8	410	16	865	20	1112
4	199	12	631				

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	0	---	---	---	---	---	---	---	---	---	143
2	---	---	---	---	---	---	---	---	289	265	---	---
3	0	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	209	---
5	---	---	---	---	---	---	---	---	---	---	---	133
6	---	0	---	---	---	---	---	---	---	---	194	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	286	---	---	---
9	0	---	---	---	---	---	---	---	---	258	189	128
10	---	---	---	---	---	---	---	300	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	194	128
12	0	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	258	---	---
14	---	---	---	---	---	---	---	---	---	---	194	---
15	0	---	---	---	---	---	---	---	279	---	---	118
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	279	249	---	---
18	---	---	---	---	---	---	---	---	---	---	---	113
19	---	---	---	---	---	---	---	---	---	---	174	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	296	272	238	---	---
22	0	---	---	---	---	---	---	---	---	---	174	123
23	---	---	---	---	---	---	---	---	---	228	---	---
24	---	---	---	---	---	---	---	---	268	---	---	123
25	---	---	---	---	---	---	---	---	---	---	169	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	0	---	---	---	---	---	---	296	---	---	---	---
28	---	---	---	---	---	---	---	---	---	228	164	---
29	---	---	---	---	---	---	---	---	---	---	---	118
30	---	---	---	---	---	---	---	---	268	218	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MAX	---	---	---	---	---	---	---	---	---	---	---	---
MIN	---	---	---	---	---	---	---	---	---	---	---	---

11414265 RUCKER CREEK BELOW BLUE LAKE, NEAR EMIGRANT GAP, CA

LOCATION.—Lat 39°21'32", long 120°38'09", in NE 1/4 NW 1/4 sec.9, T.17 N., R.12 E., Nevada County, Hydrologic Unit 18020125, Tahoe National Forest, on left bank, 300 ft downstream from outlet structure on Blue Lake Dam, and 4.6 mi northeast of Emigrant Gap.

DRAINAGE AREA.—0.27 mi^2.

PERIOD OF RECORD.—October 1999 to current year. Unpublished records for water years 1965–99 available in the files of the U.S. Geological Survey.

GAGE.—Nonrecording gage observed intermittently during the summer months. Elevation of gage is 5,910 ft above NGVD of 1929, from topographic map.

REMARKS.—Flow regulated by Blue Lake (station 11414260) 300 ft upstream. There are no diversions upstream of station.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2310.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	e0.20	---	---	---	---	---	---	---	---	---	0.20
2	---	---	---	---	---	---	---	---	0.29	0.26	---	---
3	e0.20	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	0.23	---
5	---	---	---	---	---	---	---	---	---	---	---	0.20
6	---	e0.20	---	---	---	---	---	---	---	---	0.23	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	0.23	---	---	---
9	e0.20	---	---	---	---	---	---	---	---	0.23	0.23	0.20
10	---	---	---	---	---	---	---	0.32	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	0.23	0.20
12	e0.20	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	0.23	---	---
14	---	---	---	---	---	---	---	---	---	---	0.23	---
15	e0.20	---	---	---	---	---	---	---	0.29	---	---	0.20
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	0.32	0.23	---	---
18	---	---	---	---	---	---	---	---	---	---	---	0.20
19	---	---	---	---	---	---	---	---	---	---	0.20	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	0.26	0.32	0.23	---	---
22	e0.20	---	---	---	---	---	---	---	---	---	0.20	0.20
23	---	---	---	---	---	---	---	---	---	0.23	---	---
24	---	---	---	---	---	---	---	---	0.26	---	---	0.20
25	---	---	---	---	---	---	---	---	---	---	0.20	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	e0.20	---	---	---	---	---	---	0.26	---	---	---	---
28	---	---	---	---	---	---	---	---	---	0.20	0.20	---
29	---	---	---	---	---	---	---	---	---	---	---	0.20
30	---	---	---	---	---	---	---	---	0.23	0.20	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---
MEAN	---	---	---	---	---	---	---	---	---	---	---	---
MAX	---	---	---	---	---	---	---	---	---	---	---	---
MIN	---	---	---	---	---	---	---	---	---	---	---	---
AC-FT	---	---	---	---	---	---	---	---	---	---	---	---

e Estimated.

11414275 RUCKER LAKE NEAR EMIGRANT GAP, CA

LOCATION.—Lat 39°21'23", long 120°39'26", in SW 1/4 NW 1/4 sec.8, T.17 N., R.12 E., Nevada County, Hydrologic Unit 18020125, Tahoe National Forest, on outlet structure on Rucker Lake Dam, and 4.3 mi north of Emigrant Gap.

DRAINAGE AREA.—1.83 mi^2.

PERIOD OF RECORD.—October 1999 to current year. Unpublished records for water years 1966–99 available in the files of the U.S. Geological Survey.

GAGE.—Nonrecording gage observed intermittently during the summer months. Datum of gage is 5,464 ft above NGVD of 1929 (levels by Pacific Gas & Electric Co.).

REMARKS.—Reservoir is formed by an earth fill dam completed in 1871. Usable capacity, 648 acre-ft, between gage heights 0.0 ft, invert of outlet valve, and 17.0 ft, crest of spillway. Figures given represent usable contents. Released water is used for hydroelectric power and irrigation downstream.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2310.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey by Pacific Gas & Electric Co. in 1965)

0	0	6	90	13	384	17.5	662
3	22	10	233				

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	414	---	---	---	---	---	---	---	---	---	475
2	---	---	---	---	---	---	---	---	648	596	---	---
3	444	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	541	---
5	---	---	---	---	---	---	---	---	---	---	---	463
6	---	414	---	---	---	---	---	---	---	---	534	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	641	---	---	---
9	438	---	---	---	---	---	---	---	---	582	528	450
10	---	---	---	---	---	---	---	655	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	527	450
12	432	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	582	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	426	---	---	---	---	---	---	---	626	---	514	438
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	622	575	---	---
18	---	---	---	---	---	---	---	---	---	---	---	438
19	---	---	---	---	---	---	---	---	---	---	514	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	655	615	568	---	---
22	420	---	---	---	---	---	---	---	---	---	507	438
23	---	---	---	---	---	---	---	---	---	554	---	---
24	---	---	---	---	---	---	---	---	611	---	---	438
25	---	---	---	---	---	---	---	---	---	---	501	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	414	---	---	---	---	---	---	655	---	---	---	---
28	---	---	---	---	---	---	---	---	---	547	494	---
29	---	---	---	---	---	---	---	---	---	---	---	426
30	---	---	---	---	---	---	---	---	596	547	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MAX	---	---	---	---	---	---	---	---	---	---	---	---
MIN	---	---	---	---	---	---	---	---	---	---	---	---

11414280 RUCKER CREEK BELOW RUCKER LAKE, NEAR EMIGRANT GAP, CA

LOCATION.—Lat 39°21'23", long 120°39'27", in SW 1/4 NW 1/4 sec.9, T.17 N., R.12 E., Nevada County, Hydrologic Unit 18020125, Tahoe National Forest, on left bank, 75 ft downstream from outlet structure on Rucker Lake Dam, and 4.3 mi north of Emigrant Gap.

DRAINAGE AREA.—1.83 mi^2.

PERIOD OF RECORD.—October 1999 to current year. Unpublished records for water years 1965–99 available in the files of the U.S. Geological Survey.

GAGE.—Nonrecording gage observed intermittently during the summer months. Elevation of gage is 5,447 ft above NGVD of 1929, from topographic map.

REMARKS.—Flow regulated by Rucker Lake (station 11414275) 75 ft upstream. There are no diversions upstream of station.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2310.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	0.27	---	---	---	---	---	---	---	---	---	0.42
2	---	---	---	---	---	---	---	---	0.41	0.35	---	---
3	0.25	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	0.27	---
5	---	---	---	---	---	---	---	---	---	---	---	0.46
6	---	0.20	---	---	---	---	---	---	---	---	0.19	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	0.41	---	---	---
9	0.25	---	---	---	---	---	---	---	---	0.20	0.14	0.46
10	---	---	---	---	---	---	---	0.49	---	---	0.14	---
11	---	---	---	---	---	---	---	---	---	---	0.24	0.41
12	0.27	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	0.19	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	0.28	---	---	---	---	---	---	---	0.44	---	0.23	0.46
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	0.39	0.21	---	---
18	---	---	---	---	---	---	---	---	---	---	---	0.27
19	---	---	---	---	---	---	---	---	---	---	0.20	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	0.33	0.44	0.28	---	---
22	0.28	---	---	---	---	---	---	---	---	---	0.21	0.20
23	---	---	---	---	---	---	---	---	---	0.24	---	---
24	---	---	---	---	---	---	---	---	0.40	---	---	0.20
25	---	---	---	---	---	---	---	---	---	---	0.44	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	0.28	---	---	---	---	---	---	0.34	---	---	---	---
28	---	---	---	---	---	---	---	---	---	0.22	0.46	---
29	---	---	---	---	---	---	---	---	---	---	---	0.28
30	---	---	---	---	---	---	---	---	0.37	0.22	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---
MEAN	---	---	---	---	---	---	---	---	---	---	---	---
MAX	---	---	---	---	---	---	---	---	---	---	---	---
MIN	---	---	---	---	---	---	---	---	---	---	---	---
AC-FT	---	---	---	---	---	---	---	---	---	---	---	---

11414345 FEELEY LAKE NEAR GRANITEVILLE, CA

LOCATION.—Lat 39°24'01", long 120°38'14", in SW 1/4 NW 1/4 sec.28, T.18 N., R.12 E., Nevada County, Hydrologic Unit 18020125, Tahoe National Forest, on outlet structure on Feeley Lake Dam on Canyon Creek, and 6.0 mi southeast of Graniteville.

DRAINAGE AREA.—0.40 mi^2.

PERIOD OF RECORD.—October 1999 to current year. Unpublished records for water years 1966–99 available in the files of the U.S. Geological Survey.

GAGE.—Nonrecording gage observed intermittently during the summer months. Elevation of gage is 6,724 ft above NGVD of 1929, from topographic map.

REMARKS.—Reservoir is formed on natural lake by rock-filled dam completed in 1870. Usable capacity, 739 acre-ft, between gage heights 0.0 ft, invert of outlet gate, and 16.8 ft, crest of spillway. Figures given represent usable contents. Released water is used for hydroelectric power and irrigation downstream.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project number 2310.

Capacity table (gage height, in feet, and contents, in acre-feet)
(Based on survey by Nevada Irrigation District in 1964)

0	0	4	145	7	270	10	404
14	596	17	749				

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	e137	---	---	---	---	---	---	---	---	---	442
2	---	---	---	---	---	---	---	---	616	586	---	---
3	354	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	576	498	427
6	---	e137	---	---	---	---	---	---	---	---	493	---
7	---	---	---	---	---	---	---	---	626	---	---	427
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	547	---	---
10	---	---	---	---	---	---	---	---	---	---	484	427
11	---	---	---	---	---	---	---	---	---	---	479	---
12	e305	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	567	---	---
14	---	---	---	---	---	---	---	---	626	---	479	---
15	e257	---	---	---	---	---	---	---	626	---	---	395
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	552	---	---
18	---	---	---	---	---	---	---	---	---	---	---	381
19	---	---	---	---	---	---	---	---	---	---	470	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	606	542	---	---
22	e185	---	---	---	---	---	---	---	---	---	456	372
23	---	---	---	---	---	---	---	---	---	537	---	---
24	---	---	---	---	---	---	---	---	---	---	---	363
25	---	---	---	---	---	---	---	---	---	---	451	---
26	---	---	---	---	---	---	---	576	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	522	---	---
29	---	---	---	---	---	---	---	---	---	---	446	345
30	e145	---	---	---	---	---	---	---	591	522	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MAX	---	---	---	---	---	---	---	---	---	---	---	---
MIN	---	---	---	---	---	---	---	---	---	---	---	---

e Estimated.

11414350 LAKE CREEK BELOW FEELEY LAKE, NEAR GRANITEVILLE, CA

LOCATION.—Lat 39°24'01", long 120°38'14", in SW 1/4 NW 1/4 sec.28, T.18 N., R.12 E., Nevada County, Hydrologic Unit 18020125, Tahoe National Forest, 8 ft downstream from outlet structure on Feeley Lake Dam, and 6.0 mi southeast of Graniteville.

DRAINAGE AREA.—0.40 mi^2.

PERIOD OF RECORD.—October 1999 to current year (low-flow records only). Unpublished records for water years 1965–99 available in files of the U.S. Geological Survey.

GAGE.—Nonrecording gage observed intermittently in the summer months. Elevation of gage is 6,707 ft above NGVD of 1929 (levels by Pacific Gas & Electric Co.).

REMARKS.—Records not computed for winter months or above 2.3 ft^3/s. Flow regulated by Feeley Lake. No diversions upstream of station.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2310.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	0.54	---	---	---	---	---	---	---	---	---	0.56
2	---	---	---	---	---	---	---	---	0.56	0.80	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	0.54	0.54	0.52
6	---	0.50	---	---	---	---	---	---	---	---	0.54	---
7	---	---	---	---	---	---	---	---	0.69	---	---	0.54
8	---	---	---	---	---	---	---	---	---	---	---	---
9	0.56	---	---	---	---	---	---	---	---	0.58	---	---
10	---	---	---	---	---	---	---	---	---	---	0.58	e1.2
11	---	---	---	---	---	---	---	---	---	---	0.56	---
12	e1.5	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	0.58	---	---
14	---	---	---	---	---	---	---	---	0.41	---	0.56	---
15	e1.5	---	---	---	---	---	---	---	0.73	---	---	e1.2
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	0.69	---	---
18	---	---	---	---	---	---	---	---	---	---	---	e1.2
19	---	---	---	---	---	---	---	---	---	---	0.82	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	0.78	0.54	---	---
22	e1.5	---	---	---	---	---	---	---	---	---	0.58	e1.2
23	---	---	---	---	---	---	---	---	---	0.50	---	---
24	---	---	---	---	---	---	---	---	---	---	---	e1.2
25	---	---	---	---	---	---	---	---	---	---	0.52	---
26	---	---	---	---	---	---	---	0.69	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	0.97	---	---
29	---	---	---	---	---	---	---	---	---	---	0.54	e1.2
30	0.69	---	---	---	---	---	---	---	0.52	0.94	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---
MEAN	---	---	---	---	---	---	---	---	---	---	---	---
MAX	---	---	---	---	---	---	---	---	---	---	---	---
MIN	---	---	---	---	---	---	---	---	---	---	---	---
AC-FT	---	---	---	---	---	---	---	---	---	---	---	---

e Estimated.

11414355 CARR LAKE NEAR GRANITEVILLE, CA

LOCATION.—Lat 39°23'57", long 120°38'30", in SE 1/4 NE 1/4 sec.29, T.18 N., R.12 E., Nevada County, Hydrologic Unit 18020125, Tahoe National Forest, on outlet structure on Carr Lake Dam, and 5.8 mi southeast of Graniteville.

DRAINAGE AREA.—0.48 mi^2.

PERIOD OF RECORD.—October 1999 to current year. Unpublished records for water years 1966–99 available in the files of the U.S. Geological Survey.

GAGE.—Nonrecording gage observed intermittently during the summer months. Elevation of gage is 6,664 ft above NGVD of 1929, from topographic map.

REMARKS.—Reservoir is formed by an earth-fill dam completed in 1870. Usable capacity, 150 acre-ft, between gage heights 0.0 ft, invert of outlet gate, and 11.6 ft, crest of spillway. Figures given represent usable contents. Released water is used for hydroelectric power and irrigation downstream. See schematic diagram of South Yuba River Basin.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2310.

Capacity table (gage height, in feet, and contents, in acre-feet)
(Based on survey by Nevada Irrigation District in 1964)

0	0	5	55	10	126	12	155
3	31	8	96				

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	83	55	---	---	---	---	---	---	---	---	---	78
2	---	---	---	---	---	---	---	---	120	118	---	---
3	83	---	---	---	---	---	---	---	---	---	110	---
4	---	---	---	---	---	---	---	---	---	---	110	---
5	---	---	---	---	---	---	---	---	---	116	---	71
6	---	55	---	---	---	---	---	---	---	117	107	---
7	---	---	---	---	---	---	---	---	120	---	---	70
8	---	---	---	---	---	---	---	---	---	---	---	---
9	81	---	---	---	---	---	---	---	---	131	---	---
10	---	---	---	---	---	---	---	---	---	---	105	65
11	---	---	---	---	---	---	---	---	---	---	104	---
12	75	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	114	---	68
14	74	---	---	---	---	---	---	---	112	---	102	---
15	74	---	---	---	---	---	---	---	112	---	---	69
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	114	---	68
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	93	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	128	112	---	---
22	76	---	---	---	---	---	---	---	---	---	90	62
23	---	---	---	---	---	---	---	---	---	111	---	---
24	---	---	---	---	---	---	---	---	---	---	---	66
25	---	---	---	---	---	---	---	---	---	---	89	---
26	---	---	---	---	---	---	---	118	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	111	---	---
29	---	---	---	---	---	---	---	---	---	---	85	62
30	56	---	---	---	---	---	---	---	120	111	---	---
31	---	---	---	---	---	---	---	---	---	111	---	---
MAX	---	---	---	---	---	---	---	---	---	111	---	---
MIN	---	---	---	---	---	---	---	---	---	111	---	---

11414360 LAKE CREEK BELOW CARR LAKE, NEAR GRANITEVILLE, CA

LOCATION.—Lat 39°23'57", long 120°38'31", in SE 1/4 NE 1/4 sec.29, T.18 N., R.12 E., Nevada County, Hydrologic Unit 18020125, Tahoe National Forest, on right bank, 65 ft downstream from Carr Lake, 2.0 mi upstream from Fall Creek, and 5.8 mi southeast of Graniteville.

DRAINAGE AREA.—0.48 mi^2.

PERIOD OF RECORD.—October 1995 to current year. Unpublished records for water years 1965–95 available in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder and compound rectangular weir. Elevation of gage is 6,650 ft above NGVD of 1929 (levels by Pacific Gas & Electric Co.). August 1965 to November 1975, nonrecording gage at site 65 ft upstream at different datum. November 1975 to July 1984, nonrecording gage at same site but different datum. July 1984 to September 1995, nonrecording gage at same site and datum.

REMARKS.—Records not computed for winter months. Flow regulated by Carr Lake. See schematic diagram of South Yuba River Basin.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2310.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.5	1.0	---	---	---	---	---	---	0.71	1.1	0.83	1.1
2	3.6	0.98	---	---	---	---	---	---	0.77	1.1	0.74	0.94
3	4.0	1.0	---	---	---	---	---	---	1.1	1.1	0.83	0.91
4	4.3	0.95	---	---	---	---	---	---	1.1	1.1	1.0	0.90
5	4.3	0.90	---	---	---	---	---	---	1.1	2.0	0.93	0.89
6	4.3	---	---	---	---	---	---	---	1.1	0.72	0.89	0.89
7	4.3	---	---	---	---	---	---	---	1.2	0.71	0.86	0.85
8	4.3	---	---	---	---	---	---	---	1.2	0.65	0.82	0.80
9	2.3	---	---	---	---	---	---	---	1.2	0.80	0.80	0.80
10	1.1	---	---	---	---	---	---	---	1.2	0.89	0.83	1.5
11	0.94	---	---	---	---	---	---	---	1.2	0.89	0.89	2.7
12	1.5	---	---	---	---	---	---	---	1.2	0.80	0.84	2.7
13	2.1	---	---	---	---	---	---	---	1.2	0.87	0.80	2.7
14	2.7	---	---	---	---	---	---	---	0.87	0.92	0.88	2.7
15	2.9	---	---	---	---	---	---	---	0.78	0.89	1.1	2.7
16	2.3	---	---	---	---	---	---	---	0.89	0.89	1.0	2.6
17	2.2	---	---	---	---	---	---	---	0.89	0.89	1.0	2.4
18	2.3	---	---	---	---	---	---	---	0.89	0.83	0.98	2.4
19	2.3	---	---	---	---	---	---	---	0.89	0.80	0.97	2.7
20	2.2	---	---	---	---	---	---	---	0.84	0.93	1.0	2.6
21	2.2	---	---	---	---	---	---	---	0.82	1.1	1.0	1.6
22	2.1	---	---	---	---	---	---	---	0.85	0.99	0.93	1.4
23	2.1	---	---	---	---	---	---	---	0.80	0.96	0.89	1.4
24	2.1	---	---	---	---	---	---	---	0.89	0.89	0.89	1.8
25	1.8	---	---	---	---	---	---	---	0.94	0.89	0.89	2.0
26	1.8	---	---	---	---	---	---	---	1.1	0.80	0.88	2.0
27	1.6	---	---	---	---	---	---	0.94	1.3	0.71	0.74	1.7
28	1.1	---	---	---	---	---	---	0.89	1.2	0.69	0.71	1.6
29	1.0	---	---	---	---	---	---	0.89	1.1	0.64	0.86	1.6
30	1.0	---	---	---	---	---	---	0.89	1.1	0.69	1.1	1.6
31	1.0	---	---	---	---	---	---	0.71	---	0.91	1.1	---
TOTAL	75.24	---	---	---	---	---	---	---	30.43	28.15	27.98	52.48
MEAN	2.43	---	---	---	---	---	---	---	1.01	0.91	0.90	1.75
MAX	4.3	---	---	---	---	---	---	---	1.3	2.0	1.1	2.7
MIN	0.94	---	---	---	---	---	---	---	0.71	0.64	0.71	0.80
AC-FT	149	---	---	---	---	---	---	---	60	56	55	104

11414400 FRENCH LAKE NEAR CISCO, CA

LOCATION.—Lat 39°25'16", long 120°32'28", in SE 1/4 SW 1/4 sec.17, T.18 N., R.13 E., Nevada County, Hydrologic Unit 18020125, Tahoe National Forest, on right bank, near French Lake Dam on Canyon Creek, 0.5 mi upstream from Weil Lake, and 8.2 mi north of Cisco.

DRAINAGE AREA.—4.60 mi^2.

PERIOD OF RECORD.—October 1986 to current year. Unpublished records for water years 1966–86 available in the files of the U.S. Geological Survey.

GAGE.—Water-stage recorder. Datum of gage is NGVD of 1929 (levels by Nevada Irrigation District).

REMARKS.—Reservoir is formed on natural lake by rock-filled dam completed in 1859. Usable capacity, 13,940 acre-ft, between elevations 6,594.90 ft, invert of outlet gate, and 6,660.28 ft, crest of spillway. Figures given represent usable contents. Released water is used for hydroelectric power and irrigation downstream. See schematic diagram of North and Middle Yuba River Basins.

COOPERATION.—Records were collected by Nevada Irrigation District, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2266.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 14,300 acre-ft, June 19, 1998, May 8, 23, 24, 2000, May 30, 2002, May 27, 28, June 7, 2003, maximum elevation, 6,661.34 ft, May 8, 2000; minimum, 5,640 acre-ft, Nov. 19, 20, 2001, minimum elevation, 6,629.80 ft, Nov. 20, 2001.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 14,200 acre-ft, May 16–30, maximum elevation, 6,661.17 ft, May 28; minimum, 6,810 acre-ft, Nov. 30, elevation, 6,635.02 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey by Nevada Irrigation District in 1964)

6,610	1,805	6,630	5,677	6,650	10,701	6,662	14,542
6,620	3,636	6,640	8,006				

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7220	6930	6820	7890	8050	8790	10300	12700	14100	13800	13300	12000
2	7210	6930	6820	7920	8100	8790	10400	12900	14100	13800	13200	12000
3	7200	6930	6820	7920	8100	8790	10500	13100	14100	13800	13200	11900
4	7190	6920	6820	7920	8100	8780	10500	13300	14100	13800	13200	11900
5	7180	6920	6940	7920	8100	8780	10600	13500	14100	13800	13100	11800
6	7170	6900	7280	7930	8110	8790	10700	13700	14100	13800	13100	11800
7	7160	6900	7390	7940	8100	8800	10800	13800	14000	13700	13100	11700
8	7150	6920	7410	7960	8100	8820	10900	13900	14000	13700	13000	11700
9	7130	6930	7410	7960	8100	8860	11000	14000	14000	13700	13000	11600
10	7120	6920	7470	7970	8100	8890	11100	14100	14000	13700	13000	11500
11	7110	6910	7480	7970	8100	8930	11200	14100	14000	13700	12900	11400
12	7100	6900	7490	7970	8090	8970	11300	14100	14000	13600	12900	11400
13	7090	6890	7510	7980	8090	9010	11400	14100	14000	13600	12900	11300
14	7080	6900	7560	7980	8090	9060	11500	14100	14000	13600	12800	11200
15	7070	6900	7560	7980	8100	9130	11500	14100	14000	13600	12800	11100
16	7060	6900	7560	7980	8310	9200	11600	14200	14000	13600	12700	11000
17	7050	6890	7560	7980	8470	9270	11600	14200	14000	13500	12700	10900
18	7040	6890	7560	7990	8540	9360	11600	14200	14000	13500	12700	10800
19	7040	6880	7570	7990	8570	9450	11600	14200	14000	13500	12600	10700
20	7030	6870	7610	7990	8580	9550	11700	14200	14000	13500	12600	10600
21	7020	6870	7620	7990	8590	9660	11700	14200	14000	13500	12600	10500
22	7010	6860	7620	7990	8600	9770	11700	14200	13900	13500	12500	10400
23	7000	6850	7640	7990	8610	9870	11800	14200	13900	13400	12500	10300
24	6990	6840	7710	8000	8620	9950	11800	14200	13900	13400	12500	10200
25	6980	6830	7730	7990	8690	10000	11900	14200	13900	13400	12400	10100
26	6970	6820	7730	8000	8750	10100	12100	14200	13900	13400	12300	9970
27	6960	6820	7730	8030	8760	10100	12300	14200	13900	13400	12300	9870
28	6950	6820	7730	8030	8760	10100	12400	14200	13900	13300	12200	9770
29	6950	6820	7810	8030	8760	10200	12500	14200	13900	13300	12200	9670
30	6930	6810	7810	8040	---	10200	12600	14200	13800	13300	12100	9570
31	6940	---	7830	8050	---	10300	---	14100	---	13300	12100	---
MAX	7220	6930	7830	8050	8760	10300	12600	14200	14100	13800	13300	12000
MIN	6930	6810	6820	7890	8050	8780	10300	12700	13800	13300	12100	9570
a	6635.56	6635.02	6639.26	6640.15	6642.92	6648.55	6656.24	6660.86	6660.02	6658.28	6654.59	6645.96
b	-290	-130	+1020	+220	+710	+1540	+2300	+1500	-300	-500	-1200	-2530

CAL YR 2003 MAX 14300 MIN 6810 b -1470
WTR YR 2004 MAX 14200 MIN 6810 b +2340

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

11414410 CANYON CREEK BELOW FRENCH LAKE, NEAR CISCO, CA

LOCATION.—Lat 39°25'16", long 120°32'30", in SE 1/4 SW 1/4 sec.17, T.18 N., R.13 E., Nevada County, Hydrologic Unit 18020125, Tahoe National Forest, on left bank, 10 ft downstream from outlet at French Lake Dam on Canyon Creek, 0.5 mi upstream from Weil Lake, and 8.2 mi north of Cisco.

DRAINAGE AREA.—4.60 mi^2.

PERIOD OF RECORD.—January 1989 to current year (low-flow records only). Unpublished records for water years 1967–88 available in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder and V-notch sharp-crested weir. Elevation of gage is 6,590 ft above NGVD of 1929, from topographic map. Prior to January 1989, nonrecording gages at three sites and datums.

REMARKS.—No records computed above 3.2 ft^3/s. Flow regulated by French Lake (station 11414400). Flow over the spillway bypasses this station. See schematic diagram of North and Middle Yuba River Basins.

COOPERATION.—Records were collected by Nevada Irrigation District, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2266.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	3.2	---	---	---	---	---	---	---	---	---
2	---	---	3.2	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	3.1	---	---	---	---	---	---	---	---	---	---	---
14	3.1	---	---	---	---	---	---	---	---	---	---	---
15	3.1	---	---	---	---	---	---	---	---	---	---	---
16	3.1	---	---	---	---	---	---	---	---	---	---	---
17	3.1	---	---	---	---	---	---	---	---	---	---	---
18	3.1	---	---	---	---	---	---	---	---	---	---	---
19	3.1	---	---	---	---	---	---	---	---	---	---	---
20	3.1	---	---	---	---	---	---	---	---	---	---	---
21	3.2	---	---	---	---	---	---	---	---	---	---	---
22	3.2	---	---	---	---	---	---	---	---	---	---	---
23	3.2	---	---	---	---	---	---	---	---	---	---	---
24	3.2	3.2	---	---	---	---	---	---	---	---	---	---
25	3.2	3.2	---	---	---	---	---	---	---	---	---	---
26	3.2	3.2	---	---	---	---	---	---	---	---	---	---
27	2.9	3.2	---	---	---	---	---	---	---	---	---	---
28	2.8	3.2	---	---	---	---	---	---	---	---	---	---
29	2.8	3.2	---	---	---	---	---	---	---	---	---	---
30	3.1	3.2	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---
MEAN	---	---	---	---	---	---	---	---	---	---	---	---
MAX	--	--	--	---	---	---	---	---	---	---	---	---
MIN	--	--	--	---	---	---	---	---	---	---	---	---
AC-FT	---	---	---	---	---	---	---	---	---	---	---	---

11414440 FAUCHERIE LAKE NEAR CISCO, CA

LOCATION.—Lat 39°25'45", long 120°34'04", in SE 1/4 NE 1/4 sec.13, T.18 N., R.12 E., Nevada County, Hydrologic Unit 18020125, Tahoe National Forest, near right bank end of Faucherie Dam, on Canyon Creek, and 8.5 mi north of Cisco.

DRAINAGE AREA.—8.97 mi^2.

PERIOD OF RECORD.—October 1986 to current year. Unpublished records for water years 1965–86 available in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder installed Dec. 8, 1999. Records prior to Dec. 8, 1999, are instantaneous values. Datum of gage is NGVD of 1929 (levels by Nevada Irrigation District).

REMARKS.—Reservoir is formed on natural lake by earth-filled dam initially constructed prior to 1880 and enlarged in 1964. Usable capacity, 3,740 acre-ft, between elevations 6,090.00 ft, invert of outlet gate, and 6,123.00 ft, crest of spillway. Dead storage, below elevation 6,090 ft, 240 acre-ft. Figures given represent total contents. Released water is used for hydroelectric power and irrigation downstream. See schematic diagram of North Yuba and Middle River Basins.

COOPERATION.—Records were collected by Nevada Irrigation District, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2266.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents recorded, 4,160 acre-ft, Dec. 13, 2002, elevation, 6,124.18 ft; minimum recorded, 1,850 acre-ft, Nov. 20, 2001, elevation, 6106.96 ft.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 4,100 acre-ft, Feb. 16, elevation, 6,123.81 ft; minimum, 1,940 acre-ft, Oct. 30, elevation, 6,107.70 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey by Nevada Irrigation District in 1964)

6,090	240	6,100	1,095	6,110	2,216	6,120	3,540
6,095	628	6,105	1,629	6,115	2,854	6,125	4,280

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3930	1950	2170	4000	3990	3990	4000	4030	4030	3990	3970	3990
2	3880	1950	2190	3990	4000	3990	4000	4040	4030	3980	3970	3990
3	3790	1960	2200	3990	3990	3990	4020	4040	4020	3980	3970	3990
4	3710	1960	2220	3990	3990	3990	4020	4050	4020	3980	3980	3990
5	3630	1960	2400	3990	3990	3990	4020	4040	4020	3980	3990	3990
6	3560	1970	3070	3990	3990	3990	4010	4030	4020	3980	3990	3990
7	3480	1970	3270	3990	3990	4000	4020	4030	4010	3980	3990	3990
8	3400	1990	3300	3990	3990	4010	4020	4030	4010	3980	3990	4000
9	3330	2010	3330	3990	3990	4010	4020	4030	4000	3980	3990	4000
10	3250	2020	3370	3990	3990	4010	4020	4030	4000	3980	3990	4000
11	3180	2020	3390	3990	3990	4010	4020	4030	4000	3980	3990	4000
12	3100	2030	3420	3990	3990	4010	4020	4020	4000	3980	3990	4000
13	3030	2030	3470	3990	3990	4010	4010	4030	4000	3980	3990	4000
14	2960	2050	3530	3990	3990	4010	4010	4040	4000	3980	3990	4000
15	2890	2060	3550	3990	3990	4020	4000	4040	4000	3980	3990	4010
16	2820	2070	3570	3990	4100	4020	4000	4040	4000	3980	3990	4010
17	2750	2080	3580	3990	4040	4020	4000	4030	3990	3980	3990	4010
18	2680	2090	3600	3990	4010	4020	4000	4030	3990	3980	3990	4010
19	2610	2100	3620	3990	4000	4020	4000	4030	3990	3980	3990	4010
20	2540	2110	3700	3990	3990	4020	4010	4030	3990	3980	3990	4010
21	2480	2120	3740	3990	3990	4030	4000	4030	3990	3980	3990	3980
22	2410	2120	3770	3990	3990	4030	4000	4030	3990	3980	3990	3880
23	2350	2120	3800	3990	3990	4020	4010	4030	3980	3980	3990	3780
24	2280	2130	3880	3990	3990	4010	4020	4030	3980	3980	3990	3690
25	2220	2130	3910	3990	4000	4010	4030	4030	3980	3980	3990	3590
26	2160	2130	3930	3990	4000	4000	4040	4030	3980	3980	3990	3500
27	2100	2130	3950	3990	3990	4000	4040	4050	3980	3980	3990	3410
28	2030	2130	3970	3990	3990	4000	4030	4060	3980	3980	3990	3350
29	1970	2140	4000	3990	3990	4010	4020	4040	3980	3970	3990	3330
30	1940	2150	3990	3990	---	4010	4030	4030	3980	3970	3990	3310
31	1950	---	3990	3990	---	4010	---	4030	---	3970	3990	---
MAX	3930	2150	4000	4000	4100	4030	4040	4060	4030	3990	3990	4010
MIN	1940	1950	2170	3990	3990	3990	4000	4020	3980	3970	3970	3310
a	6107.77	6109.44	6123.10	6123.04	6123.04	6123.20	6123.32	6123.35	6123.02	6122.96	6123.07	6118.38
b	-2010	+200	+1840	0	0	+20	+20	0	-50	-10	+20	-680

CAL YR 2003 MAX 4100 MIN 1940 b -10
WTR YR 2004 MAX 4100 MIN 1940 b -650

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

11414450 CANYON CREEK BELOW FAUCHERIE LAKE, NEAR CISCO, CA

LOCATION.—Lat 39°25'46", long 120°34'06", in SE 1/4 NE 1/4 sec.13, T.18 N., R.12 E., Nevada County, Hydrologic Unit 18020125, Tahoe National Forest, on left bank, 80 ft downstream from Faucherie Dam, on Canyon Creek, and 8.5 mi north of Cisco.

DRAINAGE AREA.—8.97 mi^2.

PERIOD OF RECORD.—January 1989 to current year (low-flow records only). Unpublished records for water years 1965–88 available in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder and V-notch sharp-crested weir. Elevation of gage is 6,080 ft above NGVD of 1929, from topographic map. October 1964 to July 1988, nonrecording gage at site 10 ft downstream at different datum. July 1988 to January 1989, nonrecording gage at same site and datum.

REMARKS.—No records computed above 3.4 ft^3/s. Flow regulated by Faucherie Lake (station 11414440). Flow over the spillway bypasses this station. See schematic diagram of North and Middle Yuba River Basins.

COOPERATION.—Records were collected by Nevada Irrigation District, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2266.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	3.3	3.3	---	---	---	---	---	---	---	---	---
2	---	3.3	3.3	---	---	---	---	---	---	---	---	---
3	---	3.3	3.3	---	---	---	---	---	---	---	---	---
4	---	3.3	3.3	---	---	---	---	---	---	---	---	---
5	---	3.3	3.3	---	---	---	---	---	---	---	---	---
6	---	3.2	---	---	---	---	---	---	---	---	---	---
7	---	3.2	---	---	---	---	---	---	---	3.3	---	---
8	---	3.2	---	---	---	---	---	---	---	3.3	---	---
9	---	3.2	---	---	---	---	---	---	---	3.2	---	---
10	---	3.2	---	---	---	---	---	---	---	3.2	---	---
11	---	3.2	---	---	---	---	---	---	---	3.2	---	---
12	---	3.2	---	---	---	---	---	---	---	3.1	---	---
13	---	3.2	---	---	---	---	---	---	---	3.1	---	---
14	---	3.2	---	---	---	---	---	---	---	3.2	---	---
15	---	3.2	---	---	---	---	---	---	---	3.3	---	---
16	---	3.2	---	---	---	---	---	---	---	3.3	---	---
17	---	3.2	---	---	---	---	---	---	---	3.3	---	---
18	---	3.2	---	---	---	---	---	---	---	3.3	---	---
19	---	3.3	---	---	---	---	---	---	---	3.3	---	---
20	---	3.3	---	---	---	---	---	---	---	3.3	---	---
21	---	3.3	---	---	---	---	---	---	---	3.3	---	---
22	---	---	---	---	---	---	---	---	---	3.3	---	---
23	---	3.3	---	---	---	---	---	---	---	3.3	---	---
24	---	3.3	---	---	---	---	---	---	---	3.3	---	---
25	---	3.3	---	---	---	---	---	---	---	3.3	---	---
26	---	3.3	---	---	---	---	---	---	---	3.3	---	---
27	---	3.3	---	---	---	---	---	---	---	3.2	---	---
28	---	3.3	---	---	---	---	---	---	---	3.4	---	---
29	---	3.3	---	---	---	---	---	---	---	---	---	---
30	---	3.3	---	---	---	---	---	---	---	---	---	---
31	3.3	---	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---
MEAN	---	---	---	---	---	---	---	---	---	---	---	---
MAX	--	--	--	---	---	---	---	---	---	--	---	---
MIN	--	--	--	---	---	---	---	---	---	--	---	---
AC-FT	---	---	---	---	---	---	---	---	---	---	---	---

11414465 SAWMILL LAKE NEAR GRANITEVILLE, CA

LOCATION.—Lat 39°26'44", long 120°36'02", in NW 1/4 NW 1/4 sec.11, T.18 N., R.12 E., Nevada County, Hydrologic Unit 18020125, Tahoe National Forest, near right bank end of Sawmill Lake Dam, on Canyon Creek, 0.8 mi upstream from Bowman Lake, and 7.2 mi east of Graniteville.

DRAINAGE AREA.—16.4 mi^2.

PERIOD OF RECORD.—October 1986 to current year. Unpublished records for water years 1966–86 available in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder, installed Nov. 22, 1999. Records prior to Nov. 22, 1999, are instantaneous values. Datum of gage is NGVD of 1929 (levels by Nevada Irrigation District).

REMARKS.—Reservoir is formed by a rock-filled dam initially constructed prior to 1880 and enlarged in 1941. Usable capacity, 3,030 acre-ft, between elevations 5,805 ft, base of dam, and 5,860 ft, crest of spillway. Figures given represent usable contents. Released water is used for hydroelectric power and irrigation downstream. See schematic diagram of North and Middle Yuba River Basins.

COOPERATION.—Records were collected by Nevada Irrigation District, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2266.

EXTREMES FOR PERIOD OF RECORD.—Maximum storage recorded, 3,270 acre-ft, Dec. 13, 2002, elevation, 5,862.05 ft; minimum recorded, 1,400 acre-ft, Nov. 22, 1999, elevation, 5,843.15 ft.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 3,190 acre-ft, Feb. 16, elevation, 5,861.36 ft; minimum, 2,400 acre-ft, Sept. 21, elevation, 5,853.90 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey by Nevada Irrigation District in 1964)

5,805	0	5,830	430	5,850	2,000	5,863	3,375
5,820	110	5,840	1,130	5,860	3,030		

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3070	3060	3060	3080	3070	3080	3090	3130	3100	3060	3060	3070
2	3070	3060	3060	3080	3080	3070	3090	3130	3100	3060	3060	3070
3	3070	3060	3060	3070	3070	3070	3110	3140	3100	3060	3060	3050
4	3070	3060	3060	3070	3070	3070	3110	3150	3100	3060	3060	3030
5	3070	3060	3070	3070	3070	3070	3120	3140	3090	3060	3060	3020
6	3070	3060	3080	3070	3070	3070	3100	3120	3090	3060	3060	3000
7	3070	3060	3080	3070	3070	3080	3110	3120	3090	3060	3060	2960
8	3070	3070	3070	3080	3070	3090	3120	3120	3080	3060	3060	2910
9	3070	3060	3070	3080	3070	3090	3120	3110	3080	3060	3060	2860
10	3070	3060	3070	3080	3070	3100	3110	3110	3080	3060	3060	2800
11	3070	3060	3070	3070	3070	3090	3110	3110	3080	3060	3060	2740
12	3070	3060	3070	3070	3070	3090	3120	3100	3080	3060	3060	2680
13	3070	3060	3080	3070	3070	3100	3100	3110	3080	3060	3060	2630
14	3070	3060	3070	3070	3070	3100	3100	3120	3080	3060	3060	2570
15	3070	3060	3070	3070	3070	3110	3090	3120	3070	3060	3060	2510
16	3070	3060	3070	3070	3190	3110	3090	3120	3070	3060	3060	2490
17	3070	3060	3070	3070	3130	3110	3080	3110	3070	3060	3060	2470
18	3070	3060	3070	3070	3100	3120	3080	3110	3070	3060	3060	2450
19	3070	3060	3070	3070	3090	3120	3080	3110	3070	3060	3060	2430
20	3070	3060	3080	3070	3080	3120	3090	3110	3070	3060	3060	2410
21	3070	3060	3080	3070	3080	3120	3090	3110	3070	3060	3060	2400
22	3070	3060	3070	3070	3080	3120	3090	3110	3070	3060	3060	2450
23	3070	3060	3070	3070	3080	3120	3100	3110	3060	3060	3060	2490
24	3070	3060	3080	3070	3080	3110	3110	3110	3060	3060	3060	2530
25	3070	3060	3070	3070	3080	3100	3120	3100	3060	3060	3070	2570
26	3070	3060	3070	3070	3080	3090	3130	3110	3060	3060	3070	2600
27	3070	3060	3070	3080	3080	3090	3140	3120	3060	3060	3070	2700
28	3070	3060	3070	3070	3070	3090	3120	3130	3060	3060	3070	2750
29	3070	3060	3080	3070	3070	3100	3110	3120	3060	3060	3070	2720
30	3060	3060	3070	3070	---	3100	3120	3110	3060	3060	3070	2680
31	3060	---	3080	3070	---	3100	---	3110	---	3060	3070	---
MAX	3070	3070	3080	3080	3190	3120	3140	3150	3100	3060	3070	3070
MIN	3060	3060	3060	3070	3070	3070	3080	3100	3060	3060	3060	2400
a	5860.29	5860.24	5860.40	5860.35	5860.38	5860.62	5860.76	5860.67	5860.28	5860.22	5860.33	5856.59
b	-10	0	+20	-10	0	+30	+20	-10	-50	0	+10	-390

CAL YR 2003 MAX 3190 MIN 3050 b 0
WTR YR 2004 MAX 3190 MIN 2400 b -390

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

11414470 CANYON CREEK BELOW SAWMILL LAKE, NEAR GRANITEVILLE, CA

LOCATION.—Lat 39°26'44", long 120°36'05", in NW 1/4 NW 1/4 sec.11, T.18 N., R.12 E., Nevada County, Hydrologic Unit 18020125, Tahoe National Forest, on right bank, 130 ft downstream from outlet at Sawmill Lake Dam, on Canyon Creek, 0.8 mi upstream from Bowman Lake, and 7.2 mi east of Graniteville.

DRAINAGE AREA.—16.4 mi^2.

PERIOD OF RECORD.—October 1989 to current year. Unpublished records for water years 1965–89 available in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder and V-notch sharp-crested weir in concrete control. Elevation of gage is 5,790 ft above NGVD of 1929, from topographic map. September 1964 to July 6, 1988, nonrecording gage at two sites 470 ft downstream at different datum. July 7, 1988, to January 1989, nonrecording gage at same site and datum.

REMARKS.—No records computed above 2.6 ft^3/s. Flow completely regulated by Sawmill Lake (station 11414465). Flow over the spillway bypasses this station. See schematic diagram of North and Middle Yuba River Basins.

COOPERATION.—Records were collected by Nevada Irrigation District, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2266.

EXTREMES FOR CURRENT YEAR.—No flow below 2.6 ft^3/s this water year.

11414690 JACKSON LAKE NEAR SIERRA CITY, CA

LOCATION.—Lat 39°27'52", long 120°33'44", in SW 1/4 SW 1/4 sec.31, T.19 N., R.13 E., Nevada County, Hydrologic Unit 18020125, Tahoe National Forest, on outlet structure on Jackson Lake Dam, on Jackson Creek, 3.0 mi upstream from Bowman Lake, and 8.0 mi southeast of Sierra City.

DRAINAGE AREA.—0.65 mi^2.

PERIOD OF RECORD.—October 1986 to current year. Unpublished records for water years 1965–86 available in files of U.S. Geological Survey.

GAGE.—Water-stage recorder. Datum of gage is 6,570 ft above NGVD of 1929 (levels by Nevada Irrigation District).

REMARKS.—Reservoir is formed on natural lake by earth-filled dam completed in 1859. Usable capacity, 974 acre-ft, between gage height 0.0 ft, invert of outlet, and 22.67 ft, crest of spillway. Dead storage below gage height 0.0 ft, 360 acre-ft. Figures given represent total contents. Released water is used for hydroelectric power and irrigation downstream. See schematic diagram of North and Middle Yuba River Basins.

COOPERATION.—Records were collected by Nevada Irrigation District, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2266.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents recorded, 1,370 acre-ft, May 21–25, 2000, maximum elevation, 6,593.33 ft, May 24, 2000; minimum recorded, 428 acre-ft, Nov. 21, 22, 1998, elevation, 6571.80 ft.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 1,360 acre-ft, May 2–4, maximum elevation, 6,593.07 ft, May 3; minimum, 953 acre-ft, Dec. 4, elevation, 6584.88 ft.

Capacity table (gage height, in feet, and contents, in acre-feet)
(Based on survey by Nevada Irrigation District in 1964)

0	360	10	730	20	1,185	24	1,407
5	545	15	958				

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1070	995	956	1050	1030	1080	1200	1350	1350	1320	1230	1150
2	1070	993	956	1050	1040	1080	1200	1360	1350	1320	1230	1140
3	1070	992	954	1050	1040	1080	1210	1360	1350	1320	1230	1140
4	1060	990	953	1050	1040	1080	1210	1360	1350	1320	1220	1140
5	1060	988	961	1050	1030	1080	1230	1350	1350	1320	1220	1130
6	1060	986	990	1050	1030	1080	1230	1350	1350	1310	1220	1130
7	1060	985	1000	1050	1030	1080	1240	1350	1350	1310	1210	1130
8	1050	986	1000	1050	1030	1080	1250	1350	1340	1310	1210	1130
9	1050	988	1000	1050	1030	1080	1260	1350	1340	1300	1210	1130
10	1050	987	1010	1050	1030	1080	1270	1350	1340	1300	1200	1120
11	1040	985	1010	1050	1030	1080	1280	1350	1340	1300	1200	1120
12	1040	983	1010	1050	1030	1080	1290	1350	1340	1290	1200	1120
13	1040	981	1010	1040	1020	1090	1300	1350	1340	1290	1190	1120
14	1040	982	1020	1040	1020	1090	1310	1350	1340	1290	1190	1110
15	1030	982	1020	1040	1020	1090	1310	1350	1340	1280	1190	1110
16	1030	981	1020	1040	1040	1100	1320	1350	1340	1280	1190	1110
17	1030	980	1010	1040	1060	1100	1320	1350	1340	1280	1180	1100
18	1030	978	1010	1040	1060	1110	1320	1350	1340	1280	1180	1100
19	1020	977	1010	1040	1060	1120	1330	1350	1340	1270	1180	1100
20	1020	975	1020	1040	1060	1120	1330	1350	1340	1270	1180	1100
21	1020	974	1020	1030	1060	1130	1330	1350	1340	1270	1170	1100
22	1020	972	1020	1030	1060	1140	1340	1350	1340	1260	1170	1090
23	1010	970	1020	1030	1060	1150	1340	1350	1340	1260	1170	1090
24	1010	967	1030	1030	1070	1160	1340	1350	1340	1260	1160	1090
25	1010	966	1030	1030	1080	1170	1350	1350	1330	1250	1160	1090
26	1010	963	1030	1030	1080	1170	1350	1350	1330	1250	1160	1090
27	1000	961	1030	1030	1080	1180	1350	1350	1330	1250	1160	1080
28	1000	960	1030	1030	1080	1180	1350	1350	1330	1250	1150	1080
29	999	957	1040	1030	1080	1180	1350	1350	1330	1240	1150	1080
30	996	955	1040	1030	---	1190	1350	1350	1330	1240	1150	1080
31	997	---	1040	1030	---	1190	---	1350	---	1240	1150	---
MAX	1070	995	1040	1050	1080	1190	1350	1360	1350	1320	1230	1150
MIN	996	955	953	1030	1020	1080	1200	1350	1330	1240	1150	1080
a	6585.83	6584.93	6586.74	6586.61	6587.74	6590.11	6592.93	6592.92	6592.55	6590.91	6589.18	6587.62
b	-73	-42	+85	-10	+50	+110	+160	0	-20	-90	-90	-70

CAL YR 2003 MAX 1360 MIN 953 b -50
WTR YR 2004 MAX 1360 MIN 953 b +10

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

11414700 JACKSON CREEK BELOW JACKSON LAKE, NEAR SIERRA CITY, CA

LOCATION.—Lat 39°27'53", long 120°33'46", in SW 1/4 SW 1/4 sec.31, T.19 N., R.13 E., Nevada County, Hydrologic Unit 18020125, Tahoe National Forest, on left bank, 75 ft downstream from Jackson Lake Dam, on Jackson Creek, 3.0 mi upstream from Bowman Lake, and 8.0 mi southeast of Sierra City.

DRAINAGE AREA.—0.65 mi^2.

PERIOD OF RECORD.—January 1989 to September 1992, April 1993 to current year (low-flow records only). Unpublished records for water years 1965–88 available in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder and V-notch sharp-crested weir. Elevation of gage is 6,570 ft above NGVD of 1929, from topographic map. October 1964 to October 1986, nonrecording gage at site 25 ft downstream at different datum. October 1986 to January 1989, nonrecording gage at same site and datum.

REMARKS.—No records computed above 2.9 ft^3/s. Flow regulated by Jackson Lake (station 11414690). Flow over the spillway bypasses this station. See schematic diagram of North and Middle Yuba River Basins.

COOPERATION.—Records were collected by Nevada Irrigation District, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2266.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	1.0	0.99	1.0	1.0	1.1	1.0	1.0	---	1.1	0.96	0.92
2	1.1	1.0	0.99	1.1	1.0	1.1	0.83	0.99	0.93	1.1	0.96	0.92
3	1.1	1.0	0.99	1.1	1.0	1.1	0.98	0.97	0.92	1.1	0.96	0.92
4	1.1	1.0	0.99	1.1	1.0	1.1	1.1	0.96	0.93	1.1	0.96	0.92
5	1.1	1.0	0.99	1.0	1.0	1.1	1.1	0.95	0.89	1.1	0.96	0.92
6	1.1	1.0	1.0	1.0	1.0	1.1	1.1	0.95	0.88	1.1	0.96	0.92
7	1.1	1.0	1.0	1.0	1.0	1.1	1.1	0.94	0.88	1.0	0.96	0.92
8	1.1	1.0	1.0	1.1	1.0	1.1	1.1	0.94	0.89	1.0	0.96	0.92
9	1.1	1.0	1.0	1.1	1.0	1.1	1.1	0.94	0.89	1.0	0.96	0.92
10	1.2	1.0	1.0	1.0	1.0	1.1	1.1	0.93	0.91	1.0	0.96	0.92
11	1.2	1.0	1.0	1.0	1.0	1.1	1.1	0.93	0.95	1.0	0.96	0.92
12	1.2	1.0	1.0	1.0	1.0	1.1	1.1	0.92	0.96	1.0	0.96	0.92
13	1.2	1.0	1.0	1.0	1.0	1.1	1.1	0.92	0.95	0.99	0.96	0.92
14	1.2	1.0	1.0	1.0	1.0	1.1	1.1	0.92	0.91	0.99	0.96	0.92
15	1.2	1.0	1.0	1.0	1.0	1.1	1.1	0.91	---	0.99	0.96	0.93
16	1.2	1.0	1.0	1.0	1.1	1.1	1.1	0.89	1.0	0.99	0.95	0.92
17	1.2	1.0	1.0	1.0	1.1	1.1	1.1	0.88	0.96	0.99	0.96	0.92
18	1.2	1.0	1.0	1.0	1.1	1.1	1.1	0.86	0.89	0.99	0.95	0.92
19	1.2	1.0	1.0	1.0	1.1	1.1	1.1	0.89	0.87	0.98	0.95	0.92
20	1.2	1.0	1.0	1.0	1.1	1.1	1.1	0.93	0.84	0.97	0.95	0.92
21	1.1	1.0	1.0	1.0	1.1	1.1	1.1	0.97	0.81	0.97	0.95	0.92
22	1.1	1.0	1.0	1.0	1.1	1.1	1.1	0.99	0.80	0.97	0.94	0.92
23	1.1	1.0	1.0	1.0	1.1	1.2	1.1	0.97	0.79	0.97	0.94	0.92
24	1.1	0.99	1.0	1.0	1.1	1.2	1.2	0.94	0.79	0.98	0.93	0.92
25	1.1	0.99	1.0	1.0	1.1	1.2	1.2	0.91	0.79	0.96	0.92	0.92
26	1.1	0.99	1.0	1.0	1.1	1.2	1.2	0.89	0.79	0.96	0.92	0.92
27	1.0	0.99	1.0	1.0	1.1	1.2	1.2	0.88	0.79	0.97	0.92	1.0
28	1.0	0.99	1.0	1.0	1.1	1.2	1.2	0.89	0.79	0.96	0.92	1.3
29	1.0	0.99	1.0	1.0	1.1	1.2	1.2	0.88	0.91	0.96	0.92	1.3
30	1.0	0.99	1.0	1.0	---	1.2	1.1	0.90	1.1	0.96	0.92	1.3
31	1.0	---	1.0	1.0	---	1.2	---	0.94	---	0.96	0.92	---
TOTAL	34.7	29.93	30.95	31.5	30.4	35.0	33.11	28.78	---	31.11	29.36	28.83
MEAN	1.12	1.00	1.00	1.02	1.05	1.13	1.10	0.93	---	1.00	0.95	0.96
MAX	1.2	1.0	1.0	1.1	1.1	1.2	1.2	1.0	---	1.1	0.96	1.3
MIN	1.0	0.99	0.99	1.0	1.0	1.1	0.83	0.86	---	0.96	0.92	0.92
AC-FT	69	59	61	62	60	69	66	57	---	62	58	57

11415500 BOWMAN LAKE NEAR GRANITEVILLE, CA

LOCATION.—Lat 39°27'01", long 120°39'09", in SE 1/4 SW 1/4 sec.5, T.18 N., R.12 E., Nevada County, Hydrologic Unit 18020125, on right bank, near rockfill portion of Bowman Dam on Canyon Creek, 4.6 mi east of Graniteville, and 8 mi south of Sierra City.

DRAINAGE AREA.—27.1 mi^2.

PERIOD OF RECORD.—December 1926 to current year.

REVISED RECORDS.—WSP 1931: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is NGVD of 1929 (levels by Nevada Irrigation District). Prior to Oct. 8, 1964, nonrecording gage at same site and datum.

REMARKS.—Lake is formed by one rockfill and one concrete-arch dam; storage began in November 1926. Total capacity, 68,700 acre-ft, between elevations 5,400 ft, bottom of outlet tunnel, and 5,563.6 ft, top of radial spillway gates and crest of concrete-arch dam. Flashboards are occasionally added, increasing elevation to 5,565.8 ft and capacity to 70,400 acre-ft, all of which is available for release. Lake receives water from "Middle Yuba River via Milton–Bowman Tunnel" (station 11408000), and releases it through "Bowman–Spaulding Canal" (station 11416000) which conveys it to reservoirs of Pacific Gas & Electric Co. Water is eventually used for irrigation by Nevada Irrigation District. Records, including extremes, represent total contents. See schematic diagram of North and Middle Yuba River Basins.

COOPERATION.—Records were collected by Nevada Irrigation District, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2266.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 71,000 acre-ft, May 30, 1965, elevation, 5,566.5 ft; lake completely drained for inspection and repair Nov. 25 to Dec. 9, 1949, Oct. 1–20, 1966, Oct. 4–29, 1972, and Sept. 21–30, 1981.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 65,600 acre-ft, June 24, 25, maximum elevation, 5,560.22 ft, June 24; minimum, 21,300 acre-ft, Feb. 14, 15, minimum elevation, 5,495.19 ft, Feb. 15.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on table dated Nov. 24, 1926)

5,419.6	0	5,450	4,100	5,480	14,200	5,540	49,800
5,430	900	5,460	6,900	5,510	30,000	5,570	73,800
5,440	2,100	5,470	10,200				

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48600	45500	37200	33700	24100	25200	35300	46400	61400	63800	53200	42800
2	48400	45400	37000	33600	23900	25100	35600	47100	61700	63500	52900	42500
3	48300	45200	36900	33300	23600	25000	36100	47800	62000	63200	52500	42200
4	48200	44900	36800	33100	23300	24900	36600	48500	62300	62900	52200	41900
5	48100	44600	36700	32700	23000	24800	37200	49300	62600	62600	51800	41700
6	48000	44200	e37200	32400	22600	24600	37700	49900	62800	62300	51500	41400
7	47800	43900	e37800	32100	22300	24500	38200	50400	63000	62000	51100	41100
8	47700	43700	38000	31800	22000	24500	38700	50900	63300	61600	50800	41000
9	47600	43400	38000	31500	21700	24500	39100	51400	63400	61300	50500	40900
10	47500	43100	38100	31200	21500	24600	39600	51900	63600	60900	50100	40900
11	47400	42800	37900	30800	21500	24800	40000	52400	63800	60500	49800	40800
12	47300	42400	37700	30500	21400	25100	40400	52800	63900	60200	49400	40700
13	47200	42100	37600	30200	21400	25300	40900	53200	64100	59800	49100	40700
14	47100	41800	37500	29800	21300	25600	41100	53600	64200	59500	48700	40600
15	47000	41400	37300	29400	21300	26100	41400	54100	64400	59100	48400	40600
16	46800	41100	37000	29100	22100	26600	41500	54600	64500	58800	48000	40500
17	46700	40800	36800	28800	23400	27100	41600	55000	64600	58500	47700	40400
18	46600	40400	36500	28400	24000	27700	41600	55400	64700	58100	47300	40300
19	46500	40100	36200	28100	24300	28400	41700	55800	64800	57800	47000	40300
20	46400	39700	36000	27800	24400	29100	41900	56200	64900	57500	46600	40200
21	46300	39400	35700	27500	24500	29800	42200	56600	65000	57100	46300	40200
22	46200	39000	35400	27100	24600	30700	42300	57000	65200	56800	46000	40100
23	46200	38700	35200	26800	24700	31500	42500	57300	65400	56500	45700	40100
24	46100	38300	35300	26500	24700	32200	42800	57700	65600	56100	45300	40000
25	46000	38000	35100	26200	25000	32900	43200	58100	65600	55800	45000	40000
26	46000	37900	34900	25900	25200	33300	43700	58400	65300	55400	44700	40000
27	45900	37700	34600	25700	25200	33600	44300	58800	64900	55100	44400	39900
28	45900	37600	34300	25400	25200	33800	44900	59600	64600	54700	44100	39800
29	45800	37400	34200	25000	25200	34100	45400	60200	64300	54400	43800	39800
30	45700	37300	34000	24700	---	34500	45900	60600	64100	54000	43500	39800
31	45600	---	33700	24400	---	34900	---	61000	---	53600	43200	---
MAX	48600	45500	38100	33700	25200	34900	45900	61000	65600	63800	53200	42800
MIN	45600	37300	33700	24400	21300	24500	35300	46400	61400	53600	43200	39800
a	5534.06	5521.83	5516.44	5500.78	5502.22	5518.14	5534.44	5554.52	5558.33	5544.83	5530.59	5525.57
b	-3100	-8300	-3600	-9300	+800	+9700	+11000	+15100	+3100	-10500	-10400	-3400

CAL YR 2003 MAX 68800 MIN 32800 b -13100
WTR YR 2004 MAX 65600 MIN 21300 b -8900

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

11416100 BOWMAN–SPAULDING CANAL AT JORDAN CREEK SIPHON VENTURI, NEAR EMIGRANT GAP, CA

LOCATION.—Lat 39°20'32", long 120°38'26", in SW 1/4 NW 1/4 sec.16, T.17 N., R.12 E., Nevada County, Hydrologic Unit 18020125, at outlet of Jordan Creek Siphon, 0.6 mi downstream from Fuller Lake, and 3.5 mi northeast of Emigrant Gap.

PERIOD OF RECORD.—October 1964 to current year.

GAGE.—Water-stage recorder and Venturi section. Elevation of gage is 5,340 ft above NGVD of 1929, from topographic map.

REMARKS.—Records show water diverted from Bowman Lake (station 11415500) plus numerous small tributaries before it enters Lake Spaulding (station 11414140). Most of the water at this gage flows downstream through Spaulding No. 3 Powerplant (station 11416200). See schematic diagrams of South Yuba River Basin and Bear River Basin.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2310.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 335 ft^3/s, Dec. 25, 1983; no flow at times in most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	253	217	95	223	223	234	298	215	71	294	298	291
2	252	209	96	201	227	250	264	214	69	291	296	293
3	252	198	96	198	232	251	254	218	69	289	296	293
4	248	186	95	197	216	256	264	219	69	286	295	294
5	243	e196	94	197	220	254	283	203	70	284	295	293
6	243	e205	98	196	220	266	296	189	64	284	293	292
7	243	e240	110	208	220	278	294	175	63	288	294	292
8	242	e240	103	238	213	291	299	165	48	296	294	276
9	242	e208	95	242	191	305	305	158	39	300	294	222
10	239	e185	94	242	180	315	305	152	32	300	293	206
11	242	e185	152	240	177	320	293	156	5.4	300	293	212
12	244	e185	186	238	189	295	287	152	0.00	299	292	218
13	244	e191	180	239	187	285	287	128	0.00	298	291	220
14	242	191	187	246	185	289	285	114	0.00	296	292	218
15	243	195	185	248	184	300	286	120	0.00	297	297	221
16	244	194	204	243	210	296	274	122	3.1	297	298	220
17	245	194	199	240	299	285	261	123	4.0	297	297	222
18	243	193	205	240	266	285	267	119	0.00	296	296	224
19	244	189	206	238	237	297	261	104	0.00	296	297	224
20	243	194	213	231	221	302	248	93	0.00	295	297	224
21	239	190	220	229	213	304	250	90	4.2	294	296	223
22	244	188	211	227	208	309	245	84	0.00	291	296	222
23	219	191	230	226	209	305	238	80	0.00	294	294	221
24	210	189	250	226	227	295	236	79	0.00	292	294	222
25	209	144	263	226	239	280	243	79	35	290	293	222
26	209	104	240	224	257	252	256	78	201	289	290	221
27	202	96	227	226	236	249	270	76	268	290	296	220
28	200	95	220	226	231	270	283	77	282	297	303	218
29	198	95	220	224	229	293	271	78	285	298	301	219
30	215	95	219	225	---	311	226	76	293	298	291	219
31	219	---	222	225	---	314	---	75	---	298	288	---
TOTAL	7255	5382	5415	7029	6346	8836	8129	4011	1974.70	9114	9140	7162
MEAN	234	179	175	227	219	285	271	129	65.8	294	295	239
MAX	253	240	263	248	299	320	305	219	293	300	303	294
MIN	198	95	94	196	177	234	226	75	0.00	284	288	206
AC-FT	14390	10680	10740	13940	12590	17530	16120	7960	3920	18080	18130	14210
a	14060	10200	10680	13980	12620	17040	1790	0	0	17170	17830	14160

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2004, BY WATER YEAR (WY)

MEAN	196	195	198	198	191	213	227	236	230	206	253	255
MAX	306	308	312	313	311	311	311	328	315	305	316	311
(WY)	1983	1984	1984	1984	1995	1983	1980	2003	1983	1983	1993	1983
MIN	29.5	0.00	41.9	37.8	21.4	26.3	19.3	33.9	0.00	45.6	40.2	143
(WY)	1973	1965	1978	1977	1991	1977	1977	1965	1965	1991	1988	1977

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1965 - 2004	
ANNUAL TOTAL	92074.00		79793.70			
ANNUAL MEAN	252		218		216	
HIGHEST ANNUAL MEAN					304	1983
LOWEST ANNUAL MEAN					77.9	1977
HIGHEST DAILY MEAN	334	Jan 24	320	Mar 11	335	Dec 25 1983
LOWEST DAILY MEAN	0.00	Jun 16	0.00	Jun 12	0.00	Oct 29 1964
ANNUAL SEVEN-DAY MINIMUM	0.00	Jun 16	0.60	Jun 18	0.00	Oct 29 1964
ANNUAL RUNOFF (AC-FT)	182600		158300		156800	
ANNUAL DISCHARGE (AC-FT) a	174100		129500			
10 PERCENT EXCEEDS	325		296		306	
50 PERCENT EXCEEDS	265		230		249	
90 PERCENT EXCEEDS	183		92		70	

e Estimated.

a Discharge, in acre-feet, through Spaulding No. 3 Powerplant (station 11416200), provided by Pacific Gas & Electric Co.

11416500 CANYON CREEK BELOW BOWMAN LAKE, CA

LOCATION.—Lat 39°26'23", long 120°39'37", in NE 1/4 SE 1/4 sec.7, T.18 N., R.12 E., Nevada County, Hydrologic Unit 18020125, on left bank, 1 mi downstream from Bowman Dam, 3.5 mi upstream from Texas Creek, and 8.8 mi south of Sierra City.

DRAINAGE AREA.—28.3 mi^2.

PERIOD OF RECORD.—January 1927 to current year.

REVISED RECORDS.—WSP 1315-A: 1930(M). WSP 1931: Drainage area.

GAGE.—Water-stage recorder. Elevation of gage is 5,300 ft above NGVD of 1929, from topographic map.

REMARKS.—Flow regulated by Bowman Lake (station 11415500), several smaller reservoirs, and diversion into Bowman–Spaulding Canal (station 11416000). See schematic diagram of North and Middle Yuba River Basins.

COOPERATION.—Records were collected by Nevada Irrigation District, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2266.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, about 5,500 ft^3/s, Jan. 2, 1997, gage height, 13.01 ft, from floodmarks (backwater from debris), from rating curve extended above 1,500 ft^3/s, on basis of computation of flow over Bowman Dam; no flow at times in some years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.9	5.6	5.2	12	6.1	6.8	7.6	5.6	4.0	4.2	4.3	4.2
2	4.7	5.5	5.8	12	6.6	6.7	7.2	5.5	3.6	4.0	4.4	4.2
3	4.6	5.4	5.4	8.0	6.6	6.6	7.8	5.5	3.6	4.5	4.4	4.2
4	4.6	5.4	5.2	6.1	6.1	6.6	8.0	5.4	3.6	4.8	4.4	4.2
5	4.6	5.3	5.6	6.1	6.1	6.6	7.9	5.3	3.6	4.7	4.4	4.2
6	4.6	5.3	19	6.0	6.0	7.2	7.5	5.3	3.6	4.6	4.3	4.0
7	4.7	5.3	13	6.1	6.0	8.0	7.3	5.3	5.0	4.5	4.2	4.0
8	4.8	5.5	6.7	6.3	5.8	9.7	7.4	5.3	5.9	4.5	4.2	3.9
9	4.8	5.9	5.7	6.5	5.7	10	7.1	5.3	5.9	4.5	4.2	3.8
10	4.9	5.7	5.8	6.5	5.8	12	6.8	5.6	12	4.5	4.1	3.9
11	4.8	5.6	5.6	6.4	5.9	10	6.6	6.0	16	4.4	4.0	4.0
12	4.6	5.6	5.8	6.4	6.0	9.7	6.4	5.6	17	4.4	4.0	4.1
13	4.5	5.7	10	6.3	5.9	9.6	6.4	5.3	17	4.4	4.1	4.2
14	4.6	6.0	12	6.3	5.9	10	6.3	5.2	17	4.4	4.2	4.1
15	4.8	6.2	7.2	6.5	6.0	11	6.5	5.1	17	4.3	4.3	3.9
16	4.7	6.0	6.4	6.2	22	11	6.3	5.1	17	4.4	4.3	3.9
17	4.7	6.1	6.2	6.0	14	10	6.3	5.2	16	4.3	4.3	3.9
18	4.4	5.9	6.3	5.9	9.6	10	6.3	5.1	16	4.3	4.2	4.1
19	4.6	5.5	6.3	6.1	7.8	9.9	6.7	5.1	16	4.3	4.2	4.0
20	4.8	5.5	11	6.2	7.1	9.7	9.7	4.4	15	4.4	4.2	4.0
21	4.9	5.4	9.0	6.0	6.7	10	7.8	4.7	15	4.3	4.2	4.1
22	4.9	5.3	7.1	5.9	6.5	9.8	7.4	4.7	15	4.2	4.3	3.9
23	5.1	5.3	6.9	5.9	6.7	9.2	6.7	4.3	15	4.2	4.3	3.7
24	5.3	5.3	20	5.9	6.8	8.5	6.4	3.6	15	4.2	4.4	3.7
25	5.4	5.3	9.0	5.9	8.1	8.0	6.3	3.4	13	4.2	4.4	3.5
26	5.4	5.0	7.3	5.9	8.5	7.5	6.2	3.3	8.8	4.2	4.4	4.7
27	5.4	4.9	6.7	6.0	7.3	7.6	6.1	5.4	5.7	4.2	4.4	5.1
28	5.2	5.1	6.4	6.1	6.9	8.1	6.1	8.8	5.1	4.2	4.3	5.1
29	5.2	5.0	12	6.1	6.7	8.5	5.9	7.7	4.7	4.3	4.2	5.3
30	5.3	4.9	11	6.2	---	8.3	5.7	5.5	4.1	4.5	4.0	5.4
31	5.4	---	7.9	6.2	---	8.0	---	4.2	---	4.3	4.0	---
TOTAL	151.2	164.5	257.5	204.0	215.2	274.6	206.7	161.8	316.2	135.2	131.6	125.3
MEAN	4.88	5.48	8.31	6.58	7.42	8.86	6.89	5.22	10.5	4.36	4.25	4.18
MAX	5.4	6.2	20	12	22	12	9.7	8.8	17	4.8	4.4	5.4
MIN	4.4	4.9	5.2	5.9	5.7	6.6	5.7	3.3	3.6	4.0	4.0	3.5
AC-FT	300	326	511	405	427	545	410	321	627	268	261	249
a	14000	10390	9430	12890	10630	11100	8790	3100	3510	17320	17570	14010

a Diversion, in acre-feet, to Bowman–Spaulding Canal (station 11416000), provided by Nevada Irrigation District.

11416500 CANYON CREEK BELOW BOWMAN LAKE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1927 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3.15	6.18	16.6	22.2	17.4	26.8	41.6	122	139	13.6	2.80	2.68
MAX	24.1	195	360	453	198	629	325	773	542	314	37.3	17.0
(WY)	1973	1984	1965	1997	1965	1986	1940	1963	1952	1952	1952	1952
MIN	0.13	0.19	0.20	0.20	0.50	0.58	0.46	0.43	0.30	0.03	0.00	0.00
(WY)	1935	1940	1937	1937	1933	1935	1934	1947	1977	1935	1934	1963

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1927 - 2004	
ANNUAL TOTAL	12593.5		2343.8			
ANNUAL MEAN	34.5		6.40		34.1	
HIGHEST ANNUAL MEAN					165	1965
LOWEST ANNUAL MEAN					0.81	1931
HIGHEST DAILY MEAN	561	May 30	22	Feb 16	5520	Jan 2 1997
LOWEST DAILY MEAN	3.5	Mar 30	3.3	May 26	0.00	Apr 16 1934
ANNUAL SEVEN-DAY MINIMUM	3.8	Mar 6	3.7	May 31	0.00	Apr 16 1934
MAXIMUM PEAK FLOW			52	Feb 16	5500	Jan 2 1997
MAXIMUM PEAK STAGE			4.23	Feb 16	13.01	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	24980		4650		24680	
ANNUAL DIVERSION (AC-FT) a	149900		132700			
10 PERCENT EXCEEDS	165		10		49	
50 PERCENT EXCEEDS	5.6		5.6		3.4	
90 PERCENT EXCEEDS	4.3		4.2		0.30	

a Diversion, in acre-feet, to Bowman–Spaulding Canal (station 11416000), provided by Nevada Irrigation District.

11416580 ROCK LAKE NEAR GRANITEVILLE, CA

LOCATION.—Lat 39°25'49", long 120°37'02", in NE 1/4 NW 1/4 sec.15, T.18 N., R.12 E., Nevada County, Hydrologic Unit 18020125, Tahoe National Forest, on outlet structure on Rock Lake Dam on Texas Creek, and 6.6 mi east of Graniteville.

DRAINAGE AREA.—0.23 mi^2.

PERIOD OF RECORD.—October 1999 to current year. Unpublished records for water years 1966–99 available in the files of the U.S. Geological Survey.

GAGE.—Nonrecording gage observed intermittently during the summer months. Elevation of gage is 6,710 ft above NGVD of 1929, from topographic map.

REMARKS.—Lake is formed by an earth fill dam completed in 1855. Usable capacity, 207 acre-ft, between gage heights 0.0 ft, invert of outlet valve, and 14.2 ft, crest of spillway. Figures given represent usable contents.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2310.

Capacity table (gage height, in feet, and contents, in acre-feet)
(Based on table dated April 1965)

0	0	6	67	12	165	14.5	213
3	30	9	112				

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	35	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	132
3	77	35	---	---	---	---	---	---	---	198	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	195	159	131
6	---	---	---	---	---	---	---	---	---	---	157	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	126
9	59	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	192	155	---
11	---	---	---	---	---	---	---	---	---	---	154	---
12	59	---	---	---	---	---	---	---	---	---	---	117
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	207	189	---	---
15	55	---	---	---	---	---	---	---	208	---	150	110
16	---	---	---	---	---	---	---	---	207	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	187	---	106
19	---	---	---	---	---	---	---	---	---	---	148	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	180	---	---
22	47	---	---	---	---	---	---	---	---	---	143	98
23	---	---	---	---	---	---	---	---	207	180	---	---
24	---	---	---	---	---	---	---	---	---	---	---	97
25	---	---	---	---	---	---	---	---	---	---	139	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	174	---	---
29	36	---	---	---	---	---	---	---	---	---	136	87
30	---	---	---	---	---	---	---	---	198	171	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MAX	---	---	---	---	---	---	---	---	---	---	---	---
MIN	---	---	---	---	---	---	---	---	---	---	---	---

11416585 TEXAS CREEK BELOW ROCK LAKE, CA

LOCATION.—Lat 39°25'49", long 120°37'04", in NE 1/4 NW 1/4 sec.15, T.18 N., R.12 E., Nevada County, Hydrologic Unit 18020125, Tahoe National Forest, 100 ft downstream from outlet structure on Rock Lake Dam, and 6.6 mi east of Graniteville.

DRAINAGE AREA.—0.23 mi^2.

PERIOD OF RECORD.—October 1999 to current year (low-flow records only). Unpublished records for water years 1966–99 available in the files of the U.S. Geological Survey.

GAGE.—Nonrecording gage observed intermittently during the summer months. Elevation of gage is 6,690 ft above NGVD of 1929, from topographic map.

REMARKS.—Records not computed for winter months or above 1.3 ft^3/s. Flow regulated by Rock Lake (station 11416580). No diversions upstream of station. See schematic diagram of South Yuba River Basin.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2310.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	0.67	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	0.31
3	1.2	0.67	---	---	---	---	---	---	---	0.29	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	0.34	0.31	0.31
6	---	---	---	---	---	---	---	---	---	---	0.31	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	0.92
9	1.0	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	0.31	0.27	---
11	---	---	---	---	---	---	---	---	---	---	0.27	---
12	0.69	---	---	---	---	---	---	---	---	---	---	0.92
13	0.67	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	0.31	---	---
15	---	---	---	---	---	---	---	---	---	---	0.26	0.89
16	---	---	---	---	---	---	---	---	0.34	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	0.31	---	0.89
19	---	---	---	---	---	---	---	---	---	---	0.34	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	0.32	---	---
22	0.67	---	---	---	---	---	---	---	---	---	0.32	0.92
23	---	---	---	---	---	---	---	---	0.27	0.27	---	---
24	---	---	---	---	---	---	---	---	---	---	---	0.92
25	---	---	---	---	---	---	---	---	---	---	0.32	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	0.37	---	---
29	---	---	---	---	---	---	---	---	---	---	0.32	0.92
30	0.67	---	---	---	---	---	---	---	0.26	0.37	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---
MEAN	---	---	---	---	---	---	---	---	---	---	---	---
MAX	---	---	---	---	---	---	---	---	---	---	---	---
MIN	---	---	---	---	---	---	---	---	---	---	---	---
AC-FT	---	---	---	---	---	---	---	---	---	---	---	---

11416590 LOWER ROCK LAKE NEAR GRANITEVILLE, CA

LOCATION.—Lat 39°25'43", long 120°37'18", in SW 1/4 NW 1/4 sec.15, T.18 N., R.12 E., Nevada County, Hydrologic Unit 18020125, Tahoe National Forest, on outlet structure on Lower Rock Lake Dam on Texas Creek, and 6.4 mi east of Graniteville.

DRAINAGE AREA.—0.36 mi^2.

PERIOD OF RECORD.—October 1999 to current year. Unpublished records for water years 1966–99 available in the files of the U.S. Geological Survey.

GAGE.—Nonrecording gage observed intermittently during the summer months. Elevation of gage is 6,622 ft above NGVD of 1929, from topographic map.

REMARKS.—Lake is formed by earthfill dam completed in 1855. Usable capacity, 48 acre-ft, between elevation 6,617.3 ft, invert of outlet valve, and 6,625.8 ft, crest of spillway. Figures given represent usable contents.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2310.

Capacity table (gage height, in feet, and contents, in acre-feet)
(Based on table dated April 1965)

0.1	0	4	19	8	44	9	51
2	9	6	31				

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY INSTANTANEOUS VALUES

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

11416610 TEXAS CREEK BELOW LOWER ROCK LAKE, NEAR GRANITEVILLE, CA

LOCATION.—Lat 39°25'42", long 120°37'19", in SW 1/4 NW 1/4 sec.15, T.18 N., R.12 E., Nevada County, Hydrologic Unit 18020125, Tahoe National Forest, on right bank, 200 ft downstream from outlet structure on Lower Rock Lake Dam, and 6.4 mi east of Graniteville.

DRAINAGE AREA.—0.36 mi^2.

PERIOD OF RECORD.—October 1995 to current year (low-flow records only). Unpublished records for water years 1974 and 1979–95 available in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder and Parshall flume. Elevation of gage is 6,615 ft above NGVD of 1929, from topographic map. August 1965 to August 1995, nonrecording gage at same site and datum.

REMARKS.—Records not computed for winter months or above 1.2 ft^3/s. Flow regulated by Lower Rock Lake. See schematic diagram of South Yuba River Basin.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2310.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	0.94	---	---	---	---	---	---	---	0.24	0.31	0.29
2	1.2	0.91	---	---	---	---	---	---	---	0.17	0.31	0.29
3	1.2	---	---	---	---	---	---	---	---	0.26	0.31	0.29
4	1.2	---	---	---	---	---	---	---	---	0.35	0.31	0.29
5	1.2	---	---	---	---	---	---	---	---	0.32	0.32	0.29
6	1.2	---	---	---	---	---	---	---	---	0.31	0.33	0.29
7	1.2	---	---	---	---	---	---	---	---	0.30	0.33	0.29
8	1.2	---	---	---	---	---	---	---	---	0.29	0.32	0.67
9	1.2	---	---	---	---	---	---	---	---	0.29	0.32	---
10	1.2	---	---	---	---	---	---	---	---	0.33	0.32	---
11	1.2	---	---	---	---	---	---	---	---	0.38	0.32	---
12	1.2	---	---	---	---	---	---	---	---	0.35	0.32	---
13	1.1	---	---	---	---	---	---	---	---	0.34	0.32	1.2
14	1.2	---	---	---	---	---	---	---	---	0.33	0.32	1.2
15	1.2	---	---	---	---	---	---	---	0.20	0.32	0.32	1.2
16	1.2	---	---	---	---	---	---	---	0.28	0.31	0.31	1.2
17	1.2	---	---	---	---	---	---	---	0.32	0.30	0.31	1.2
18	1.1	---	---	---	---	---	---	---	0.25	0.30	0.31	1.1
19	1.1	---	---	---	---	---	---	---	0.21	0.30	0.31	1.1
20	1.1	---	---	---	---	---	---	---	0.17	0.30	0.31	1.0
21	1.1	---	---	---	---	---	---	---	0.15	0.30	0.31	0.99
22	1.1	---	---	---	---	---	---	---	0.14	0.30	0.31	---
23	1.0	---	---	---	---	---	---	---	0.24	0.30	0.32	---
24	1.0	---	---	---	---	---	---	---	0.36	0.30	0.32	---
25	0.92	---	---	---	---	---	---	---	0.38	0.29	0.31	---
26	0.87	---	---	---	---	---	---	---	0.47	0.28	0.31	---
27	0.84	---	---	---	---	---	---	---	0.50	0.29	0.30	---
28	0.84	---	---	---	---	---	---	---	0.48	0.32	0.29	---
29	0.87	---	---	---	---	---	---	---	0.30	0.33	0.29	---
30	0.96	---	---	---	---	---	---	---	0.26	0.30	0.29	1.2
31	0.95	---	---	---	---	---	---	---	---	0.30	0.29	---
TOTAL	34.05	---	---	---	---	---	---	---	---	9.40	9.67	---
MEAN	1.10	---	---	---	---	---	---	---	---	0.30	0.31	---
MAX	1.2	---	---	---	---	---	---	---	---	0.38	0.33	---
MIN	0.84	---	---	---	---	---	---	---	---	0.17	0.29	---
AC-FT	68	---	---	---	---	---	---	---	---	19	19	---

11416618 CULBERTSON LAKE NEAR GRANITEVILLE, CA

LOCATION.—Lat 39°25'16", long 120°37'20", in SW 1/4 SW 1/4 sec.15, T.18 N., R.12 E., Nevada County, Hydrologic Unit 18020125, Tahoe National Forest, on outlet structure on Culbertson Lake Dam on Texas Creek, and 6.4 mi east of Graniteville.

DRAINAGE AREA.—0.44 mi^2.

PERIOD OF RECORD.—October 1999 to current year. Unpublished records for water years 1966–99 available in the files of the U.S. Geological Survey.

GAGE.—Nonrecording gage observed intermittently during the summer months. Elevation of gage is 6,442 ft above NGVD of 1929, from topographic map.

REMARKS.—Lake is formed by earth-fill dam completed in 1872. Usable capacity, 953 acre-ft, between gage heights 0.0 ft, invert of outlet valve, and 14.7 ft, crest of spillway. Figures given represent usable contents. See schematic of South Yuba River Basin.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2310.

Capacity table (gage height, in feet, and contents, in acre-feet)
(Based on table dated April 1965)

0	0	6	367	12	764	15	973
3	180	9	562				

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	444	261	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	509
3	431	248	---	---	---	---	---	---	826	757	642	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	743	642	490
6	---	---	---	---	---	---	---	---	---	736	642	---
7	---	---	---	---	---	---	---	---	826	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	490
9	361	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	729	621	---
11	---	---	---	---	---	---	---	---	---	---	621	---
12	348	---	---	---	---	---	---	---	---	---	---	490
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	798	715	---	---
15	336	---	---	---	---	---	---	---	798	---	602	477
16	---	---	---	---	---	---	---	---	798	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	709	---	457
19	---	---	---	---	---	---	---	---	---	---	588	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	688	---	---
22	304	---	---	---	---	---	---	---	---	---	575	431
23	---	---	---	---	---	---	---	---	784	682	---	---
24	---	---	---	---	---	---	---	---	---	---	---	431
25	---	---	---	---	---	---	---	---	---	---	569	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	662	---	---
29	261	---	---	---	---	---	---	---	---	---	555	399
30	---	---	---	---	---	---	---	---	757	662	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MAX	---	---	---	---	---	---	---	---	---	---	---	---
MIN	---	---	---	---	---	---	---	---	---	---	---	---

11416620 TEXAS CREEK TRIBUTARY BELOW CULBERTSON LAKE, NEAR GRANITEVILLE, CA

LOCATION.—Lat 39°25'17", long 120°37'21", in SW 1/4 SW 1/4 sec.15, T.18 N., R.12 E., Nevada County, Hydrologic Unit 18020125, Tahoe National Forest, on right bank, 150 ft downstream from outlet structure, on Culbertson Lake Dam, 0.15 mi upstream from Texas Creek, and 6.4 mi east of Graniteville.

DRAINAGE AREA.—0.44 mi^2.

PERIOD OF RECORD.—October 1988 to current year (low-flow records only). Unpublished records for water years 1965–88 available in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder and V-notch sharp-crested weir. Elevation of gage is 6,420 ft above NGVD of 1929. October 1965 to August 1988, nonrecording gage at site 10 ft downstream at different datum. August to September 1988, nonrecording gage at same site and datum.

REMARKS.—Records not computed for winter months or above 1.2 ft^3/s. Low and medium flow regulated by Culbertson Lake (capacity, 953 acre-ft). See schematic diagram of South Yuba River Basin.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2310.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	0.89	0.61	0.76
2	---	---	---	---	---	---	---	---	---	0.89	0.59	---
3	---	---	---	---	---	---	---	---	---	0.88	0.83	0.82
4	---	---	---	---	---	---	---	---	---	0.86	1.0	0.81
5	---	---	---	---	---	---	---	---	---	0.89	0.95	0.81
6	---	---	---	---	---	---	---	---	---	0.87	0.89	0.81
7	---	---	---	---	---	---	---	---	---	0.85	0.89	0.77
8	---	---	---	---	---	---	---	---	---	0.83	0.89	---
9	---	---	---	---	---	---	---	---	---	0.81	0.89	---
10	---	---	---	---	---	---	---	---	---	0.79	0.88	---
11	---	---	---	---	---	---	---	---	---	0.79	0.87	---
12	---	---	---	---	---	---	---	---	---	0.79	0.85	---
13	---	---	---	---	---	---	---	---	---	0.79	0.83	---
14	---	---	---	---	---	---	---	---	---	0.77	0.82	---
15	---	---	---	---	---	---	---	---	---	0.76	0.82	---
16	---	---	---	---	---	---	---	---	---	0.76	0.82	---
17	---	---	---	---	---	---	---	---	1.0	0.76	0.82	---
18	---	---	---	---	---	---	---	---	1.0	0.73	0.82	---
19	---	---	---	---	---	---	---	---	1.0	0.71	0.81	---
20	---	---	---	---	---	---	---	---	1.0	0.70	0.79	---
21	---	---	---	---	---	---	---	---	1.0	0.70	0.79	---
22	---	---	---	---	---	---	---	---	1.0	0.69	0.79	---
23	---	---	---	---	---	---	---	---	0.99	0.70	0.79	---
24	---	---	---	---	---	---	---	---	0.99	0.69	0.79	---
25	---	---	---	---	---	---	---	---	0.99	0.69	0.77	---
26	---	---	---	---	---	---	---	---	0.97	0.67	0.77	---
27	---	---	---	---	---	---	---	---	0.96	0.67	0.78	---
28	---	---	---	---	---	---	---	---	0.96	0.67	0.76	---
29	---	---	---	---	---	---	---	---	0.95	0.66	0.77	---
30	---	---	---	---	---	---	---	---	0.90	0.66	0.77	---
31	---	---	---	---	---	---	---	---	---	0.66	0.78	---
TOTAL	---	---	---	---	---	---	---	---	---	23.58	25.23	---
MEAN	---	---	---	---	---	---	---	---	---	0.76	0.81	---
MAX	---	---	---	---	---	---	---	---	---	0.89	1.0	---
MIN	---	---	---	---	---	---	---	---	---	0.66	0.59	---
AC-FT	---	---	---	---	---	---	---	---	---	47	50	---

11416660 MIDDLE LINDSEY LAKE NEAR GRANITEVILLE, CA

LOCATION.—Lat 39°24'58", long 120°37'55", in NE 1/4 NW 1/4 sec.21, T.18 N., R.12 E., Nevada County, Hydrologic Unit 18020125, Tahoe National Forest, on outlet structure on Middle Lindsay Lake Dam, and 5.8 mi southeast of Graniteville.

DRAINAGE AREA.—0.41 mi^2.

PERIOD OF RECORD.—October 1999 to current year. Unpublished records for water years 1966–99 available in the files of the U.S. Geological Survey.

GAGE.—Nonrecording gage observed intermittently during the summer months. Elevation of gage is 6,436 ft above NGVD of 1929, from topographic map.

REMARKS.—Lake is formed by an earth-fill dam completed in 1870. Usable capacity, 110 acre-ft, between gage heights 0.0 ft, invert of outlet valve, and 6.0 ft, crest of spillway. Figures given represent usable contents.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2310.

Capacity table (gage height, in feet, and contents, in acre-feet)
(Based on table dated April 1965)

0	0	2	32	4	69	6	110					

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	50
3	43	---	---	---	---	---	---	---	110	110	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	104	77	48
6	---	---	---	---	---	---	---	---	---	---	73	---
7	---	---	---	---	---	---	---	---	112	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	41
9	36	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	96	71	---
11	---	---	---	---	---	---	---	---	---	---	73	---
12	34	---	---	---	---	---	---	---	---	---	---	41
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	110	100	---	---
15	30	---	---	---	---	---	---	---	110	---	69	36
16	---	---	---	---	---	---	---	---	110	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	93	---	34
19	---	---	---	---	---	---	---	---	---	---	65	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	93	---	---
22	22	---	---	---	---	---	---	---	---	---	62	32
23	---	---	---	---	---	---	---	---	110	89	---	---
24	---	---	---	---	---	---	---	---	---	---	---	32
25	---	---	---	---	---	---	---	---	---	---	56	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	79	---	---
29	---	---	---	---	---	---	---	---	---	---	52	27
30	---	---	---	---	---	---	---	---	108	79	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MAX	---	---	---	---	---	---	---	---	---	---	---	---
MIN	---	---	---	---	---	---	---	---	---	---	---	---

11416670 LINDSEY CREEK BELOW MIDDLE LINDSEY LAKE, CA

LOCATION.—Lat 39°24'58", long 120°37'55", in NE 1/4 NW 1/4 sec.21, T.18 N., R.12 E., Nevada County, Hydrologic Unit 18020125, Tahoe National Forest, on right bank, 15 ft downstream from outlet structure on Middle Lindsey Lake Dam, and 5.8 mi southeast of Graniteville.

DRAINAGE AREA.—0.41 mi^2.

PERIOD OF RECORD.—October 1999 to current year. Unpublished records for water years 1966–99 available in the files of the U.S. Geological Survey.

GAGE.—Nonrecording gage observed intermittently during the summer months. Elevation of gage is 6.430 ft above NGVD of 1929, from topographic map.

REMARKS.—Flow regulated by Middle Lindsey Lake (station 11416660). No diversions upstream of station.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2310.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	0.34
3	---	---	---	---	---	---	---	---	0.31	0.54	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	0.51	0.25	0.30
6	---	---	---	---	---	---	---	---	---	---	0.25	---
7	---	---	---	---	---	---	---	---	0.38	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	0.30
9	0.62	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	0.55	0.20	---
11	---	---	---	---	---	---	---	---	---	---	0.32	---
12	---	---	---	---	---	---	---	---	---	---	---	0.29
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	0.41	0.35	---	---
15	---	---	---	---	---	---	---	---	0.41	---	0.32	0.28
16	---	---	---	---	---	---	---	---	0.42	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	0.29	---	0.24
19	---	---	---	---	---	---	---	---	---	---	0.33	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	0.24	---	---
22	---	---	---	---	---	---	---	---	---	---	0.28	0.26
23	---	---	---	---	---	---	---	---	0.41	0.24	---	---
24	---	---	---	---	---	---	---	---	---	---	---	0.26
25	---	---	---	---	---	---	---	---	---	---	0.26	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	0.26	---	---
29	---	---	---	---	---	---	---	---	---	---	0.24	0.26
30	---	---	---	---	---	---	---	---	0.48	0.23	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---
MEAN	---	---	---	---	---	---	---	---	---	---	---	---
MAX	---	---	---	---	---	---	---	---	---	---	---	---
MIN	---	---	---	---	---	---	---	---	---	---	---	---
AC-FT	---	---	---	---	---	---	---	---	---	---	---	---

11416680 LOWER LINDSEY LAKE NEAR GRANITEVILLE, CA

LOCATION.—Lat 39°24'43", long 120°38'34", in NE 1/4 SE 1/4 sec.20, T.18 N., R.12 E., Nevada County, Hydrologic Unit 18020125, Tahoe National Forest, on outlet structure on Lower Lindsay Lake Dam, and 5.5 mi southeast of Graniteville.

DRAINAGE AREA.—0.91 mi^2.

PERIOD OF RECORD.—October 1999 to current year. Unpublished records for water years 1966–99 available in the files of the U.S. Geological Survey.

GAGE.—Nonrecording gage observed intermittently during the summer months. Elevation of gage is 6,236 ft above NGVD of 1929, from topographic map.

REMARKS.—Lake is formed by earth-fill dam completed in 1870. Usable capacity, 293 acre-ft, between gage heights 0.0 ft, invert of outlet valve, and 11.6 ft, crest of spillway. Figures given represent usable contents.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2310.

Capacity table (gage height, in feet, and contents, in acre-feet)
(Based on table dated April 1965)

0	0	3	65	6	138	9	218
12	304						

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70	94	---	---	---	---	---	---	---	266	221	164
2	---	---	---	---	---	---	---	---	---	263	218	164
3	67	94	---	---	---	---	---	---	278	266	---	164
4	---	---	---	---	---	---	---	---	---	266	215	161
5	---	---	---	---	---	---	---	---	---	266	212	159
6	---	94	---	---	---	---	---	---	278	263	207	159
7	---	---	---	---	---	---	---	---	278	---	207	159
8	---	---	---	---	---	---	---	---	---	---	201	156
9	72	---	---	---	---	---	---	---	278	263	201	156
10	---	---	---	---	---	---	---	---	278	263	201	156
11	---	---	---	---	---	---	---	---	278	260	201	154
12	82	---	---	---	---	---	---	---	---	257	198	151
13	---	---	---	---	---	---	---	---	275	---	198	151
14	---	---	---	---	---	---	---	---	272	257	196	151
15	91	---	---	---	---	---	---	---	272	254	193	146
16	---	---	---	---	---	---	---	---	275	254	193	---
17	---	---	---	---	---	---	---	---	---	252	190	---
18	---	---	---	---	---	---	---	---	---	252	190	146
19	---	---	---	---	---	---	---	278	275	---	190	---
20	---	---	---	---	---	---	---	---	---	246	190	143
21	---	---	---	---	---	---	---	---	275	243	182	143
22	94	---	---	---	---	---	---	---	---	---	182	143
23	---	---	---	---	---	---	---	---	278	238	---	---
24	---	---	---	---	---	---	---	---	278	238	---	141
25	---	---	---	---	---	---	---	---	272	---	177	---
26	---	---	---	---	---	---	---	278	272	---	177	141
27	---	---	---	---	---	---	---	---	269	232	172	---
28	---	---	---	---	---	---	---	---	269	232	172	---
29	96	---	---	---	---	---	---	---	---	229	169	138
30	94	---	---	---	---	---	---	---	266	229	169	---
31	---	---	---	---	---	---	---	---	---	226	167	---
MAX	---	---	---	---	---	---	---	---	---	---	---	---
MIN	---	---	---	---	---	---	---	---	---	---	---	---

11416700 LINDSEY CREEK BELOW LOWER LINDSEY LAKE, NEAR GRANITEVILLE, CA

LOCATION.—Lat 39°24'43", long 120°38'35", in NE 1/4 SE 1/4 sec.20, T.18 N., R.12 E., Nevada County, Hydrologic Unit 18020125, Tahoe National Forest, on left bank, 10 ft downstream from outlet structure on Lower Lindsey Lake Dam, and 5.5 mi east of Graniteville.

DRAINAGE AREA.—0.91 mi^2.

PERIOD OF RECORD.—October 1988 to current year (low-flow records only). Unpublished records for water years 1965–88 available in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder and V-notch sharp-crested weir. Elevation of gage is 6,225 ft above NGVD of 1929, from topographic map. October 1965 to July 1984, nonrecording gage at same site, different datum. July 1984 to August 1988, nonrecording gage at same site, same datum.

REMARKS.—Records not computed for winter months or above 1.2 ft^3/s. Low and medium flow regulated by Lower Lindsey Lake, capacity, 293 acre-ft. Spillway flows bypass this station. See schematic diagram of South Yuba River Basin.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2310.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.51	0.58	---	---	---	---	---	---	0.27	0.78	1.2	1.0
2	0.52	0.59	---	---	---	---	---	---	0.06	0.68	1.1	1.0
3	0.52	0.71	---	---	---	---	---	---	---	---	1.1	0.93
4	0.40	0.78	---	---	---	---	---	---	0.28	---	1.1	1.0
5	0.36	0.81	---	---	---	---	---	---	0.24	1.2	1.1	0.98
6	0.31	---	---	---	---	---	---	---	---	0.86	1.1	0.93
7	0.29	---	---	---	---	---	---	---	1.0	0.39	1.1	0.94
8	0.25	---	---	---	---	---	---	---	0.64	0.19	1.1	0.91
9	0.50	---	---	---	---	---	---	---	0.87	---	0.93	0.90
10	0.48	---	---	---	---	---	---	---	---	---	0.79	0.91
11	0.43	---	---	---	---	---	---	---	---	---	---	0.88
12	0.48	---	---	---	---	---	---	---	1.2	---	---	0.76
13	0.36	---	---	---	---	---	---	---	---	0.99	1.1	---
14	0.35	---	---	---	---	---	---	---	---	0.93	1.1	1.1
15	0.53	---	---	---	---	---	---	---	---	0.87	1.1	0.84
16	0.64	---	---	---	---	---	---	---	---	0.94	1.0	0.93
17	0.62	---	---	---	---	---	---	---	---	0.94	1.0	0.81
18	0.52	---	---	---	---	---	---	---	0.99	0.85	1.0	0.76
19	0.42	---	---	---	---	---	---	---	0.83	1.0	0.94	0.72
20	0.38	---	---	---	---	---	---	0.71	1.1	1.1	1.2	0.65
21	0.36	---	---	---	---	---	---	0.70	---	1.1	1.2	0.54
22	0.48	---	---	---	---	---	---	0.67	0.16	---	1.2	0.79
23	0.39	---	---	---	---	---	---	0.68	---	0.80	0.89	0.82
24	0.14	---	---	---	---	---	---	0.65	0.82	0.80	0.94	0.80
25	0.09	---	---	---	---	---	---	0.63	---	0.68	1.0	0.79
26	0.08	---	---	---	---	---	---	0.67	1.1	0.89	1.0	0.73
27	0.08	---	---	---	---	---	---	0.73	---	1.1	0.95	0.68
28	0.07	---	---	---	---	---	---	0.70	---	0.94	0.96	0.62
29	---	---	---	---	---	---	---	0.64	---	0.93	1.1	0.78
30	---	---	---	---	---	---	---	0.67	---	1.0	1.1	0.89
31	0.61	---	---	---	---	---	---	0.43	---	1.1	1.1	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---
MEAN	---	---	---	---	---	---	---	---	---	---	---	---
MAX	---	---	---	---	---	---	---	---	---	---	---	---
MIN	---	---	---	---	---	---	---	---	---	---	---	---
AC-FT	---	---	---	---	---	---	---	---	---	---	---	---

11417500 SOUTH YUBA RIVER AT JONES BAR, NEAR GRASS VALLEY, CA

LOCATION.—Lat 39°17'32", long 121°06'13", in NW 1/4 SE 1/4 sec.32, T.17 N., R.8 E., Nevada County, Hydrologic Unit 18020125, on left bank at Jones Bar, 100 ft upstream from Rush Creek, 0.9 mi downstream from bridge on State Highway 49, and 5 mi northwest of Grass Valley.

DRAINAGE AREA.—308 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—October 1940 to September 1948, April 1959 to current year. Published as "South Fork Yuba River at Jones Bar" 1940–48, and as "South Yuba River at Jones Bar" 1959–63. Yearly discharge for the 1947 water year published in WSP 1315-A.

REVISED RECORDS.—WSP 1315-A: 1942–43(M), drainage area at former site. WSP 1931: Drainage area.

GAGE.—Water-stage recorder and crest-stage gage. Elevation of gage is 1,060 ft above NGVD of 1929, from river-profile map. Oct. 1, 1940, to Sept. 30, 1948, at site 150 ft upstream at datum 2.00 ft higher.

REMARKS.—Records good. Flow regulated by Lake Spaulding, Fordyce Lake, and Bowman Lake (stations 11414140, 11414090, and 11415500) and many smaller reservoirs. Diversions into and out of basin for several powerplants and for irrigation. See schematic diagram of South Yuba River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 53,600 ft^3/s, Dec. 22, 1964, gage height, 25.0 ft, from floodmarks, from rating curve extended above 23,000 ft^3/s, on basis of slope-area measurement of peak flow; minimum daily, 1.0 ft^3/s, Sept. 10–13, 1944.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood of Dec. 23, 1955, reached a stage of 30.7 ft, from floodmarks, present datum, at site 100 ft upstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51	62	75	1430	254	787	320	180	79	58	46	42
2	51	60	103	830	385	731	298	177	76	58	47	41
3	51	65	99	517	555	626	287	176	74	57	47	41
4	51	66	83	371	437	562	295	173	72	55	47	41
5	51	61	82	302	362	523	294	170	70	54	47	42
6	58	60	206	274	320	490	291	161	68	53	46	42
7	59	63	798	354	334	491	278	153	67	53	46	42
8	58	67	291	390	299	517	279	147	67	53	44	43
9	57	130	168	423	279	554	278	141	69	54	42	43
10	57	119	306	423	263	567	272	145	70	54	41	42
11	56	84	406	382	251	581	262	162	77	55	41	46
12	55	75	230	358	243	545	252	153	89	54	42	43
13	55	72	492	331	235	527	247	141	87	53	42	41
14	54	73	966	314	228	521	236	125	87	53	41	42
15	54	101	467	304	223	536	234	119	90	52	41	42
16	54	106	281	298	810	539	228	115	88	50	43	42
17	54	88	228	283	1640	531	217	111	87	49	43	42
18	53	88	199	268	2180	519	215	108	85	49	42	42
19	52	81	174	260	1340	516	198	105	82	49	42	42
20	51	77	198	250	883	495	254	103	77	49	42	48
21	51	74	364	233	691	493	276	101	76	49	42	51
22	51	73	274	217	599	497	255	105	74	48	42	45
23	51	71	225	206	538	485	231	99	73	47	43	44
24	52	71	1170	209	571	457	215	95	72	46	44	43
25	52	70	1130	212	1550	446	213	92	71	46	44	42
26	52	70	535	196	2070	482	215	90	66	46	44	41
27	51	69	362	270	1430	386	217	87	62	45	44	41
28	51	69	285	411	1020	362	220	91	59	45	44	41
29	52	70	521	289	819	351	205	100	58	45	43	42
30	51	71	701	270	---	357	189	93	58	45	42	43
31	55	---	465	279	---	336	---	86	---	44	42	---
TOTAL	1651	2306	11884	11154	20809	15810	7471	3904	2230	1568	1346	1282
MEAN	53.3	76.9	383	360	718	510	249	126	74.3	50.6	43.4	42.7
MAX	59	130	1170	1430	2180	787	320	180	90	58	47	51
MIN	51	60	75	196	223	336	189	86	58	44	41	41
AC-FT	3270	4570	23570	22120	41270	31360	14820	7740	4420	3110	2670	2540

11417500 SOUTH YUBA RIVER AT JONES BAR, NEAR GRASS VALLEY, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	78.0	193	469	754	782	752	669	869	653	120	40.1	39.8
MAX	1197	1350	3756	4865	4078	3029	2804	3323	3618	996	84.9	132
(WY)	1963	1984	1965	1997	1986	1986	1982	1963	1967	1983	1983	1965
MIN	11.7	24.2	37.4	45.0	64.0	67.2	51.1	68.3	31.8	11.6	3.05	1.42
(WY)	1945	1960	1960	1991	1977	1977	1977	1992	1977	1947	1947	1947

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1941 - 2004	
ANNUAL TOTAL	141754		81415			
ANNUAL MEAN	388		222		455	
HIGHEST ANNUAL MEAN					1135	1995
LOWEST ANNUAL MEAN					42.6	1977
HIGHEST DAILY MEAN	2630	Jun 4	2180	Feb 18	30300	Jan 1 1997
LOWEST DAILY MEAN	50	Sep 28	41	Aug 10	1.0	Sep 10 1944
ANNUAL SEVEN-DAY MINIMUM	51	Sep 26	41	Aug 9	1.0	Sep 9 1944
MAXIMUM PEAK FLOW			3100	Feb 25	53600	Dec 22 1964
MAXIMUM PEAK STAGE			9.44	Feb 25	25.00	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	281200		161500		329800	
10 PERCENT EXCEEDS	1070		522		1130	
50 PERCENT EXCEEDS	205		90		126	
90 PERCENT EXCEEDS	55		43		32	

11417500 SOUTH YUBA RIVER AT JONES BAR, NEAR GRASS VALLEY, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—Water years 1965–79, 2000 to current year.
SPECIFIC CONDUCTANCE: December 2003 to September 2004.
WATER TEMPERATURE: Water years 1965–79, 2000 to current year.
SEDIMENT DATA: Water years 1967–74, 2001 (daily), 2002–04 (storm season only) (discontinued).

PERIOD OF DAILY RECORD.—
SPECIFIC CONDUCTANCE: December 2003 to September 2004.
WATER TEMPERATURE: February 1965 to April 1979, November 2000 to current year.
SUSPENDED-SEDIMENT DISCHARGE: November 2000 to September 2001 (daily), October 2001 to May 2004 (storm season only) (discontinued).

INSTRUMENTATION.—Water-temperature recorder from February 1965 to April 1979, and since November 2000. Specific conductance recorder since December 2003.

REMARKS.—Specific conductance records rated excellent except for Mar. 31 to Apr. 22, which are rated good. Water temperature records rated excellent. Suspended-sediment samples taken at site 100 yards downstream of continuous water-quality monitor.

EXTREMES FOR PERIOD OF DAILY RECORD.—
SPECIFIC CONDUCTANCE: Maximum recorded, 126 microsiemens, Aug. 16, 2004; minimum recorded, 40 microsiemens, Feb. 17, 2004.
WATER TEMPERATURE: Maximum recorded, 28.5°C, Aug. 7, 8, 1978; minimum recorded, 0.0°C, several days in most years.
SEDIMENT CONCENTRATION: Maximum daily mean, 294 mg/L, Mar. 15, 2003; minimum daily mean, 0 mg/L, many days during each year.
SEDIMENT LOAD: Maximum daily, 2,250 tons, Dec. 16, 2002; minimum daily, 0 ton, several days in most years.

EXTREMES FOR CURRENT YEAR.—
SPECIFIC CONDUCTANCE: Maximum recorded, 126 microsiemens, Aug. 16; minimum recorded, 40 microsiemens, Feb. 17.
WATER TEMPERATURE: Maximum recorded, 27.0°C, July 6, 7, 21; minimum recorded, 2.5°C, Nov. 27.
SEDIMENT CONCENTRATION: Maximum daily mean, 184 mg/L, Jan. 1; minimum daily mean, 0 mg/L, Nov. 22–27.
SEDIMENT LOAD: Maximum daily, 845 tons, Jan. 1; minimum daily, 0 ton, Nov. 24.

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS

WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	---	---	---	---	90	45	91	81	75	66
2	---	---	---	---	---	---	68	58	107	70	68	66
3	---	---	---	---	---	---	88	68	79	65	68	67
4	---	---	---	---	---	---	97	84	91	77	71	68
5	---	---	---	---	---	---	100	91	96	84	78	70
6	---	---	---	---	---	---	103	93	113	88	83	74
7	---	---	---	---	---	---	110	85	113	91	84	74
8	---	---	---	---	---	---	93	88	101	91	80	70
9	---	---	---	---	---	---	92	84	101	91	74	63
10	---	---	---	---	80	64	91	85	105	92	67	60
11	---	---	---	---	76	65	92	84	106	92	63	57
12	---	---	---	---	86	71	93	87	101	91	66	58
13	---	---	---	---	85	66	93	86	98	89	66	59
14	---	---	---	---	66	47	108	87	96	89	68	62
15	---	---	---	---	74	48	95	85	95	88	65	56
16	---	---	---	---	79	68	92	84	118	47	63	54
17	---	---	---	---	80	69	94	82	66	40	60	53
18	---	---	---	---	80	73	91	81	50	45	61	52
19	---	---	---	---	82	76	92	81	64	50	60	51
20	---	---	---	---	90	79	91	80	68	60	65	55
21	---	---	---	---	93	74	87	81	65	63	62	55
22	---	---	---	---	79	65	86	80	67	65	61	54
23	---	---	---	---	75	66	85	80	76	66	60	54
24	---	---	---	---	86	42	87	81	82	65	61	54
25	---	---	---	---	53	42	86	81	69	48	80	51
26	---	---	---	---	74	52	86	82	56	47	63	50
27	---	---	---	---	83	72	100	71	67	54	75	58
28	---	---	---	---	86	77	87	70	70	64	70	62
29	---	---	---	---	110	58	89	81	70	66	71	64
30	---	---	---	---	76	59	93	81	---	---	74	63
31	---	---	---	---	93	76	93	84	---	---	71	65
MONTH	---	---	---	---	---	---	110	45	118	40	84	50

11417500 SOUTH YUBA RIVER AT JONES BAR, NEAR GRASS VALLEY, CA—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	71	65	73	65	89	85	99	97	110	108	108	107
2	73	66	78	67	90	87	101	98	109	108	109	107
3	75	67	75	68	93	89	102	99	109	108	109	106
4	76	67	88	67	95	91	102	100	109	108	109	107
5	71	64	71	66	96	91	103	100	109	108	110	107
6	72	65	75	67	98	93	103	100	109	108	109	107
7	71	67	75	68	95	93	102	100	109	107	109	107
8	72	67	79	69	95	94	102	101	109	107	108	107
9	73	66	77	70	95	94	102	101	109	108	107	105
10	70	64	82	71	95	95	102	100	110	108	109	105
11	69	62	79	72	96	94	102	101	110	108	108	106
12	68	62	82	71	96	92	102	100	120	108	110	105
13	69	61	78	72	93	89	102	100	111	109	108	105
14	69	61	79	72	90	88	101	100	122	109	107	104
15	70	61	78	73	90	87	101	100	111	109	106	104
16	68	61	82	74	90	87	102	100	126	109	107	105
17	72	60	77	74	89	86	103	101	118	109	107	105
18	74	63	80	75	88	86	103	101	111	109	107	104
19	74	67	81	77	88	86	104	102	110	108	107	103
20	78	70	82	78	90	87	105	103	109	108	105	103
21	74	65	83	80	90	88	106	104	109	108	106	104
22	75	65	83	80	90	88	106	105	109	108	107	105
23	73	61	85	81	92	90	107	105	108	107	109	106
24	78	63	85	82	93	91	107	105	108	102	109	106
25	76	66	85	82	93	91	110	105	108	107	110	107
26	77	65	87	83	93	91	107	106	109	107	110	106
27	77	63	87	84	94	92	108	106	109	107	110	106
28	73	63	88	84	95	93	108	106	108	107	110	106
29	71	62	90	86	96	95	109	107	108	107	109	106
30	71	64	89	85	98	96	109	108	109	107	109	106
31	---	---	88	85	---	---	109	108	108	107	---	---
MONTH	78	60	90	65	98	85	110	97	126	102	110	103

TEMPERATURE, WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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

11417500 SOUTH YUBA RIVER AT JONES BAR, NEAR GRASS VALLEY, CA—Continued

TEMPERATURE, WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	12.0	9.5	17.0	13.5	22.5	19.0	25.0	23.0	25.0	22.0	23.0	20.5
2	12.0	9.0	18.0	14.5	23.0	19.5	26.0	23.0	24.5	22.0	22.5	20.0
3	13.0	10.0	19.0	15.0	23.0	20.5	26.0	23.5	24.5	21.5	21.5	19.0
4	13.5	11.0	19.0	15.5	23.0	20.0	26.0	23.0	24.5	21.5	21.0	18.5
5	13.5	11.0	18.5	15.0	23.0	20.0	26.5	23.0	24.0	21.5	22.0	19.0
6	13.5	10.5	17.5	15.0	23.0	20.0	27.0	24.0	23.5	20.5	22.0	19.5
7	13.5	10.5	17.5	14.5	23.0	20.5	27.0	24.5	23.5	20.0	22.0	19.5
8	14.5	11.5	18.0	15.0	21.5	19.5	26.0	23.5	24.0	21.0	22.0	19.5
9	15.0	12.0	18.0	14.5	21.0	18.0	25.5	23.0	24.5	21.5	21.5	19.0
10	15.0	12.0	17.0	15.0	21.5	18.5	25.0	22.0	24.5	21.5	21.0	18.5
11	15.0	12.0	16.5	13.5	21.5	19.0	25.0	22.0	24.0	21.5	20.5	18.0
12	15.0	12.5	16.5	13.0	22.0	19.0	25.0	21.5	25.0	21.5	21.0	18.5
13	14.5	12.0	17.0	13.5	22.5	19.5	25.0	22.0	25.5	22.5	20.5	18.5
14	13.5	12.0	18.0	14.5	23.5	20.0	25.0	22.0	25.0	22.5	20.0	17.5
15	13.0	11.5	18.0	15.5	24.0	21.0	24.5	22.0	24.0	22.0	20.0	17.5
16	12.0	10.0	19.0	15.5	24.0	21.0	24.5	21.5	24.5	22.0	20.5	18.0
17	11.0	10.0	18.5	16.0	24.5	22.0	25.5	22.5	24.5	21.5	20.5	18.5
18	10.5	9.5	19.0	16.0	24.5	21.5	26.0	23.0	24.5	21.5	19.5	18.0
19	10.5	9.5	18.5	15.5	24.5	21.5	26.0	23.0	25.0	22.0	18.0	15.5
20	11.5	10.0	18.0	15.5	24.5	21.5	26.5	23.5	25.0	22.0	16.5	14.5
21	11.5	10.5	17.5	15.5	25.0	21.5	27.0	24.0	24.5	22.0	16.5	14.5
22	13.0	9.5	18.0	15.0	25.5	22.5	26.5	24.0	23.5	22.0	17.0	14.5
23	13.5	10.5	18.5	15.5	25.0	22.0	26.5	24.0	23.5	21.0	17.5	15.0
24	15.0	11.5	19.0	16.0	25.0	22.0	26.5	24.0	23.5	21.0	18.0	15.5
25	16.5	12.5	19.5	16.5	25.0	22.0	26.5	23.5	23.5	21.0	18.0	15.5
26	17.5	14.0	20.5	17.5	24.5	21.5	26.0	23.0	23.5	21.0	18.0	15.5
27	18.0	14.5	20.0	18.5	25.0	21.5	26.0	23.0	23.0	20.0	18.0	15.5
28	17.5	15.0	19.5	18.5	25.0	22.5	26.0	23.5	23.0	20.0	17.5	15.5
29	16.5	13.5	20.0	17.0	25.0	22.5	25.5	23.0	23.5	20.5	17.5	15.5
30	16.0	13.0	21.0	17.5	25.5	23.0	25.0	22.5	23.0	20.5	17.5	15.5
31	---	---	21.5	18.5	---	---	25.0	22.5	23.0	20.0	---	---
MONTH	18.0	9.0	21.5	13.0	25.5	18.0	27.0	21.5	25.5	20.0	23.0	14.5

PARTICLE-DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Temperature, water, deg C (00010)	Suspnd. sediment, sieve diametr percent <.063mm (70331)	Suspnd. sediment, sieve diametr percent <.125mm (70332)	Suspnd. sediment, sieve diametr percent <.25mm (70333)	Suspnd. sediment, sieve diametr percent <.5 mm (70334)	Suspnd. sediment, sieve diametr percent <1 mm (70335)	Suspnd. sediment, sieve diametr percent <2 mm (70336)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)
NOV											
20...	1300	76	8.0	--	--	--	--	--	--	1	.21
DEC											
07...	0930	920	9.0	--	--	--	--	--	--	95	236
15...	1020	473	5.5	85	86	89	90	100	--	10	13
30...	0900	727	5.5	94	96	99	100	--	--	27	53
JAN											
01...	1300	2300	6.5	84	88	91	96	100	--	299	1860
02...	0900	846	6.0	75	82	89	97	100	--	22	50
FEB											
03...	1130	529	5.5	98	--	--	--	--	--	33	47
17...	0920	1690	7.5	65	72	80	91	100	--	41	187
18...	1400	2620	8.0	--	--	--	--	--	--	172	1220
18...	1430	2580	8.0	72	76	79	85	91	100	147	1020
19...	0925	1380	7.5	70	--	--	--	--	--	17	63
MAR											
18...	1530	521	12.0	--	--	--	--	--	--	2	2.8
APR											
22...	1630	264	13.0	--	--	--	--	--	--	1	.71
MAY											
28...	1030	89	18.0	--	--	--	--	--	--	1	.24

11417500 SOUTH YUBA RIVER AT JONES BAR, NEAR GRASS VALLEY, CA—Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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	51	---	---	62	4	0.66	75	1	0.24
2	51	---	---	60	4	0.65	103	2	0.63
3	51	---	---	65	4	0.69	99	2	0.62
4	51	---	---	66	4	0.64	83	1	0.25
5	51	---	---	61	3	0.50	82	1	0.22
6	58	---	---	60	2	0.41	206	21	25
7	59	---	---	63	2	0.35	798	66	171
8	58	---	---	67	3	0.49	291	13	10
9	57	---	---	130	5	1.7	168	10	4.4
10	57	---	---	119	5	1.6	306	13	12
11	56	---	---	84	4	0.85	406	24	27
12	55	---	---	75	2	0.45	230	19	12
13	55	---	---	72	1	0.21	492	69	97
14	54	---	---	73	1	0.20	966	117	325
15	54	---	---	101	3	0.87	467	15	22
16	54	---	---	106	3	0.79	281	3	2.3
17	54	---	---	88	2	0.47	228	2	1.2
18	53	---	---	88	2	0.44	199	1	0.79
19	52	---	---	81	1	0.31	174	1	0.58
20	51	---	---	77	1	0.21	198	2	1.2
21	51	---	---	74	1	0.15	364	3	2.9
22	51	---	---	73	0	0.10	274	3	2.1
23	51	---	---	71	0	0.04	225	2	1.3
24	52	---	---	71	0	0.00	1170	46	206
25	52	---	---	70	0	0.03	1130	37	117
26	52	---	---	70	0	0.06	535	11	16
27	51	---	---	69	0	0.08	362	7	7.0
28	51	---	---	69	1	0.11	285	5	4.2
29	52	---	---	70	1	0.13	521	24	45
30	51	---	---	71	1	0.16	701	27	54
31	55	---	---	---	---	---	465	18	23
TOTAL	1651	---	---	2306	---	13.35	11884	---	1191.93
		JANUARY			FEBRUARY			MARCH	
1	1430	184	845	254	2	1.5	787	6	13
2	830	43	111	385	16	22	731	5	11
3	517	16	23	555	26	41	626	4	6.9
4	371	11	12	437	8	9.1	562	3	4.5
5	302	6	5.3	362	5	5.3	523	2	2.9
6	274	3	2.0	320	4	3.6	490	2	2.6
7	354	4	4.1	334	6	5.0	491	2	2.6
8	390	6	6.7	299	4	3.3	517	2	2.8
9	423	8	9.7	279	3	2.3	554	2	3.1
10	423	9	11	263	2	1.4	567	3	3.9
11	382	7	7.0	251	1	0.85	581	3	4.6
12	358	4	4.1	243	2	1.4	545	3	4.1
13	331	2	1.9	235	3	2.0	527	3	3.7
14	314	2	1.3	228	4	2.5	521	2	3.3
15	304	1	0.90	223	5	3.0	536	2	3.1
16	298	1	0.93	810	66	262	539	2	3.1
17	283	1	1.0	1640	54	271	531	3	3.7
18	268	1	1.1	2180	115	710	519	2	3.5
19	260	2	1.2	1340	24	99	516	2	2.8
20	250	2	1.2	883	8	19	495	2	2.7
21	233	2	1.3	691	7	12	493	2	2.7
22	217	2	1.2	599	5	8.9	497	2	2.7
23	206	2	1.1	538	4	6.2	485	2	2.7
24	209	2	1.1	571	5	7.5	457	3	3.1
25	212	2	1.1	1550	93	574	446	4	4.3
26	196	2	1.1	2070	89	505	482	5	7.0
27	270	23	23	1430	15	61	386	3	3.0
28	411	49	59	1020	9	26	362	3	2.7
29	289	7	5.6	819	7	16	351	3	2.4
30	270	3	2.1	---	---	---	357	2	2.3
31	279	3	1.9	---	---	---	336	2	2.0
TOTAL	11154	---	1148.93	20809	---	2681.85	15810	---	122.8

11417500 SOUTH YUBA RIVER AT JONES BAR, NEAR GRASS VALLEY, CA—Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
	APRIL			MAY			JUNE		
1	320	2	1.7	180	1	0.49	79	---	---
2	298	2	1.5	177	1	0.48	76	---	---
3	287	2	1.3	176	1	0.47	74	---	---
4	295	2	1.2	173	1	0.47	72	---	---
5	294	1	1.1	170	1	0.46	70	---	---
6	291	1	1.0	161	1	0.43	68	---	---
7	278	1	0.84	153	1	0.41	67	---	---
8	279	1	0.76	147	1	0.40	67	---	---
9	278	1	0.75	141	1	0.38	69	---	---
10	272	1	0.74	145	1	0.39	70	---	---
11	262	1	0.71	162	1	0.44	77	---	---
12	252	1	0.68	153	1	0.41	89	---	---
13	247	1	0.67	141	1	0.38	87	---	---
14	236	1	0.66	125	1	0.34	87	---	---
15	234	1	0.77	119	1	0.32	90	---	---
16	228	1	0.87	115	1	0.31	88	---	---
17	217	2	0.94	111	1	0.30	87	---	---
18	215	2	1.0	108	1	0.31	85	---	---
19	198	2	1.3	105	1	0.37	82	---	---
20	254	5	3.5	103	2	0.43	77	---	---
21	276	4	3.2	101	2	0.49	76	---	---
22	255	2	1.1	105	4	1.1	74	---	---
23	231	1	0.62	99	4	1.2	73	---	---
24	215	1	0.58	95	4	0.99	72	---	---
25	213	1	0.58	92	3	0.71	71	---	---
26	215	1	0.58	90	2	0.46	66	---	---
27	217	1	0.59	87	1	0.21	62	---	---
28	220	1	0.59	91	1	0.31	59	---	---
29	205	1	0.55	100	3	0.72	58	---	---
30	189	1	0.51	93	2	0.50	58	---	---
31	---	---	---	86	1	0.30	---	---	---
TOTAL	7471	---	30.89	3904	---	14.98	2230	---	---
	JULY			AUGUST			SEPTEMBER		
1	58	---	---	46	---	---	42	---	---
2	58	---	---	47	---	---	41	---	---
3	57	---	---	47	---	---	41	---	---
4	55	---	---	47	---	---	41	---	---
5	54	---	---	47	---	---	42	---	---
6	53	---	---	46	---	---	42	---	---
7	53	---	---	46	---	---	42	---	---
8	53	---	---	44	---	---	43	---	---
9	54	---	---	42	---	---	43	---	---
10	54	---	---	41	---	---	42	---	---
11	55	---	---	41	---	---	46	---	---
12	54	---	---	42	---	---	43	---	---
13	53	---	---	42	---	---	41	---	---
14	53	---	---	41	---	---	42	---	---
15	52	---	---	41	---	---	42	---	---
16	50	---	---	43	---	---	42	---	---
17	49	---	---	43	---	---	42	---	---
18	49	---	---	42	---	---	42	---	---
19	49	---	---	42	---	---	42	---	---
20	49	---	---	42	---	---	48	---	---
21	49	---	---	42	---	---	51	---	---
22	48	---	---	42	---	---	45	---	---
23	47	---	---	43	---	---	44	---	---
24	46	---	---	44	---	---	43	---	---
25	46	---	---	44	---	---	42	---	---
26	46	---	---	44	---	---	41	---	---
27	45	---	---	44	---	---	41	---	---
28	45	---	---	44	---	---	41	---	---
29	45	---	---	43	---	---	42	---	---
30	45	---	---	42	---	---	43	---	---
31	44	---	---	42	---	---	---	---	---
TOTAL	1568	---	---	1346	---	---	1282	---	---

11417500 SOUTH YUBA RIVER AT JONES BAR, NEAR GRASS VALLEY, CA—Continued

CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	TIME	Depth at sample location, feet (81903)	Specif. conduc-tance, wat unf uS/cm 25 degC (00095)	Temper-ature, water, deg C (00010)	Location in X-sect. looking dwnstrm ft from l bank (00009)
MAY					
06...*	1400	4.00	63	16.9	4.00
06...*	1402	4.00	63	16.8	13.0
06...*	1404	6.00	63	16.8	22.0
06...*	1405	7.00	63	16.8	31.0
06...*	1406	8.00	63	16.8	40.0
06...*	1407	7.00	63	16.8	49.0
06...*	1408	6.00	63	16.8	58.0
06...*	1410	4.00	63	16.8	67.0
06...*	1411	2.00	63	16.8	76.0
06...*	1412	1.50	63	16.8	85.0
SEP					
03...*	1333	5.00	108	20.5	2.00
03...*	1334	10.0	108	20.6	7.00
03...*	1335	13.0	108	20.6	12.0
03...*	1336	15.0	109	20.6	17.0
03...*	1337	10.0	108	20.6	22.0
03...*	1338	13.0	108	20.6	27.0
03...*	1339	12.0	108	20.6	32.0
03...*	1340	12.0	108	20.6	37.0
03...*	1341	4.00	108	20.6	42.0
03...*	1342	1.00	108	20.7	47.0

* Instantaneous discharge at time of cross-sectional measurement: May 6, 164 ft^3/s; Sept. 3, 41 ft^3/s.

11417950 HARRY L. ENGLEBRIGHT LAKE NEAR SMARTVILLE, CA

LOCATION.—Lat 39°14'23", long 121°16'07", in SE 1/4 SW 1/4 sec.14, T.16 N., R.6E., Yuba County, Hydrologic Unit 18020125, in intake tower on right bank of reservoir, 0.9 mi upstream from Deer Creek and 2.7 mi northeast of Smartville.

DRAINAGE AREA.—1,108 mi^2.

PERIOD OF RECORD.—October 2001 to current year. Records of daily storage, 1973–2001, available in files of the U.S. Geological Survey.

REVISED RECORDS.—WDR CA-03-4: 2002, Monthend and annual maximum and minimum elevations.

GAGE.—Water-stage recorder. Datum of gage is NGVD of 1929 (Army Corps of Engineers).

REMARKS.—Reservoir is formed by a concrete arch dam, 1,142 ft long and 260 ft tall, completed in 1941 by the Army Corps of Engineers, water storage began the same year. Gross pool is 70,000 acre-ft, usable storage, 45,000 acre-ft between elevation of spill lip, 527 ft and elevation of intake to Narrows Powerplant No. 1 (station 11417970), 450 ft. Reservoir receives inflow from North, Middle and South Forks of Yuba River which are regulated releases except during spill conditions. Dam has no low-level outlet except water that is released through Narrows Powerplant Nos. 1 and 2 (station 11417980). Site is used by Pacific Gas & Electric Co. to compute mid-night storage contents for Reservoir. Records represent contents at 2400 hours. See schematic diagram of South Yuba River Basin.

COOPERATION.—Records collected by Pacific Gas & Electric Co., under general supervsion of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 1403.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 46,200 acre-ft, May 8, 9, 2003, elevation, 528.52 ft, May 8, 2003; minimum, 34,200 acre-ft, Jan. 5, 2004, elevation, 513.00 ft.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 45,900 acre-ft, Feb. 18, elevation, 528.08 ft; minimum, 34,200 acre-ft, Jan. 5, elevation, 513.00 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on table provided by Pacific Gas & Electric Co., dated 1942)

450.00	0	479.00	13,000	507.00	29,900	536.00	52,400
464.00	5,800	493.00	20,800	522.00	41,000	544.00	59,700

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43700	40000	38900	42500	39000	41200	39200	40100	38600	39300	40600	41000
2	43500	39600	39100	40500	39200	40400	40300	39500	38500	39900	38900	40900
3	43400	39300	39100	37500	39900	39700	39800	39700	39400	39400	39400	40900
4	43000	39100	39100	35200	40800	39700	39500	39900	40500	39400	40200	41100
5	43200	39000	39000	34900	41100	39600	39400	40400	39300	38600	40800	41400
6	43300	38800	39100	36000	41300	38100	40200	40400	39100	38400	41100	41700
7	43300	38800	40500	36900	39900	37600	39700	40300	39700	39000	40400	42000
8	43100	39000	40900	37800	39700	37100	39400	37900	39200	39500	39400	42100
9	43100	39300	41200	38600	39800	37500	39100	37300	40000	39900	40100	42100
10	43000	39600	41600	38400	39200	38200	38300	37500	40100	38600	40600	42200
11	42900	39700	42400	38800	39400	38600	38300	38200	40900	37700	41000	41600
12	43500	39700	42100	39600	39700	38800	38600	39200	39700	38400	41400	41000
13	43200	39700	41000	39900	39900	38300	38600	39900	38500	39100	41800	41200
14	43100	39500	41500	39900	38600	38200	38900	40500	39300	39800	40200	41500
15	43000	39000	40400	39600	38600	38600	39800	39700	39900	40500	38800	41800
16	42800	38900	39100	39800	39700	39200	39800	39400	40700	41300	39400	41900
17	42900	39000	38700	39800	43200	39900	38700	40300	40900	40400	39800	42400
18	42800	39100	38300	40000	45700	40200	38600	40600	40600	39500	40400	41100
19	42700	39000	38300	40000	44000	40400	39500	41000	39200	40500	41000	39900
20	42800	39000	38200	40000	41900	39100	39800	41200	38600	41300	41600	40300
21	42700	38900	38700	39900	39300	38300	39800	41000	39300	42300	40600	40700
22	42400	38700	38800	39800	39400	38600	40700	39200	40100	43500	39300	40800
23	41900	38900	39700	39800	39800	39100	41900	38700	40500	44300	39700	41100
24	41300	38900	41700	40200	39900	39500	41500	39100	41000	43300	40000	41700
25	40500	38900	41300	40200	43700	39700	41500	39800	41200	42200	40300	40300
26	40100	39000	39900	40400	45700	39900	42600	40500	39700	42500	40400	38500
27	39500	38900	38800	41000	45000	38700	42100	41100	38300	43000	41000	38600
28	39600	38800	39000	41800	43300	38500	42000	41000	38600	43400	40400	38500
29	40000	38700	39300	41400	41700	37700	42200	39700	38600	43300	40000	38700
30	40200	38700	40000	40700	---	37900	42100	38800	38900	43100	40100	39300
31	40600	---	39300	39600	---	38400	---	38000	---	41800	40400	---
MEAN	42294	39117	39839	39371	40979	38926	40063	39674	39630	40748	40294	40877
MAX	43700	40000	42400	42500	45700	41200	42600	41200	41200	44300	41800	42400
MIN	39500	38700	38200	34900	38600	37100	38300	37300	38300	37700	38800	38500
a	521.44	518.96	519.71	520.09	522.93	518.57	523.36	518.03	519.19	522.95	521.25	519.72
b	-3400	-1900	+600	+300	+2100	-3300	+3700	-4100	+900	+2900	-1400	-1100

CAL YR 2003 b -2500
WTR YR 2004 b -4700

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

11418000 YUBA RIVER BELOW ENGLEBRIGHT DAM, NEAR SMARTVILLE, CA

LOCATION.—Lat 39°14'07", long 121°16'23", in NW 1/4 NW 1/4 sec.23, T.16 N., R.6 E., Yuba County, Hydrologic Unit 18020125, on right bank, 2,000 ft downstream from Englebright Dam, 0.5 mi upstream from Deer Creek, and 2.3 mi northeast of Smartville.

DRAINAGE AREA.—1,108 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—October 1941 to current year. Prior to October 1953, published as "at Narrows Dam." October 1953 to September 1969, published as "at Englebright Dam." If records for Deer Creek near Smartville (station 11418500) since 1941 are added to records at this station, records equivalent to those published from 1903 to 1941 as "Yuba River at Smartville" (station 11419000) can be obtained.

REVISED RECORDS.—WSP 1931: Drainage area. WDR CA-97-4: 1999(M).

GAGE.—Water-stage recorder. Datum of gage is 278.68 ft above NGVD of 1929 (levels by International Engineering Co.). Prior to Sept. 19, 1958, at site 2,000 ft upstream at datum 248.31 ft higher, and Sept. 19, 1958, to Sept. 30, 1969, at datum 278.68 ft lower. Supplementary gage 2,000 ft upstream since Oct. 1, 1969, at Englebright Dam at datum 248.31 ft higher.

REMARKS.—Record rated good. Diversions up to 1,800 ft^3/s (see stations 11413250, 11414190, and 11414200) out of basin for power and irrigation upstream from station. Flow regulation by Lake Spaulding (station 11414140), Jackson Meadows and New Bullards Bar Reservoirs (stations 11407800 and 11413515), Englebright Reservoir beginning in 1941, capacity, 70,000 acre-ft, Bowman and Fordyce Lakes (stations 11415500 and 11414090), and many smaller reservoirs. See schematic diagram of South Yuba River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 171,000 ft^3/s, Dec. 22, 1964, gage height, 546.14 ft, site and datum then in use, from rating curve extended above 25,000 ft^3/s, on basis of computation of peak flow over spillway of dam at gage heights 544.72 and 546.14 ft; no flow at times in 1942, 1949, 1956, 1958–61, 1968–69.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	731	957	855	2900	2000	3910	2190	2500	2270	1990	1900	785
2	730	955	856	4060	2010	3690	2200	2490	2080	2040	1890	782
3	733	952	857	4030	2010	3120	2200	2450	1870	2040	1850	779
4	734	939	856	3580	2000	2610	2190	2430	1790	2020	1810	795
5	733	929	856	2490	2000	2610	2150	2420	1790	2020	1810	771
6	749	912	857	2010	2000	2600	2120	2470	1820	2010	1780	738
7	795	906	859	2010	1990	2590	2120	2510	1860	2010	1750	730
8	843	915	861	2020	1990	2590	2110	2510	1880	2020	1730	728
9	854	919	862	2010	1940	2590	2110	2450	1890	2010	1720	732
10	862	920	937	2000	1890	2600	2100	2440	1910	2010	1730	753
11	859	917	998	2010	1890	2590	2100	2420	1910	2000	1740	722
12	846	910	1290	2010	1840	2600	2280	2400	1890	2010	1740	703
13	845	900	2000	2000	1800	2590	2100	2400	1860	2020	1740	702
14	849	892	1990	2000	1800	2590	2100	2400	1850	2020	1740	702
15	848	889	1990	2000	1790	2520	2100	2380	1870	1960	1700	703
16	848	888	1900	2000	1790	2410	2110	2340	1880	1940	1660	703
17	847	885	1320	2000	2630	2310	2100	2280	1880	1930	1630	704
18	847	882	1380	2000	4630	2320	2100	2220	1910	1930	1600	703
19	847	883	1410	2000	4350	2310	2100	2200	1950	1920	1550	698
20	847	876	1410	2000	4030	2300	2100	2210	1880	1930	1540	698
21	890	871	1400	2000	3790	2290	2110	2250	1820	1940	1540	699
22	959	864	1390	2000	2460	2230	2110	2250	1820	1940	1520	700
23	960	860	1490	2000	2150	2190	2120	2240	1830	1950	1490	700
24	964	861	1850	2000	2660	2190	2120	2210	1850	1950	1430	704
25	962	861	2590	2000	2720	2190	2120	2150	1870	1950	1420	795
26	960	861	2640	2000	4480	2200	2120	2200	1890	1940	1420	929
27	958	857	2250	2000	4590	2190	2130	2250	1890	1940	1420	893
28	957	855	1830	2000	4150	2190	2120	2270	1890	1950	1340	934
29	958	855	2080	1990	4130	2190	2110	2300	1910	1950	1200	955
30	958	855	2590	1990	---	2180	2330	2370	1920	1920	1040	967
31	957	---	2640	1980	---	2190	---	2380	---	1900	862	---
TOTAL	26730	26826	47094	69090	77510	77680	64070	72790	56730	61160	49292	22907
MEAN	862	894	1519	2229	2673	2506	2136	2348	1891	1973	1590	764
MAX	964	957	2640	4060	4630	3910	2330	2510	2270	2040	1900	967
MIN	730	855	855	1980	1790	2180	2100	2150	1790	1900	862	698
AC-FT	53020	53210	93410	137000	153700	154100	127100	144400	112500	121300	97770	45440
a	20460	20970	13050	e5200	e1360	e813	e25560	42790	50360	56050	36200	13900

a Combined flow, in acre-feet, from Browns Valley Irrigation Ditch (station 11420750), Brophy-South Canal (station 11420760), and Hallwood-Cordua Irrigation District Canal (station 11420770), provided by Pacific Gas & Electric Co.
e Estimated.

11418000 YUBA RIVER BELOW ENGLEBRIGHT DAM, NEAR SMARTVILLE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	962	1211	2588	3460	3845	3536	3628	3903	2662	1428	1331	991
MAX	5206	8964	18100	22350	17330	13060	11950	13330	9017	4034	3140	3144
(WY)	1963	1951	1965	1997	1986	1995	1982	1952	1983	1983	1980	1980
MIN	207	41.3	175	283	211	199	437	367	501	430	326	202
(WY)	1960	1942	1960	1977	1977	1977	1976	1977	1977	1977	1944	1977

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1942 - 2004	
ANNUAL TOTAL	813918		651879			
ANNUAL MEAN	2230		1781		2455	
HIGHEST ANNUAL MEAN					5251	1982
LOWEST ANNUAL MEAN					414	1977
HIGHEST DAILY MEAN	6940	May 9	4630	Feb 18	134000	Jan 2 1997
LOWEST DAILY MEAN	727	Sep 21	698	Sep 19	0.00	Nov 8 1941
ANNUAL SEVEN-DAY MINIMUM	728	Sep 21	700	Sep 17	0.00	Nov 8 1941
MAXIMUM PEAK FLOW			5830	Feb 18	171000	Dec 22 1964
MAXIMUM PEAK STAGE			12.16	Feb 18	546.14	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	1614000		1293000		1779000	
ANNUAL DISCHARGE (AC-FT) a	261400		e286700			
10 PERCENT EXCEEDS	4220		2500		5050	
50 PERCENT EXCEEDS	2010		1930		1330	
90 PERCENT EXCEEDS	846		847		460	

a Combined flow, in acre-feet, from Browns Valley Irrigation Ditch (station 11420750), Brophy-South Canal (station 11420760), and Hallwood-Cordua Irrigation District Canal (station 11420770), provided by Pacific Gas & Electric Co.

e Estimated.

11418000 YUBA RIVER BELOW ENGLEBRIGHT DAM, NEAR SMARTVILLE, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—Water years 1973–78, 2001 to current year.
WATER TEMPERATURE: Water years 1973–78, 2001 to current year.
SEDIMENT DATA: Water year 2001 (daily), 2002–04 (storm season only) (discontinued).

PERIOD OF DAILY RECORD.—
WATER TEMPERATURE: October 1972 to September 1978, March 2001 to current year.
SUSPENDED-SEDIMENT DISCHARGE: January 2001 to September 2001 (daily), October 2001 to May 2004 (storm season only) (discontinued).

INSTRUMENTATION.—Water-temperature recorder October 1972–78 and since Mar. 23, 2001.

REMARKS.—Water-temperature records rated excellent. Water temperatures can be affected by releases from Englebright Reservoir.

EXTREMES FOR PERIOD OF DAILY RECORD.—
WATER TEMPERATURE: Maximum recorded, 20.0°C, Oct. 1, 3, 5, 7, 11, 1974; minimum recorded, 3.0°C, Dec. 19, 20, 1973.
SEDIMENT CONCENTRATION: Maximum daily mean, 38 mg/L, Dec. 28, 2002; minimum daily mean, 1 mg/L, many days during each year.
SEDIMENT LOAD: Maximum daily, 367 tons, Dec. 29, 2002; minimum daily, 1.6 tons, Oct. 2, 2001.

EXTREMES FOR CURRENT YEAR.—
WATER TEMPERATURE: Maximum recorded, 14.0°C, Sept. 26–30; minimum recorded, 8.0°C, several days in January and February.
SEDIMENT CONCENTRATION: Maximum daily mean, 15 mg/L, Feb. 19; minimum daily mean, 1 mg/L, many days during water year.
SEDIMENT LOAD: Maximum daily, 177 tons, Feb. 19; minimum daily, 2.3 tons, several days in November and December.

TEMPERATURE, WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	13.0	12.5	12.5	12.0	10.5	10.0	9.0	8.5	8.5	8.0	8.5	8.5
2	13.0	12.5	12.5	12.0	11.0	10.0	9.0	8.5	8.5	8.5	9.0	8.5
3	13.5	12.5	12.0	12.0	10.5	10.0	9.0	8.5	8.5	8.5	8.5	8.5
4	13.5	12.5	12.5	11.5	10.5	10.0	8.5	8.5	8.5	8.0	8.5	8.5
5	13.0	12.5	12.5	11.5	10.5	10.0	8.5	8.5	8.5	8.0	8.5	8.5
6	13.5	12.5	12.0	11.5	10.5	10.0	8.5	8.5	8.5	8.0	8.5	8.5
7	13.5	12.5	12.0	11.5	10.5	10.0	8.5	8.5	8.5	8.0	9.0	8.5
8	13.5	12.5	12.0	11.5	11.0	10.0	8.5	8.5	8.5	8.0	9.5	8.5
9	13.5	12.5	12.0	11.5	10.0	10.0	8.5	8.5	8.5	8.0	9.5	8.5
10	13.0	12.5	12.5	11.0	10.0	10.0	9.0	8.5	8.5	8.0	9.5	9.0
11	13.0	12.5	12.0	11.0	10.5	10.0	9.0	8.5	8.5	8.0	9.5	9.0
12	13.0	12.5	12.0	11.0	10.0	10.0	9.0	8.5	8.5	8.0	10.0	9.0
13	13.0	12.0	11.5	11.0	10.0	10.0	9.0	8.5	8.0	8.0	10.0	9.0
14	13.0	12.0	11.5	11.0	10.0	9.5	9.0	8.5	8.5	8.0	10.0	9.5
15	13.0	12.0	11.5	11.0	10.0	9.5	8.5	8.5	8.5	8.0	10.0	9.5
16	13.0	12.0	12.0	11.0	9.5	9.5	9.0	8.5	8.5	8.5	10.5	9.5
17	13.0	12.0	11.5	11.0	10.0	9.5	8.5	8.5	8.5	8.0	10.5	9.5
18	13.0	12.0	12.0	11.0	9.5	9.5	9.0	8.5	8.5	8.5	10.5	9.5
19	13.0	12.0	11.5	11.0	9.5	9.5	9.0	8.5	9.0	8.5	10.5	9.5
20	13.0	12.5	11.5	11.0	9.5	9.5	9.0	8.5	9.0	8.5	10.5	9.5
21	13.0	12.0	11.0	10.5	10.0	9.5	9.0	8.5	9.0	8.5	11.0	10.0
22	13.0	12.0	11.5	10.5	9.5	9.5	8.5	8.5	9.0	9.0	11.0	10.0
23	13.0	12.0	11.5	10.5	9.5	9.5	8.5	8.5	9.0	8.5	10.5	10.0
24	13.0	12.5	11.0	10.5	9.5	9.5	8.5	8.5	8.5	8.5	10.5	10.0
25	13.0	12.5	11.0	10.5	9.5	9.5	8.5	8.5	8.5	8.5	10.5	10.0
26	13.0	12.5	11.0	10.5	9.5	9.0	8.5	8.5	9.0	8.5	10.5	10.0
27	13.5	12.5	10.5	10.0	9.5	9.0	8.5	8.5	9.0	8.5	10.5	10.0
28	13.0	12.5	10.5	10.0	9.0	9.0	8.5	8.0	9.0	8.5	10.5	10.0
29	13.0	12.5	10.5	10.0	9.0	9.0	8.5	8.0	9.0	8.5	11.0	10.0
30	13.0	12.0	10.5	10.0	9.0	9.0	8.5	8.0	---	---	10.5	10.0
31	12.5	12.0	---	---	9.0	8.5	8.5	8.0	---	---	10.5	10.0
MONTH	13.5	12.0	12.5	10.0	11.0	8.5	9.0	8.0	9.0	8.0	11.0	8.5

11418000 YUBA RIVER BELOW ENGLEBRIGHT DAM, NEAR SMARTVILLE, CA—Continued

TEMPERATURE, WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Temperature, water, deg C (00010)	Suspnd. sediment, sieve diametr percent <.063mm (70331)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)
NOV						
17...	1600	885	11.0	--	2	4.8
JAN						
13...	1530	2010	9.0	--	4	22
FEB						
18...	0850	4230	8.0	88	4	46
19...	1415	4200	9.0	--	13	147
APR						
09...	1330	2110	11.0	--	2	11

11418000 YUBA RIVER BELOW ENGLEBRIGHT DAM, NEAR SMARTVILLE, CA—Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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	731	---	---	957	2	5.1	855	1	2.3
2	730	---	---	955	2	5.2	856	1	2.3
3	733	---	---	952	2	5.1	857	1	2.3
4	734	---	---	939	2	4.8	856	1	2.3
5	733	---	---	929	2	4.5	856	1	2.3
6	749	---	---	912	2	4.2	857	1	2.3
7	795	---	---	906	2	3.9	859	1	2.3
8	843	---	---	915	1	3.7	861	1	2.3
9	854	---	---	919	1	3.5	862	1	2.3
10	862	---	---	920	1	3.2	937	1	2.5
11	859	---	---	917	1	3.0	998	1	2.7
12	846	---	---	910	1	2.7	1290	1	3.7
13	845	---	---	900	1	2.5	2000	1	7.3
14	849	---	---	892	1	3.0	1990	2	9.0
15	848	---	---	889	1	3.6	1990	2	11
16	848	---	---	888	2	4.1	1900	2	11
17	847	---	---	885	2	3.8	1320	2	8.1
18	847	---	---	882	1	2.4	1380	2	9.0
19	847	---	---	883	1	2.4	1410	3	9.8
20	847	---	---	876	1	2.4	1410	3	10
21	890	---	---	871	1	2.4	1400	3	11
22	959	---	---	864	1	2.3	1390	3	11
23	960	---	---	860	1	2.3	1490	3	12
24	964	---	---	861	1	2.3	1850	4	20
25	962	---	---	861	1	2.3	2590	5	35
26	960	---	---	861	1	2.3	2640	5	37
27	958	---	---	857	1	2.3	2250	5	32
28	957	---	---	855	1	2.3	1830	6	27
29	958	---	---	855	1	2.3	2080	6	32
30	958	---	---	855	1	2.3	2590	6	41
31	957	---	---	---	---	---	2640	6	44
TOTAL	26730	---	---	26826	---	96.2	47094	---	406.8
		JANUARY			FEBRUARY			MARCH	
1	2900	10	79	2000	3	15	3910	10	105
2	4060	11	117	2010	3	16	3690	9	87
3	4030	10	113	2010	3	16	3120	7	63
4	3580	10	97	2000	4	20	2610	6	44
5	2490	10	65	2000	5	26	2610	5	36
6	2010	9	51	2000	6	31	2600	5	32
7	2010	9	49	1990	6	30	2590	4	28
8	2020	8	45	1990	5	27	2590	4	25
9	2010	7	40	1940	5	25	2590	3	21
10	2000	7	36	1890	4	22	2600	3	18
11	2010	6	31	1890	4	20	2590	2	14
12	2010	5	27	1840	3	17	2600	2	14
13	2000	4	21	1800	3	15	2590	2	14
14	2000	3	16	1800	3	16	2590	2	14
15	2000	3	15	1790	3	17	2520	2	14
16	2000	3	15	1790	4	18	2410	2	13
17	2000	3	14	2630	4	27	2310	2	12
18	2000	3	14	4630	10	136	2320	2	13
19	2000	2	13	4350	15	177	2310	2	12
20	2000	2	12	4030	14	150	2300	2	12
21	2000	2	12	3790	12	124	2290	2	12
22	2000	2	11	2460	10	68	2230	2	12
23	2000	2	11	2150	8	47	2190	2	12
24	2000	2	11	2660	7	47	2190	2	12
25	2000	2	12	2720	9	65	2190	2	12
26	2000	2	12	4480	12	146	2200	2	11
27	2000	2	13	4590	14	168	2190	2	10
28	2000	2	13	4150	12	139	2190	2	9.3
29	1990	3	14	4130	11	124	2190	1	8.4
30	1990	3	14	---	---	---	2180	1	7.6
31	1980	3	14	---	---	---	2190	1	6.8
TOTAL	69090	---	1007	77510	---	1749	77680	---	704.1

11418000 YUBA RIVER BELOW ENGLEBRIGHT DAM, NEAR SMARTVILLE, CA—Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
	APRIL			MAY			JUNE		
1	2190	1	6.0	2500	2	13	2270	---	---
2	2200	1	5.9	2490	2	14	2080	---	---
3	2200	1	5.9	2450	1	8.9	1870	---	---
4	2190	1	5.9	2430	1	6.5	1790	---	---
5	2150	1	5.8	2420	1	6.5	1790	---	---
6	2120	1	5.7	2470	2	11	1820	---	---
7	2120	1	5.7	2510	2	13	1860	---	---
8	2110	1	5.7	2510	2	12	1880	---	---
9	2110	1	5.7	2450	2	10	1890	---	---
10	2100	1	5.7	2440	1	9.5	1910	---	---
11	2100	1	5.7	2420	1	8.4	1910	---	---
12	2280	2	10	2400	1	7.4	1890	---	---
13	2100	1	5.7	2400	1	6.6	1860	---	---
14	2100	1	5.7	2400	1	6.5	1850	---	---
15	2100	1	5.7	2380	1	6.4	1870	---	---
16	2110	1	5.7	2340	1	6.3	1880	---	---
17	2100	1	5.7	2280	1	6.1	1880	---	---
18	2100	1	5.7	2220	1	6.0	1910	---	---
19	2100	1	5.7	2200	1	5.9	1950	---	---
20	2100	1	5.7	2210	1	6.0	1880	---	---
21	2110	1	5.7	2250	1	6.1	1820	---	---
22	2110	1	5.7	2250	1	6.1	1820	---	---
23	2120	1	5.7	2240	1	6.0	1830	---	---
24	2120	1	5.7	2210	1	6.0	1850	---	---
25	2120	1	5.7	2150	1	5.8	1870	---	---
26	2120	1	5.7	2200	1	5.9	1890	---	---
27	2130	1	5.8	2250	1	6.1	1890	---	---
28	2120	1	5.7	2270	1	6.1	1890	---	---
29	2110	1	5.7	2300	1	6.2	1910	---	---
30	2330	2	9.9	2370	1	6.4	1920	---	---
31	---	---	---	2380	1	6.4	---	---	---
TOTAL	64070	---	180.6	72790	---	237.1	56730	---	---
	JULY			AUGUST			SEPTEMBER		
1	1990	---	---	1900	---	---	785	---	---
2	2040	---	---	1890	---	---	782	---	---
3	2040	---	---	1850	---	---	779	---	---
4	2020	---	---	1810	---	---	795	---	---
5	2020	---	---	1810	---	---	771	---	---
6	2010	---	---	1780	---	---	738	---	---
7	2010	---	---	1750	---	---	730	---	---
8	2020	---	---	1730	---	---	728	---	---
9	2010	---	---	1720	---	---	732	---	---
10	2010	---	---	1730	---	---	753	---	---
11	2000	---	---	1740	---	---	722	---	---
12	2010	---	---	1740	---	---	703	---	---
13	2020	---	---	1740	---	---	702	---	---
14	2020	---	---	1740	---	---	702	---	---
15	1960	---	---	1700	---	---	703	---	---
16	1940	---	---	1660	---	---	703	---	---
17	1930	---	---	1630	---	---	704	---	---
18	1930	---	---	1600	---	---	703	---	---
19	1920	---	---	1550	---	---	698	---	---
20	1930	---	---	1540	---	---	698	---	---
21	1940	---	---	1540	---	---	699	---	---
22	1940	---	---	1520	---	---	700	---	---
23	1950	---	---	1490	---	---	700	---	---
24	1950	---	---	1430	---	---	704	---	---
25	1950	---	---	1420	---	---	795	---	---
26	1940	---	---	1420	---	---	929	---	---
27	1940	---	---	1420	---	---	893	---	---
28	1950	---	---	1340	---	---	934	---	---
29	1950	---	---	1200	---	---	955	---	---
30	1920	---	---	1040	---	---	967	---	---
31	1900	---	---	862	---	---	---	---	---
TOTAL	61160	---	---	49292	---	---	22907	---	---

11418000 YUBA RIVER BELOW ENGLEBRIGHT DAM, NEAR SMARTVILLE, CA—Continued

CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	TIME	Depth at sample location, feet (81903)	Temperature, water, deg C (00010)	Location in X-sect. looking dwnstrm ft from l bank (00009)
MAY				
06...*	0849	5.80	11.3	8.00
06...*	0851	7.20	11.3	23.0
06...*	0853	6.60	11.3	38.0
06...*	0855	7.30	11.3	53.0
06...*	0857	8.90	11.3	68.0
06...*	0859	8.10	11.3	83.0
06...*	0901	8.20	11.3	98.0
06...*	0903	10.6	11.3	113
06...*	0905	9.80	11.3	128
06...*	0906	6.40	11.3	143
SEP				
03...*	0850	5.00	12.2	6.00
03...*	0852	4.70	12.2	19.0
03...*	0854	5.10	12.2	32.0
03...*	0855	6.10	12.2	45.0
03...*	0857	4.80	12.2	58.0
03...*	0859	6.20	12.2	71.0
03...*	0901	6.80	12.2	84.0
03...*	0903	7.70	12.2	97.0
03...*	0906	7.60	12.2	110
03...*	0909	7.70	12.2	123

* Instantaneous discharge at time of cross-sectional measurement: May 6, 2,490 ft^3/s; Sept. 3, 774 ft^3/s.

11418500 DEER CREEK NEAR SMARTVILLE, CA

LOCATION.—Lat 39°13'28", long 121°16'03", in SW 1/4 SE 1/4 sec.23, T.16 N., R.6 E., Nevada County, Hydrologic Unit 18020125, on left bank, 400 ft upstream from county road bridge, 0.9 mi upstream from mouth, and 2 mi northeast of Smartville.

DRAINAGE AREA.—84.6 mi^2.

PERIOD OF RECORD.—June 1935 to current year.
WATER TEMPERATURE: Water years 1974–79.
SEDIMENT DATA: Water years 1974–79.

REVISED RECORDS.—WSP 1395: Drainage area.

GAGE.—Water-stage recorder. Elevation of gage is 630 ft above NGVD of 1929, from river-profile map. June 21, 1935, to Nov. 30, 1938, nonrecording gage at same site and datum.

REMARKS.—Records fair. Natural flow of stream is affected by Scotts Flat Reservoir beginning in 1949, usable capacity, 26,300 acre-ft, increased to 49,000 acre-ft in July 1964; Deer Creek Reservoir, capacity, 1,400 acre-ft beginning 1949; Lake Wildwood, capacity, 3,840 acre-ft beginning in 1970, power developments, and diversion for irrigation. At times water from South Yuba River is diverted to Deer Creek and water from Deer Creek is diverted to Bear River. See schematic diagram of South Yuba River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 12,100 ft^3/s, Feb. 17, 1986, gage height, 14.05 ft, from rating curve extended above 5,200 ft^3/s; minimum daily, 0.06 ft^3/s, Aug. 5, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood of March 1928 reached a stage of 14.5 ft from floodmarks, discharge, 14,000 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.8	2.6	5.2	1480	39	483	41	4.1	7.0	5.2	3.3	2.2
2	12	2.3	14	402	166	435	29	5.6	6.7	6.3	3.1	2.2
3	9.0	4.6	7.4	199	311	324	31	4.1	6.9	7.5	2.4	2.9
4	7.7	6.1	6.0	103	149	282	28	3.6	7.5	6.9	2.5	3.3
5	6.6	4.3	5.4	72	81	254	26	3.4	8.1	5.7	2.5	4.5
6	6.4	4.9	34	58	62	231	24	4.9	7.5	3.5	2.7	4.2
7	5.7	4.5	77	176	89	212	24	7.1	5.5	2.9	2.7	3.2
8	4.5	5.4	13	122	61	197	23	10	4.5	2.6	3.1	2.3
9	3.8	17	9.0	78	51	182	24	9.9	4.7	3.0	2.8	2.2
10	3.5	7.3	63	67	44	176	22	10	4.6	3.0	2.3	2.0
11	3.5	5.4	54	54	41	174	18	16	5.6	3.1	1.9	2.0
12	3.7	5.0	20	47	39	175	16	14	7.8	2.7	2.3	3.4
13	4.4	4.6	131	41	36	169	15	11	8.2	2.2	2.2	3.3
14	24	4.2	260	38	35	157	15	9.3	7.3	2.1	2.4	2.6
15	71	13	45	36	34	154	15	8.9	6.6	2.5	2.8	3.4
16	138	8.2	42	34	266	156	15	8.6	3.9	2.6	2.9	4.1
17	206	4.9	30	32	381	141	16	7.2	3.5	3.4	2.4	4.6
18	246	4.0	24	31	1630	129	19	6.0	4.7	4.2	2.4	4.6
19	216	3.5	21	29	421	120	18	6.7	6.7	3.3	2.8	6.0
20	211	3.0	42	29	265	113	21	7.0	7.1	3.0	2.9	9.1
21	98	2.7	86	27	220	111	17	7.9	4.6	3.0	3.6	9.0
22	37	2.4	42	26	208	110	13	9.2	5.4	3.7	3.6	7.1
23	21	2.5	34	25	194	107	9.9	9.6	6.5	3.7	3.2	4.5
24	14	2.7	835	30	248	105	8.3	8.2	6.1	4.1	2.9	3.4
25	2.4	3.0	268	29	996	122	7.9	8.0	6.2	4.0	2.8	3.1
26	2.0	3.3	99	26	763	143	5.2	8.3	5.7	4.2	2.9	2.7
27	5.1	3.2	54	165	552	97	5.3	8.0	5.7	3.2	2.9	2.0
28	11	3.2	39	252	424	87	3.7	9.4	6.1	2.9	3.3	1.6
29	6.5	5.3	356	79	369	84	3.1	13	4.9	2.8	3.8	1.8
30	2.0	3.2	506	54	---	69	2.9	13	4.8	2.6	3.3	2.6
31	2.5	---	131	47	---	59	---	10	---	2.8	2.3	---
TOTAL	1390.1	146.3	3353.0	3888	8175	5358	516.3	262.0	180.4	112.7	87.0	109.9
MEAN	44.8	4.88	108	125	282	173	17.2	8.45	6.01	3.64	2.81	3.66
MAX	246	17	835	1480	1630	483	41	16	8.2	7.5	3.8	9.1
MIN	2.0	2.3	5.2	25	34	59	2.9	3.4	3.5	2.1	1.9	1.6
AC-FT	2760	290	6650	7710	16220	10630	1020	520	358	224	173	218

11418500 DEER CREEK NEAR SMARTVILLE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1936 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	29.0	58.1	164	294	370	316	179	70.9	20.3	6.47	4.99	5.87
MAX	373	388	960	1418	1399	1162	888	301	129	23.2	14.2	19.1
(WY)	1963	1951	1956	1997	1986	1938	1982	1995	1998	1974	1969	1980
MIN	1.07	2.25	2.89	5.25	14.5	10.5	3.91	3.58	0.48	0.36	0.33	0.27
(WY)	1989	1940	1977	1991	1991	1977	1977	1981	1977	1940	1940	1937

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1936 - 2004	
ANNUAL TOTAL	26415.3		23578.7			
ANNUAL MEAN	72.4		64.4		125	
HIGHEST ANNUAL MEAN					327	1983
LOWEST ANNUAL MEAN					5.48	1977
HIGHEST DAILY MEAN	1070	Mar 15	1630	Feb 18	10200	Feb 17 1986
LOWEST DAILY MEAN	1.9	Jul 30	1.6	Sep 28	0.06	Aug 5 1977
ANNUAL SEVEN-DAY MINIMUM	2.2	Aug 11	2.4	Aug 9	0.16	Aug 3 1940
MAXIMUM PEAK FLOW			3200	Jan 1	12100	Feb 17 1986
MAXIMUM PEAK STAGE			8.47	Jan 1	14.05	Feb 17 1986
ANNUAL RUNOFF (AC-FT)	52390		46770		90810	
10 PERCENT EXCEEDS	206		186		308	
50 PERCENT EXCEEDS	24		7.9		17	
90 PERCENT EXCEEDS	3.1		2.7		2.8	

11421000 YUBA RIVER NEAR MARYSVILLE, CA

LOCATION.—Lat 39°10'33", long 121°31'26", in New Helvetia Grant, Yuba County, Hydrologic Unit 18020107, on left bank, 4.2 mi northeast of Marysville, and 5 mi downstream from Dry Creek.

DRAINAGE AREA.—1,339 mi^2.

PERIOD OF RECORD.—October 1940 to current year (prior to October 1943, low-water periods only). Published as "at Marysville" October 1940 to September 1957. Separate records published for two sites August 1954 to September 1955. Yearly discharge for the water year 1945 published in WSP 1315-A.
CHEMICAL DATA: Water years 1951–52, 1973–80. Published as "Yuba River at Marysville" (station 11421500) water years 1966, 1973–76.
WATER TEMPERATURE: Water years 1964–65, 1973–78, 1990–2003.

REVISED RECORDS.—WSP 1715: 1956(M). WSP 1931: Drainage area. WDR CA-99-4: 1997(M).

GAGE.—Water-stage recorder and crest-stage gage. Datum of gage is 2.95 ft below NGVD of 1929. Prior to August 1954, and Oct. 1, 1956, to Sept. 30, 1957, at Simpson Lane Bridge in Marysville, 4.2 mi downstream, at same datum. Sept. 3, 1963, to Sept. 23, 1968, auxiliary water-stage recorder at Simpson Lane Bridge at same datum.

REMARKS.—Flow regulated by New Bullards Bar Reservoir since January 1969, and several other reservoirs. Many diversions upstream from station for power and for irrigation. See schematic diagrams of South Yuba River Basin and lower Sacramento River Basin.

COOPERATION.—Records provided by Yuba County Water Agency, under general supervision of the U. S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2246.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge (water year 1944 and since 1947), 180,000 ft^3/s, Dec. 22, 1964, gage height, 90.15 ft, from floodmarks, from rating curve extended above 91,000 ft^3/s, on basis of U.S. Army Corps of Engineers flood-routing study, maximum gage height, 91.64 ft, from floodmarks, Jan. 2, 1997; minimum recorded, 10 ft^3/s, July 2, 1959.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	567	603	568	4480	1970	5640	2280	1630	1430	965	973	531
2	568	587	623	4800	2170	5570	2240	1650	1250	1020	979	525
3	560	612	597	4470	2500	4480	2240	1650	1060	1020	993	512
4	559	601	594	3970	2250	3520	2230	1630	937	995	975	521
5	563	583	587	2870	2100	3380	2190	1620	919	998	977	545
6	565	565	613	2060	2050	3260	2110	1630	924	1000	975	527
7	583	548	780	2250	2100	3100	2090	1610	937	1020	973	512
8	608	530	648	2160	2030	3080	2040	1610	935	1030	978	516
9	593	659	634	2060	1990	3080	1990	1590	926	1020	949	503
10	597	565	736	2030	1940	3030	1900	1600	961	1030	949	524
11	605	555	912	2000	1920	3000	1780	1610	959	1020	963	519
12	596	547	933	1970	1880	3000	1850	1580	957	1010	964	502
13	583	556	1850	1950	1810	2980	1630	1590	937	1020	966	507
14	589	563	2230	1930	1800	2960	1560	1610	908	1030	973	506
15	601	587	1900	1910	1790	2900	1520	1620	898	1000	985	500
16	630	595	1810	1890	2050	2760	1510	1610	914	968	971	496
17	690	580	1330	1880	2960	2660	1480	1610	917	967	961	499
18	715	573	1220	1870	12200	2630	1380	1560	941	955	973	504
19	711	583	1240	1870	7280	2610	1310	1540	1000	957	980	509
20	713	579	1270	1870	5290	2580	1360	1530	983	961	966	511
21	621	558	1330	1860	4670	2560	1430	1530	911	969	980	509
22	590	554	1260	1860	3540	2510	1470	1530	886	966	974	508
23	567	545	1280	1850	2560	2430	1480	1530	895	968	957	504
24	561	551	2540	1860	3270	2410	1450	1580	907	982	920	504
25	555	549	2870	1890	4800	2360	1410	1530	914	981	913	515
26	554	545	2660	1910	7220	2420	1380	1520	934	970	916	611
27	583	547	2330	2110	7380	2350	1330	1560	941	962	930	480
28	603	545	1750	2520	5660	2320	1280	1570	921	967	925	490
29	593	547	1930	2090	5270	2310	1270	1580	920	979	853	509
30	592	547	3200	2020	---	2310	1390	1620	935	989	720	525
31	607	---	2710	1990	---	2310	---	1550	---	976	613	---
TOTAL	18622	17059	44935	72250	104450	92510	50580	49180	28857	30695	29124	15424
MEAN	601	569	1450	2331	3602	2984	1686	1586	962	990	939	514
MAX	715	659	3200	4800	12200	5640	2280	1650	1430	1030	993	611
MIN	554	530	568	1850	1790	2310	1270	1520	886	955	613	480
AC-FT	36940	33840	89130	143300	207200	183500	100300	97550	57240	60880	57770	30590

11421000 YUBA RIVER NEAR MARYSVILLE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1968, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	507	846	3323	3574	4555	3928	4965	5064	2610	514	218	240
MAX	6222	8586	18650	13160	12470	7321	10400	13750	8712	2669	551	458
(WY)	1963	1951	1965	1956	1958	1958	1952	1952	1952	1952	1967	1952
MIN	50.5	116	157	573	965	1360	2139	1264	265	30.5	35.3	47.9
(WY)	1962	1960	1960	1960	1948	1964	1961	1947	1959	1959	1959	1961

SUMMARY STATISTICS	WATER YEARS 1944 - 1968	
ANNUAL MEAN	2518	
HIGHEST ANNUAL MEAN	5393	1952
LOWEST ANNUAL MEAN	882	1961
HIGHEST DAILY MEAN	136000	Dec 23 1955
LOWEST DAILY MEAN	15	Nov 7 1959
ANNUAL SEVEN-DAY MINIMUM	15	Nov 5 1959
MAXIMUM PEAK FLOW	180000	Dec 22 1964
MAXIMUM PEAK STAGE	90.15	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	1824000	
10 PERCENT EXCEEDS	6450	
50 PERCENT EXCEEDS	822	
90 PERCENT EXCEEDS	108	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2004, BY WATER YEAR (WY)

MEAN	1069	1325	2333	4116	4404	4305	2857	2328	1910	1286	1443	1241
MAX	2731	4475	11430	26180	20970	15100	14280	9721	8633	3735	2829	2900
(WY)	1976	1984	1984	1997	1986	1983	1982	1995	1983	1983	1984	1980
MIN	132	182	371	230	211	188	173	166	155	88.4	71.7	85.8
(WY)	1970	1970	1977	1977	1977	1977	1977	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1970 - 2004	
ANNUAL TOTAL	744752		553686			
ANNUAL MEAN	2040		1513		2376	
HIGHEST ANNUAL MEAN					5818	1982
LOWEST ANNUAL MEAN					229	1977
HIGHEST DAILY MEAN	8160	May 9	12200	Feb 18	140000	Jan 2 1997
LOWEST DAILY MEAN	498	Sep 1	480	Sep 27	62	Jul 19 1977
ANNUAL SEVEN-DAY MINIMUM	534	Sep 8	502	Sep 12	65	Jul 31 1977
MAXIMUM PEAK FLOW			15200	Feb 18	161000	Jan 2 1997
MAXIMUM PEAK STAGE			68.84	Feb 18	91.64	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	1477000		1098000		1721000	
10 PERCENT EXCEEDS	4290		2680		4980	
50 PERCENT EXCEEDS	1970		1020		1320	
90 PERCENT EXCEEDS	559		547		340	

11421710 BEAR RIVER NEAR EMIGRANT GAP, CA

LOCATION.—Lat 39°18'23", long 120°40'41", in NW 1/4 SW 1/4 sec.30, T.17 N., R.12 E., Placer County, Hydrologic Unit 18020126, on left bank, 20 ft upstream from Highway 20 Bridge, and 0.7 mi northwest of Emigrant Gap.

DRAINAGE AREA.—0.76 mi^2.

PERIOD OF RECORD.—October 1987 to current year (low-flow records only). Unpublished records for water years 1980–87 available in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder and concrete culvert. Elevation of gage is 4,550 ft above NGVD of 1929, from topographic map. Prior to October 1987, nonrecording gage at same site and datum.

REMARKS.—No records computed above 160 ft^3/s. Some water is diverted into stream from South Yuba Canal (station 11414200). See schematic diagram of Bear River Basin.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2310.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.9	7.8	8.9	13	12	14	14	15	12	9.9	6.7	7.7
2	6.8	7.4	9.3	13	16	14	13	15	12	9.7	5.9	7.6
3	6.6	7.9	8.3	12	15	14	13	15	12	9.7	5.5	7.7
4	6.7	7.6	8.3	12	13	13	13	14	12	9.7	6.2	7.6
5	6.5	7.5	9.6	12	12	14	13	15	12	9.7	7.2	7.5
6	8.6	7.4	24	12	12	15	12	15	12	9.7	6.6	7.6
7	6.4	7.7	17	12	12	18	14	15	12	9.7	6.1	7.2
8	4.9	8.2	11	13	11	22	15	15	12	9.7	6.9	7.0
9	6.4	9.9	9.5	13	11	22	15	15	12	8.8	8.1	7.0
10	7.6	8.0	10	14	11	23	15	15	12	7.5	7.6	7.0
11	7.3	7.6	10	13	11	24	15	15	12	7.2	7.6	7.0
12	7.4	8.0	10	13	11	23	15	15	12	7.2	7.5	7.1
13	7.1	7.8	19	13	11	22	15	14	11	7.1	7.6	7.2
14	7.9	8.7	25	13	11	23	14	14	11	6.8	7.5	7.1
15	8.7	9.0	14	13	11	76	14	14	11	6.7	7.6	7.0
16	8.7	8.4	11	13	57	114	14	14	11	6.6	7.7	7.0
17	12	8.5	11	13	38	113	14	14	11	6.1	7.8	7.0
18	8.0	8.3	10	13	34	114	14	13	11	6.0	7.7	7.1
19	7.8	7.9	10	13	22	113	15	13	11	6.0	7.8	8.3
20	7.9	8.2	17	13	17	113	22	13	11	6.0	8.0	9.0
21	7.9	8.3	17	12	16	115	19	14	11	5.9	7.8	9.0
22	7.7	8.2	12	12	15	116	17	13	11	5.8	7.8	9.1
23	7.5	8.2	12	12	15	117	16	13	11	5.8	7.8	9.1
24	7.5	8.3	54	12	15	83	15	13	10	5.6	7.8	9.2
25	7.4	8.3	23	12	30	116	15	13	10	5.6	7.8	9.1
26	7.4	8.3	16	12	25	113	14	13	10	5.6	7.8	9.2
27	7.4	7.9	14	15	18	110	14	12	9.9	6.0	7.8	9.0
28	7.4	8.1	13	15	15	50	14	13	9.8	7.3	7.8	9.0
29	7.4	8.3	13	13	14	16	13	13	9.8	8.6	7.8	8.9
30	7.4	8.3	12	14	---	15	15	12	9.9	7.6	7.7	8.8
31	7.7	---	12	14	---	15	---	12	---	7.4	7.7	---
TOTAL	232.9	244.0	450.9	399	511	1770	441	429	334.4	231.0	229.2	238.1
MEAN	7.51	8.13	14.5	12.9	17.6	57.1	14.7	13.8	11.1	7.45	7.39	7.94
MAX	12	9.9	54	15	57	117	22	15	12	9.9	8.1	9.2
MIN	4.9	7.4	8.3	12	11	13	12	12	9.8	5.6	5.5	7.0
AC-FT	462	484	894	791	1010	3510	875	851	663	458	455	472

11421770 BEAR RIVER BELOW DRUM AFTERBAY, NEAR BLUE CANYON, CA

LOCATION.—Lat 39°15'16", long 120°46'26", in SW 1/4 NW 1/4 sec.17, T.16 N., R.11 E., Placer County, Hydrologic Unit 18020126, on left bank, 60 ft downstream from Drum Afterbay Dam, and 3.5 mi west of Blue Canyon.

DRAINAGE AREA.—12.3 mi^2.

PERIOD OF RECORD.—April 1966 to current year, low flows only April to September 1966 and since October 1998.

GAGE.—Water-stage recorder and 4-ft steel Cipolletti weir set in a concrete broad-crested weir. Elevation of gage is 3,300 ft above NGVD of 1929, from topographic map. April 1966 to May 25, 1967, water-stage recorder at present site at different datum. May 26, 1967, to Feb. 11, 1968, water-stage recorder at site 1,000 ft downstream at different datum.

REMARKS.—Records not computed above 13.5 ft^3/s. Water for Dutch Flat No. 1 Powerplant (station 11421750) and Dutch Flat No. 2 Flume (station 11421760) is diverted from Drum Afterbay just upstream from station. See schematic diagram of Bear River Basin.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2310.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.0	6.2	6.2	6.2	6.2	---	---	11	11	13	13	13
2	6.1	6.2	6.2	6.2	6.2	---	---	11	11	13	13	13
3	6.1	6.2	6.2	6.2	6.2	---	12	11	12	13	13	13
4	6.2	6.2	6.2	6.2	6.2	---	12	11	11	13	13	13
5	6.2	6.2	6.2	6.2	6.2	---	12	11	11	13	13	13
6	6.1	6.2	6.2	6.2	6.2	---	12	11	11	13	13	13
7	6.1	6.2	6.2	6.2	6.2	---	12	11	12	13	13	13
8	6.2	6.2	6.2	6.2	---	---	12	11	11	13	13	13
9	6.2	6.2	6.2	6.2	6.2	---	12	11	11	13	13	13
10	6.1	6.2	6.2	6.2	6.2	---	12	11	---	13	13	13
11	6.1	6.2	6.2	6.2	6.2	---	12	10	---	13	13	13
12	6.2	6.2	6.2	6.2	6.2	---	12	11	13	13	13	13
13	6.1	6.2	6.2	6.2	6.2	11	11	11	13	13	13	13
14	6.1	6.2	6.3	6.2	6.2	11	12	11	13	13	13	13
15	6.1	6.2	6.3	6.2	6.2	---	11	11	13	13	13	13
16	6.1	6.2	6.2	6.2	---	---	12	10	13	13	13	---
17	6.1	6.2	6.2	6.2	---	---	11	11	13	---	13	13
18	6.1	6.2	6.2	6.2	---	---	11	11	13	13	13	13
19	6.2	6.2	6.2	6.2	---	---	11	11	13	13	---	13
20	6.1	6.2	6.2	6.2	---	---	12	11	13	13	13	13
21	6.1	6.2	6.2	6.2	---	12	11	11	13	13	13	13
22	6.1	6.2	6.3	6.2	---	12	---	11	13	13	13	13
23	6.1	6.2	---	6.2	---	12	11	11	13	13	13	13
24	6.1	6.1	---	6.2	---	12	10	11	---	13	13	13
25	6.1	6.2	6.2	6.2	---	12	10	12	13	13	13	13
26	6.2	6.2	6.2	6.2	---	12	---	12	13	13	13	13
27	6.1	6.2	6.2	6.2	---	12	---	12	13	13	13	13
28	6.1	6.2	6.2	6.2	---	12	10	12	13	13	13	13
29	6.1	6.2	6.2	6.2	---	12	10	12	13	13	13	13
30	6.2	6.2	6.2	6.2	---	12	11	12	13	---	13	13
31	6.2	---	6.2	6.2	---	12	---	12	---	13	13	---
TOTAL	192.9	185.9	---	192.2	---	---	---	346	---	---	---	---
MEAN	6.22	6.20	---	6.20	---	---	---	11.2	---	---	---	---
MAX	9.0	6.2	---	6.2	---	---	---	12	---	---	---	---
MIN	6.1	6.1	--	6.2	---	---	---	10	---	---	---	---
AC-FT	383	369	---	381	---	---	---	686	---	---	---	---
a	9230	19230	15320	18350	24240	29200	26800	28760	15040	13950	14980	2770
b	12280	11510	19800	22410	2790	17350	20080	16770	17240	18330	14830	10690

CAL YR 2003 a 232100 b 205900
WTR YR 2004 a 217900 b 184100

a Diversion, in acre-feet, to Dutch Flat No. 2 Flume (station 11421760), provided by Nevada Irrigation District.
b Diversion, in acre-feet, to Dutch Flat No. 1 Powerplant (station 11421750), provided by Pacific Gas & Electric Co.

11421790 BEAR RIVER BELOW DUTCH FLAT AFTERBAY, NEAR DUTCH FLAT, CA

LOCATION.—Lat 39°12'49", long 120°50'39", in NE 1/4 NW 1/4 sec.34, T.16 N., R.10 E., Placer County, Hydrologic Unit 18020126, at left bank downstream end of spillway, on Dutch Flat Afterbay Dam, and 0.6 mi north of Dutch Flat.

DRAINAGE AREA.—21.5 mi^2.

PERIOD OF RECORD.—December 1965 to current year.

REVISED RECORDS.—WDR CA-82-4: 1978, 1979(M), 1980.

GAGE.—Water-stage recorder and concrete control. Elevation of gage is 2,600 ft above NGVD of 1929, from topographic map.

REMARKS.—Water is imported from South Yuba River Basin via Drum Canal above forebay. Chicago Park Flume (station 11421780) diverts upstream from station to Chicago Park Powerplant. Records include spill over Dutch Flat Afterbay Dam. See schematic diagram of Bear River Basin.

COOPERATION.—Records were collected by Nevada Irrigation District, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2266.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 4,240 ft^3/s, Feb. 17, 1986; minimum daily, 0.08 ft^3/s, Mar. 8–19, 1968.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	9.2	6.6	6.5	6.3	6.4	6.3	11	11	11	11	11
2	12	6.4	260	6.5	6.3	6.4	6.3	11	11	11	11	11
3	12	6.4	486	6.5	6.3	6.4	6.3	11	11	11	11	11
4	13	6.4	439	6.5	6.3	6.3	6.4	11	11	11	11	11
5	13	6.4	8.0	6.5	6.3	6.4	6.4	11	11	11	11	11
6	13	6.4	6.7	6.5	6.3	6.4	6.3	11	11	11	11	11
7	13	28	6.7	6.5	6.3	6.3	6.3	11	11	11	11	11
8	12	6.4	6.6	6.5	6.3	6.3	6.4	11	11	11	11	11
9	12	6.3	6.5	6.5	6.3	6.4	6.3	11	11	11	11	11
10	12	6.3	6.5	6.5	6.3	6.3	6.3	11	11	11	11	11
11	12	6.3	6.6	6.5	6.3	6.4	6.3	11	11	11	11	11
12	12	6.2	6.5	6.5	6.3	6.4	6.4	11	11	11	11	11
13	12	6.2	6.6	6.5	6.3	6.3	6.4	11	11	11	11	11
14	12	6.2	6.6	6.5	6.3	6.3	6.3	12	11	11	11	11
15	12	6.3	6.5	6.5	6.3	6.3	6.4	12	11	11	11	11
16	12	6.3	6.5	6.4	6.4	6.2	6.3	11	11	11	11	11
17	12	6.3	6.5	6.4	6.4	6.2	6.3	11	11	11	11	11
18	12	6.4	6.5	6.4	12	6.3	6.3	11	11	11	11	11
19	12	6.7	6.5	6.4	6.3	6.3	6.3	11	11	11	11	31
20	12	6.7	6.5	6.3	6.3	6.3	6.3	11	11	11	11	48
21	12	6.7	6.5	6.3	6.4	6.3	6.5	11	11	11	11	48
22	12	6.7	6.5	6.3	6.3	6.3	6.4	11	11	11	11	51
23	12	6.7	6.5	6.3	6.4	102	6.4	11	11	11	11	32
24	12	6.7	41	6.3	6.3	6.5	6.4	11	11	11	11	16
25	12	6.6	128	6.3	6.4	6.5	6.4	11	11	11	11	16
26	12	6.6	6.5	6.2	6.4	6.5	6.4	11	11	11	11	16
27	12	6.6	6.5	6.2	6.4	6.5	6.5	11	11	11	11	16
28	12	6.6	6.5	6.3	6.3	6.5	6.5	11	11	11	11	16
29	12	6.7	6.5	6.3	6.3	6.5	6.4	11	11	11	11	16
30	12	6.6	6.5	6.3	---	6.6	8.4	11	11	11	11	16
31	12	---	6.5	6.3	---	6.4	---	11	---	11	11	---
TOTAL	376	218.3	1525.4	198.5	189.1	293.2	192.9	343	330	341	341	520
MEAN	12.1	7.28	49.2	6.40	6.52	9.46	6.43	11.1	11.0	11.0	11.0	17.3
MAX	13	28	486	6.5	12	102	8.4	12	11	11	11	51
MIN	12	6.2	6.5	6.2	6.3	6.2	6.3	11	11	11	11	11
AC-FT	746	433	3030	394	375	582	383	680	655	676	676	1030
a	21870	32360	35500	43390	33040	55410	48190	28570	33560	29320	29840	13660

a Diversion, in acre-feet, to Chicago Park Flume (station 11421780).

11421790 BEAR RIVER BELOW DUTCH FLAT AFTERBAY, NEAR DUTCH FLAT, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	18.2	11.3	40.5	47.5	53.4	58.6	55.5	26.1	13.7	11.0	10.7	14.9
MAX	266	71.1	350	531	380	395	602	142	63.5	22.0	13.1	21.5
(WY)	1968	1984	1997	1997	1986	1966	1969	1998	1998	1970	1969	2001
MIN	4.81	2.65	2.42	4.94	4.10	4.26	3.94	5.30	5.13	5.00	5.00	5.00
(WY)	1978	1968	1968	1975	1974	1973	1973	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1966 - 2004	
ANNUAL TOTAL	8181.9		4868.4			
ANNUAL MEAN	22.4		13.3		27.2	
HIGHEST ANNUAL MEAN					80.1	1982
LOWEST ANNUAL MEAN					5.53	1977
HIGHEST DAILY MEAN	661	May 6	486	Dec 3	3400	Feb 17 1986
LOWEST DAILY MEAN	6.0	Mar 27	6.2	Nov 12	0.08	Mar 8 1968
ANNUAL SEVEN-DAY MINIMUM	6.1	Mar 21	6.3	Nov 9	0.08	Mar 8 1968
MAXIMUM PEAK FLOW			1080	Dec 3	4240	Feb 17 1986
ANNUAL RUNOFF (AC-FT)	16230		9660		19730	
ANNUAL DIVERSION (AC-FT) a	476100		404700			
10 PERCENT EXCEEDS	15		12		21	
50 PERCENT EXCEEDS	11		11		9.6	
90 PERCENT EXCEEDS	6.1		6.3		5.0	

a Diversion, in acre-feet, to Chicago Park Flume (station 11421780).

11421800 ROLLINS RESERVOIR NEAR COLFAX, CA

LOCATION.—Lat 39°08'08", long 120°56'57", in NE 1/4 SE 1/4 sec.22, T.15 N., R.9 E., Placer County, Hydrologic Unit 18020126, on left bank, 300 ft upstream from Rollins Dam on Bear River, and 2.3 mi north of Colfax.

DRAINAGE AREA.—104 mi^2.

PERIOD OF RECORD.—December 1964 to current year.

REVISED RECORDS.—WDR CA-01-4: Oct. 10, 1977, contents; 1978–2000, minimum contents for period of record.

GAGE.—Water-stage recorder. Datum of gage is NGVD of 1929 (levels by Nevada Irrigation District).

REMARKS.—Reservoir is formed by an earthfill dam. Storage began Dec. 15, 1964. Usable capacity, 66,000 acre-ft, between elevations 1,970.0 ft, invert of outlet tunnel, and 2,171.0 ft, spillway crest. Dead storage, 270 acre-ft. Several diversions into and out of basin upstream for power development and irrigation. Water is normally released through Rollins Powerplant (station 11421900). Part of the water then is diverted to Bear River Canal (station 11422000) for power development. Water is later used for irrigation. See schematic diagram of Bear River Basin.

COOPERATION.—Records were collected by Nevada Irrigation District, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2266.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 71,700 acre-ft, Feb. 17, 1986, elevation, 2,177.7 ft; minimum since reservoir first filled, 4,550 acre-ft, Oct. 13, 1977, elevation, 2,024.7 ft (corrected).

EXTREMES FOR CURRENT YEAR.—Maximum contents, 67,100 acre-ft, Feb. 25, 26, maximum elevation, 2,172.36 ft, Feb. 26; minimum, 35,200 acre-ft, Oct. 18, elevation, 2,124.87 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on table provided by Nevada Irrigation District in 1964)

2,020	3,920	2,050	8,940	2,100	23,900	2,160	57,300
2,030	5,320	2,060	11,200	2,120	32,700	2,178	72,000
2,040	6,990	2,080	16,800	2,140	43,800		

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42300	45700	57300	66800	65600	66600	66700	66700	66100	64900	60800	56700
2	41200	46600	57700	66600	65800	66500	66700	66700	65800	64900	60600	56700
3	40000	47500	57900	66400	66300	66500	66700	66700	65900	64900	60400	56700
4	38900	48300	58500	66300	66200	66400	66700	66500	66000	64800	60200	56800
5	37800	49000	59100	66200	66100	66400	66700	66700	66100	64700	60000	56800
6	37400	49500	60500	66200	66000	66500	66700	66800	66200	64600	59800	56800
7	37100	50100	61700	66400	65800	66700	66700	66900	66100	64600	59500	56600
8	36900	51000	62200	66200	65500	66800	66700	66800	65600	64500	59400	56500
9	36900	51900	62400	66200	65200	66800	66700	66800	65400	64500	59200	56200
10	36700	52800	62600	66400	64800	66900	66700	66800	65400	64400	59000	55900
11	36500	53400	62500	66300	64300	66800	66600	66800	65400	64300	58800	55700
12	36300	54300	62400	66300	63900	66800	66700	66800	65400	64200	58500	55500
13	36200	55500	62700	66300	63500	66800	66700	66800	65400	64300	58200	55300
14	36000	56400	63500	66300	63100	66800	66700	66800	65500	64200	58100	55200
15	35700	57100	63400	66300	62600	66800	66500	66800	65500	64000	57800	55100
16	35500	57900	63200	66300	63300	66800	66500	66800	65500	63700	57600	54900
17	35300	58600	62800	66100	64400	66800	66500	66700	65500	63600	57400	54800
18	35200	59200	62400	66100	66700	66800	66500	66600	65400	63500	57200	54900
19	36000	59800	62100	65900	66600	66800	66500	66600	65400	63300	57000	54600
20	36700	60200	61900	66000	66400	66800	66500	66600	65400	63200	56700	53800
21	37500	60600	61700	66000	66400	66800	66700	66600	65400	62900	56500	53100
22	38200	60700	61500	66100	66300	66800	66800	66700	65300	62700	56500	52500
23	38900	60400	61400	66100	66300	66800	66700	66700	65300	62500	56600	51800
24	39700	60100	62500	66100	66300	66800	66700	66600	65300	62300	56600	51100
25	40400	59700	63500	65900	67100	66800	66700	66600	65200	62200	56600	50400
26	41300	59300	63800	65800	67100	66700	66700	66600	65200	62000	56600	49700
27	41900	58900	63900	65800	66900	66700	66800	66500	65100	61800	56600	49000
28	42700	58600	63800	66100	66500	66700	66700	66400	65000	61600	56600	48300
29	43400	58000	64100	66100	66500	66700	66800	66400	65000	61400	56600	47600
30	44200	57600	64700	66100	---	66700	66700	66400	64900	61200	56600	46900
31	44900	---	65000	65800	---	66700	---	66300	---	61000	56600	---
MAX	44900	60700	65000	66800	67100	66900	66800	66900	66200	64900	60800	56800
MIN	35200	45700	57300	65800	62600	66400	66500	66300	64900	61000	56500	46900
a	2141.82	2160.37	2169.78	2170.81	2171.55	2171.80	2171.85	2171.40	2169.71	2164.85	2159.08	2145.06
b	+1600	+12700	+7400	+800	+700	+200	0	-400	-1400	-3900	-4400	-9700
c	17920	19490	43420	54080	49360	10790	0	0	24750	35800	36420	25610

CAL YR 2003 MAX 67100 MIN 35200 b -1700 c 466700
WTR YR 2004 MAX 67100 MIN 35200 b +3600 c 317600

a Elevation, in feet, at end of month.
b Change in contents, in acre-feet.
c Discharge, in acre-feet, through Rollins Powerplant (station 11421900), provided by Pacific Gas & Electric Co.

11422000 BEAR RIVER CANAL INTAKE NEAR COLFAX, CA

LOCATION.—Lat 39°07'58", long 120°57'12", in SW 1/4 SE 1/4 sec.22, T.15 N., R.9 E., Placer County, Hydrologic Unit 18020126, on right bank, 400 ft downstream from canal inlet, 0.2 mi downstream from Rollins Dam, and 2.2 mi north of Colfax.

PERIOD OF RECORD.—January 1912 to September 1953, October 1964 to current year. Monthly discharge only for some periods published in WSP 1315-A. Prior to October 1912, published as "Pacific Gas & Electric Co.'s Canal near Colfax;" October 1912 to September 1953, published as "Bear River Canal near Colfax."

GAGE.—Water-stage recorder. Elevation of gage is 1,950 ft above NGVD of 1929, from topographic map. Prior to Mar. 25, 1946, water-stage recorder at site 1.5 mi downstream at different datum.

REMARKS.—Canal diverts from left bank of Bear River. Water is used to develop power at Halsey and Wise Powerplants (stations 11425310 and 11425415). Part of the water is distributed for irrigation, and the remainder is eventually spilled into North Fork American River. Capacity of canal is believed to have been increased in 1917 and 1931. See schematic diagram of Bear River Basin.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2310.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 531 ft^3/s, Oct. 5, 6, 1980; no flow at times in most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	453	0.00	393	255	426	222	437	432	413	426	472	379
2	443	0.00	331	170	344	341	437	432	414	427	472	366
3	443	0.00	222	222	344	434	437	431	412	427	473	355
4	443	0.00	222	329	367	425	437	431	411	427	475	354
5	441	32	223	348	436	425	437	430	411	428	476	354
6	438	125	224	348	436	425	437	430	411	428	477	353
7	437	89	225	348	436	422	436	301	412	429	478	349
8	436	66	306	348	436	421	436	424	412	429	479	345
9	436	67	355	349	436	421	436	424	410	430	480	345
10	436	67	357	349	436	348	436	423	407	430	481	344
11	436	67	357	349	436	417	436	423	407	431	482	343
12	435	68	357	384	435	417	436	422	406	431	483	330
13	434	68	358	400	435	417	436	422	406	296	484	322
14	433	145	358	400	435	397	435	421	401	446	485	322
15	432	238	395	425	435	374	435	421	397	468	486	321
16	431	241	433	441	370	423	435	421	411	468	486	320
17	430	242	445	441	340	435	435	421	435	468	487	320
18	414	244	452	441	340	442	434	420	436	469	488	321
19	11	320	447	440	340	442	434	420	436	469	489	318
20	0.00	362	399	440	340	442	434	419	436	469	485	316
21	0.00	364	400	440	340	441	434	417	436	469	481	315
22	0.00	373	400	440	340	441	433	417	429	469	377	289
23	0.00	377	369	439	340	441	433	416	423	469	374	272
24	0.00	380	306	439	298	441	433	416	425	469	375	270
25	0.00	380	287	439	223	374	433	415	422	469	376	269
26	0.00	380	287	439	223	375	433	415	419	470	377	267
27	0.00	381	287	412	223	394	432	414	419	470	377	265
28	0.00	381	287	397	222	394	432	414	422	470	378	268
29	0.00	381	260	435	222	394	432	414	425	471	378	275
30	0.00	381	232	435	---	393	432	413	426	471	378	273
31	0.00	---	290	435	---	420	---	413	---	471	379	---
TOTAL	7862.00	6219.00	10264	11977	10434	12598	13043	12932	12530	13864	13868	9540
MEAN	254	207	331	386	360	406	435	417	418	447	447	318
MAX	453	381	452	441	436	442	437	432	436	471	489	379
MIN	0.00	0.00	222	170	222	222	432	301	397	296	374	265
AC-FT	15590	12340	20360	23760	20700	24990	25870	25650	24850	27500	27510	18920
a	13290	7780	17750	21090	19430	22890	22640	22900	21650	23430	23870	16560
b	13330	7920	17160	19630	19010	20610	20110	20180	20300	21730	22080	14950

a Discharge, in acre-feet, to Halsey Powerplant (station 11425310), provided by Pacific Gas & Electric Co.
b Discharge, in acre-feet, to Wise Powerplant (station 11425415), provided by Pacific Gas & Electric Co.

11422000 BEAR RIVER CANAL INTAKE NEAR COLFAX, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1918 - 1931, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	184	158	156	124	139	154	200	253	253	250	251	235
MAX	300	285	281	257	265	257	286	278	300	317	300	300
(WY)	1929	1929	1925	1925	1925	1922	1925	1925	1927	1931	1926	1927
MIN	.000	.000	.000	.000	.000	.000	53.2	158	190	162	167	93.7
(WY)	1930	1930	1930	1930	1930	1930	1931	1931	1931	1918	1918	1924

SUMMARY STATISTICS	WATER YEARS 1918 - 1931	
ANNUAL MEAN	197	
HIGHEST ANNUAL MEAN	245	1929
LOWEST ANNUAL MEAN	121	1931
HIGHEST DAILY MEAN	345	Aug 2 1931
LOWEST DAILY MEAN	.00	Nov 12 1917
ANNUAL SEVEN-DAY MINIMUM	.00	Mar 17 1918
ANNUAL RUNOFF (AC-FT)	142400	
10 PERCENT EXCEEDS	300	
50 PERCENT EXCEEDS	232	
90 PERCENT EXCEEDS	.00	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	325	302	366	353	346	326	320	391	404	412	412	396
MAX	492	495	488	479	478	485	490	498	499	493	497	496
(WY)	1968	1968	1976	1979	1980	1980	1978	1978	1978	1967	1967	1967
MIN	69.8	27.9	52.7	8.65	27.8	18.5	18.4	106	139	143	136	114
(WY)	1978	1978	1977	1946	1946	1977	1940	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1932 - 2004	
ANNUAL TOTAL	133500.00		135131.00			
ANNUAL MEAN	366		369		363	
HIGHEST ANNUAL MEAN					462	1980
LOWEST ANNUAL MEAN					118	1977
HIGHEST DAILY MEAN	468	Aug 9	489	Aug 19	531	Oct 5 1980
LOWEST DAILY MEAN	0.00	Oct 20	0.00	Oct 20	0.00	Mar 12 1932
ANNUAL SEVEN-DAY MINIMUM	0.00	Oct 20	0.00	Oct 20	0.00	Mar 12 1932
ANNUAL RUNOFF (AC-FT)	264800		268000		263000	
ANNUAL DISCHARGE (AC-FT) a	228900		233300			
ANNUAL DISCHARGE (AC-FT) b	222600		217000			
10 PERCENT EXCEEDS	459		468		474	
50 PERCENT EXCEEDS	403		417		424	
90 PERCENT EXCEEDS	238		223		140	

a Discharge, in acre-feet, to Halsey Powerplant (station 11425310), provided by Pacific Gas & Electric Co.
b Discharge, in acre-feet, to Wise Powerplant (station 11425415), provided by Pacific Gas & Electric Co.

11422500 BEAR RIVER BELOW ROLLINS DAM, NEAR COLFAX, CA

LOCATION.—Lat 39°07'53", long 120°57'29", in SE 1/4 SW 1/4 sec.22, T.15 N., R.9 E., Nevada County, Hydrologic Unit 18020126, on right bank, 20 ft upstream from new highway bridge, 0.5 mi downstream from Rollins Dam, and 2.2 mi north of Colfax.

DRAINAGE AREA.—105 mi^2.

PERIOD OF RECORD.—January 1912 to September 1913, October 1913 to July 1915 (gage heights and discharge measurements only), August 1915 to June 1917, November 1949 to September 1953, August 1964 to current year. Monthly discharge only for some periods, published in WSP 1315-A. Prior to August 1964, published as "Bear River near Colfax." Records for November and December 1911 include diversion to Bear River Canal and are not equivalent.

GAGE.—Water-stage recorder and concrete control. Datum of gage is 1,927.41 ft above NGVD of 1929. Prior to Aug. 8, 1915, nonrecording gages at several sites above diversion dam 0.3 mi upstream at different datums. Aug. 8, 1915, to June 30, 1917, nonrecording gage 0.7 mi downstream at different datum. Nov. 1, 1949, to Sept. 30, 1953, at site 0.2 mi downstream at different datum. Aug. 17, 1964, to Feb. 4, 1986, at present site and datum. Feb. 5, 1986, to Mar. 19, 1987, at site 160 ft downstream at datum 8.00 ft lower.

REMARKS.—Flow regulated by Rollins Reservoir (station 11421800) beginning Dec. 15, 1964. Bear River Canal (station 11422000) diverts upstream from station. See schematic diagram of Bear River Basin.

COOPERATION.—Records were collected by Nevada Irrigation District, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2266.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge (prior to construction of Rollins Dam in 1964), 9,620 ft^3/s, Nov. 20, 1950, gage height, 21.40 ft, site and datum then in use, from rating curve extended above 3,600 ft^3/s, on basis of slope-area measurement of peak flow; no flow at times in 1912, 1952. Maximum discharge since construction of Rollins Dam, 34,300 ft^3/s, Jan. 2, 1997, gage height, 18.01 ft, maximum gage height, 20.62 ft, Feb. 17, 1986, site and datum then in use, from rating curve extended above 11,600 ft^3/s; minimum daily, 0.5 ft^3/s, Nov. 17, 1964.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	110	39	259	834	400	902	643	443	256	143	157	148
2	107	24	74	1250	484	914	576	449	309	144	161	154
3	104	26	23	859	515	712	588	520	181	143	165	157
4	99	26	23	599	542	710	530	423	132	143	170	157
5	96	29	24	520	449	642	564	351	129	142	168	157
6	96	36	25	493	402	576	581	429	144	141	166	157
7	96	30	25	519	385	566	584	533	255	142	164	138
8	96	32	26	565	381	688	500	485	374	147	162	131
9	97	31	154	531	380	722	561	512	249	151	167	131
10	97	30	393	546	379	885	562	507	134	152	166	131
11	97	30	449	576	378	821	517	503	134	154	159	131
12	97	30	447	511	377	765	504	528	135	153	166	131
13	97	30	451	494	375	838	532	438	136	152	171	117
14	97	32	455	488	375	864	515	436	129	150	165	102
15	97	33	414	446	373	829	370	472	123	152	163	102
16	97	29	376	517	443	814	306	528	124	150	162	102
17	97	27	363	417	483	788	308	435	125	149	159	102
18	96	27	355	388	566	801	292	373	125	148	157	102
19	83	28	359	396	1270	794	277	368	125	147	155	102
20	77	29	412	382	808	784	314	330	125	146	153	97
21	75	29	410	384	670	784	402	346	126	150	152	90
22	81	176	412	384	627	762	546	363	130	159	145	89
23	82	381	437	385	579	669	534	363	135	159	147	89
24	80	391	512	388	642	756	480	375	135	157	148	89
25	79	415	528	386	1010	813	491	346	140	155	148	89
26	79	414	529	383	2170	706	482	335	147	154	147	89
27	82	412	530	410	1670	614	493	261	144	154	148	88
28	81	410	529	432	1260	707	528	212	143	156	148	89
29	81	410	568	397	874	690	496	219	143	159	147	89
30	80	407	594	400	---	624	497	211	144	158	147	89
31	80	---	530	394	---	560	---	193	---	158	151	---
TOTAL	2813	4043	10686	15674	19267	23100	14573	12287	4831	4668	4884	3439
MEAN	90.7	135	345	506	664	745	486	396	161	151	158	115
MAX	110	415	594	1250	2170	914	643	533	374	159	171	157
MIN	75	24	23	382	373	560	277	193	123	141	145	88
AC-FT	5580	8020	21200	31090	38220	45820	28910	24370	9580	9260	9690	6820

11422500 BEAR RIVER BELOW ROLLINS DAM, NEAR COLFAX, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 1953, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	46.0	300	474	804	778	635	586	314	133	46.2	36.3	47.0
MAX	73.8	1016	1372	1103	1354	1110	1126	578	226	109	102	89.7
(WY)	1951	1951	1951	1951	1916	1916	1952	1952	1953	1916	1916	1916
MIN	12.7	19.8	58.4	287	201	127	151	165	35.1	.000	.000	.000
(WY)	1913	1953	1953	1913	1913	1913	1912	1916	1913	1913	1913	1913

SUMMARY STATISTICS	WATER YEARS 1912 - 1953	
ANNUAL MEAN	356	
HIGHEST ANNUAL MEAN	534	1951
LOWEST ANNUAL MEAN	126	1913
HIGHEST DAILY MEAN	5760	Nov 20 1950
LOWEST DAILY MEAN	.00	Jul 5 1912
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 11 1912
MAXIMUM PEAK FLOW	9620	Nov 20 1950
MAXIMUM PEAK STAGE	21.40	Nov 20 1950
ANNUAL RUNOFF (AC-FT)	258000	
10 PERCENT EXCEEDS	879	
50 PERCENT EXCEEDS	138	
90 PERCENT EXCEEDS	1.0	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	113	180	347	616	712	736	639	513	351	243	196	155
MAX	330	1267	1957	2973	2889	2324	2516	1211	757	538	420	383
(WY)	1999	1984	1997	1997	1986	1983	1982	1995	1998	1983	1995	1983
MIN	21.3	10.3	6.53	6.67	5.14	4.56	16.6	21.8	15.2	22.8	34.3	34.4
(WY)	1978	1978	1978	1977	1977	1977	1976	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1966 - 2004	
ANNUAL TOTAL	160543		120265			
ANNUAL MEAN	440		329		399	
HIGHEST ANNUAL MEAN					972	1983
LOWEST ANNUAL MEAN					19.0	1977
HIGHEST DAILY MEAN	1550	May 4	2170	Feb 26	22800	Jan 2 1997
LOWEST DAILY MEAN	23	Dec 3	23	Dec 3	3.6	Dec 26 1977
ANNUAL SEVEN-DAY MINIMUM	29	Nov 15	29	Nov 15	4.4	Mar 23 1977
MAXIMUM PEAK FLOW			2440	Feb 26	34300	Jan 2 1997
MAXIMUM PEAK STAGE			4.97	Feb 26	20.62	Feb 17 1986
ANNUAL RUNOFF (AC-FT)	318400		238500		288700	
10 PERCENT EXCEEDS	902		651		940	
50 PERCENT EXCEEDS	412		252		166	
90 PERCENT EXCEEDS	81		81		22	

11423800 BEAR RIVER FISH RELEASE BELOW CAMP FAR WEST RESERVOIR, NEAR WHEATLAND, CA

LOCATION.—Lat 39°02'30", long 121°19'52", in NE 1/4 NW 1/4 sec.29, T.14 N., R.6 E., Placer County, Hydrologic Unit 18020108, on left bank, 5.4 mi northeast of Wheatland, and 1.2 mi downstream from Camp Far West Reservoir.

DRAINAGE AREA.—Not determined.

PERIOD OF RECORD.—October 1989 to current year.

GAGE.—Water-stage recorder. Elevation of gage is 120 ft above NGVD of 1929, from topographic map.

REMARKS.—The gage measures required fish-release flow and is entirely regulated by Camp Far West Reservoir. See schematic diagrams of lower Sacramento River Basin and Bear River Basin.

COOPERATION.—Records provided by South Sutter Water District, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2997.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 43 ft^3/s, Dec. 4, 1994; minimum daily, 7.3 ft^3/s, Mar. 11, 12, 2002.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	12	13	14	14	13	27	25	26	25	11	11
2	11	11	12	14	14	13	27	25	26	25	11	11
3	11	11	12	14	14	13	27	25	26	17	11	11
4	11	11	13	14	14	12	27	25	26	12	11	11
5	11	12	13	13	14	12	27	27	26	11	11	11
6	11	12	13	13	14	12	27	27	26	12	11	11
7	11	12	13	13	14	12	27	27	26	12	11	11
8	11	12	e13	12	13	12	27	27	26	12	11	11
9	11	12	e13	12	13	12	27	27	26	11	11	11
10	11	12	e13	12	12	12	27	27	26	11	11	11
11	11	12	13	12	12	12	27	27	26	11	11	11
12	11	12	13	12	13	12	27	27	26	11	11	11
13	11	12	13	12	13	12	27	27	27	11	11	11
14	11	12	13	12	13	12	28	27	26	11	11	11
15	11	12	13	12	13	12	28	28	26	11	11	11
16	12	12	13	12	13	12	27	28	26	11	11	11
17	12	12	13	12	13	11	28	28	26	11	11	11
18	13	12	13	12	14	11	29	28	27	11	11	11
19	12	13	13	12	14	11	28	28	27	11	11	11
20	12	13	13	12	13	11	28	28	27	12	11	11
21	12	13	13	12	13	11	28	28	27	11	11	11
22	12	12	13	13	12	11	28	28	27	11	11	11
23	12	12	13	13	12	12	27	28	26	11	12	11
24	12	12	13	13	12	13	26	27	26	11	12	11
25	12	12	13	13	12	13	26	27	26	11	11	12
26	12	13	13	13	14	13	26	27	26	10	11	12
27	12	13	12	13	14	13	26	27	25	11	11	12
28	12	13	12	13	13	13	26	28	25	11	11	12
29	12	13	13	13	13	13	26	27	25	11	11	11
30	12	13	14	14	---	13	26	28	26	11	11	11
31	12	---	14	14	---	19	---	27	---	11	11	---
TOTAL	358	365	401	395	382	383	812	840	783	379	343	334
MEAN	11.5	12.2	12.9	12.7	13.2	12.4	27.1	27.1	26.1	12.2	11.1	11.1
MAX	13	13	14	14	14	19	29	28	27	25	12	12
MIN	11	11	12	12	12	11	26	25	25	10	11	11
AC-FT	710	724	795	783	758	760	1610	1670	1550	752	680	662

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2004, BY WATER YEAR (WY)

MEAN	12.4	12.7	13.0	13.3	13.3	13.6	27.1	27.8	27.5	11.4	11.2	11.3
MAX	14.5	18.0	16.4	21.7	18.7	21.7	32.0	30.5	30.1	12.9	13.0	13.0
(WY)	1998	1996	1996	1995	1995	1995	1995	1995	1995	1995	1995	1995
MIN	11.0	11.0	11.0	10.9	11.0	11.2	23.6	25.9	25.8	10.2	10.1	10.1
(WY)	1991	1991	1991	1991	1991	1991	2003	1990	1990	2001	2001	2002

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1990 - 2004	
ANNUAL TOTAL	5684		5775			
ANNUAL MEAN	15.6		15.8		16.2	
HIGHEST ANNUAL MEAN					19.5	1995
LOWEST ANNUAL MEAN					15.0	1991
HIGHEST DAILY MEAN	31	Apr 26	29	Apr 18	43	Dec 4 1994
LOWEST DAILY MEAN	10	Aug 25	10	Jul 26	7.3	Mar 11 2002
ANNUAL SEVEN-DAY MINIMUM	11	Aug 20	11	Jul 21	9.1	Mar 8 2002
ANNUAL RUNOFF (AC-FT)	11270		11450		11730	
10 PERCENT EXCEEDS	28		27		28	
50 PERCENT EXCEEDS	12		12		12	
90 PERCENT EXCEEDS	11		11		11	

e Estimated.

11424000 BEAR RIVER NEAR WHEATLAND, CA

LOCATION.—Lat 39°00'00", long 121°24'20", in SE 1/4 SW 1/4 sec.3, T.13 N., R.5 E., Placer County, Hydrologic Unit 18020108, on right bank, 200 ft downstream from bridge on State Highway 65, 1 mi southeast of Wheatland, and 6.5 mi downstream from Camp Far West Reservoir.

DRAINAGE AREA.—292 mi^2.

PERIOD OF RECORD.—October 1928 to current year.
CHEMICAL DATA: Water years 1953–80, 1999–2000.
SEDIMENT DATA: Water year 1999–2000.

REVISED RECORDS.—WSP 1931: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is 71.92 ft above NGVD of 1929. See WSP 2131 for history of changes prior to May 28, 1970.

REMARKS.—Records good. Natural flow of stream affected by inflow from Yuba and American River Basins. Flow regulated by Lake Combie, usable capacity, 7,840 acre-ft, since 1928; Rollins Reservoir (station 11421800), since December 1964; and Camp Far West Reservoir, usable capacity, 102,200 acre-ft, since October 1963. Many diversions for irrigation and power. See schematic diagrams of Bear River Basin and lower Sacramento River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 48,000 ft^3/s, Feb. 17, 1986, gage height, 21.60 ft, maximum gage height, 23.72 ft, Jan. 2, 1997; no flow at times.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	15	18	1360	796	1470	801	33	34	30	15	15
2	12	16	18	1330	764	1540	712	35	34	29	17	14
3	12	19	18	1320	1510	1350	548	33	32	26	18	14
4	12	18	18	1320	1570	994	553	33	33	14	17	14
5	13	21	18	949	1210	1130	554	32	32	13	15	16
6	14	21	19	549	970	970	553	31	32	12	15	15
7	13	22	19	565	856	876	552	31	30	14	14	16
8	13	22	18	271	783	817	559	31	28	13	14	15
9	14	20	18	22	765	821	557	32	29	13	18	13
10	13	17	20	21	571	850	555	31	29	13	18	12
11	14	16	19	19	499	935	547	31	29	14	18	13
12	13	16	19	19	562	946	505	31	28	14	17	13
13	14	15	21	19	561	913	412	31	28	16	16	19
14	14	15	23	19	561	922	349	31	28	17	16	12
15	13	17	18	19	561	935	338	30	29	16	15	11
16	14	17	16	19	573	919	305	30	29	16	15	11
17	15	16	18	19	754	900	262	30	30	17	16	10
18	16	16	16	19	2490	887	246	32	32	16	17	10
19	14	16	17	19	2410	883	163	31	32	17	18	11
20	14	16	18	18	1890	872	65	29	33	18	18	12
21	13	16	18	17	1400	865	48	29	33	17	16	12
22	14	16	17	16	1140	534	28	30	33	16	17	13
23	13	16	17	15	1040	591	27	31	31	16	19	13
24	14	16	23	16	995	904	35	30	32	17	22	12
25	14	16	20	15	1450	1030	45	29	31	16	20	11
26	14	14	18	15	3070	972	30	31	30	16	18	13
27	14	14	18	17	3130	881	27	31	29	17	15	12
28	14	17	17	25	2430	791	29	31	29	17	16	12
29	15	16	232	61	1810	651	27	32	29	16	15	12
30	16	17	834	527	---	715	28	32	30	18	14	12
31	15	---	1320	959	---	757	---	32	---	17	15	---
TOTAL	427	509	2903	9579	37121	28621	9460	966	918	521	514	388
MEAN	13.8	17.0	93.6	309	1280	923	315	31.2	30.6	16.8	16.6	12.9
MAX	16	22	1320	1360	3130	1540	801	35	34	30	22	19
MIN	12	14	16	15	499	534	27	29	28	12	14	10
AC-FT	847	1010	5760	19000	73630	56770	18760	1920	1820	1030	1020	770

11424000 BEAR RIVER NEAR WHEATLAND, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1963, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	92.8	184	565	826	1240	1033	770	306	79.0	12.6	16.7	18.4
MAX	1348	1980	3501	3004	3360	2918	2553	939	245	55.4	148	215
(WY)	1963	1951	1956	1956	1936	1938	1958	1942	1932	1952	1935	1935
MIN	2.05	9.14	21.3	68.0	156	192	11.3	.57	.71	.53	.65	.30
(WY)	1961	1960	1960	1947	1933	1933	1959	1959	1959	1959	1939	1939

SUMMARY STATISTICS	WATER YEARS 1930 - 1963	
ANNUAL MEAN	424	
HIGHEST ANNUAL MEAN	891	1951
LOWEST ANNUAL MEAN	70.0	1933
HIGHEST DAILY MEAN	22100	Dec 23 1955
LOWEST DAILY MEAN	.00	Sep 18 1939
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 18 1939
MAXIMUM PEAK FLOW	33000	Dec 22 1955
MAXIMUM PEAK STAGE	20.83	Nov 21 1950
ANNUAL RUNOFF (AC-FT)	307500	
10 PERCENT EXCEEDS	1060	
50 PERCENT EXCEEDS	77	
90 PERCENT EXCEEDS	3.6	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 2004, BY WATER YEAR (WY)

MEAN	22.1	130	413	917	1240	1140	714	251	70.0	20.3	17.6	16.8
MAX	263	1606	2668	3954	5201	3845	3796	1035	484	72.6	55.8	73.2
(WY)	1999	1984	1984	1997	1986	1983	1982	1983	1998	1995	2001	1998
MIN	0.00	0.06	0.00	0.14	0.62	1.07	0.60	4.05	3.17	2.95	4.72	1.31
(WY)	1978	1977	1977	1977	1977	1977	1977	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1966 - 2004	
ANNUAL TOTAL	133420		91927			
ANNUAL MEAN	366		251		408	
HIGHEST ANNUAL MEAN					1191	1983
LOWEST ANNUAL MEAN					3.42	1977
HIGHEST DAILY MEAN	2470	Apr 14	3130	Feb 27	35900	Feb 17 1986
LOWEST DAILY MEAN	10	Sep 6	10	Sep 17	0.00	Oct 14 1976
ANNUAL SEVEN-DAY MINIMUM	12	Sep 24	11	Sep 14	0.00	Oct 29 1976
MAXIMUM PEAK FLOW			3590	Feb 27	48000	Feb 17 1986
MAXIMUM PEAK STAGE			7.38	Feb 27	23.72	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	264600		182300		295800	
10 PERCENT EXCEEDS	1060		915		1190	
50 PERCENT EXCEEDS	23		20		23	
90 PERCENT EXCEEDS	14		13		8.9	

11425418 MORMON RAVINE NEAR NEWCASTLE, CA

LOCATION.—Lat 38°50'12", long 121°05'36", in SE 1/4 NW 1/4 sec.4, T.11 N., R.8 E., Placer County, Hydrologic Unit 18020128, on right bank, 200 ft upstream from Folsom Lake, 700 ft north of Newcastle Powerplant, and 3.3 mi southeast of Newcastle.

DRAINAGE AREA.—3.84 mi^2.

PERIOD OF RECORD.—October 1989 to current year (low-flow records only).

GAGE.—Water-stage recorder and V-notch sharp-crested weir. Elevation of gage is 500 ft above NGVD of 1929, from topographic map.

REMARKS.—Records not computed above 8.5 ft^3/s. Low flow augmented by release from end of South Canal. Most of the water in South Canal is diverted to Newcastle Powerplant (station 11425416). See schematic diagram of Bear River Basin.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geo

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.8	0.68	---	---	---	---	---	---	---	---	---	---
2	8.0	0.60	---	---	---	---	---	---	---	---	---	---
3	8.0	---	2.7	---	---	---	---	6.8	---	---	---	---
4	8.1	1.4	2.1	---	---	---	---	---	---	---	---	---
5	7.9	2.2	2.0	---	---	---	---	---	---	---	---	---
6	7.5	1.8	---	---	---	---	---	---	7.4	---	---	---
7	7.7	2.9	---	---	---	---	---	---	---	---	---	---
8	8.0	---	---	---	---	---	---	---	---	---	---	---
9	8.2	---	---	---	---	---	---	---	---	---	---	---
10	---	2.2	---	---	---	---	---	---	---	---	---	---
11	---	2.0	---	---	---	---	---	---	---	---	---	---
12	8.1	2.0	---	---	---	---	---	---	---	---	---	---
13	---	1.7	---	---	---	---	---	---	---	---	---	---
14	8.1	1.2	---	---	---	---	---	---	---	---	---	---
15	7.9	---	---	---	---	---	---	7.8	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	7.6	---	---	---	---	---	---	---	---	---	7.4	---
18	6.7	---	---	---	---	---	---	---	---	---	6.8	---
19	---	---	---	---	---	---	---	---	---	---	6.9	---
20	0.92	---	---	---	---	---	---	---	---	---	6.3	---
21	0.40	---	---	---	---	---	---	---	---	---	6.5	---
22	0.43	---	---	---	---	---	---	7.6	---	---	---	---
23	0.45	7.2	---	---	---	---	---	---	---	---	---	---
24	0.55	---	---	---	---	---	---	7.2	---	---	---	---
25	1.2	8.1	---	---	---	---	---	7.2	---	---	---	---
26	1.1	8.0	---	---	---	---	---	7.2	---	---	---	---
27	0.37	7.8	---	---	---	---	---	---	---	---	---	---
28	0.33	8.1	---	---	---	---	---	---	---	---	---	---
29	0.32	7.9	---	---	---	---	---	---	---	---	---	---
30	1.2	---	---	---	---	---	7.8	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---
MEAN	---	---	---	---	---	---	---	---	---	---	---	---
MAX	---	---	---	---	---	---	---	---	---	---	---	---
MIN	---	---	---	---	---	---	---	---	---	---	---	---
AC-FT	---	---	---	---	---	---	---	---	---	---	---	---
a	7310	6680	12850	16890	14770	16190	12160	6350	1360	0	1360	6

CAL YR 2003 a 109000
WTR YR 2004 a 95920

a Diversion, in acre-feet, to Newcastle Powerplant (station 11425416), provided by Pacific Gas & Electric Co.

11425500 SACRAMENTO RIVER AT VERONA, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1943, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	5623	8493	17140	28130	33500	35320	34370	24600	12750	3943	2603	4242
MAX	7816	23510	41690	56930	57860	57700	55330	53730	33480	9176	5036	5895
(WY)	1939	1938	1938	1941	1942	1938	1938	1938	1938	1938	1938	1938
MIN	3462	3923	5968	7819	11730	13860	5932	3103	1872	497	846	2960
(WY)	1933	1933	1937	1937	1933	1931	1931	1931	1931	1931	1931	1934

SUMMARY STATISTICS	WATER YEARS 1930 - 1943		
ANNUAL MEAN	17470		
HIGHEST ANNUAL MEAN	31300		1938
LOWEST ANNUAL MEAN	6286		1931
HIGHEST DAILY MEAN	76900	Feb 8	1942
LOWEST DAILY MEAN	304	Jul 23	1931
ANNUAL SEVEN-DAY MINIMUM	313	Jul 18	1931
MAXIMUM PEAK FLOW	79200	Mar 1	1940
MAXIMUM PEAK STAGE	41.20	Mar 1	1940
ANNUAL RUNOFF (AC-FT)	12650000		
10 PERCENT EXCEEDS	50700		
50 PERCENT EXCEEDS	8620		
90 PERCENT EXCEEDS	2680		

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	10510	13730	22650	30090	34640	32050	24450	19930	14530	12160	12410	12830
MAX	24920	43300	64470	71040	70030	71340	62140	51600	45560	24550	21400	22110
(WY)	1963	1974	1984	1997	1998	1983	1982	1952	1998	1983	1983	1971
MIN	4725	5987	6586	8561	7591	6731	6188	5118	4858	4848	5385	6300
(WY)	1978	1993	1960	1991	1991	1977	1977	1992	1992	1947	1947	1977

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1946 - 2004	
ANNUAL TOTAL	8090740		7664480			
ANNUAL MEAN	22170		20940		19930	
HIGHEST ANNUAL MEAN					39150	1983
LOWEST ANNUAL MEAN					7178	1977
HIGHEST DAILY MEAN	61000	Jan 17	68700	Feb 28	92300	Feb 20 1986
LOWEST DAILY MEAN	8730	Oct 26	8730	Oct 26	3590	Jun 24 1992
ANNUAL SEVEN-DAY MINIMUM	9030	Oct 20	9030	Oct 20	3960	Jun 22 1992
MAXIMUM PEAK FLOW			69000	Feb 28	94000	Jan 2 1997
MAXIMUM PEAK STAGE			34.51	Feb 28	42.11	Feb 20 1986
ANNUAL RUNOFF (AC-FT)	16050000		15200000		14440000	
10 PERCENT EXCEEDS	40600		39500		46600	
50 PERCENT EXCEEDS	18600		16200		13600	
90 PERCENT EXCEEDS	10400		10100		7610	

11426000 SACRAMENTO WEIR SPILL TO YOLO BYPASS, NEAR SACRAMENTO, CA

LOCATION.—Lat 38°36'25", long 121°33'15", unsurveyed, Sacramento County, Hydrologic Unit 18020109, on right bank, 100 ft upstream from weir, 3.2 mi upstream from American River, 4 mi northwest of Sacramento, and 4.2 mi upstream from Sacramento.

PERIOD OF RECORD.—October 1939 to current year. Monthly discharge only for water years 1940–51, published in WSP 1735. Published as "Sacramento Weir near Sacramento" 1939–61. Gage-height records collected at same site February 1926 to September 1934 and major flood flows only October 1934 to September 1939 are contained in reports of California Department of Water Resources.

GAGE.—Water-stage recorder and concrete weir crest. Datum of gage is 3.00 ft below NGVD of 1929. October 1939 to September 1942, October 1959 to September 1963, water-stage recorder or nonrecording gage at downstream end of weir. October 1942 to September 1959, water-stage recorder on left bank of Sacramento River opposite center of weir. February 1963 to September 1985, water-stage recorder on right bank of Sacramento River 100 ft downstream from end of weir.

REMARKS.—Crest of weir is at gage height 20.2 ft and top of movable gates are at 28.0 ft. Weir consists of 48 gates each 38.1 ft long. Flow over weir enters Yolo Bypass by way of Sacramento Bypass. Flow regulated by weir gates. February 1963 to September 1985, stage was obtained by averaging the stage obtained at sites on the Sacramento River above and below the weir. See schematic diagram of lower Sacramento River Basin.

COOPERATION.—Records provided by California Department of Water Resources; not reviewed by the U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 128,000 ft^3/s, Feb. 20, 1986, gage height, 30.84 ft, maximum gage height, 33.01 ft, Dec. 23, 1955; no flow all or most of each year.

EXTREMES FOR CURRENT YEAR.—No flow for 2004 water year.

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1.19	119	507	750	731	501	82.2	2.06	0.20	0.00	0.00	0.00
MAX	72.6	7014	12470	19700	23920	17830	2042	79.1	12.7	0.00	0.00	0.00
(WY)	1963	1951	1965	1997	1986	1983	1982	1983	1998	1943	1943	1943
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
(WY)	1944	1944	1944	1944	1944	1944	1944	1943	1943	1943	1943	1943

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1943 - 2004	
ANNUAL TOTAL	0.00		0.0			
ANNUAL MEAN	0.00		0.00		220	
HIGHEST ANNUAL MEAN					2075	1986
LOWEST ANNUAL MEAN					0.00	1944
HIGHEST DAILY MEAN	0.00	Jan 1	0.00	Oct 1	123000	Feb 20 1986
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Oct 1	0.00	Jan 1 1943
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Oct 1	0.00	Jan 1 1943
MAXIMUM PEAK FLOW					128000	Feb 20 1986
MAXIMUM PEAK STAGE					33.01	Dec 23 1955
ANNUAL RUNOFF (AC-FT)	0.00		0.00		159200	
10 PERCENT EXCEEDS	0.00		0.00		0.00	
50 PERCENT EXCEEDS	0.00		0.00		0.00	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

11426170 LAKE VALLEY RESERVOIR NEAR CISCO, CA

LOCATION.—Lat 39°18'01", long 120°35'46", in NE 1/4 NW 1/4 sec.35, T.17 N., R.12 E., Placer County, Hydrologic Unit 18020128, on dam near left abutment, on North Fork of North Fork American River, and 1.3 mi west of Cisco.

DRAINAGE AREA.—4.54 mi^2.

PERIOD OF RECORD.—July 1987 to current year. Unpublished records for water years 1980–86 available in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder. Datum of gage is 5,727.4 ft above NGVD of 1929 (levels by Pacific Gas & Electric Co.). Prior to July 1987, nonrecording gage at same site and datum.

REMARKS.—Lake is formed by an earthfill dam; storage began in 1911. Usable capacity, 7,960 acre-ft, between gage heights 6.2 ft, natural rim of lake, and 57.5 ft, top of flashboards. Released water is diverted downstream to Lake Valley Canal (station 11426190) and then to several powerplants. Records, including extremes, represent usable contents at 2400 hours. See schematic diagrams of Bear River Basin and South Yuba River Basin.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2310.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 8,225 acre-ft, Jan. 1, 1997, gage height, 58.35 ft; minimum, 1,153 acre-ft, Feb. 28, 1990, gage height, 25.01 ft.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 7,980 acre-ft, May 30 to June 1, maximum gage height, 57.57 ft, May 31; minimum, 3,200 acre-ft, Feb. 15, gage height, 34.84 ft.

Capacity table (gage height, in feet, and contents, in acre-feet)
(Based on survey by Pacific Gas & Electric Co., dated June 18, 1965)

8	41	14	304	25	1,152	50	5,810
10	102	17	476	30	1,830	59	8,411
12	189	20	693	40	3,455		

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5680	4540	3530	3590	3460	3580	5060	7220	7980	7630	7200	6780
2	5670	4520	3500	3600	3490	3570	5100	7310	7970	7610	7180	6760
3	5650	4490	3460	3590	3480	3550	5170	7410	7960	7600	7160	6740
4	5630	4450	3430	3580	3470	3540	5240	7520	7950	7590	7140	6720
5	5620	4420	3410	3570	3440	3530	5310	7610	7940	7570	7140	6710
6	5600	4380	3530	3570	3420	3520	5390	7690	7930	7560	7120	6690
7	5560	4340	3550	3570	3400	3510	5460	7750	7920	7540	7110	6680
8	5510	4340	3520	3570	3370	3520	5550	7800	7910	7530	7100	6660
9	5480	4310	3500	3570	3350	3540	5650	7860	7890	7510	7080	6650
10	5440	4270	3510	3570	3320	3580	5740	7910	7890	7490	7070	6640
11	5400	4240	3480	3560	3290	3610	5820	7940	7870	7470	7060	6620
12	5360	4200	3460	3550	3260	3640	5910	7930	7860	7460	7050	6610
13	5320	4160	3460	3550	3240	3680	5980	7930	7850	7440	7030	6600
14	5280	4140	3480	3540	3210	3730	6050	7930	7840	7420	7020	6580
15	5240	4110	3450	3540	3200	3810	6110	7930	7830	7410	7010	6560
16	5210	4070	3420	3530	3350	3880	6150	7930	7810	7390	7000	6550
17	5160	4030	3390	3520	3450	3960	6190	7920	7800	7380	6990	6540
18	5120	4000	3360	3520	3510	4050	6230	7910	7780	7370	6970	6520
19	5070	3960	3330	3510	3520	4150	6280	7890	7770	7360	6960	6520
20	5040	3930	3340	3510	3520	4240	6350	7860	7760	7350	6940	6510
21	5000	3890	3330	3500	3520	4350	6410	7830	7750	7340	6930	6490
22	4960	3850	3320	3490	3520	4460	6450	7810	7740	7330	6920	6480
23	4910	3810	3330	3490	3510	4570	6500	7800	7730	7320	6910	6460
24	4870	3780	3450	3490	3520	4650	6550	7830	7720	7300	6900	6450
25	4820	3740	3480	3480	3570	4730	6630	7850	7710	7290	6890	6440
26	4770	3710	3480	3480	3610	4780	6740	7870	7700	7280	6870	6430
27	4730	3660	3480	3490	3610	4810	6860	7900	7690	7260	6840	6420
28	4680	3630	3480	3480	3600	4850	6960	7950	7670	7250	6830	6400
29	4640	3590	3530	3470	3580	4890	7050	7970	7650	7240	6810	6390
30	4600	3550	3530	3470	---	4950	7130	7980	7640	7220	6810	6380
31	4580	---	3540	3470	---	5010	---	7980	---	7210	6790	---
MAX	5680	4540	3550	3600	3610	5010	7130	7980	7980	7630	7200	6780
MIN	4580	3550	3320	3470	3200	3510	5060	7220	7640	7210	6790	6380
a	44.92	40.43	40.35	40.05	40.56	46.78	54.71	57.57	56.42	54.98	53.54	52.07
b	-1120	-1030	-10	-70	+110	+1430	+2120	+850	-340	-430	-420	-410
c	1030	1270	1440	1140	1270	1900	1840	1320	193	0	0	0

CAL YR 2003 MAX 8000 MIN 3320 b -860 c 14690
WTR YR 2004 MAX 7980 MIN 3200 b +680 c 11410

a Gage height, in feet, at end of month.
b Change in contents, in acre-feet.
c Diversion, in acre-feet, to Lake Valley Canal (station 11426190), provided by Pacific Gas & Electric Co.

11426180 KELLY LAKE NEAR CISCO, CA

LOCATION.—Lat 39°18'40", long 120°34'49", in SE 1/4 NW 1/4 sec.25, T.17 N., R.12 E., Placer County, Hydrologic Unit 18020128, Tahoe National Forest, on outlet structure on Kelly Lake Dam, on unnamed tributary to North Fork of North Fork American River, and 2.2 mi west of Cisco.

DRAINAGE AREA.—0.58 mi^2.

PERIOD OF RECORD.—October 1991 to current year. Unpublished records for water years 1965–91 available in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder. Datum of gage is 5,888.9 ft above NGVD of 1929 (levels by Pacific Gas & Electric Co.). Prior to October 1991, nonrecording gage at same site and datum.

REMARKS.—No records computed during the winter months. Reservoir is formed on natural lake by rock-fill dam completed in 1928. Usable capacity, 336 acre-ft, between gage heights 0.0 ft, invert of outlet, and 17.1 ft, top of flashboards. Water is used for power development downstream. Records, including extremes, represent usable contents at 2400 hours. See schematic diagram of Bear River Basin.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2310.

Capacity table (gage height, in feet, and contents, in acre-feet)
(Based on survey by Pacific Gas & Electric Co., dated December 1933)

0	0	8	130	16	308	19	387
4	61	12	213				

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	270	140	---	---	---	---	314	335	344	322	298	273
2	269	135	---	---	---	---	314	339	344	322	298	273
3	269	132	---	---	---	---	315	343	343	321	297	272
4	268	127	---	---	---	---	316	345	342	320	296	272
5	268	123	---	---	---	---	317	348	341	320	295	271
6	266	118	---	---	---	---	317	348	340	319	293	270
7	263	114	---	---	---	---	317	347	339	319	292	270
8	259	112	---	---	---	---	318	347	338	318	291	269
9	255	109	---	---	---	---	318	347	337	317	288	268
10	252	105	---	---	---	---	318	348	336	316	286	268
11	248	101	---	---	---	---	318	349	335	315	286	267
12	244	99	---	---	---	---	318	350	335	314	286	266
13	240	96	---	---	---	---	318	350	334	313	285	265
14	237	95	---	---	---	---	318	350	333	312	285	264
15	231	91	---	---	---	---	318	350	331	312	285	264
16	224	85	---	---	---	---	317	350	330	311	284	263
17	216	80	---	---	---	---	317	349	329	311	284	263
18	210	75	---	---	---	---	317	349	327	311	284	262
19	204	70	---	---	---	---	318	348	326	310	283	262
20	198	65	---	---	---	---	321	348	326	309	282	262
21	192	60	---	---	---	---	320	349	325	308	282	261
22	186	55	---	---	---	---	320	348	325	306	281	260
23	181	51	---	---	---	---	320	348	324	305	280	259
24	175	48	---	---	---	---	320	348	324	304	279	259
25	168	47	---	---	---	---	320	347	323	303	278	258
26	163	47	---	---	---	---	321	347	323	301	278	258
27	158	47	---	---	---	---	324	347	323	300	277	258
28	154	47	---	---	---	---	329	348	323	300	275	257
29	150	48	---	---	---	---	333	348	323	300	275	257
30	146	48	---	---	---	---	334	347	322	299	274	257
31	144	---	---	---	---	315	---	345	---	299	273	---
MAX	270	140	---	---	---	--	334	350	344	322	298	273
MIN	144	47	---	---	---	--	314	335	322	299	273	257
a	8.69	3.22				16.26	17.01	17.45	16.52	15.64	14.62	13.97
b	-126	-96					+19	+11	-23	-23	-26	-16

WTR YR 2004 b -13

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

11426195 CANYON CREEK NEAR BLUE CANYON, CA

LOCATION.—Lat 39°15'27", long 120°43'57", in NW 1/4 NW 1/4 sec.15, T.16 N., R.11 E., Placer County, Hydrologic Unit 18020128, on left bank, 200 ft upstream from culvert, and 1.2 mi west of Blue Canyon.

DRAINAGE AREA.—0.51 mi^2.

PERIOD OF RECORD.—October 1999 to current year (low-flow records only). Unpublished records for water years 1981–99 available in files of the U.S. Geological Survey.

GAGE.—Nonrecording gage read most days. Elevation of gage is 4,660 ft above NGVD of 1929, from topographic map.

REMARKS.—No records computed above 1.2 ft^3/s. No regulation or diversion upstream from station. See schematic diagram of Bear River Basin.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2310.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.02	0.05	0.07	---	---	---	---	0.56	0.27	0.09	0.05	0.02
2	0.02	0.03	0.10	---	---	---	---	0.51	0.27	0.09	0.05	---
3	0.03	0.04	---	0.56	1.1	---	---	0.51	0.24	0.06	0.05	0.02
4	0.02	0.05	0.08	0.79	1.0	---	---	0.51	0.24	0.06	0.04	0.02
5	0.02	0.06	0.40	---	0.92	---	---	0.51	0.24	0.08	0.04	0.02
6	0.02	0.03	1.1	0.49	0.92	---	---	0.54	0.21	0.10	0.04	0.02
7	0.02	0.06	---	0.61	0.82	---	---	0.51	0.21	0.10	0.03	0.02
8	0.02	0.10	0.30	0.79	0.85	---	---	0.51	0.21	0.09	0.04	---
9	0.02	---	0.21	0.67	0.73	---	---	0.44	0.21	0.08	0.04	0.02
10	0.02	0.06	0.59	0.76	0.67	---	1.1	0.67	0.22	0.09	0.04	0.02
11	0.02	---	0.51	0.76	0.70	---	1.1	0.56	0.21	0.08	0.04	0.02
12	0.02	0.06	0.29	0.73	0.70	---	0.89	0.44	0.21	0.09	0.04	0.02
13	---	0.06	---	0.73	0.61	---	0.99	0.44	0.21	0.09	0.03	0.02
14	0.02	0.05	---	0.79	0.79	---	1.0	0.42	0.18	0.08	0.03	0.02
15	0.02	0.30	0.56	0.85	0.73	---	1.0	0.42	0.16	0.08	0.03	0.02
16	0.03	0.08	0.38	0.92	---	---	0.96	0.38	0.17	0.09	0.02	0.02
17	0.03	---	---	0.92	---	---	1.0	0.38	0.16	0.10	0.02	0.02
18	0.02	0.07	0.38	0.85	---	---	0.92	0.38	0.16	0.10	0.02	0.02
19	0.03	0.07	0.34	0.73	---	---	0.89	0.36	0.16	0.09	0.02	0.02
20	0.02	0.07	0.85	---	---	---	---	0.34	0.16	0.07	0.02	0.02
21	0.02	0.08	0.99	0.79	---	---	---	0.34	0.16	0.05	0.02	0.02
22	0.02	0.06	0.67	0.73	---	---	0.96	0.36	---	0.05	0.02	0.02
23	---	0.07	0.51	0.56	---	---	0.89	0.34	0.16	0.05	0.02	0.04
24	0.02	0.07	---	0.79	---	---	0.89	0.30	0.17	0.05	0.02	0.02
25	0.02	---	---	0.73	---	---	1.0	0.30	0.12	0.05	0.02	0.02
26	0.02	0.06	1.0	0.67	---	---	1.0	0.29	0.12	0.05	0.03	0.02
27	0.02	0.06	0.79	---	---	---	0.73	0.29	0.12	0.05	0.02	---
28	0.03	0.06	0.67	---	---	---	0.82	0.34	0.12	0.05	0.02	0.02
29	0.03	0.07	0.64	1.1	---	---	0.56	0.34	0.11	0.05	---	---
30	0.02	0.08	0.67	1.2	---	---	0.61	0.27	0.11	0.05	0.02	---
31	0.03	---	0.67	1.1	---	---	---	0.27	---	0.05	0.02	---
TOTAL	---	---	---	---	---	---	---	12.83	---	2.26	---	---
MEAN	---	---	---	---	---	---	---	0.41	---	0.07	---	---
MAX	---	---	---	---	---	---	---	0.67	---	0.10	---	---
MIN	---	---	---	---	---	---	---	0.27	---	0.05	---	---
AC-FT	---	---	---	---	---	---	---	25	---	4.5	---	---

11426196 CANYON CREEK BELOW TOWLE DIVERSION DAM, NEAR BLUE CANYON, CA

LOCATION.—Lat 39°14'31", long 120°45'03", in SE 1/4 NW 1/4 sec.21, T.16 N., R.11 E., Placer County, Hydrologic Unit 18020128, on left bank, 4 ft downstream from Towle Diversion Dam, and 2.4 mi southwest of Blue Canyon.

DRAINAGE AREA.—1.35 mi^2.

PERIOD OF RECORD.—October 1999 to current year (low-flow records only). Unpublished records for water years 1981–99 available in files of the U.S. Geological Survey.

GAGE.—Nonrecording gage read most days. Elevation of gage is 4,320 ft above NGVD of 1929, from topographic map.

REMARKS.—No records computed above 1.2 ft^3/s. Flow regulated by Towle Diversion Dam. Water from Drum Canal is diverted out of Drum Forebay to Canyon Creek upstream. Most of this water is diverted at Towle Diversion Dam. See schematic diagram of Bear River Basin.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2310.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.79	0.82	0.92	---	---	1.1	1.0	1.0	1.0	1.1	1.0	0.25
2	0.70	0.82	0.92	---	1.1	1.2	1.1	1.0	1.0	1.0	1.0	0.29
3	0.99	0.85	---	0.70	1.0	1.0	1.1	1.1	1.0	1.0	1.0	0.67
4	0.79	0.70	0.56	0.79	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.61
5	0.82	0.82	0.76	0.44	1.1	1.1	1.0	1.0	1.0	1.0	1.0	0.51
6	0.79	0.46	1.0	0.82	1.0	1.1	1.1	1.2	1.0	0.82	1.0	0.51
7	0.82	0.70	1.0	0.85	1.1	1.2	1.0	1.1	1.0	1.1	0.96	0.42
8	0.79	1.0	0.70	0.82	1.2	---	1.0	1.1	1.0	1.0	1.1	---
9	0.70	1.0	0.44	1.0	1.1	1.1	1.0	1.1	0.89	1.0	1.0	0.44
10	0.56	0.76	1.0	1.1	1.1	1.1	1.1	1.2	1.0	1.0	1.0	0.44
11	0.56	---	0.70	1.1	1.0	---	1.1	1.1	1.0	1.0	0.76	0.44
12	0.49	0.56	---	1.0	1.1	1.0	1.1	1.1	1.0	1.0	1.1	0.44
13	---	0.64	---	0.96	1.0	1.0	1.1	1.1	1.0	1.0	1.0	0.49
14	0.44	0.51	---	1.0	1.0	1.0	1.1	1.0	1.0	1.0	1.0	0.44
15	0.73	0.67	---	1.1	1.0	1.0	1.1	1.0	1.0	1.1	1.0	0.44
16	0.96	0.34	0.70	1.0	---	1.0	1.0	1.0	1.0	1.0	1.0	0.44
17	0.82	---	---	1.0	---	1.0	1.0	---	1.0	1.0	1.0	0.56
18	0.73	0.27	1.1	1.0	1.1	1.0	1.0	---	1.0	1.0	0.22	0.44
19	0.76	0.27	0.64	1.1	---	1.0	1.0	---	1.0	1.0	0.14	0.49
20	0.76	0.19	0.96	---	1.0	1.0	1.0	---	1.0	1.0	0.09	0.40
21	0.70	0.25	1.1	1.0	1.0	1.0	1.0	---	---	1.0	0.08	0.40
22	0.76	0.27	0.85	1.0	1.0	1.0	1.0	---	1.1	1.1	0.56	0.40
23	---	0.56	0.76	1.0	1.0	1.0	1.0	---	1.0	1.0	0.49	0.34
24	0.70	0.49	1.0	1.1	1.1	1.1	1.0	---	---	0.92	0.10	0.34
25	0.70	---	1.0	1.1	---	1.1	1.0	---	1.2	1.0	0.11	0.36
26	0.70	0.44	---	1.2	---	1.0	1.0	---	1.1	1.0	0.29	0.36
27	0.70	0.49	---	---	---	1.0	1.1	1.1	1.0	1.0	0.10	---
28	0.99	0.92	---	---	1.1	1.0	1.0	1.0	0.99	1.0	0.10	0.22
29	0.79	0.76	---	1.0	1.1	1.0	1.0	1.0	1.0	1.0	---	---
30	0.70	0.70	---	1.1	---	1.0	1.0	1.0	1.0	1.0	0.06	---
31	0.99	---	---	1.1	---	1.1	---	1.0	---	1.0	0.46	---
TOTAL	---	---	---	---	---	---	31.0	---	---	31.14	---	---
MEAN	---	---	---	---	---	---	1.03	---	---	1.00	---	---
MAX	---	---	---	---	---	---	1.1	---	---	1.1	---	---
MIN	---	---	---	---	---	---	1.0	---	---	0.82	---	---
AC-FT	---	---	---	---	---	---	61	---	---	62	---	---

11427000 NORTH FORK AMERICAN RIVER AT NORTH FORK DAM, CA

LOCATION.—Lat 38°56'10", long 121°01'22", in SW 1/4 NW 1/4 sec.31, T.13 N., R.9 E., Placer County, Hydrologic Unit 18020128, on left bank, 50 ft upstream from crest of North Fork Dam, 2 mi upstream from Middle Fork, and 4 mi northeast of Auburn.

DRAINAGE AREA.—342 mi^2.

PERIOD OF RECORD.—October 1941 to current year.
CHEMICAL DATA: Water years 1977–80.
WATER TEMPERATURE: Water years 1960–83.
SEDIMENT DATA: Water year 1980 (periodic record).

REVISED RECORDS.—WSP 1931: Drainage area.

GAGE.—Water-stage recorder and ogee section of concrete debris dam. Datum of gage is 715.00 ft above NGVD of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.—Records fair. Minor regulation by Lake Clementine, usable capacity, 12,800 acre-ft, formed by North Fork Dam. Storage in Big Reservoir and Lake Valley Reservoir (station 11426170), combined capacity, 10,300 acre-ft, upstream from station. Lake Valley Canal (station 11426190) diverts from North Fork of North Fork American River into Bear River Basin for power development in powerplants of Pacific Gas & Electric Co. Combined storage and diversion have small effect on natural flow. See schematic diagrams of Bear River Basin and lower Sacramento River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 65,400 ft^3/s, Dec. 23, 1964, gage height, 11.87 ft, from rating curve extended above 24,000 ft^3/s, on basis of computed flow over crest of dam at gage height 10.22 ft; no flow Aug. 27–30, Sept. 2–11, 1944, Oct. 5, 6, 1963, Nov. 7–10, 1965, caused by operation of valve in North Fork Dam.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 4,300 ft^3/s, or maximum:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 17	0345	4,410	3.59	Feb. 25	2330	4,340	3.57

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49	47	66	1760	449	1450	1210	1090	467	107	44	30
2	50	51	85	1570	505	1370	1050	1170	449	107	43	29
3	50	66	91	958	907	1200	1040	1320	426	112	44	28
4	50	68	85	700	825	1070	1260	1400	401	104	40	27
5	51	58	78	576	679	981	1370	1440	374	97	39	29
6	51	52	161	504	587	916	1430	1320	349	88	38	30
7	48	56	1840	536	575	955	1250	1120	340	83	41	31
8	49	56	588	545	520	1120	1330	1030	320	80	40	31
9	52	112	308	602	484	1360	1380	1010	290	78	40	27
10	47	130	351	662	449	1470	1360	928	275	76	39	26
11	46	86	556	632	430	1540	1290	839	255	74	38	26
12	46	67	353	604	418	1480	1270	745	245	74	37	26
13	46	60	564	575	406	1480	1310	668	238	71	37	26
14	45	61	1230	553	394	1500	1140	684	235	64	36	26
15	43	85	821	542	378	1650	1040	704	238	62	35	27
16	43	117	477	531	571	1770	915	698	230	61	33	29
17	41	91	359	511	3240	1720	797	706	219	60	33	29
18	41	81	306	490	e2700	1730	724	678	210	60	33	30
19	41	78	285	477	e2120	1880	672	615	198	58	37	33
20	40	72	315	460	1710	1790	788	585	188	58	33	36
21	41	67	660	435	1380	1910	923	559	174	56	32	39
22	45	64	532	406	1180	2040	845	545	163	52	32	38
23	42	62	415	385	1050	2040	788	538	156	51	33	34
24	41	62	1230	391	1020	1870	809	523	150	50	36	31
25	40	60	2010	393	1790	1620	920	506	141	48	36	30
26	40	59	1030	365	4100	1440	1120	485	132	47	35	30
27	40	59	686	389	3130	1140	1310	487	121	45	32	29
28	40	60	531	628	2060	1080	1460	641	113	45	32	29
29	37	61	590	503	1620	1100	1300	691	110	45	31	29
30	39	61	978	478	---	1260	1070	539	108	44	30	29
31	42	---	705	489	---	1210	---	492	---	44	30	---
TOTAL	1376	2109	18286	18650	35677	45142	33171	24756	7315	2101	1119	894
MEAN	44.4	70.3	590	602	1230	1456	1106	799	244	67.8	36.1	29.8
MAX	52	130	2010	1760	4100	2040	1460	1440	467	112	44	39
MIN	37	47	66	365	378	916	672	485	108	44	30	26
AC-FT	2730	4180	36270	36990	70770	89540	65790	49100	14510	4170	2220	1770

e Estimated.

11427000 NORTH FORK AMERICAN RIVER AT NORTH FORK DAM, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	100	355	879	1339	1436	1488	1558	1604	775	190	66.1	49.9
MAX	1749	3307	5781	7303	8403	5187	4490	3688	2855	928	214	121
(WY)	1963	1951	1965	1997	1986	1995	1982	1952	1983	1983	1983	1982
MIN	18.3	35.6	33.9	44.6	70.5	114	207	273	71.7	25.8	13.4	14.9
(WY)	1978	1960	1977	1991	1991	1977	1977	1992	1992	1977	1977	1977

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1942 - 2004	
ANNUAL TOTAL	262265		190596			
ANNUAL MEAN	719		521		817	
HIGHEST ANNUAL MEAN					1843	1982
LOWEST ANNUAL MEAN					88.5	1977
HIGHEST DAILY MEAN	3290	May 4	4100	Feb 26	50100	Jan 2 1997
LOWEST DAILY MEAN	37	Oct 29	26	Sep 10	0.00	Aug 27 1944
ANNUAL SEVEN-DAY MINIMUM	40	Oct 24	26	Sep 9	0.00	Sep 2 1944
MAXIMUM PEAK FLOW			4410	Feb 17	65400	Dec 23 1964
MAXIMUM PEAK STAGE			3.59	Feb 17	11.87	Dec 23 1964
ANNUAL RUNOFF (AC-FT)	520200		378000		591800	
10 PERCENT EXCEEDS	2030		1380		2030	
50 PERCENT EXCEEDS	414		307		275	
90 PERCENT EXCEEDS	50		33		41	

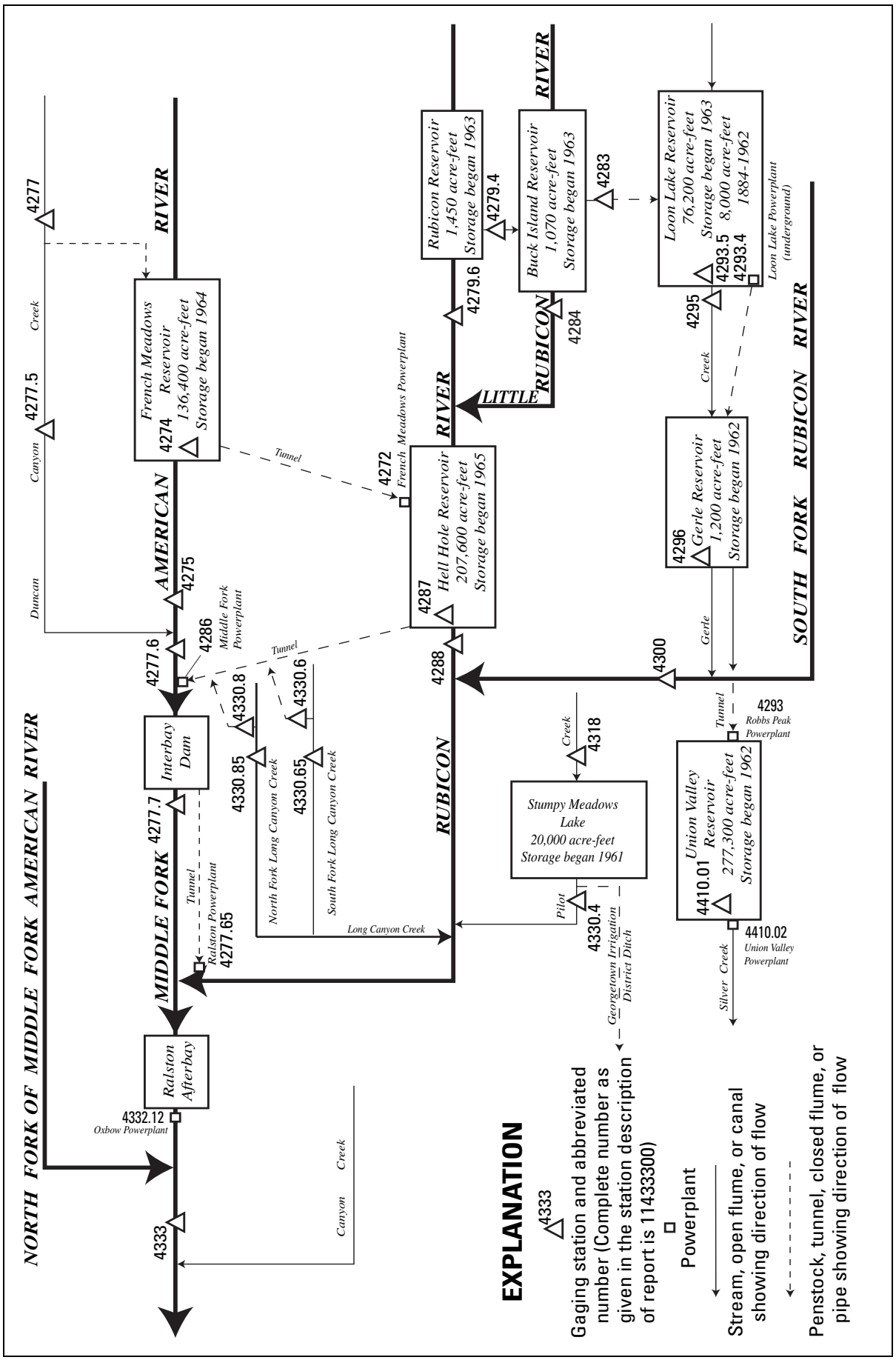


Figure 34. Diversions and storage in Middle Fork American and Rubicon River Basins.

11427400 FRENCH MEADOWS RESERVOIR NEAR FORESTHILL, CA

LOCATION.—Lat 39°06'32", long 120°25'49", in SW 1/4 NE 1/4 sec.32, T.15 N., R.14 E., Placer County, Hydrologic Unit 18020128, Tahoe National Forest, on left bank, 2.2 mi upstream from dam, on Middle Fork American River, 6.9 mi upstream from Chipmunk Creek, and 21 mi northeast of Foresthill.

DRAINAGE AREA.—47.0 mi^2.

PERIOD OF RECORD.—December 1964 to current year.

GAGE.—Water-stage recorder. Datum of gage is NGVD of 1929 (levels by Placer County Water Agency).

REMARKS.—Reservoir is formed by rockfill dam with earth core. Storage began Dec. 21, 1964. Usable capacity, 125,601 acre-ft, between elevations 5,125 ft, minimum operating level, and 5,263 ft, top of radial gates. Dead storage, 10,804 acre-ft. Reservoir is used to store water for hydroelectric power. Up to 400 ft^3/s diverted from Duncan Creek through a tunnel to reservoir. Water is released through a tunnel to French Meadows Powerplant (station 11427200) at Hell Hole Reservoir (station 11428700) on the Rubicon River; releases began Dec. 13, 1965. Records, including extremes, represent contents at 2400 hours. See schematic diagram of Middle Fork American and Rubicon River Basins.

COOPERATION.—Records provided by Placer County Water Agency, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2079.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 137,700 acre-ft, May 19, 1966, elevation, 5,263.9 ft; minimum since reservoir first filled, 28,500 acre-ft, Oct. 21–24, 1991, elevation, 5,157.6 ft.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 108,700 acre-ft, May 31, elevation, 5242.2 ft; minimum, 49,100 acre-ft, Feb. 13, elevation, 5,185.2 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on a survey by Placer County Water Agency in 1965)

5,125	10,800	5,150	23,700	5,200	62,400	5,270	146,500
5,130	13,100	5,170	37,100	5,230	94,100		

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	91800	77200	67000	62000	51400	53600	68200	90200	108600	105400	96900	84900
2	91300	76700	66500	61700	51100	53200	68500	91300	108600	105400	96600	84500
3	90700	76200	65900	61300	50800	52900	69400	92500	108300	105400	96200	84000
4	90500	75800	65400	60800	50500	52600	70300	93700	108300	105400	95800	83500
5	90100	75200	64900	60400	50200	52200	70100	95000	108200	105400	95400	83100
6	89500	74700	65500	60000	50000	52400	71700	95900	108100	105000	95000	82600
7	88900	74500	65700	59600	50100	52200	72700	96900	108100	104700	94500	82300
8	88400	74200	65400	59300	50100	52100	73900	97700	108000	104300	94200	81900
9	87900	73800	65500	58900	50100	52100	75100	98500	107600	104000	93800	81400
10	87400	73300	65400	58800	49900	52200	76200	99200	107500	104000	93400	81000
11	86900	72900	65300	58300	49600	52600	77400	99800	107600	104000	93000	80600
12	86500	72500	64900	58000	49400	52800	78400	100300	107700	103700	92600	80300
13	85900	72100	64700	57600	49100	53600	79400	100900	107800	103400	92200	79800
14	85400	71700	64700	57400	49200	54000	79900	101400	107600	103100	91900	79500
15	85100	71500	64400	57100	49300	54600	80500	102000	107500	102700	91400	79100
16	84600	71000	64000	56600	49900	55200	81000	102500	107200	102200	91100	78800
17	84000	70600	63600	56200	51100	56100	81500	103100	107100	102200	90600	78300
18	83500	70200	63300	55900	51800	56800	82100	103400	107100	102200	90200	78100
19	83200	70000	62900	55800	52000	57600	82300	103900	107200	101700	89700	78000
20	82600	69500	62700	55400	51900	59000	82800	104400	107200	101400	89300	78000
21	82000	69100	62400	55100	52100	60200	83300	104800	107000	100900	88900	77600
22	81400	68600	62200	54600	52400	61500	83700	105100	106700	100400	88700	77200
23	81100	68200	61900	54300	52400	62700	84000	105500	106600	100000	88500	76600
24	80800	67800	62500	54000	52300	63900	84700	105900	106200	100000	88400	76200
25	80300	67400	62800	53700	52700	64700	85600	106200	106000	99600	87900	75800
26	80000	67400	63000	53200	52900	64900	86300	106600	106000	99100	87500	75500
27	79600	67400	63100	52900	52900	65700	87000	107000	106000	98800	87000	75000
28	79100	67400	62700	52400	53200	66000	87900	107600	105900	98400	86600	74700
29	78500	68100	62500	52100	53500	66700	88600	108000	105600	97900	86300	74200
30	78000	67300	62200	51800	---	67100	89300	108300	105500	97600	85800	74000
31	77600	---	62100	51500	---	67700	---	108700	---	97200	85400	---
MAX	91800	77200	67000	62000	53500	67700	89300	108700	108600	105400	96900	84900
MIN	77600	67300	61900	51500	49100	52100	68200	90200	105500	97200	85400	74000
a	5215.1	5205.0	5199.6	5188.0	5190.2	5205.4	5225.3	5242.2	5239.6	5232.7	5222.3	5211.7
b	-14600	-10300	-5200	-10600	+2000	+14200	+21600	+19400	-3200	-8300	-11800	-11400

CAL YR 2003 b -7100
WTR YR 2004 b -18200

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

11427500 MIDDLE FORK AMERICAN RIVER AT FRENCH MEADOWS, CA

LOCATION.—Lat 39°06'35", long 120°28'49", in SW 1/4 NW 1/4 sec.36, T.15 N., R.13 E., Placer County, Hydrologic Unit 18020128, Tahoe National Forest, on left bank, 0.6 mi downstream from French Meadows Dam, 4.1 mi upstream from Chipmunk Creek, and 14 mi south of Cisco.

DRAINAGE AREA.—47.9 mi^2.

PERIOD OF RECORD.—October 1951 to current year.

REVISED RECORDS.—WSP 1445: 1953–54. WSP 1931: Drainage area.

GAGE.—Water-stage recorder. Elevation of gage is 4,920 ft above NGVD of 1929, from topographic map. Prior to Oct. 1, 1962, at site 0.8 mi upstream at different datum.

REMARKS.—Considerable regulation by French Meadows Reservoir (station 11427400) 0.6 mi upstream beginning December 1964. Water diverted into basin from Duncan Creek to French Meadows Reservoir since December 1964. Water diverted out of basin from French Meadows Reservoir through French Meadows Powerplant (station 11427200) to Hell Hole Reservoir (station 11428700) since December 1965. See schematic diagram of Middle Fork American and Rubicon River Basins.

COOPERATION.—Records provided by Placer County Water Agency, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2079.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 21,500 ft^3/s, Jan. 31, 1963, gage height, 14.20 ft, from rating curve extended above 1,100 ft^3/s, on basis of peak flow at former site; minimum, 0.3 ft^3/s, Oct. 4, 5, 21–25, 1960, Oct. 5, 6, 1961. Maximum discharge since construction of French Meadows Dam in 1964, 6,050 ft^3/s, May 16, 1996, gage height, 11.61 ft, from flow over spillway of French Meadows Reservoir; minimum daily, 0.8 ft^3/s, Oct. 22–25, 1964.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.2	8.9	9.5	12	11	12	11	9.7	9.1	9.4	9.5	9.3
2	9.1	8.9	9.4	11	11	12	11	9.7	9.1	9.9	9.5	9.3
3	9.1	9.1	9.3	11	11	12	11	9.7	9.1	9.9	9.5	9.3
4	9.1	9.0	9.3	11	11	12	11	9.5	9.1	9.9	9.5	9.3
5	9.1	9.1	9.4	11	10	12	11	9.3	9.1	9.9	9.4	9.3
6	9.0	9.1	12	11	10	12	10	9.3	9.1	9.9	9.3	9.3
7	9.1	9.2	14	11	10	14	10	9.3	9.0	9.9	9.3	9.3
8	9.3	9.2	11	11	10	15	10	9.3	8.9	9.9	9.3	9.3
9	9.3	9.7	11	11	10	15	9.8	9.3	8.9	9.9	9.3	9.2
10	9.3	9.3	11	11	10	16	9.7	9.3	8.9	9.8	9.3	9.1
11	9.3	9.2	10	11	10	16	9.8	9.6	8.9	9.7	9.3	9.1
12	9.3	9.2	10	11	10	15	9.9	9.5	8.9	9.7	9.3	9.1
13	9.3	9.3	13	11	10	15	9.9	9.3	8.9	9.7	9.3	9.1
14	9.3	9.5	14	11	10	16	9.8	9.3	8.9	9.7	9.3	9.1
15	9.3	9.6	12	11	10	17	9.9	9.3	9.1	9.7	9.3	9.1
16	9.3	9.3	11	11	24	17	9.7	9.1	9.1	9.7	9.3	9.1
17	9.3	9.5	11	11	18	17	9.8	9.1	9.1	9.7	9.3	9.1
18	9.3	9.3	11	11	19	17	9.8	8.8	9.1	9.7	9.3	9.1
19	9.3	9.3	11	11	15	16	10	8.7	9.1	9.7	9.3	9.2
20	9.2	9.3	12	11	14	16	12	8.7	9.1	9.7	9.3	9.1
21	9.1	9.3	13	11	13	16	11	8.9	9.1	9.7	9.3	9.1
22	9.1	9.3	12	11	13	15	11	8.9	9.1	9.7	9.3	8.9
23	9.1	9.3	12	11	13	15	10	8.9	9.1	9.7	9.3	8.9
24	9.1	9.3	25	11	13	14	10	8.9	9.1	9.7	9.2	8.9
25	9.1	9.3	16	11	17	13	10	8.9	9.0	9.7	9.1	8.9
26	9.1	9.3	13	11	15	13	10	9.1	8.9	9.7	9.1	8.9
27	9.1	9.3	12	11	13	13	10	9.1	8.9	9.6	9.1	8.9
28	9.1	9.3	12	11	13	13	10	9.1	8.9	9.5	9.1	8.9
29	9.1	9.3	12	11	12	12	10	9.1	8.9	9.5	9.1	8.9
30	9.1	9.3	11	11	---	12	10	9.1	8.9	9.5	9.1	8.9
31	9.1	---	11	11	---	12	---	9.1	---	9.5	9.2	---
TOTAL	284.6	278.0	369.9	342	366	442	307.1	284.9	270.4	301.2	287.8	273.0
MEAN	9.18	9.27	11.9	11.0	12.6	14.3	10.2	9.19	9.01	9.72	9.28	9.10
MAX	9.3	9.7	25	12	24	17	12	9.7	9.1	9.9	9.5	9.3
MIN	9.0	8.9	9.3	11	10	12	9.7	8.7	8.9	9.4	9.1	8.9
AC-FT	565	551	734	678	726	877	609	565	536	597	571	541
a	13520	9910	10050	12190	5140	10760	5910	0	6770	7720	10370	9550

a Diversion, in acre-feet, from French Meadows Reservoir to Hell Hole Reservoir through French Meadows Powerplant (station 11427200), provided by Placer County Water Agency.

11427500 MIDDLE FORK AMERICAN RIVER AT FRENCH MEADOWS, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 1964, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	19.8	20.3	101	92.5	143	151	356	550	297	52.4	6.04	2.10
MAX	222	106	882	377	561	367	537	1110	775	232	25.3	5.06
(WY)	1963	1964	1956	1956	1963	1960	1962	1958	1952	1952	1952	1952
MIN	.40	1.60	1.76	5.57	40.1	55.2	187	210	69.7	6.22	1.57	.64
(WY)	1961	1960	1960	1960	1955	1962	1955	1959	1959	1959	1959	1961

SUMMARY STATISTICS	WATER YEARS 1952 - 1964	
ANNUAL MEAN	149	
HIGHEST ANNUAL MEAN	265	1956
LOWEST ANNUAL MEAN	68.7	1961
HIGHEST DAILY MEAN	11300	Dec 23 1955
LOWEST DAILY MEAN	.30	Oct 22 1960
ANNUAL SEVEN-DAY MINIMUM	.34	Oct 19 1960
MAXIMUM PEAK FLOW	21500	Jan 31 1963
MAXIMUM PEAK STAGE	14.20	Jan 31 1963
ANNUAL RUNOFF (AC-FT)	108000	
10 PERCENT EXCEEDS	446	
50 PERCENT EXCEEDS	38	
90 PERCENT EXCEEDS	1.5	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	15.0	10.4	12.7	19.1	17.7	21.7	22.5	55.4	39.7	15.7	8.65	11.5
MAX	266	42.7	83.3	249	200	375	248	518	272	136	15.0	136
(WY)	1966	1966	1965	1997	1982	1986	1965	1965	1995	1983	1965	1965
MIN	1.67	3.16	3.91	4.37	4.53	4.40	4.47	3.95	3.68	2.98	2.76	2.70
(WY)	1965	1978	1977	1977	1977	1977	1977	1976	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1965 - 2004	
ANNUAL TOTAL	4075.1		3806.9			
ANNUAL MEAN	11.2		10.4		20.8	
HIGHEST ANNUAL MEAN					97.3	1965
LOWEST ANNUAL MEAN					3.90	1977
HIGHEST DAILY MEAN	29	Jan 23	25	Dec 24	3430	May 16 1996
LOWEST DAILY MEAN	8.9	Mar 8	8.7	May 19	0.80	Oct 22 1964
ANNUAL SEVEN-DAY MINIMUM	9.0	Mar 7	8.8	May 18	0.84	Oct 21 1964
MAXIMUM PEAK FLOW			52	Feb 16	6050	May 16 1996
MAXIMUM PEAK STAGE			6.26	Feb 16	11.61	May 16 1996
ANNUAL RUNOFF (AC-FT)	8080		7550		15100	
TOTAL DIVERSION (AC-FT) a	131400		101900			
10 PERCENT EXCEEDS	15		13		15	
50 PERCENT EXCEEDS	9.9		9.5		9.7	
90 PERCENT EXCEEDS	9.2		9.1		6.1	

a Diversion, in acre-feet, from French Meadows Reservoir to Hell Hole Reservoir through French Meadows Powerplant (station 11427200), provided by Placer County Water Agency.

11427700 DUNCAN CANYON CREEK NEAR FRENCH MEADOWS, CA

LOCATION.—Lat 39°08'09", long 120°28'39", in NE 1/4 NW 1/4 sec.24, T.15 N., R.13 E., Placer County, Hydrologic Unit 18020128, Tahoe National Forest, on left bank, 0.2 mi upstream from diversion dam, 0.5 mi downstream from Little Duncan Creek, 2 mi northwest of French Meadows, and 20 mi northeast of Foresthill.

DRAINAGE AREA.—9.94 mi^2.

PERIOD OF RECORD.—August 1960 to current year. Published as "Duncan Creek near French Meadows" 1961–2000.

GAGE.—Water-stage recorder. Elevation of gage is 5,270 ft above NGVD of 1929, from topographic map. Prior to Sept. 3, 1965, at site 150 ft upstream at datum 9.56 ft higher.

REMARKS.—No regulation or diversion upstream from station. See schematic diagram of Middle Fork American and Rubicon River Basins.

COOPERATION.—Records provided by Placer County Water Agency, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2079.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 3,650 ft^3/s, Dec. 22, 1964, gage height, 10.6 ft, from floodmarks, from rating curve extended above 400 ft^3/s, on basis of computation of flow over diversion dam; maximum gage height, 10.95 ft, Jan. 1, 1997 (backwater from debris dam); minimum daily, 0.10 ft^3/s, several days during July and August 1977.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 250 ft^3/s, or maximum:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 6	2300	375	7.45	Mar. 22	1830	265	7.24
Feb. 16	1930	536	7.72				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.78	1.4	3.3	e17	13	22	102	125	20	3.6	1.1	0.70
2	0.78	1.3	8.0	e16	e13	21	97	138	18	3.7	1.1	0.70
3	0.78	e1.3	4.7	e15	13	21	111	151	17	3.4	1.1	0.70
4	0.78	e1.3	3.8	15	12	20	132	156	15	3.0	1.1	0.71
5	0.79	1.5	12	15	12	20	144	145	13	2.8	1.1	0.71
6	0.77	1.5	135	14	12	21	138	125	12	2.7	1.1	0.70
7	0.76	1.8	110	13	12	27	135	108	11	2.5	1.0	0.67
8	0.76	2.5	29	16	12	37	144	98	11	2.4	1.0	0.65
9	0.77	4.3	21	18	11	48	151	87	11	2.3	0.98	0.64
10	0.77	2.9	e17	18	12	61	151	77	10	2.3	0.94	0.64
11	0.79	2.6	e15	17	12	66	144	71	9.6	2.2	0.93	0.63
12	0.78	2.7	14	17	12	73	147	59	8.9	2.1	0.90	0.64
13	0.77	2.6	27	16	12	81	139	56	8.2	2.0	0.89	0.65
14	0.78	3.0	33	17	12	99	123	56	7.7	1.9	0.88	0.68
15	0.79	4.2	22	17	12	122	108	55	7.1	1.9	0.89	0.68
16	0.79	3.0	19	18	149	129	87	54	6.6	1.8	0.93	0.68
17	0.78	7.7	18	17	133	135	71	51	6.2	1.8	0.89	0.68
18	0.77	4.5	17	18	73	155	61	46	5.8	1.7	0.84	0.68
19	0.76	3.9	17	18	53	163	55	41	5.6	1.6	0.82	0.97
20	0.79	3.5	34	18	44	169	88	38	5.2	1.6	0.81	1.3
21	0.76	3.6	31	17	38	198	78	35	4.9	1.6	0.81	1.2
22	0.76	2.6	25	16	33	212	77	33	4.7	1.5	0.83	0.98
23	0.76	2.3	23	17	30	208	78	32	4.4	1.4	0.89	0.92
24	0.76	2.2	66	16	28	184	89	30	4.2	1.4	0.89	0.86
25	0.76	2.1	43	15	31	146	110	28	4.0	1.3	0.90	0.85
26	0.76	2.1	30	14	30	108	136	26	3.8	1.3	0.88	0.83
27	0.76	2.0	25	e14	27	88	162	26	3.7	1.2	0.84	0.79
28	0.76	2.1	e22	14	24	83	163	33	3.6	1.2	0.81	0.79
29	0.76	2.4	e21	14	23	93	137	26	3.6	1.2	0.76	0.81
30	0.81	2.5	e19	15	---	101	123	23	3.5	1.1	0.72	0.89
31	1.1	---	19	14	---	103	---	21	---	1.1	0.71	---
TOTAL	24.29	81.4	883.8	496	898	3014	3481	2050	249.3	61.6	28.34	23.33
MEAN	0.78	2.71	28.5	16.0	31.0	97.2	116	66.1	8.31	1.99	0.91	0.78
MAX	1.1	7.7	135	18	149	212	163	156	20	3.7	1.1	1.3
MIN	0.76	1.3	3.3	13	11	20	55	21	3.5	1.1	0.71	0.63
AC-FT	48	161	1750	984	1780	5980	6900	4070	494	122	56	46

e Estimated.

11427700 DUNCAN CANYON CREEK NEAR FRENCH MEADOWS, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3.74	16.7	32.9	43.1	40.7	52.6	78.7	120	57.6	8.67	1.54	1.10
MAX	51.1	172	256	213	291	161	162	245	316	100	10.4	4.51
(WY)	1963	1984	1965	1997	1986	1986	1989	1993	1983	1983	1983	1982
MIN	0.22	1.09	0.76	1.76	3.24	5.75	12.7	12.9	2.71	0.51	0.19	0.34
(WY)	1978	1977	1977	1991	1977	1977	1977	1992	1992	1977	1977	1960

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1960 - 2004	
ANNUAL TOTAL	14875.60		11291.06			
ANNUAL MEAN	40.8		30.8		38.1	
HIGHEST ANNUAL MEAN					86.8	1982
LOWEST ANNUAL MEAN					4.27	1977
HIGHEST DAILY MEAN	305	May 23	212	Mar 22	2800	Jan 1 1997
LOWEST DAILY MEAN	0.72	Sep 27	0.63	Sep 11	0.10	Jul 31 1977
ANNUAL SEVEN-DAY MINIMUM	0.74	Sep 24	0.65	Sep 7	0.11	Aug 8 1977
MAXIMUM PEAK FLOW			536	Feb 16	3650	Dec 22 1964
MAXIMUM PEAK STAGE			7.72	Feb 16	10.95	Jan 1 1997
ANNUAL RUNOFF (AC-FT)	29510		22400		27590	
10 PERCENT EXCEEDS	114		114		108	
50 PERCENT EXCEEDS	21		12		9.2	
90 PERCENT EXCEEDS	0.79		0.77		0.76	

11427750 DUNCAN CANYON CREEK BELOW DIVERSION DAM, NEAR FRENCH MEADOWS, CA

LOCATION.—Lat 39°07'59", long 120°28'58", in NE 1/4 SE 1/4 sec.23, T.15 N., R.13 E., Placer County, Hydrologic Unit 18020128, Tahoe National Forest, on right bank, 800 ft downstream from unnamed right bank tributary, 1,000 ft downstream from Duncan Canyon Creek Diversion Dam, and 20 mi northeast of Foresthill.

DRAINAGE AREA.—10.5 mi^2.

PERIOD OF RECORD.—October 1964 to current year. Published as "Duncan Creek below diversion dam, near French Meadows" 1965–2000.

GAGE.—Water-stage recorder. Elevation of gage is 5,210 ft above NGVD of 1929, from topographic map.

REMARKS.—Natural flow affected by transmountain diversion through Duncan Canyon Creek Diversion Tunnel to French Meadows Reservoir (station 11427400). Maximum design flow of tunnel is 400 ft^3/s. See schematic diagram of Middle Fork American and Rubicon River Basins.

COOPERATION.—Records provided by Placer County Water Agency, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2079.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 3,640 ft^3/s, Dec. 22, 1964, gage height, 8.74 ft, in gage well, 10.0 ft, from floodmarks, from rating curve extended above 400 ft^3/s, on basis of computation of peak flow over diversion dam; no flow at times in 1965–66.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.92	1.5	3.2	14	14	15	17	14	12	3.8	1.2	0.72
2	0.95	1.4	8.1	14	14	14	17	14	12	3.8	1.2	0.72
3	0.95	1.7	5.2	13	14	14	17	14	12	3.7	1.2	0.73
4	0.95	1.6	4.1	13	14	14	17	14	12	3.3	1.2	0.75
5	0.95	1.6	8.0	13	13	14	17	14	11	3.0	1.2	0.74
6	0.95	1.6	24	13	13	15	17	14	11	2.8	1.2	0.72
7	0.91	1.8	31	13	13	16	16	14	11	2.7	1.1	0.72
8	0.91	2.5	14	13	13	19	16	13	11	2.5	1.1	0.69
9	0.92	4.8	13	13	13	22	16	13	11	2.4	1.1	0.69
10	0.95	3.3	13	14	13	24	16	13	10	2.4	1.0	0.69
11	0.95	2.8	13	14	13	24	15	13	9.6	2.3	0.97	0.69
12	0.95	2.9	12	14	14	24	15	13	8.9	2.2	0.96	0.69
13	0.95	2.9	14	14	14	25	15	13	8.3	2.1	0.94	0.69
14	0.95	2.9	15	14	14	27	15	13	7.9	2.0	0.92	0.69
15	0.95	5.0	14	15	14	28	15	13	7.4	1.9	0.93	0.69
16	0.95	3.2	14	15	47	27	14	13	6.9	1.8	0.97	0.69
17	0.95	7.7	13	15	28	26	14	13	6.5	1.8	0.93	0.71
18	0.95	5.2	14	16	21	27	14	13	6.3	1.8	0.90	0.72
19	0.95	4.2	14	16	19	26	14	12	5.9	1.7	0.85	0.97
20	0.95	3.8	16	16	18	25	16	12	5.6	1.7	0.84	1.4
21	0.95	3.8	16	16	17	24	16	12	5.3	1.6	0.83	1.3
22	0.95	2.9	15	15	16	24	16	12	5.0	1.6	0.84	1.1
23	0.95	2.5	15	15	16	23	15	12	4.7	1.5	0.90	1.0
24	0.95	2.4	22	15	16	21	15	12	4.5	1.5	0.91	0.95
25	0.89	2.2	19	15	16	20	15	12	4.3	1.4	0.92	0.94
26	0.88	2.2	17	14	16	18	15	12	4.0	1.4	0.91	0.88
27	0.88	2.1	16	14	15	18	15	12	3.9	1.3	0.88	0.88
28	0.88	2.2	15	14	15	18	15	12	3.8	1.3	0.83	0.88
29	0.90	2.5	15	14	15	18	15	12	3.8	1.3	0.80	0.88
30	0.95	2.6	14	14	---	18	14	12	3.8	1.2	0.77	0.91
31	1.2	---	14	14	---	17	---	12	---	1.2	0.75	---
TOTAL	29.24	87.8	440.6	442	478	645	464	397	229.4	65.0	30.05	24.83
MEAN	0.94	2.93	14.2	14.3	16.5	20.8	15.5	12.8	7.65	2.10	0.97	0.83
MAX	1.2	7.7	31	16	47	28	17	14	12	3.8	1.2	1.4
MIN	0.88	1.4	3.2	13	13	14	14	12	3.8	1.2	0.75	0.69
AC-FT	58	174	874	877	948	1280	920	787	455	129	60	49

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2004, BY WATER YEAR (WY)

MEAN	2.03	8.22	20.7	28.9	21.2	19.1	15.8	27.2	13.2	3.86	1.40	1.07
MAX	17.3	76.1	244	225	237	80.3	91.7	149	107	21.9	5.87	3.61
(WY)	1983	1982	1965	1997	1986	1986	1982	1967	1998	1983	1983	1983
MIN	0.06	1.15	0.76	1.69	2.02	2.63	4.80	3.88	2.15	0.44	0.28	0.09
(WY)	1966	1991	1977	1991	1974	1965	1974	1976	1965	1965	1977	1965

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1965 - 2004	
ANNUAL TOTAL	3692.54		3332.92			
ANNUAL MEAN	10.1		9.11		13.5	
HIGHEST ANNUAL MEAN					43.1	1982
LOWEST ANNUAL MEAN					2.16	1977
HIGHEST DAILY MEAN	37	Jan 23	47	Feb 16	2560	Jan 1 1997
LOWEST DAILY MEAN	0.88	Sep 26	0.69	Sep 8	0.00	Sep 10 1965
ANNUAL SEVEN-DAY MINIMUM	0.89	Sep 25	0.69	Sep 8	0.00	Sep 10 1965
MAXIMUM PEAK FLOW			201	Feb 16	3640	Dec 22 1964
MAXIMUM PEAK STAGE			3.27	Feb 16	8.74	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	7320		6610		9810	
10 PERCENT EXCEEDS	19		17		17	
50 PERCENT EXCEEDS	13		11		5.6	
90 PERCENT EXCEEDS	0.95		0.90		0.75	

11427760 MIDDLE FORK AMERICAN RIVER ABOVE MIDDLE FORK POWERPLANT, NEAR FORESTHILL, CA

LOCATION.—Lat 39°01'31", long 120°35'40", in NW 1/4 NW 1/4 sec.36, T.14 N., R.12 E., Placer County, Hydrologic Unit 18020128, Tahoe National Forest, on right bank, 300 ft upstream from Middle Fork Powerplant, 3.7 mi upstream from Big Mosquito Creek, and 11 mi east of Foresthill.

DRAINAGE AREA.—87.8 mi^2.

PERIOD OF RECORD.—August 1965 to current year.

GAGE.—Water-stage recorder. Elevation of gage is 2,540 ft above NGVD of 1929, from topographic map. Prior to May 15, 1980, at datum 5.00 ft higher. May 15, 1980, to Oct. 11, 1984, at datum 4.00 ft higher.

REMARKS.—Considerable regulation by French Meadows Reservoir (station 11427400) 11 mi upstream. Transbasin diversions from French Meadows Reservoir to Hell Hole Reservoir (station 11428700) through French Meadows Powerplant (station 11427200). See schematic diagram of Middle Fork American and Rubicon River Basins.

COOPERATION.—Records provided by Placer County Water Agency, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2079.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 13,900 ft^3/s, Jan. 2, 1997, gage height, 14.6 ft, from floodmark, from rating curve extended above 4,200 ft^3/s; minimum daily, 5.3 ft^3/s, Sept. 11, 1977.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	21	25	138	86	169	165	78	48	29	21	18
2	18	21	34	112	101	159	156	76	46	30	21	18
3	18	24	31	95	101	154	154	74	45	29	21	17
4	18	22	27	86	93	149	155	73	45	29	21	17
5	18	22	29	83	89	147	153	71	44	28	20	17
6	18	22	64	81	87	147	148	69	44	27	20	17
7	18	23	153	86	88	160	141	67	43	27	20	17
8	19	24	69	88	84	186	134	66	43	26	20	17
9	19	42	57	94	83	212	127	65	43	26	20	16
10	19	31	78	95	81	236	122	68	42	26	19	17
11	19	25	68	94	81	247	116	70	40	26	19	16
12	19	24	58	94	81	251	113	65	39	25	19	16
13	19	24	113	93	81	255	109	62	38	25	19	16
14	19	25	142	94	80	268	105	61	37	25	19	16
15	19	35	93	96	80	289	104	60	36	24	19	16
16	19	29	76	98	212	288	99	59	35	24	19	16
17	19	30	69	97	273	284	97	58	34	24	19	16
18	19	32	66	99	276	290	94	56	34	24	19	16
19	19	28	66	98	230	283	95	56	34	24	18	18
20	19	27	83	98	197	271	115	55	33	23	18	20
21	19	26	101	95	178	271	108	55	32	23	18	18
22	19	26	87	92	166	267	106	55	32	23	18	18
23	19	25	83	91	159	257	99	54	31	22	19	17
24	18	24	202	93	159	238	96	53	31	22	19	17
25	18	24	201	90	222	226	93	52	30	22	19	17
26	18	24	138	86	260	207	90	52	30	22	18	17
27	18	24	114	93	208	189	88	51	29	21	18	16
28	18	24	102	93	186	185	86	54	29	21	18	16
29	18	24	117	88	174	179	83	51	29	21	18	16
30	19	24	107	91	---	177	80	50	29	21	18	17
31	20	---	99	88	---	169	---	48	---	21	18	---
TOTAL	577	776	2752	2919	4196	6810	3431	1884	1105	760	592	506
MEAN	18.6	25.9	88.8	94.2	145	220	114	60.8	36.8	24.5	19.1	16.9
MAX	20	42	202	138	276	290	165	78	48	30	21	20
MIN	18	21	25	81	80	147	80	48	29	21	18	16
AC-FT	1140	1540	5460	5790	8320	13510	6810	3740	2190	1510	1170	1000

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 2004, BY WATER YEAR (WY)

MEAN	26.8	45.5	88.4	172	171	207	177	176	93.0	35.6	19.5	17.3
MAX	270	262	446	781	969	696	601	600	451	184	33.2	29.5
(WY)	1966	1984	1997	1997	1986	1986	1982	1982	1995	1983	1983	1982
MIN	7.43	13.0	12.2	15.7	18.4	21.7	19.3	21.5	15.4	8.64	6.35	6.59
(WY)	1978	1978	1977	1977	1977	1977	1977	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1966 - 2004	
ANNUAL TOTAL	36073		26308			
ANNUAL MEAN	98.8		71.9		102	
HIGHEST ANNUAL MEAN					271	1982
LOWEST ANNUAL MEAN					14.3	1977
HIGHEST DAILY MEAN	493	May 4	290	Mar 18	7600	Jan 2 1997
LOWEST DAILY MEAN	18	Sep 24	16	Sep 9	5.3	Sep 11 1977
ANNUAL SEVEN-DAY MINIMUM	18	Sep 24	16	Sep 11	5.5	Sep 8 1977
MAXIMUM PEAK FLOW			492	Feb 16	13900	Jan 2 1997
MAXIMUM PEAK STAGE			6.56	Feb 16	14.60	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	71550		52180		73960	
10 PERCENT EXCEEDS	221		170		243	
50 PERCENT EXCEEDS	69		44		39	
90 PERCENT EXCEEDS	19		18		16	

11427770 MIDDLE FORK AMERICAN RIVER BELOW INTERBAY DAM, NEAR FORESTHILL, CA

LOCATION.—Lat 39°01'35", long 120°36'09", in SW 1/4 SE 1/4 sec.26, T.14 N., R.12 E., Placer County, Hydrologic Unit 18020128, Tahoe National Forest, on left bank, at Interbay Dam, 3.3 mi upstream from Big Mosquito Creek, and 10.6 mi east of Foresthill.

DRAINAGE AREA.—89.1 mi^2.

PERIOD OF RECORD.—October 1965 to current year (since October 1985, operated as low-flow station only).

GAGE.—Acoustic-velocity meter system. Elevation of gage is 2,470 ft above NGVD of 1929, from topographic map. Prior to February 1986, water-stage recorder at same site. March 1986 to September 1987, nonrecording gage and V-notch sharp-crested weir at same site and datum as previous gage.

REMARKS.—Gage non-operational during 2004 water year. Flow regulated by French Meadows Reservoir (station 11427400) and after Aug. 22, 1966, by Interbay Reservoir (usable capacity, 130 acre-ft, between normal operating limits) 500 ft upstream. Water is diverted out of the basin from French Meadows Reservoir to Hell Hole Reservoir (station 11428700) and from Interbay Reservoir to Ralston Powerplant (station 11427765). Water is diverted into the basin from Hell Hole Reservoir to Middle Fork Powerplant (station 11428600) and through South Fork and North Fork Long Canyon Creek Diversion Tunnels (stations 11433060 and 11433080). See schematic diagram of Middle Fork American and Rubicon River Basins. Beginning October 1985, only flows less than 35 ft^3/s are computed.

COOPERATION.—Records provided by Placer County Water Agency, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2079.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge (water years 1966–85), 9,900 ft^3/s, Jan. 13, 1980, gage height, 7.95 ft; minimum daily, 1.0 ft^3/s, Oct. 25–30, 1966, Jan. 19, 1967.

WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
a	10950	17270	24180	27450	28120	33200	19170	28120	22630	28330	29870	28100

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1985, BY WATER YEAR (WY)

MEAN	30.5	27.4	73.8	93.7	86.6	101	117	118	78.2	29.4	18.8	18.3
MAX	270	140	548	398	928	508	868	857	313	152	23.7	24.7
(WY)	1966	1984	1984	1980	1982	1983	1982	1982	1967	1983	1983	1983
MIN	5.84	6.38	6.22	6.15	9.32	7.61	11.6	11.1	11.3	7.52	5.86	5.68
(WY)	1978	1968	1968	1968	1968	1968	1977	1977	1977	1977	1977	1977

SUMMARY STATISTICS	WATER YEARS 1966 - 1985		FOR 2003 CALENDAR YEAR	FOR 2004 WATER YEAR
ANNUAL MEAN	66.0			
HIGHEST ANNUAL MEAN	347	1982		
LOWEST ANNUAL MEAN	10.0	1968		
HIGHEST DAILY MEAN	8090	Feb 16 1982		
LOWEST DAILY MEAN	1.0	Oct 25 1966		
ANNUAL SEVEN-DAY MINIMUM	1.3	Oct 25 1966		
MAXIMUM PEAK FLOW	9900	Jan 13 1980		
MAXIMUM PEAK STAGE	7.95	Jan 13 1980		
ANNUAL RUNOFF (AC-FT)	47810			
TOTAL DIVERSION (AC-FT) a			368100	297400
10 PERCENT EXCEEDS	141			
50 PERCENT EXCEEDS	22			
90 PERCENT EXCEEDS	11			

a Diversion, in acre-feet, through Ralston Powerplant (station 11427765), provided by Placer County Water Agency.

11427940 RUBICON–ROCKBOUND TUNNEL NEAR MEEKS BAY, CA

LOCATION.—Lat 38°59'16", long 120°13'29", in NE 1/4 SE 1/4 sec.8, T.13 N., R.16 E., El Dorado County, Hydrologic Unit 18020128, Eldorado National Forest, on right bank at tunnel intake, 100 ft upstream from diversion dam on Rubicon River, 3.5 mi upstream from Rubicon Springs, and 6.4 mi southwest of Meeks Bay.

PERIOD OF RECORD.—December 1963 to current year.

GAGE.—Water-stage recorder. Datum of gage is 6,533.23 ft above NGVD of 1929 (levels by Sacramento Municipal Utility District). Auxiliary water-stage recorder since Aug. 26, 1966, 220 ft downstream from tunnel outlet at different datum.

REMARKS.—Tunnel diverts water from Rubicon River to Rockbound Lake which flows into Buck Island Lake. Water is then diverted via Buck–Loon Tunnel (station 11428300) to Loon Lake (station 11429350) for power development. See schematic diagram of Middle Fork American and Rubicon River Basins.

COOPERATION.—Records were collected by Sacramento Municipal Utility District, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2101.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	27	13	21	155	325	250	0.00	0.00	0.00
2	0.00	0.00	0.00	27	13	20	111	398	242	9.6	0.00	0.00
3	0.00	0.00	0.00	26	14	19	122	491	271	37	0.00	0.00
4	0.00	0.00	0.00	25	14	18	199	556	265	44	0.00	0.00
5	0.00	0.00	13	23	13	18	262	618	232	43	0.00	0.00
6	0.00	0.00	221	20	12	19	287	534	220	44	0.00	0.00
7	0.00	0.00	208	19	13	27	235	395	230	45	0.00	0.00
8	0.00	0.00	72	21	12	45	272	367	177	43	0.00	0.00
9	0.00	0.00	172	26	12	64	295	362	119	37	0.00	0.00
10	0.00	0.00	92	26	11	81	283	332	87	32	0.00	0.00
11	0.00	0.00	34	23	12	87	257	217	87	26	0.00	0.00
12	0.00	0.00	24	21	12	87	273	157	100	21	0.00	0.00
13	0.00	0.00	28	21	12	90	284	166	115	19	0.00	0.00
14	0.00	0.00	32	20	12	99	217	227	136	17	0.00	0.00
15	0.00	0.00	25	20	11	128	169	274	148	15	0.00	0.00
16	0.00	0.00	22	19	51	148	126	294	156	13	0.00	0.00
17	0.00	0.00	19	18	291	149	96	314	151	11	0.00	0.00
18	0.00	0.00	18	19	165	162	76	284	138	10	0.00	0.00
19	0.00	0.00	21	19	85	211	65	222	125	9.7	0.00	0.00
20	0.00	0.00	33	18	50	228	73	224	111	8.8	0.00	0.00
21	0.00	0.00	37	17	36	251	87	206	97	7.7	0.00	0.00
22	0.00	0.00	28	16	29	277	82	193	93	6.6	0.00	0.00
23	0.00	0.00	23	15	25	291	83	220	100	5.3	0.00	0.00
24	0.00	0.00	39	15	23	264	123	224	98	4.4	0.00	0.00
25	0.00	0.00	45	15	22	195	196	224	88	2.7	0.00	0.00
26	0.00	0.00	33	14	22	129	286	227	78	0.19	0.00	0.00
27	0.00	0.00	27	14	27	89	366	278	69	0.00	0.00	0.00
28	0.00	0.00	22	14	27	84	430	561	61	0.00	0.00	0.00
29	0.00	0.00	22	14	23	111	370	367	27	0.00	0.00	0.00
30	0.00	0.00	23	14	---	169	285	257	0.00	0.00	0.00	0.00
31	0.00	---	25	14	---	181	---	264	---	0.00	0.00	---
TOTAL	0.00	0.00	1358.00	600	1062	3762	6165	9778	4071.00	511.99	0.00	0.00
MEAN	0.00	0.00	43.8	19.4	36.6	121	206	315	136	16.5	0.00	0.00
MAX	0.00	0.00	221	27	291	291	430	618	271	45	0.00	0.00
MIN	0.00	0.00	0.00	14	11	18	65	157	0.00	0.00	0.00	0.00
AC-FT	0.00	0.00	2690	1190	2110	7460	12230	19390	8070	1020	0.00	0.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2004, BY WATER YEAR (WY)

MEAN	14.5	46.2	43.7	48.5	42.1	68.2	156	357	312	107	16.7	9.41
MAX	149	277	204	222	187	196	295	655	789	519	168	91.0
(WY)	1983	1984	1965	1970	1986	1986	1989	1969	1983	1983	1983	1982
MIN	0.00	0.00	0.00	0.00	3.44	13.5	24.6	110	13.7	0.04	0.00	0.00
(WY)	1964	1964	1977	1977	1991	1977	1975	1977	2001	2001	1964	1964

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1964 - 2004	
ANNUAL TOTAL	32905.74		27307.99			
ANNUAL MEAN	90.2		74.6		102	
HIGHEST ANNUAL MEAN					197	1982
LOWEST ANNUAL MEAN					30.5	1977
HIGHEST DAILY MEAN	833	May 29	618	May 5	1180	Jan 1 1997
LOWEST DAILY MEAN	0.00	Sep 22	0.00	Oct 1	0.00	Oct 1 1963
ANNUAL SEVEN-DAY MINIMUM	0.00	Sep 22	0.00	Oct 1	0.00	Oct 1 1963
ANNUAL RUNOFF (AC-FT)	65270		54170		73790	
10 PERCENT EXCEEDS	316		258		329	
50 PERCENT EXCEEDS	24		19		26	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

11427960 RUBICON RIVER BELOW RUBICON DAM, NEAR MEEKS BAY, CA

LOCATION.—Lat 38°59'20", long 120°13'20", in NW 1/4 SW 1/4 sec.9, T.13 N., R.16 E., El Dorado County, Hydrologic Unit 18020128, Eldorado National Forest, at outlet structure, on diversion dam on Rubicon River, 3.3 mi upstream from Rubicon Springs, and 6.2 mi southwest of Meeks Bay.

DRAINAGE AREA.—26.8 mi^2.

PERIOD OF RECORD.—October 1991 to current year (low-flow records only). Unpublished records for water years 1964–91 available in files of the U.S. Geological Survey.

GAGE.—Differential-pressure gage and orifice control in outlet pipes. Auxiliary nonrecording gage 1,300 ft downstream at different datum. Elevation of gage is 6,520 ft above NGVD of 1929, from topographic map. Prior to Sept. 4, 1991, nonrecording gage at site 1,300 ft downstream at different datum.

REMARKS.—Records not computed above 10 ft^3/s. Flow regulated by Rubicon Reservoir. Flow over the spillway bypasses this station. Most of the water is diverted through Rubicon–Rockbound Tunnel (station 11427940) to Rockbound Lake, which flows into Buck Island Lake. Water is then diverted via Buck–Loon Tunnel (station 11428300) to Loon Lake (station 11429350) for power development. See schematic diagram of Middle Fork American and Rubicon River Basins.

COOPERATION.—Records were collected by Sacramento Municipal Utility District, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2101.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	1.2	1.3	6.6	6.4	6.3	7.0	7.1	6.9	6.7	5.9	1.4
2	1.2	1.2	1.3	6.6	6.4	6.3	6.8	7.3	7.0	7.0	5.9	1.4
3	1.2	1.2	1.3	6.6	6.4	6.3	6.8	7.6	7.0	7.2	6.0	1.4
4	1.2	1.2	1.3	6.6	6.4	6.3	7.1	7.8	7.0	7.4	5.9	1.4
5	1.2	1.2	1.3	6.6	6.4	6.3	7.3	7.9	6.9	7.2	5.9	1.4
6	1.2	1.2	1.4	6.6	6.4	6.4	7.4	7.8	6.9	6.9	5.8	1.4
7	1.2	1.2	1.4	6.6	6.4	6.4	7.2	7.4	6.9	6.7	5.8	1.4
8	1.2	1.2	1.4	6.6	6.4	6.5	7.3	7.4	6.7	6.6	5.9	1.4
9	1.2	1.2	4.9	6.6	6.4	6.6	7.4	7.4	6.4	6.6	5.9	1.4
10	1.2	1.2	7.1	6.6	6.4	6.7	7.4	7.1	6.3	6.6	5.9	1.4
11	1.2	1.2	6.8	6.6	6.3	6.7	7.3	6.8	6.3	6.6	6.0	1.3
12	1.2	1.2	6.7	6.6	6.3	6.7	7.3	6.5	6.4	6.6	6.1	1.3
13	1.2	1.2	6.8	6.6	6.3	6.7	7.3	6.5	6.5	6.6	6.1	1.3
14	1.2	1.2	6.8	6.5	6.3	6.7	7.2	6.8	6.6	6.6	6.1	1.3
15	1.2	1.2	6.7	6.5	6.3	6.9	7.0	6.9	6.6	6.6	6.0	1.3
16	1.2	1.2	6.7	6.5	6.5	6.9	6.8	7.0	6.6	6.6	6.0	1.3
17	1.2	1.2	6.7	6.5	7.5	6.9	6.7	7.0	6.5	6.6	6.0	1.3
18	1.2	1.2	6.7	6.5	7.0	7.0	6.6	6.9	6.5	6.6	5.9	1.2
19	1.2	1.2	6.7	6.5	6.7	7.2	6.4	6.7	6.4	6.6	5.9	1.2
20	1.2	1.2	6.7	6.5	6.5	7.2	6.6	6.7	6.4	6.7	5.9	1.2
21	1.1	1.2	6.8	6.5	6.4	7.3	6.6	6.6	6.3	6.7	5.8	0.91
22	1.1	1.2	6.7	6.5	6.4	7.4	6.6	6.6	6.3	6.7	5.8	0.65
23	1.1	1.2	6.7	6.4	6.3	7.4	6.6	6.7	6.3	6.7	3.9	0.65
24	1.1	1.2	6.7	6.4	6.3	7.3	6.8	6.7	6.3	6.8	1.5	0.65
25	1.1	1.2	6.8	6.4	6.3	7.1	7.1	6.7	6.3	6.8	1.5	0.64
26	1.1	1.2	6.7	6.4	6.3	6.9	7.2	6.7	6.2	6.8	1.5	0.63
27	1.1	1.3	6.7	6.4	6.3	6.7	7.4	6.9	6.1	6.7	1.5	0.63
28	1.1	1.3	6.6	6.4	6.3	6.7	7.4	7.7	6.1	6.7	1.5	0.62
29	1.2	1.3	6.6	6.4	6.3	6.8	7.2	7.3	6.1	6.3	1.5	0.60
30	1.2	1.3	6.6	6.4	---	7.0	7.0	7.0	6.3	5.9	1.5	0.59
31	1.2	---	6.6	6.4	---	7.1	---	7.0	---	5.9	1.5	---
TOTAL	36.4	36.4	163.5	201.9	186.6	210.7	210.8	218.5	195.1	207.0	146.4	33.27
MEAN	1.17	1.21	5.27	6.51	6.43	6.80	7.03	7.05	6.50	6.68	4.72	1.11
MAX	1.2	1.3	7.1	6.6	7.5	7.4	7.4	7.9	7.0	7.4	6.1	1.4
MIN	1.1	1.2	1.3	6.4	6.3	6.3	6.4	6.5	6.1	5.9	1.5	0.59
AC-FT	72	72	324	400	370	418	418	433	387	411	290	66

11428300 BUCK–LOON TUNNEL NEAR MEEKS BAY, CA

LOCATION.—Lat 39°00'17", long 120°15'21", in SE 1/4 NW 1/4 sec.6, T.13 N., R.16 E., El Dorado County, Hydrologic Unit 18020128, Eldorado National Forest, on right bank, at tunnel intake near left abutment of diversion dam, and 7.4 mi southwest of Meeks Bay.

PERIOD OF RECORD.—November 1963 to current year.

GAGE.—Water-stage recorder. Datum of gage is 6,425.0 ft above NGVD of 1929 (levels by Sacramento Municipal Utility District).

REMARKS.—Tunnel diverts water from Buck Island Lake and discharges into Loon Lake (station 11429350). Buck Island Lake receives water from Rubicon River via Rubicon–Rockbound Tunnel (station 11427940). Gates are closed at the tunnel entrance during the summer to raise the level of Buck Island Lake for recreational purposes. See schematic diagram of Middle Fork American and Rubicon River Basins.

COOPERATION.—Records were collected by Sacramento Municipal Utility District, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2101.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	31	16	26	221	393	317	0.89	0.90	0.00
2	0.00	0.00	0.00	32	17	24	170	470	325	0.95	0.89	0.00
3	0.00	0.00	0.00	32	19	22	151	588	341	7.9	0.89	0.00
4	0.00	0.00	0.00	30	17	20	222	668	348	29	0.89	0.00
5	0.00	0.00	0.00	27	15	19	313	763	310	40	0.88	0.00
6	0.00	0.00	34	24	14	19	374	708	284	42	0.88	0.00
7	0.00	0.00	265	24	15	23	318	533	291	43	0.88	0.00
8	0.00	0.00	165	24	14	37	336	470	254	43	0.87	0.00
9	0.00	0.00	280	28	13	64	375	460	188	40	0.87	0.00
10	0.00	0.00	193	30	12	94	369	429	136	35	0.87	0.00
11	0.00	0.00	83	29	12	117	336	311	120	30	0.40	0.00
12	0.00	0.00	36	26	12	118	340	222	132	25	0.00	0.00
13	0.00	0.00	29	24	12	120	364	205	150	20	0.00	0.00
14	0.00	0.00	37	23	13	127	309	260	176	16	0.00	0.00
15	0.00	0.00	32	22	12	158	242	323	195	14	0.00	0.00
16	0.00	0.00	24	22	41	195	189	359	201	13	0.00	0.00
17	0.00	0.00	20	21	343	203	146	383	200	11	0.00	0.00
18	0.00	0.00	17	21	309	209	113	371	193	9.2	0.00	0.00
19	0.00	0.00	16	20	156	257	90	300	178	7.6	0.00	0.00
20	0.00	0.00	26	20	87	294	87	274	165	6.6	0.00	0.00
21	0.00	0.00	41	19	56	313	115	262	150	5.9	0.00	0.00
22	0.00	0.00	35	18	41	350	119	245	139	4.9	0.00	0.00
23	0.00	0.00	27	17	34	376	112	266	138	4.0	0.00	0.00
24	0.00	0.00	46	17	30	356	145	276	132	3.3	0.00	0.00
25	0.00	0.00	73	17	32	285	226	272	122	2.6	0.00	0.00
26	0.00	0.00	50	16	42	206	337	275	112	2.0	0.00	0.00
27	0.00	0.00	33	16	37	140	443	315	101	1.6	0.00	0.00
28	0.00	0.00	25	17	33	110	540	578	49	1.3	0.00	0.00
29	0.00	0.00	28	16	29	123	503	548	0.74	1.1	0.00	0.00
30	0.00	0.00	29	16	---	182	383	350	0.86	0.93	0.00	0.00
31	0.00	---	25	17	---	231	---	322	---	0.90	0.00	---
TOTAL	0.00	0.00	1669.00	696	1483	4818	7988	12199	5448.60	462.67	9.22	0.00
MEAN	0.00	0.00	53.8	22.5	51.1	155	266	394	182	14.9	0.30	0.00
MAX	0.00	0.00	280	32	343	376	540	763	348	43	0.90	0.00
MIN	0.00	0.00	0.00	16	12	19	87	205	0.74	0.89	0.00	0.00
AC-FT	0.00	0.00	3310	1380	2940	9560	15840	24200	10810	918	18	0.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2004, BY WATER YEAR (WY)

MEAN	18.9	62.6	59.8	66.7	56.4	89.2	201	456	390	126	18.2	11.5
MAX	182	405	264	297	254	239	356	861	994	643	197	116
(WY)	1983	1984	1965	1970	1986	1989	1989	1969	1983	1995	1983	1982
MIN	0.00	0.00	0.00	0.25	5.46	19.1	36.8	145	24.5	0.67	0.00	0.00
(WY)	1964	1964	1977	1991	1991	1977	1967	1977	2001	2001	1964	1964

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1964 - 2004	
ANNUAL TOTAL	42324.67		34773.49			
ANNUAL MEAN	116		95.0		130	
HIGHEST ANNUAL MEAN					245	1982
LOWEST ANNUAL MEAN					39.2	1977
HIGHEST DAILY MEAN	979	May 29	763	May 5	1240	Dec 23 1964
LOWEST DAILY MEAN	0.00	Aug 14	0.00	Oct 1	0.00	Oct 1 1963
ANNUAL SEVEN-DAY MINIMUM	0.00	Aug 14	0.00	Oct 1	0.00	Oct 1 1963
ANNUAL RUNOFF (AC-FT)	83950		68970		94060	
10 PERCENT EXCEEDS	418		322		416	
50 PERCENT EXCEEDS	29		20		34	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

11428400 LITTLE RUBICON RIVER BELOW BUCK ISLAND DAM, NEAR MEEKS BAY, CA

LOCATION.—Lat 39°00'18", long 120°15'19", in SW 1/4 NW 1/4 sec.6, T.13 N., R.16 E., El Dorado County, Hydrologic Unit 18020128, Eldorado National Forest, at outlet structure on Buck Island Diversion Dam, and 7.4 mi southwest of Meeks Bay.

DRAINAGE AREA.—6.00 mi^2.

PERIOD OF RECORD.—October 1990 to current year (low-flow records only). Unpublished records for water years 1964–90 available in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder and V-notch sharp-crested weir. Elevation of gage is 6,420 ft above NGVD of 1929, from topographic map. Aug. 14, 1964, to Oct. 4, 1973, nonrecording gage at site 60 ft downstream at different datum. Nonrecording gage at present site Oct. 4, 1973, to Aug. 26, 1986, at different datum, and Aug. 27, 1986, to Sept. 30, 1990, at same datum.

REMARKS.—No records computed above 2 ft^3/s. Flow regulated by Buck Island Reservoir. Flow over the spillway bypasses this station. Most of the water is diverted at Buck Island Reservoir via Buck–Loon Tunnel (station 11428300) to Loon Lake (station 11429350). Buck Island Lake receives water from Rubicon River via Rubicon–Rockbound Tunnel (station 11427940). See schematic diagram of Middle Fork American and Rubicon River Basins.

COOPERATION.—Records were collected by Sacramento Municipal Utility District, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2101.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	1.2	1.2	1.3	1.3	1.3	1.6	1.3	1.5	1.5	1.3	1.2
2	1.2	1.2	1.2	1.3	1.3	1.3	1.5	1.3	1.5	1.5	1.3	1.2
3	1.3	1.2	1.1	1.3	1.3	1.3	1.5	1.3	1.5	1.5	1.3	1.2
4	1.3	1.2	1.1	1.3	1.3	1.3	1.6	1.4	1.5	1.6	1.3	1.2
5	1.3	1.2	1.2	1.3	1.3	1.3	1.6	1.4	1.5	1.6	1.3	1.2
6	1.3	1.2	1.4	1.4	1.3	1.3	1.7	1.4	1.4	1.4	1.3	1.2
7	1.3	1.2	1.9	1.4	1.3	1.3	1.7	1.3	1.4	1.2	1.3	1.2
8	1.3	1.2	1.6	1.4	1.4	1.3	1.7	1.3	1.4	1.2	1.3	1.2
9	1.3	1.2	1.6	1.3	1.4	1.3	1.7	1.3	1.3	1.2	1.3	1.2
10	1.3	1.2	1.5	1.3	1.3	1.4	1.7	1.3	1.3	1.2	1.3	1.2
11	1.3	1.2	1.4	1.3	1.4	1.4	1.6	1.2	1.3	1.2	1.3	1.2
12	1.3	1.2	1.3	1.3	1.4	1.4	1.6	1.3	1.3	1.2	1.3	1.2
13	1.3	1.2	1.3	1.3	1.4	1.4	1.7	1.4	1.3	1.2	1.3	1.2
14	1.3	1.2	1.3	1.3	1.4	1.4	1.6	1.4	1.3	1.2	1.3	1.2
15	1.2	1.2	1.3	1.3	1.4	1.4	1.6	1.5	1.4	1.2	1.3	1.2
16	1.2	1.2	1.3	1.3	1.4	1.5	1.5	1.5	1.4	1.2	1.3	1.2
17	1.2	1.2	1.3	1.3	1.6	1.5	1.5	1.5	1.4	1.2	1.3	1.2
18	1.2	1.2	1.3	1.3	1.6	1.5	1.5	1.5	1.4	1.2	1.3	1.2
19	1.1	1.2	1.3	1.3	1.4	1.5	1.5	1.4	1.3	1.1	1.3	1.2
20	1.1	1.2	1.3	1.3	1.4	1.6	1.5	1.4	1.3	1.1	1.3	1.2
21	1.2	1.2	1.3	1.3	1.3	1.5	1.5	1.4	1.3	1.1	1.3	1.2
22	1.3	1.2	1.3	1.3	1.3	1.5	1.5	1.4	1.3	1.1	1.3	1.3
23	1.3	1.2	1.3	1.3	1.3	1.5	1.5	1.4	1.3	1.1	1.3	1.3
24	1.2	1.2	1.3	1.3	1.3	1.6	1.5	1.4	1.3	1.1	1.3	1.3
25	1.2	1.2	1.4	1.3	1.3	1.6	1.5	1.4	1.3	1.1	1.3	1.3
26	1.2	1.2	1.3	1.3	1.3	1.5	1.6	1.4	1.3	1.1	1.3	1.3
27	1.2	1.2	1.3	1.3	1.3	1.4	1.7	1.5	1.3	1.1	1.3	1.3
28	1.1	1.2	1.3	1.3	1.3	1.4	1.5	1.6	1.3	1.1	1.2	1.3
29	1.2	1.2	1.4	1.3	1.3	1.4	1.3	1.6	1.4	1.2	1.2	1.2
30	1.2	1.2	1.4	1.3	---	1.5	1.3	1.5	1.5	1.3	1.2	1.2
31	1.2	---	1.3	1.3	---	1.6	---	1.5	---	1.3	1.2	---
TOTAL	38.3	36.0	41.5	40.6	39.3	44.2	46.8	43.5	41.0	38.3	39.9	36.7
MEAN	1.24	1.20	1.34	1.31	1.36	1.43	1.56	1.40	1.37	1.24	1.29	1.22
MAX	1.3	1.2	1.9	1.4	1.6	1.6	1.7	1.6	1.5	1.6	1.3	1.3
MIN	1.1	1.2	1.1	1.3	1.3	1.3	1.3	1.2	1.3	1.1	1.2	1.2
AC-FT	76	71	82	81	78	88	93	86	81	76	79	73

11428700 HELL HOLE RESERVOIR NEAR MEEKS BAY, CA

LOCATION.—Lat 39°03'54", long 120°24'50", in SE 1/4 NW 1/4 sec.16, T.14 N., R.14 E., Placer County, Hydrologic Unit 18020128, Eldorado National Forest, on right bank, 0.3 mi upstream from Hell Hole Dam, on Rubicon River, and 15.6 mi west of Meeks Bay.

DRAINAGE AREA.—114 mi^2.

PERIOD OF RECORD.—December 1965 to current year.

GAGE.—Water-stage recorder. Datum of gage is NGVD of 1929 (levels by Placer County Water Agency).

REMARKS.—Reservoir is formed by rockfill dam with earth core. Storage began Dec. 6, 1965. Usable capacity, 207,342 acre-ft, between elevations 4,287.65 ft, invert of river outlet, and 4,630.0 ft, crest of ogee spillway. Dead storage, 248 acre-ft. Reservoir is used to store water for hydroelectric power. Water is diverted into reservoir from French Meadows Reservoir (station 11427400) on the Middle Fork American River through French Meadows Powerplant (station 11427200). Water is diverted out of reservoir to the Middle Fork American River through Middle Fork Powerplant. Records, including extremes, represent contents at 2400 hours. See schematic diagram of Middle Fork American and Rubicon River Basins.

COOPERATION.—Records provided by Placer County Water Agency, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2079.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 217,400 acre-ft, Jan. 2, 1997, elevation, 4,637.7 ft; minimum since reservoir first filled, 37,499 acre-ft, Mar. 23, 1973, elevation, 4,428.28 ft.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 190,090 acre-ft, May 11, elevation, 4,616.4 ft; minimum, 117,400 acre-ft, Sept. 30, elevation, 4,543.7 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey by Placer County Water Agency in 1966)

4,340	5,220	4,400	24,200	4,500	83,000	4,600	171,900
4,360	9,840	4,450	49,600	4,550	122,700	4,650	233,400
4,380	16,200						

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	132900	134100	127300	128300	125500	123500	153500	183700	189600	180300	158300	136700
2	131800	133800	127200	128300	125700	123700	154600	184900	189500	179400	158000	136100
3	130700	133600	127200	128000	125600	123700	155300	185900	189500	178900	157300	135300
4	129800	133200	127300	127800	125500	123600	156600	187100	189600	178400	156500	134500
5	130200	132900	127200	127600	125300	123300	158300	187900	189700	177700	155700	133800
6	130600	132700	128300	127800	125100	123200	159900	189100	189700	177000	154900	133100
7	131100	132600	129200	127700	125000	123400	161400	189600	189500	176200	154100	131900
8	131600	132600	129300	127500	124600	123800	162800	190300	189600	175600	153400	131100
9	132100	132600	128700	127500	124300	124500	164300	190700	189300	175000	152500	130900
10	132500	132400	128400	127500	123900	125400	166000	190800	188900	174500	151700	130400
11	132900	132300	128000	127400	123700	126300	166900	190900	188100	173600	151000	129800
12	133200	132000	127900	127800	123600	126900	168200	190800	187600	172800	150400	129100
13	133700	131900	128200	127700	123100	127900	169400	190600	187000	172100	149600	128500
14	134200	131700	128400	127400	122700	129100	170600	190700	186600	171300	149100	127900
15	134200	131300	128300	127200	122000	130500	171500	190800	186300	170600	148900	127200
16	134700	131200	128200	127200	122700	131800	172200	190800	185900	170000	148100	126400
17	135100	131100	128000	127000	124000	132000	172800	190700	185500	169200	147200	125500
18	135300	130800	127900	126900	125100	134300	173100	190400	185000	168200	146500	125000
19	135700	130400	127800	126500	125600	135900	173300	190100	184600	167500	145800	124400
20	136000	130200	128100	126300	125600	137600	173700	189700	184300	166700	145000	123500
21	136400	129900	128300	126100	125400	139400	174100	189400	183900	166000	144500	123000
22	136600	129600	128300	125900	125000	141200	174500	189700	183600	165400	144000	122100
23	136700	129300	128300	125600	125000	143200	174900	190100	183100	164700	143400	121600
24	136800	129100	129000	125600	124800	144700	175600	189700	183100	163900	142500	121000
25	136800	128700	129100	125500	125000	146000	176300	189900	182800	163300	141900	120500
26	136800	128300	128900	125500	125000	147000	178100	189900	182500	162500	141000	120000
27	136000	128100	128600	125500	125000	147700	179900	189700	181900	161700	140300	119500
28	135600	128100	128600	125500	124600	148300	181100	189900	181400	161100	139700	118800
29	135300	128000	128700	125600	124000	149500	182100	190100	181000	160300	139100	118200
30	134900	127500	128700	125600	---	151800	182900	190000	180800	159600	138200	117400
31	134500	---	128300	125600	---	152500	---	189700	---	159300	137500	---
MAX	136800	134100	129300	128300	125700	152500	182900	190900	189700	180300	158300	136700
MIN	129800	127500	127200	125500	122000	123200	153500	183700	180800	159300	137500	117400
a	4563.4	4555.5	4556.5	4553.3	4551.5	4582.0	4609.6	4615.4	4607.8	4588.5	4566.6	4543.7
b	+500	-7000	+800	-2700	-1600	+28500	+30400	+6800	-8900	-21500	-21800	-20100

CAL YR 2003 b +5100
WTR YR 2004 b -16600

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

11428800 RUBICON RIVER BELOW HELL HOLE DAM, NEAR MEEKS BAY, CA

LOCATION.—Lat 39°03'24", long 120°24'25", in NE 1/4 NE 1/4 sec.21, T.14 N., R.14 E., Placer County, Hydrologic Unit 18020128, Eldorado National Forest, on right bank, 600 ft downstream from outlet of dam, and 15.3 mi west of Meeks Bay.

DRAINAGE AREA.—114 mi^2.

PERIOD OF RECORD.—November 1965 to current year.

GAGE.—Water-stage recorder and V-notch sharp-crested weir. Datum of gage is 4,231.52 ft above NGVD of 1929 (levels by Placer County Water Agency).

REMARKS.—Flow completely regulated by Hell Hole Reservoir (station 11428700) 600 ft upstream from station. During years when Hell Hole Dam spills, records include flow which bypasses the station. Transbasin diversions upstream from station through Buck–Loon Tunnel (station 11428300) to Loon Lake Reservoir (station 11429350); from Middle Fork American River Basin through tunnel from French Meadows Reservoir (station 11427400) to Hell Hole Reservoir; from Hell Hole Reservoir through tunnel to Middle Fork Powerplant (station 11428600). Diversion began Sept. 8, 1966. See schematic diagram of Middle Fork American and Rubicon River Basins.

COOPERATION.—Records provided by Placer County Water Agency, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2079.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 28,800 ft^3/s, Jan. 2, 1997, including flow over spillway; no flow Aug. 25 to Sept. 11, 1966.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	21	21	11	11	16	11	11	21	21	21	21
2	21	22	21	11	11	14	11	11	21	21	21	21
3	21	22	21	11	11	13	11	12	21	21	22	21
4	21	22	21	11	11	12	11	12	21	21	21	21
5	21	22	21	11	12	11	12	11	21	21	21	21
6	21	22	23	11	11	11	12	11	21	21	21	21
7	21	22	23	12	11	11	12	11	21	21	21	22
8	21	22	21	12	11	12	12	11	21	21	21	22
9	21	22	27	12	11	11	12	13	21	21	21	22
10	21	22	26	12	12	12	11	16	21	21	21	22
11	21	22	22	12	11	12	11	16	21	21	21	22
12	21	22	21	12	11	12	12	16	21	21	21	22
13	21	21	24	12	11	12	11	19	21	21	21	22
14	21	21	24	12	11	12	12	22	21	21	21	22
15	31	21	19	12	11	13	12	22	21	21	21	22
16	48	21	12	11	16	13	12	22	21	21	21	21
17	54	21	11	11	14	12	12	22	21	21	21	21
18	58	21	11	11	16	12	12	21	21	21	21	21
19	58	21	11	11	13	11	12	21	21	21	21	21
20	58	21	12	12	11	11	12	21	21	21	21	21
21	58	22	12	12	11	12	12	21	21	21	21	21
22	58	22	12	12	11	12	12	21	21	21	21	21
23	58	21	11	11	11	12	12	21	21	21	21	21
24	33	21	16	11	11	11	12	21	21	21	21	21
25	23	21	13	11	15	10	12	21	21	21	21	21
26	22	21	12	11	13	11	12	21	21	21	21	21
27	22	21	11	11	11	12	12	21	21	21	21	21
28	21	21	11	11	11	12	12	21	21	21	21	21
29	21	21	11	11	15	13	11	21	21	21	21	21
30	21	21	11	11	---	12	11	21	21	21	21	24
31	21	---	11	11	---	11	---	21	---	21	21	---
TOTAL	959	643	523	353	346	371	351	552	630	651	652	642
MEAN	30.9	21.4	16.9	11.4	11.9	12.0	11.7	17.8	21.0	21.0	21.0	21.4
MAX	58	22	27	12	16	16	12	22	21	21	22	24
MIN	21	21	11	11	11	10	11	11	21	21	21	21
AC-FT	1900	1280	1040	700	686	736	696	1090	1250	1290	1290	1270
a	11400	17590	20770	23830	21090	21280	15130	27720	23940	30380	32120	29340

a Diversion, in acre-feet, from Hell Hole Reservoir through Middle Fork Powerplant (station 11428600), provided by Placer County Water Agency.

11428800 RUBICON RIVER BELOW HELL HOLE DAM, NEAR MEEKS BAY, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	20.0	18.3	24.0	56.7	20.9	29.0	20.9	62.0	102	43.0	16.2	17.9
MAX	42.3	34.9	318	1615	172	478	129	1053	1007	303	23.6	37.0
(WY)	2002	2002	1982	1997	1982	1986	1982	1996	1995	1983	1995	2002
MIN	7.14	7.51	7.57	6.24	6.34	6.33	7.78	7.92	7.74	6.93	6.50	6.43
(WY)	1974	1977	1989	1977	1977	1977	1977	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1966 - 2004	
ANNUAL TOTAL	9369		6673			
ANNUAL MEAN	25.7		18.2		36.5	
HIGHEST ANNUAL MEAN					158	1997
LOWEST ANNUAL MEAN					7.11	1977
HIGHEST DAILY MEAN	765	Jun 7	58	Oct 18	17100	Jan 2 1997
LOWEST DAILY MEAN	11	Jan 20	10	Mar 25	0.00	Aug 25 1966
ANNUAL SEVEN-DAY MINIMUM	11	Feb 22	11	Dec 27	0.00	Aug 25 1966
MAXIMUM PEAK FLOW			59	Oct 23	a28800	Jan 2 1997
MAXIMUM PEAK STAGE			4.58	Oct 23		
ANNUAL RUNOFF (AC-FT)	18580		13240		26430	
TOTAL DIVERSION (AC-FT) b	327200		274600			
10 PERCENT EXCEEDS	22		22		27	
50 PERCENT EXCEEDS	21		21		19	
90 PERCENT EXCEEDS	11		11		9.3	

a Including flow over spillway.
b Diversion, in acre-feet, from Hell Hole Reservoir through Middle Fork Powerplant (station 11428600), provided by Placer County Water Agency.

11429350 LOON LAKE NEAR MEEKS BAY, CA

LOCATION.—Lat 38°58'59", long 120°19'22", in SE 1/4 SW 1/4 sec.8, T.13 N., R.15 E., El Dorado County, Hydrologic Unit 18020128, Eldorado National Forest, in powerplant intake structure, 1.6 mi southwest of right bank end of Loon Lake Dam on Gerle Creek, and 10 mi southwest of Meeks Bay.

DRAINAGE AREA.—7.96 mi^2.

PERIOD OF RECORD.—December 1963 to current year.
CHEMICAL ANALYSES: Water year 1996.

REVISED RECORDS.—WDR CA-76-4: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is NGVD of 1929 (levels by Sacramento Municipal Utility District). Prior to Sept. 23, 1975, at site 1.6 mi northeast on right bank end of Loon Lake Dam at same datum.

REMARKS.—Reservoir is formed by an earthfill dam completed Dec. 27, 1963, storage began Dec. 5, 1963. Prior to September 1962, reservoir was formed by granite-block dam built in 1884, capacity, 8,000 acre-ft. Usable capacity, 73,868 acre-ft, between elevations 6,325 ft, invert of fishwater release valve, and 6,410 ft, crest of spillway. Dead storage, 2,300 acre-ft. Lake receives water from Rubicon River via Rubicon–Rockbound Tunnel to Buck Island Lake and from Buck Island Lake to Loon Lake via Buck–Loon Tunnel (stations 11427940 and 11428300). Records, including extremes, represent total contents. See schematic diagram of Middle Fork American and Rubicon River Basins.

COOPERATION.—Records were collected by Sacramento Municipal Utility District, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2101. Contents not rounded to U.S. Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 77,700 acre-ft, June 6, 1969, elevation, 6,411.1 ft; minimum since reservoir first filled, 3,262 acre-ft, Nov. 8, 9, 1988, elevation, 6,328.70 ft.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 68,600 acre-ft, June 7, elevation, 6,409.48 ft; minimum, 28,800 acre-ft, Dec. 4, 5, minimum elevation, 6,375.29 ft, Dec. 5.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Table provided by Sacramento Municipal Utility District based on June, 2000, survey)

6,330	2,359	6,350	9,835	6,370	24,156	6,412	72,109
6,340	4,809	6,360	16,291	6,390	44,030		

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38400	32400	29000	32200	29500	34000	39800	53100	67600	67100	57400	45300
2	38400	32200	29000	32400	29600	34000	39300	53400	67700	66900	57000	44700
3	38300	32200	28900	32400	29700	34100	38800	53700	67800	66800	56500	44200
4	38300	31600	28800	32000	29700	34100	39400	55100	68000	66800	56100	43800
5	38200	31000	28800	31200	29600	34100	39500	56800	68300	66800	55700	43800
6	37600	30900	29200	31000	29600	34200	40300	58100	68400	66600	55300	43400
7	37100	30800	29900	31000	29700	34200	41200	58700	68600	66300	54800	43100
8	36900	30800	30100	31000	29700	34400	41200	59400	68100	66000	54700	43000
9	36800	30800	30700	30400	29700	34400	42200	60100	67700	65800	54600	42900
10	36700	30700	31300	30500	29700	34400	43000	60700	67400	65500	54200	42800
11	36700	30400	31500	30500	29700	34700	43800	61100	67000	65500	53800	42800
12	36600	30300	31600	30500	29600	34700	44700	60800	66700	65200	53300	42700
13	36600	30200	31700	30600	29700	34800	45500	60500	66900	64800	52900	42700
14	36100	30200	32000	30400	29700	35000	46300	60700	66700	64400	52700	42700
15	36000	30100	31500	30400	29700	35100	46900	61300	66800	64100	52600	42600
16	35800	30000	31200	30400	30100	35700	47100	61900	67100	63700	51900	42400
17	35300	30000	30500	30400	31100	36200	47300	62600	67500	63300	51300	42100
18	35300	30000	30500	30500	31900	36600	47400	63300	67700	62800	50900	42100
19	35200	30000	30500	30200	32300	37200	47600	63800	68000	62400	50500	42100
20	35200	29900	30600	29800	32500	37900	47900	64400	68300	61900	50100	42100
21	34500	29700	30800	29600	32600	38800	48100	64900	68400	61300	49600	42000
22	34400	29600	30900	29600	32800	39700	48300	65400	68300	61000	49600	41900
23	34400	29500	31000	29600	32800	40600	48200	65900	68200	60500	49100	41900
24	34300	29200	31400	29700	33000	41300	48600	66500	68000	60200	48700	41800
25	34200	29200	31700	29700	33300	41900	49100	67000	67800	60100	48300	41700
26	34000	29100	31800	29600	33600	41700	49400	67000	67900	59600	47900	41700
27	33600	29100	31900	29700	33700	41300	50000	67000	68000	59200	47300	41600
28	33300	29100	31900	29500	33800	40800	51300	67800	67700	58800	46500	41500
29	33200	29000	31700	29500	33800	40300	52100	67800	67200	58400	46500	41400
30	33100	29000	31800	29500	---	39800	52400	67700	67200	57800	46000	41400
31	32800	---	31900	29500	---	39900	---	67400	---	57400	45600	---
MAX	38400	32400	32000	32400	33800	41900	52400	67800	68600	67100	57400	45300
MIN	32800	29000	28800	29500	29500	34000	38800	53100	66700	57400	45600	41400
a	6379.36	6375.46	6378.45	6376.06	6380.44	6386.27	6397.11	6408.68	6408.50	6401.15	6391.37	6387.63
b	-5700	-3800	+2900	-2400	+4300	+6100	+12500	+15000	-200	-9800	-11800	-4200

CAL YR 2003 MAX 66900 MIN 15100 b +5000
WTR YR 2004 MAX 68600 MIN 28800 b +2900

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

11429500 GERLE CREEK BELOW LOON LAKE DAM, NEAR MEEKS BAY, CA

LOCATION.—Lat 39°00'20", long 120°18'52", in NE 1/4 NE 1/4 sec.5, T.13 N., R.15 E., El Dorado County, Hydrologic Unit 18020128, Eldorado National Forest, on right bank, 0.3 mi downstream from Loon Lake Dam, and 11 mi southwest of Meeks Bay.

DRAINAGE AREA.—8.01 mi^2.

PERIOD OF RECORD.—July 1910 to April 1914 (fragmentary), August 1962 to current year. Prior to August 1962, published as "near Rubicon Springs."

GAGE.—Water-stage recorder and V-notch sharp-crested weir. Elevation of gage is 6,250 ft above NGVD of 1929, from topographic map. Prior to August 1962, nonrecording gage at site 1,400 ft upstream at different datum.

REMARKS.—Beginning in 1884, flow regulated by Loon Lake (station 11429350). Original dam was dismantled during September and October 1962 to permit construction of a new earthfill dam, which was completed Dec. 27, 1963. Loon Lake receives water from Rubicon River via Buck–Loon Tunnel (station 11428300). Since August 1971, most of the water is diverted past the station via Loon Lake Powerplant (station 11429340) and returns to Gerle Creek at Gerle Creek Dam. See schematic diagram of Middle Fork American and Rubicon River Basins.

COOPERATION.—Records were collected by Sacramento Municipal Utility District, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2101.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 3,240 ft^3/s, unregulated, Feb. 1, 1963, gage height, 12.65 ft, from rating curve extended above 970 ft^3/s, on basis of slope-area measurement of peak flow; no flow Oct. 15, 1913. Maximum discharge since construction of Loon Lake Dam in 1963, 1,050 ft^3/s, June 5, 1969, gage height, 9.03 ft; minimum daily, 3.6 ft^3/s, Sept. 27, 28, Nov. 3, 1977.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	11	9.7	10	9.8	10	11	12	10	10	9.5	9.5
2	11	11	9.6	10	9.8	10	11	12	10	10	9.5	9.5
3	11	11	9.5	9.9	9.8	10	11	12	10	10	9.5	9.5
4	11	11	9.5	10	9.8	10	12	12	10	10	9.5	9.5
5	11	11	9.9	9.9	9.8	10	12	12	10	10	9.5	9.5
6	11	10	14	9.8	9.8	10	12	12	11	10	9.5	9.5
7	11	9.9	11	9.8	9.8	10	12	11	11	10	9.5	9.5
8	11	9.6	9.6	10	9.8	11	12	11	11	10	9.5	9.5
9	11	10	9.5	10	9.8	11	12	11	11	10	9.5	9.5
10	11	9.8	9.5	9.9	9.8	11	12	11	10	10	9.5	9.5
11	11	9.6	9.5	9.8	10	11	12	11	10	10	9.5	9.5
12	11	9.8	9.6	9.8	10	11	12	11	10	11	9.5	9.5
13	11	9.7	9.8	9.8	10	11	12	10	10	10	9.5	9.5
14	11	9.7	9.8	9.8	10	11	12	10	10	10	9.5	9.5
15	11	9.9	9.8	9.8	10	11	12	10	10	10	9.5	9.5
16	11	9.8	9.8	9.8	14	12	11	10	10	10	9.5	9.5
17	11	10	9.8	9.8	11	11	11	10	10	9.8	9.4	9.5
18	11	9.5	9.5	10	10	12	11	10	10	9.8	9.2	9.5
19	11	9.5	9.5	10	10	12	11	10	10	10	9.2	9.5
20	11	9.5	10	10	10	12	12	10	10	9.8	9.2	9.5
21	11	9.5	9.9	10	10	12	12	10	10	9.8	9.2	10
22	11	9.5	9.8	10	10	12	12	10	10	9.8	9.2	9.3
23	11	9.5	9.8	10	10	12	12	10	10	9.8	9.2	9.5
24	11	9.4	11	10	10	12	12	10	10	9.6	9.3	9.5
25	11	9.2	10	10	10	11	12	10	10	9.5	9.5	9.5
26	11	9.2	10	10	10	11	12	10	10	9.5	9.5	9.5
27	11	9.2	9.8	10	10	11	12	10	10	9.5	9.5	9.5
28	11	9.3	9.8	10	10	11	12	11	10	9.5	9.5	9.5
29	11	9.5	9.8	10	10	11	12	11	10	9.5	9.5	9.7
30	11	9.5	9.8	9.8	---	11	12	10	10	9.5	9.5	9.8
31	11	---	9.8	9.8	---	11	---	10	---	9.5	9.5	---
TOTAL	340	295.1	308.4	307.5	293.0	342	353	330	304	305.9	292.4	285.8
MEAN	11.0	9.84	9.95	9.92	10.1	11.0	11.8	10.6	10.1	9.87	9.43	9.53
MAX	11	11	14	10	14	12	12	12	11	11	9.5	10
MIN	10	9.2	9.5	9.8	9.8	10	11	10	10	9.5	9.2	9.3
AC-FT	674	585	612	610	581	678	700	655	603	607	580	567
a	4720	3340	2900	4430	433	7120	7580	10810	10140	9560	10680	3080

a Diversion, in acre-feet, to Loon Lake Powerplant (station 11429340), provided by Sacramento Municipal Utility District.

11429500 GERLE CREEK BELOW LOON LAKE DAM, NEAR MEEKS BAY, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1970, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	112	132	165	74.7	103	192	133	63.0	390	341	232	115
MAX	190	356	343	134	261	347	244	209	721	493	351	338
(WY)	1970	1966	1966	1968	1970	1970	1967	1969	1969	1967	1969	1967
MIN	7.53	7.93	8.95	8.41	9.13	9.57	8.75	10.5	185	196	50.8	8.20
(WY)	1965	1968	1969	1965	1968	1968	1965	1968	1966	1965	1965	1970

SUMMARY STATISTICS	WATER YEARS 1965 - 1970		
ANNUAL MEAN	171		
HIGHEST ANNUAL MEAN	217		1970
LOWEST ANNUAL MEAN	127		1965
HIGHEST DAILY MEAN	1030	Jun 5	1969
LOWEST DAILY MEAN	6.0	Dec 2	1969
ANNUAL SEVEN-DAY MINIMUM	6.4	Dec 10	1969
MAXIMUM PEAK FLOW	1050	Jun 5	1969
MAXIMUM PEAK STAGE	9.03	Jun 5	1969
ANNUAL RUNOFF (AC-FT)	124100		
10 PERCENT EXCEEDS	394		
50 PERCENT EXCEEDS	28		
90 PERCENT EXCEEDS	8.1		

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 2004, BY WATER YEAR (WY)

MEAN	9.17	9.03	9.56	9.40	9.31	9.46	9.54	11.0	9.32	9.32	8.88	8.89
MAX	13.3	11.8	23.9	13.0	12.8	11.6	13.6	48.7	13.6	15.7	12.0	12.0
(WY)	1993	2000	1984	1997	1996	1996	2000	1996	1999	1995	1999	1998
MIN	3.93	4.00	4.45	4.61	5.12	4.67	4.27	4.64	4.13	4.30	4.09	3.99
(WY)	1978	1978	1978	1978	1978	1977	1977	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1972 - 2004	
ANNUAL TOTAL	3900.3		3757.1			
ANNUAL MEAN	10.7		10.3		9.41	
HIGHEST ANNUAL MEAN					13.5	1996
LOWEST ANNUAL MEAN					6.06	1977
HIGHEST DAILY MEAN	44	Jul 11	14	Dec 6	403	May 17 1996
LOWEST DAILY MEAN	9.2	Jan 1	9.2	Nov 25	3.6	Sep 27 1977
ANNUAL SEVEN-DAY MINIMUM	9.2	Sep 23	9.2	Aug 18	3.7	Sep 23 1977
MAXIMUM PEAK FLOW			68	Sep 21	510	May 18 1996
MAXIMUM PEAK STAGE			3.12	Sep 21	6.65	May 18 1996
ANNUAL RUNOFF (AC-FT)	7740		7450		6820	
ANNUAL DIVERSION (AC-FT) a	88960		74780			
10 PERCENT EXCEEDS	12		12		11	
50 PERCENT EXCEEDS	10		10		8.9	
90 PERCENT EXCEEDS	9.5		9.5		8.0	

a Diversion, in acre-feet, to Loon Lake Powerplant (station 11429340), provided by Sacramento Municipal Utility District.

11429600 GERLE RESERVOIR NEAR MEEKS BAY, CA

LOCATION.—Lat 38°57'59", long 120°23'33", in SE 1/4 SW 1/4 sec.15, T.13 N., R.14 E., El Dorado County, Hydrologic Unit 18020128, Eldorado National Forest, on left-bank side of upstream face of dam on Gerle Creek, 0.2 mi downstream from Angel Creek, and 15.2 mi southwest of Meeks Bay.

DRAINAGE AREA.—28.7 mi^2.

PERIOD OF RECORD.—October 1993 to current year. Unpublished records for water years 1980–93 available in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder. Datum of gage is NGVD of 1929 (levels by Sacramento Municipal Utility District). Prior to June 9, 1988, nonrecording gage at same site and datum.

REMARKS.—Reservoir is formed by concrete dam completed in 1962. Storage began in 1962. Usable capacity, 1,200 acre-ft, below elevation, 5,230.9 ft, crest of spillway. Most of the water is diverted at this reservoir to Robbs Peak Powerplant (station 11429300). Records, including extremes, represent total contents at 2400 hours. See schematic diagram of Middle Fork American and Rubicon River Basins.

COOPERATION.—Records were collected by Sacramento Municipal Utility District, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2101.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 1,469 acre-ft, Jan. 1, 1997, elevation, 5,235.39 ft; minimum, 809 acre-ft, Nov. 12, 2001, elevation, 5,221.23 ft.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 1,170 acre-ft, May 29, June 8, 14, 15, July 21, maximum elevation, 5,229.52 ft, June 8; minimum, 855 acre-ft, Dec. 30, elevation, 5,222.38 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on table provided by Sacramento Municipal Utility District, recomputed October 1991)

5,200	203	5,210	431	5,220	761	5,230	1,193
5,205	304	5,215	583	5,225	964	5,235	1,448

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1050	1010	891	911	888	890	1050	953	1010	1130	1090	1080
2	1010	937	922	950	887	864	1100	1150	1130	1090	1090	1120
3	973	879	966	899	887	864	1140	1120	1120	1110	1130	1120
4	968	1110	892	1030	966	868	967	923	1130	1120	1080	1070
5	965	935	943	1110	895	867	1120	913	1150	1080	1050	1050
6	983	906	959	982	970	873	960	927	1140	1080	1080	1040
7	970	905	873	966	913	896	960	1100	1160	1080	1110	1070
8	897	959	911	907	967	936	1090	977	1170	1080	1100	1080
9	915	922	952	967	890	966	959	936	1150	1080	1100	1100
10	929	963	907	896	928	999	966	967	1080	1100	1110	1120
11	950	954	947	914	893	975	946	986	1070	1060	1100	1110
12	961	912	877	879	922	1010	949	1030	1080	1090	1140	1110
13	962	952	955	902	891	1060	938	1030	1120	1120	1090	1110
14	1000	947	881	947	900	1050	926	922	1170	1110	1110	1100
15	884	927	985	895	973	1070	916	885	1170	1120	1120	1120
16	886	914	1040	897	983	998	958	974	1030	1120	1160	1100
17	935	925	985	910	948	997	921	897	1060	1090	1110	1100
18	952	941	906	926	925	1010	1000	947	1110	1070	1130	1100
19	953	955	921	957	903	992	911	885	1110	1100	1080	1090
20	981	963	908	987	896	1010	942	923	1130	1080	1110	1090
21	1020	952	899	896	892	1010	1000	927	1060	1170	1120	1090
22	962	898	890	907	891	1010	948	924	1140	1130	1100	1110
23	928	942	899	909	901	1010	985	927	1120	1090	1100	1120
24	922	936	950	896	890	1060	931	916	1150	1140	1080	1140
25	940	935	893	941	930	1000	996	892	1100	1120	1100	1090
26	952	957	885	889	910	1060	1120	1030	1130	1160	1100	1090
27	959	962	946	932	895	1060	1060	1050	1160	1140	1100	1120
28	902	914	861	960	892	1090	945	959	1120	1090	1100	1090
29	920	941	1030	891	889	1130	972	1170	1100	1100	1090	1070
30	947	963	855	911	---	1130	1040	1130	1110	1090	1070	967
31	913	---	872	941	---	1070	---	1100	---	1110	1080	---
MAX	1050	1110	1040	1110	983	1130	1140	1170	1170	1170	1160	1140
MIN	884	879	855	879	887	864	911	885	1010	1060	1050	967
a	5223.81	5224.97	5222.80	5224.47	5223.21	5227.31	5226.73	5227.93	5228.34	5228.33	5227.66	5225.09
b	-147	+50	-91	+69	-52	+181	-30	+60	+10	0	-30	-113

CAL YR 2003 MAX 1230 MIN 855 b -50
WTR YR 2004 MAX 1170 MIN 855 b -93

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

11430000 SOUTH FORK RUBICON RIVER BELOW GERLE CREEK, NEAR GEORGETOWN, CA

LOCATION.—Lat 38°57'17", long 120°24'02", in SW 1/4 SW 1/4 sec.22, T.13 N., R.14 E., El Dorado County, Hydrologic Unit 18020128, Eldorado National Forest, on left bank, 600 ft downstream from Gerle Creek, 1.2 mi downstream from South Fork Rubicon River Diversion Dam, and 18 mi east of Georgetown.

DRAINAGE AREA.—47.6 mi^2.

PERIOD OF RECORD.—February 1910 to June 1914 (published as "Little South Fork Rubicon River below Gerle Creek, near Quintette"), August 1961 to current year.

REVISED RECORDS.—WSP 1931: Drainage area.

GAGE.—Water-stage recorder. Elevation of gage is 4,970 ft above NGVD of 1929, from topographic map. Feb. 1, 1910, to June 21, 1914, nonrecording gage at site about 700 ft downstream at different datum.

REMARKS.—Beginning in 1884, flow regulated by Loon Lake (station 11429350). Original dam was dismantled during September and October 1962 to permit construction of a new earthfill dam completed Dec. 27, 1963. Loon Lake receives water from Rubicon River via Rubicon–Rockbound Tunnel (station 11427940) to Buck Island Lake and from Buck Island Lake to Loon Lake via Buck–Loon Tunnel (station 11428300). Prior to Dec. 3, 1961, water was diverted out of the basin in Georgetown Divide Ditch. Water is diverted 1.2 mi upstream at South Fork Rubicon River Diversion Dam to Robbs Peak Powerplant (station 11429300). Diversion of up to 1,440 ft^3/s to Silver Creek Basin began in October 1962. See schematic diagram of Middle Fork American and Rubicon River Basins.

COOPERATION.—Records were collected by Sacramento Municipal Utility District, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2101.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 12,600 ft^3/s, Jan. 1, 1997, gage height, 12.65 ft, from rating curve extended above 2,500 ft^3/s, on basis of slope-area measurement of peak flow; minimum, 0.8 ft^3/s, Sept. 21, 1962.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	11	7.1	8.5	6.7	9.4	11	11	11	11	10	11
2	15	11	6.7	8.1	7.0	9.2	11	11	11	12	10	11
3	14	11	6.1	7.8	6.9	8.8	12	11	13	11	11	11
4	13	11	5.9	7.6	6.6	8.7	13	11	13	11	10	11
5	11	11	6.1	7.8	6.8	8.7	10	10	12	11	10	11
6	14	8.2	10	7.5	6.7	9.2	10	10	12	11	11	11
7	11	8.4	12	7.7	6.8	9.8	9.2	10	12	11	11	11
8	11	6.8	7.4	8.2	6.6	11	9.5	11	12	11	11	11
9	11	8.2	6.9	8.6	6.8	11	9.4	10	12	11	11	11
10	11	7.0	7.5	8.2	6.4	13	8.5	10	12	11	11	11
11	11	7.1	7.1	7.2	6.6	13	8.2	11	12	11	13	11
12	11	6.8	7.0	7.0	6.4	12	7.7	11	12	11	11	11
13	11	6.6	9.8	6.8	6.6	12	6.9	11	12	11	11	11
14	11	7.2	10	6.9	6.4	12	6.6	11	12	11	11	11
15	11	7.7	8.3	6.9	6.5	14	6.5	10	12	11	11	11
16	11	6.9	7.7	6.9	18	14	6.4	10	12	11	11	11
17	11	6.9	7.8	6.7	15	13	6.4	10	12	11	11	11
18	11	6.9	7.1	7.0	21	14	6.2	11	12	11	11	11
19	11	6.9	6.8	6.9	13	14	6.5	11	12	11	11	11
20	11	6.9	8.6	7.0	11	14	7.9	11	12	11	11	11
21	12	7.0	8.9	7.0	10	14	8.0	11	13	11	11	11
22	11	6.7	7.8	6.7	9.8	15	7.7	11	12	11	11	11
23	11	6.6	7.8	6.7	9.4	14	6.8	11	13	10	11	11
24	11	6.7	23	6.7	9.6	13	7.7	11	12	10	11	11
25	11	6.6	13	6.7	17	13	6.3	11	12	11	11	12
26	11	6.6	10	6.7	15	13	6.2	11	12	11	11	11
27	11	6.8	8.9	7.2	11	12	6.6	11	12	11	11	11
28	11	6.9	8.4	7.1	10	12	6.3	11	12	11	11	11
29	11	6.6	9.1	7.0	9.7	13	5.9	11	12	11	11	11
30	11	6.6	8.5	6.9	---	13	8.1	11	12	11	11	14
31	11	---	7.9	6.8	---	11	---	11	---	11	11	---
TOTAL	358	230.6	269.2	224.8	279.3	373.8	242.5	333	362	340	339	334
MEAN	11.5	7.69	8.68	7.25	9.63	12.1	8.08	10.7	12.1	11.0	10.9	11.1
MAX	15	11	23	8.6	21	15	13	11	13	12	13	14
MIN	11	6.6	5.9	6.7	6.4	8.7	5.9	10	11	10	10	11
AC-FT	710	457	534	446	554	741	481	661	718	674	672	662
a	5030	4010	7040	8030	7470	28340	26490	19890	11940	10110	11080	3060

a Diversion, in acre-feet, to Robbs Peak Powerplant (station 11429300), provided by Sacramento Municipal Utility District.

11430000 SOUTH FORK RUBICON RIVER BELOW GERLE CREEK, NEAR GEORGETOWN, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	10.8	18.0	33.6	54.3	33.6	19.4	12.8	25.1	19.5	12.8	9.42	9.62
MAX	52.2	268	396	530	524	130	141	276	249	92.5	13.2	22.3
(WY)	1963	1984	1965	1997	1986	1986	1982	1996	1983	1967	2003	1982
MIN	2.40	2.75	4.79	4.86	5.03	3.11	2.35	2.42	2.29	2.36	2.03	1.99
(WY)	1978	1978	1968	1968	1966	1977	1977	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1963 - 2004	
ANNUAL TOTAL	4132.3		3686.2			
ANNUAL MEAN	11.3		10.1		21.6	
HIGHEST ANNUAL MEAN					67.1	1997
LOWEST ANNUAL MEAN					3.59	1977
HIGHEST DAILY MEAN	37	Jun 1	23	Dec 24	8050	Jan 1 1997
LOWEST DAILY MEAN	5.9	Dec 4	5.9	Dec 4	1.3	Sep 29 1963
ANNUAL SEVEN-DAY MINIMUM	6.4	Nov 29	6.4	Nov 29	1.5	Sep 28 1963
MAXIMUM PEAK FLOW			123	Oct 6	12600	Jan 1 1997
MAXIMUM PEAK STAGE			3.25	Oct 6	12.65	Jan 1 1997
ANNUAL RUNOFF (AC-FT)	8200		7310		15620	
ANNUAL DIVERSION (AC-FT) a	168300		142500			
10 PERCENT EXCEEDS	14		12		13	
50 PERCENT EXCEEDS	11		11		8.7	
90 PERCENT EXCEEDS	7.3		6.7		5.3	

a Diversion, in acre-feet, to Robbs Peak Powerplant (station 11429300), provided by Sacramento Municipal Utility District.

11431800 PILOT CREEK ABOVE STUMPY MEADOWS LAKE, CA

LOCATION.—Lat 38°53'41", long 120°34'02", in NE 1/4 NW 1/4 sec.18, T.12 N., R.13 E., El Dorado County, Hydrologic Unit 18020128, on right bank, 2.1 mi upstream from Stumpy Meadows Dam, and 12.5 mi east of Georgetown.

DRAINAGE AREA.—11.7 mi^2.

PERIOD OF RECORD.—October 1960 to current year. Prior to October 1971, published as "above Stumpy Meadows Reservoir."

GAGE.—Water-stage recorder. Elevation of gage is 4,280 ft above NGVD of 1929, from topographic map.

REMARKS.—Records good except for estimated daily discharges, which are fair. No regulation or diversion upstream from station. See schematic diagram of Middle Fork American and Rubicon River Basins.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 3,510 ft^3/s, Feb. 17, 1986, gage height, 7.15 ft, from rating curve extended above 540 ft^3/s, on basis of slope-area measurement at gage height 6.31 ft, maximum gage height, 8.05 ft, Jan. 31, 1963; minimum daily, 0.14 ft^3/s, Aug. 16, 1977.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 140 ft^3/s, or maximum:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 24	1600	142	2.08	Feb. 16	1730	189	2.38

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	5.6	6.1	16	13	50	47	15	8.3	6.4	4.2	3.0
2	4.4	5.6	7.2	16	16	46	44	15	8.1	6.3	4.2	3.0
3	4.3	6.4	6.3	13	16	42	43	14	7.9	6.1	4.2	3.1
4	4.4	5.7	6.1	28	14	39	43	14	7.8	5.9	4.2	3.1
5	4.4	6.0	7.0	12	14	37	42	14	7.6	5.8	4.1	3.1
6	4.3	5.9	18	11	14	36	40	13	7.6	5.6	4.0	3.0
7	4.2	6.9	28	13	13	38	38	11	7.6	5.5	4.0	3.0
8	4.2	6.9	10	15	13	42	38	11	7.7	5.5	3.8	2.9
9	4.2	11	8.7	14	13	48	36	11	7.9	5.5	3.7	2.9
10	4.4	7.6	11	13	12	57	34	11	7.8	5.5	3.6	2.9
11	4.5	6.2	10	13	12	60	33	12	7.6	5.4	3.5	2.9
12	4.4	6.0	8.6	12	12	60	31	11	7.5	5.3	3.4	2.9
13	4.4	6.0	18	12	12	61	31	10	7.4	5.2	3.4	3.0
14	4.3	6.6	22	12	12	64	30	10	7.2	5.2	3.3	3.1
15	4.4	9.8	13	12	12	69	29	9.9	7.1	5.1	3.4	3.1
16	4.4	7.5	10	12	80	71	28	9.5	6.9	5.0	3.5	3.0
17	4.3	7.0	9.4	12	95	71	27	9.4	6.8	4.9	3.3	3.1
18	4.3	6.6	8.8	12	126	73	26	9.3	6.8	4.9	3.3	3.2
19	4.3	6.2	8.7	12	96	72	26	9.3	6.9	4.7	3.2	4.6
20	4.3	6.2	13	12	71	70	32	9.2	6.7	4.7	3.2	5.1
21	4.2	6.1	14	11	58	73	29	9.2	6.7	4.7	3.2	4.5
22	4.2	6.0	11	11	52	75	27	9.2	6.6	4.6	3.3	4.1
23	4.2	6.0	11	11	49	73	24	8.9	6.6	4.5	3.5	3.9
24	4.2	6.0	69	11	49	67	22	8.8	6.5	4.5	3.5	3.8
25	4.2	5.9	50	11	81	66	21	8.7	6.4	4.4	3.5	3.7
26	4.1	5.9	24	11	93	65	20	8.5	6.4	4.3	3.5	3.6
27	4.1	6.0	17	14	71	56	18	8.4	6.3	4.2	3.3	3.5
28	4.1	6.0	15	14	59	52	17	9.2	6.3	4.3	3.2	3.5
29	4.2	6.0	20	13	54	52	17	8.9	6.4	4.2	3.1	3.6
30	4.5	5.9	17	13	---	51	16	8.6	6.4	4.2	3.0	3.7
31	5.2	---	13	13	---	49	---	8.4	---	4.2	3.0	---
TOTAL	133.8	195.5	490.9	405	1232	1785	909	325.4	213.8	156.6	109.6	101.9
MEAN	4.32	6.52	15.8	13.1	42.5	57.6	30.3	10.5	7.13	5.05	3.54	3.40
MAX	5.2	11	69	28	126	75	47	15	8.3	6.4	4.2	5.1
MIN	4.1	5.6	6.1	11	12	36	16	8.4	6.3	4.2	3.0	2.9
AC-FT	265	388	974	803	2440	3540	1800	645	424	311	217	202

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2004, BY WATER YEAR (WY)

MEAN	6.35	12.2	24.7	45.4	48.6	52.9	46.7	35.5	15.1	8.25	5.31	4.75
MAX	24.8	74.1	159	268	373	195	139	118	50.4	17.8	16.2	16.3
(WY)	1963	1984	1965	1997	1986	1983	1982	1967	1967	1998	1961	1961
MIN	0.87	2.79	3.35	4.55	4.64	4.82	3.38	4.06	1.93	0.64	0.18	0.50
(WY)	1978	1977	1977	1991	1977	1977	1977	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1961 - 2004	
ANNUAL TOTAL	8034.7		6058.5			
ANNUAL MEAN	22.0		16.6		25.4	
HIGHEST ANNUAL MEAN					64.8	1983
LOWEST ANNUAL MEAN					2.96	1977
HIGHEST DAILY MEAN	153	May 4	126	Feb 18	2840	Feb 17 1986
LOWEST DAILY MEAN	4.1	Sep 25	2.9	Sep 8	0.14	Aug 16 1977
ANNUAL SEVEN-DAY MINIMUM	4.2	Sep 22	2.9	Sep 6	0.15	Aug 12 1977
MAXIMUM PEAK FLOW			189	Feb 16	3510	Feb 17 1986
MAXIMUM PEAK STAGE			2.38	Feb 16	8.05	Jan 31 1963
ANNUAL RUNOFF (AC-FT)	15940		12020		18380	
10 PERCENT EXCEEDS	58		49		58	
50 PERCENT EXCEEDS	13		7.9		10	
90 PERCENT EXCEEDS	4.4		3.5		3.5	

11433040 PILOT CREEK BELOW MUTTON CANYON, NEAR GEORGETOWN, CA

LOCATION.—Lat 38°55'25", long 120°38'27", in NE 1/4 NW 1/4 sec.4, T.12 N., R.12 E., El Dorado County, Hydrologic Unit 18020128, Eldorado National Forest, on left bank, 450 ft downstream from Mutton Canyon, 500 ft downstream from Georgetown Divide Diversion Dam, 2.5 mi downstream from Stumpy Meadows Dam, and 10 mi east of Georgetown.

DRAINAGE AREA.—21.1 mi^2.

PERIOD OF RECORD.—June 1961 to current year.

GAGE.—Water-stage recorder. Elevation of gage is 3,760 ft above NGVD of 1929, from topographic map.

REMARKS.—Records fair. Flow regulated by Stumpy Meadows Lake 2.5 mi upstream, usable capacity, 20,000 acre-ft, completed in November 1961. Georgetown Irrigation District Ditch, capacity, about 60 ft^3/s, diverts water out of Pilot Creek, 500 ft upstream from station. See schematic diagram of Middle Fork American and Rubicon River Basins.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 7,830 ft^3/s, Jan. 2, 1997, gage height, 10.95 ft, from rating curve extended above 970 ft^3/s, on basis of slope-area measurement at gage height 10.06 ft; minimum daily, 0.20 ft^3/s, Sept. 24, Nov. 1–5, 1966.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.3	4.2	4.1	8.5	5.8	21	44	4.7	5.1	4.9	4.2	4.8
2	4.3	4.2	4.4	7.1	6.9	20	47	4.7	4.7	4.8	4.2	4.6
3	4.3	4.3	4.2	6.4	6.8	18	43	4.5	4.7	4.7	4.2	4.5
4	4.3	4.2	4.2	6.0	6.4	16	37	4.7	4.7	4.7	4.2	4.5
5	4.3	4.2	4.3	5.8	6.4	16	36	4.5	4.5	4.5	4.2	4.5
6	4.3	4.2	6.6	5.7	6.2	29	35	4.5	4.5	4.5	4.2	4.5
7	4.2	4.3	7.7	6.7	6.2	45	33	4.5	4.5	4.5	4.2	4.5
8	4.2	4.5	4.9	6.7	6.1	52	31	4.5	4.5	4.5	4.2	4.5
9	4.2	6.2	4.6	6.4	6.1	55	30	4.5	4.5	4.5	4.2	4.5
10	4.2	4.7	9.0	6.3	6.2	72	28	4.6	4.5	4.5	4.1	4.5
11	4.3	4.5	7.0	6.0	6.2	75	26	4.8	4.6	8.0	4.0	4.5
12	4.2	4.3	5.8	5.9	6.2	74	25	4.6	4.6	8.2	4.0	4.5
13	4.2	4.3	11	5.8	6.0	74	23	4.6	4.5	4.1	4.0	4.5
14	4.1	4.5	10	5.6	6.0	72	22	4.6	4.5	4.3	4.0	4.5
15	4.0	5.4	6.8	5.5	6.0	76	23	4.5	4.8	4.3	4.0	4.3
16	4.0	4.8	5.8	5.5	20	81	22	4.5	5.6	4.3	3.9	4.3
17	4.0	4.5	5.4	5.5	14	80	22	4.5	5.8	4.3	3.8	4.3
18	4.0	4.4	5.2	5.5	36	79	22	4.5	5.6	4.3	4.0	4.3
19	4.0	4.2	5.1	5.5	23	79	22	4.5	5.3	4.3	4.3	4.7
20	3.7	4.2	6.3	5.3	19	76	33	4.3	5.2	4.3	4.3	4.7
21	4.1	4.2	6.3	5.3	18	74	28	4.3	5.1	4.3	4.3	4.5
22	4.1	4.2	5.6	5.3	17	71	23	4.3	4.9	4.3	4.3	4.5
23	4.0	4.2	5.6	5.3	16	74	19	4.3	4.7	4.2	4.3	4.3
24	4.0	4.2	15	5.4	19	71	17	4.3	4.7	4.2	4.3	4.3
25	4.0	4.2	13	5.5	38	85	15	4.3	4.8	4.2	4.3	4.3
26	4.2	4.2	7.8	5.5	36	101	15	4.3	4.9	4.2	4.3	4.3
27	4.2	4.1	6.7	6.5	27	69	9.6	4.1	4.8	4.2	4.3	4.3
28	4.0	4.0	6.2	6.9	24	56	4.1	4.3	4.8	4.2	4.2	4.3
29	4.0	4.0	6.3	6.0	21	51	4.7	4.3	4.9	4.2	4.2	4.3
30	4.0	4.0	6.9	6.1	---	49	4.7	4.3	4.9	4.2	4.4	4.3
31	4.0	---	6.4	6.1	---	47	---	4.6	---	4.2	4.9	---
TOTAL	127.7	131.4	208.2	185.6	421.5	1858	744.1	138.5	145.2	142.9	130.0	133.4
MEAN	4.12	4.38	6.72	5.99	14.5	59.9	24.8	4.47	4.84	4.61	4.19	4.45
MAX	4.3	6.2	15	8.5	38	101	47	4.8	5.8	8.2	4.9	4.8
MIN	3.7	4.0	4.1	5.3	5.8	16	4.1	4.1	4.5	4.1	3.8	4.3
AC-FT	253	261	413	368	836	3690	1480	275	288	283	258	265

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2004, BY WATER YEAR (WY)

MEAN	3.04	5.65	27.6	58.2	75.8	73.6	66.2	37.3	9.23	4.28	3.41	3.02
MAX	7.19	28.6	340	621	585	370	289	171	54.4	15.6	13.4	8.54
(WY)	1963	1984	1965	1997	1986	1983	1982	1995	1967	1983	1983	1983
MIN	0.46	0.46	0.54	0.53	0.89	1.21	0.98	1.12	0.66	0.45	0.38	0.37
(WY)	1962	1962	1962	1962	1991	1977	1977	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1961 - 2004	
ANNUAL TOTAL	7262.6		4366.5			
ANNUAL MEAN	19.9		11.9		30.4	
HIGHEST ANNUAL MEAN					109	1983
LOWEST ANNUAL MEAN					0.84	1977
HIGHEST DAILY MEAN	216	Apr 13	101	Mar 26	5210	Jan 2 1997
LOWEST DAILY MEAN	3.7	Oct 20	3.7	Oct 20	0.20	Sep 24 1966
ANNUAL SEVEN-DAY MINIMUM	4.0	Oct 14	4.0	Aug 11	0.23	Oct 30 1966
MAXIMUM PEAK FLOW			147	Mar 25	7830	Jan 2 1997
MAXIMUM PEAK STAGE			5.17	Mar 25	10.95	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	14410		8660		22030	
10 PERCENT EXCEEDS	64		32		83	
50 PERCENT EXCEEDS	4.9		4.6		4.4	
90 PERCENT EXCEEDS	4.1		4.2		1.3	

11433060 SOUTH FORK LONG CANYON CREEK DIVERSION TUNNEL NEAR VOLCANOVILLE, CA

LOCATION.—Lat 39°03'04", long 120°28'14", in SW 1/4 NE 1/4 sec.24, T.14 N., R.13 E., Placer County, Hydrologic Unit 18020128, Eldorado National Forest, on right bank at diversion dam, 3.3 mi upstream from confluence with North and South Forks Long Canyon Creek, and 17.2 mi east of Volcanoville.

PERIOD OF RECORD.—October 1965 to current year.

GAGE.—Water-stage recorder and sharp-crested weir. Elevation of gage is 4,630 ft above NGVD of 1929, from topographic map.

REMARKS.—Tunnel completed in September 1965; diversion began in February 1966. Flow is diverted from South Fork Long Canyon Creek to a tunnel from Hell Hole Reservoir to Middle Fork Powerplant on the Middle Fork American River. See schematic diagram of Middle Fork American and Rubicon River Basins.

COOPERATION.—Records provided by Placer County Water Agency, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2079.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 251 ft^3/s, Nov. 12, 1973; no flow for part of each year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.00	14	41	21	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	12	36	20	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	12	39	20	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	11	41	20	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	11	42	20	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	13	40	18	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	19	38	16	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	31	38	14	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	37	38	13	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	44	38	13	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	45	36	13	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	44	35	11	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	43	32	9.1	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	47	31	7.9	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	55	30	7.6	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	56	27	6.9	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	57	23	6.5	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	25	60	21	5.9	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	30	60	21	5.6	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	23	60	31	5.0	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	19	65	28	4.8	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	17	67	26	4.5	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	15	67	23	3.7	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	15	61	23	2.3	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	27	53	23	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	28	47	23	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	22	43	25	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	19	43	25	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	16	46	23	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	---	45	22	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	42	---	0.00	---	0.00	0.00	---
TOTAL	0.00	0.00	0.00	0.00	256.00	1310	919	268.80	0.00	0.00	0.00	0.00
MEAN	0.00	0.00	0.00	0.00	8.83	42.3	30.6	8.67	0.00	0.00	0.00	0.00
MAX	0.00	0.00	0.00	0.00	30	67	42	21	0.00	0.00	0.00	0.00
MIN	0.00	0.00	0.00	0.00	0.00	11	21	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	0.00	0.00	0.00	508	2600	1820	533	0.00	0.00	0.00	0.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 2004, BY WATER YEAR (WY)

MEAN	0.00	2.90	4.85	10.4	13.8	22.9	28.6	25.4	7.96	0.28	0.00	0.00
MAX	0.03	37.2	38.6	42.1	77.3	77.7	67.8	80.6	54.0	4.54	0.07	0.00
(WY)	1980	1974	1984	1974	1996	1989	1980	1975	1998	1983	1983	1972
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
(WY)	1966	1966	1966	1966	1991	1974	1974	1974	1966	1966	1966	1966

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1966 - 2004	
ANNUAL TOTAL	4813.70		2753.80			
ANNUAL MEAN	13.2		7.52		9.73	
HIGHEST ANNUAL MEAN					24.1	1998
LOWEST ANNUAL MEAN					0.43	1977
HIGHEST DAILY MEAN	96	May 4	67	Mar 22	251	Nov 12 1973
LOWEST DAILY MEAN	0.00	Jun 12	0.00	Oct 1	0.00	Oct 1 1965
ANNUAL SEVEN-DAY MINIMUM	0.00	Jun 12	0.00	Oct 1	0.00	Oct 1 1965
ANNUAL RUNOFF (AC-FT)	9550		5460		7050	
10 PERCENT EXCEEDS	41		31		34	
50 PERCENT EXCEEDS	0.00		0.00		0.00	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

11433065 SOUTH FORK LONG CANYON CREEK BELOW DIVERSION DAM, NEAR VOLCANOVILLE, CA

LOCATION.—Lat 39°03'04", long 120°28'14", in SW 1/4 NE 1/4 sec.24, T.14 N., R.13 E., Placer County, Hydrologic Unit 18020128, Eldorado National Forest, on right bank, 21 ft below diversion dam, 3.3 mi upstream from confluence of North and South Forks Long Canyon Creek, and 17.2 mi east of Volcanoville.

PERIOD OF RECORD.—October 1988 to current year.

GAGE.—Water-stage recorder. Elevation of gage is 4,630 ft above NGVD of 1929, from topographic map.

REMARKS.—Discharge is computed only during periods of operation of South Fork Long Canyon Creek Diversion Tunnel (station 11433060). See schematic diagram of Middle Fork American and Rubicon River Basins.

COOPERATION.—Records provided by Placer County Water Agency, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2079.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	5.3	5.6	5.3	---	---	---	---
2	---	---	---	---	---	5.2	5.6	5.3	---	---	---	---
3	---	---	---	---	---	5.2	5.6	5.3	---	---	---	---
4	---	---	---	---	---	5.2	5.6	5.3	---	---	---	---
5	---	---	---	---	---	5.2	5.6	5.3	---	---	---	---
6	---	---	---	---	---	5.2	5.6	5.3	---	---	---	---
7	---	---	---	---	---	5.3	5.6	5.3	---	---	---	---
8	---	---	---	---	---	5.6	5.7	5.3	---	---	---	---
9	---	---	---	---	---	5.7	5.7	5.3	---	---	---	---
10	---	---	---	---	---	5.8	5.7	5.3	---	---	---	---
11	---	---	---	---	---	5.8	5.7	5.3	---	---	---	---
12	---	---	---	---	---	5.8	5.7	5.3	---	---	---	---
13	---	---	---	---	---	5.8	5.7	5.3	---	---	---	---
14	---	---	---	---	---	5.8	5.6	5.2	---	---	---	---
15	---	---	---	---	---	5.9	5.6	5.2	---	---	---	---
16	---	---	---	---	---	5.9	5.6	5.3	---	---	---	---
17	---	---	---	---	---	5.9	5.6	5.3	---	---	---	---
18	---	---	---	---	5.2	5.9	5.5	5.3	---	---	---	---
19	---	---	---	---	5.3	5.9	5.5	5.3	---	---	---	---
20	---	---	---	---	5.3	5.9	5.5	5.3	---	---	---	---
21	---	---	---	---	5.3	5.9	5.3	5.3	---	---	---	---
22	---	---	---	---	5.3	6.0	5.3	5.3	---	---	---	---
23	---	---	---	---	5.3	6.0	5.3	5.3	---	---	---	---
24	---	---	---	---	5.3	5.9	5.3	5.7	---	---	---	---
25	---	---	---	---	5.5	5.9	5.3	---	---	---	---	---
26	---	---	---	---	5.5	5.8	5.3	---	---	---	---	---
27	---	---	---	---	5.5	5.8	5.3	---	---	---	---	---
28	---	---	---	---	5.3	5.8	5.3	---	---	---	---	---
29	---	---	---	---	5.3	5.8	5.3	---	---	---	---	---
30	---	---	---	---	---	5.8	5.3	---	---	---	---	---
31	---	---	---	---	---	5.7	---	---	---	---	---	---
TOTAL	---	---	---	---	---	176.7	165.3	---	---	---	---	---
MEAN	---	---	---	---	---	5.70	5.51	---	---	---	---	---
MAX	---	---	---	---	---	6.0	5.7	---	---	---	---	---
MIN	---	---	---	---	---	5.2	5.3	---	---	---	---	---
AC-FT	---	---	---	---	---	350	328	---	---	---	---	---

11433080 NORTH FORK LONG CANYON CREEK DIVERSION TUNNEL NEAR VOLCANOVILLE, CA

LOCATION.—Lat 39°02'57", long 120°28'56", in SW 1/4 NW 1/4 sec.24, T.14 N., R.13 E., Placer County, Hydrologic Unit 18020128, Eldorado National Forest, on left bank at diversion dam, 3.2 mi upstream from confluence of North and South Forks Long Canyon Creek, and 16.9 mi east of Volcanoville.

PERIOD OF RECORD.—October 1965 to current year.

GAGE.—Water-stage recorder and Parshall flume. Elevation of gage is 4,700 ft above NGVD of 1929, from topographic map.

REMARKS.—Tunnel completed in September 1965 and diversions began in February 1966. Flow is diverted from North Fork Long Canyon Creek to a tunnel from Hell Hole Reservoir to Middle Fork Powerplant (stations 11428700 and 11428600) on the Middle Fork American River. See schematic diagram of Middle Fork American and Rubicon River Basins.

COOPERATION.—Records provided by Placer County Water Agency, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2079.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 100 ft^3/s, Jan. 15, 1998; no flow for part of each year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.00	8.0	23	5.7	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	7.1	22	5.2	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	7.1	23	4.6	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	7.1	25	4.0	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	7.3	25	3.6	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	11	23	3.2	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	22	21	2.8	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	33	21	2.7	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	33	20	2.4	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	39	18	2.5	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	36	17	3.1	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	36	16	0.87	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	36	15	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	41	13	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	47	12	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	45	11	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	43	9.5	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	16	48	8.8	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	19	46	9.0	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	14	46	17	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	11	49	14	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	10	49	14	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	9.3	45	11	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	9.1	38	10	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	18	31	9.8	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	18	27	9.3	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	12	27	9.1	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	9.8	26	8.4	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	8.8	27	7.1	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	---	26	6.1	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	25	---	0.00	---	0.00	0.00	---
TOTAL	0.00	0.00	0.00	0.00	155.00	968.6	448.1	40.67	0.00	0.00	0.00	0.00
MEAN	0.00	0.00	0.00	0.00	5.34	31.2	14.9	1.31	0.00	0.00	0.00	0.00
MAX	0.00	0.00	0.00	0.00	19	49	25	5.7	0.00	0.00	0.00	0.00
MIN	0.00	0.00	0.00	0.00	0.00	7.1	6.1	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	0.00	0.00	0.00	307	1920	889	81	0.00	0.00	0.00	0.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 2004, BY WATER YEAR (WY)

MEAN	0.04	0.70	1.78	4.36	6.67	11.9	13.9	10.9	2.34	0.02	0.00	0.00
MAX	0.74	13.2	12.7	21.0	35.6	35.5	33.0	39.9	22.5	0.20	0.09	0.08
(WY)	1980	1982	1997	2003	1996	1993	1993	1998	1998	1973	1973	1973
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
(WY)	1966	1966	1966	1966	1974	1974	1974	1974	1966	1966	1966	1966

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1966 - 2004	
ANNUAL TOTAL	3032.00		1612.37			
ANNUAL MEAN	8.31		4.41		4.37	
HIGHEST ANNUAL MEAN					12.7	1998
LOWEST ANNUAL MEAN					0.01	1977
HIGHEST DAILY MEAN	62	May 4	49	Mar 21	100	Jan 15 1998
LOWEST DAILY MEAN	0.00	Jun 6	0.00	Oct 1	0.00	Oct 1 1965
ANNUAL SEVEN-DAY MINIMUM	0.00	Jun 6	0.00	Oct 1	0.00	Oct 1 1965
ANNUAL RUNOFF (AC-FT)	6010		3200		3170	
10 PERCENT EXCEEDS	25		18		16	
50 PERCENT EXCEEDS	0.00		0.00		0.00	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

11433085 NORTH FORK LONG CANYON CREEK BELOW DIVERSION DAM, NEAR VOLCANOVILLE, CA

LOCATION.—Lat 39°02'57", long 120°28'56", in SW 1/4 NW 1/4 sec.24, T.14 N., R.13 E., Placer County, Hydrologic Unit 18020128, Eldorado National Forest, on right bank, 26 ft below diversion dam, 3.2 mi upstream from confluence of North and South Forks Long Canyon Creek, and 16.9 mi east of Volcanoville.

PERIOD OF RECORD.—October 1988 to current year.

GAGE.—Water-stage recorder. Elevation of gage is 4,700 ft above NGVD of 1929, from topographic map.

REMARKS.—Discharge is computed only during periods of operation of North Fork Long Canyon Creek Diversion Tunnel (station 11433080). See schematic diagram of Middle Fork American and Rubicon River Basins.

COOPERATION.—Records provided by Placer County Water Agency, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2079.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	2.4	2.9	2.4	---	---	---	---
2	---	---	---	---	---	2.4	2.8	2.4	---	---	---	---
3	---	---	---	---	---	2.4	2.9	2.4	---	---	---	---
4	---	---	---	---	---	2.4	2.9	2.4	---	---	---	---
5	---	---	---	---	---	2.4	2.9	2.4	---	---	---	---
6	---	---	---	---	---	2.5	2.9	2.4	---	---	---	---
7	---	---	---	---	---	2.8	2.9	2.4	---	---	---	---
8	---	---	---	---	---	2.9	2.9	2.4	---	---	---	---
9	---	---	---	---	---	3.0	2.9	2.4	---	---	---	---
10	---	---	---	---	---	3.1	2.8	2.4	---	---	---	---
11	---	---	---	---	---	3.1	2.8	2.4	---	---	---	---
12	---	---	---	---	---	3.1	2.8	2.8	---	---	---	---
13	---	---	---	---	---	3.1	2.6	---	---	---	---	---
14	---	---	---	---	---	3.1	2.5	---	---	---	---	---
15	---	---	---	---	---	3.2	2.5	---	---	---	---	---
16	---	---	---	---	---	3.2	2.5	---	---	---	---	---
17	---	---	---	---	---	3.2	2.5	---	---	---	---	---
18	---	---	---	---	4.6	3.3	2.5	---	---	---	---	---
19	---	---	---	---	3.6	3.2	2.5	---	---	---	---	---
20	---	---	---	---	3.4	3.2	2.8	---	---	---	---	---
21	---	---	---	---	2.9	3.2	2.7	---	---	---	---	---
22	---	---	---	---	2.5	3.2	2.7	---	---	---	---	---
23	---	---	---	---	2.4	3.2	2.6	---	---	---	---	---
24	---	---	---	---	2.4	3.2	2.6	---	---	---	---	---
25	---	---	---	---	2.6	3.1	2.6	---	---	---	---	---
26	---	---	---	---	2.6	3.0	2.6	---	---	---	---	---
27	---	---	---	---	2.4	3.0	2.5	---	---	---	---	---
28	---	---	---	---	2.4	3.0	2.5	---	---	---	---	---
29	---	---	---	---	2.4	2.9	2.5	---	---	---	---	---
30	---	---	---	---	---	2.9	2.4	---	---	---	---	---
31	---	---	---	---	---	2.9	---	---	---	---	---	---
TOTAL	---	---	---	---	---	91.6	80.5	---	---	---	---	---
MEAN	---	---	---	---	---	2.95	2.68	---	---	---	---	---
MAX	---	---	---	---	---	3.3	2.9	---	---	---	---	---
MIN	---	---	---	---	---	2.4	2.4	---	---	---	---	---
AC-FT	---	---	---	---	---	182	160	---	---	---	---	---

11433300 MIDDLE FORK AMERICAN RIVER NEAR FORESTHILL, CA

LOCATION.—Lat 39°00'22", long 120°45'35", in NW 1/4 NW 1/4 sec.4, T.13 N., R.11 E., Placer County, Hydrologic Unit 18020128, Tahoe National Forest, on right bank, 1.6 mi downstream from Oxbow Powerplant, and 3.3 mi east of Foresthill.

DRAINAGE AREA.—524 mi^2.

PERIOD OF RECORD.—October 1958 to current year.
CHEMICAL DATA: Water year 1979.
BIOLOGICAL DATA: Water year 1979.

REVISED RECORDS.—WDR CA-03-4: 2000(M).

GAGE.—Water-stage recorder. Elevation of gage is 1,070 ft above NGVD of 1929, from topographic map. Prior to Oct. 22, 1965, at site 3.2 mi downstream at different datum. Oct. 22, 1965, to Aug. 28, 1985, at site 400 ft downstream at different datum.

REMARKS.—Flow regulated by French Meadows Reservoir, Hell Hole Reservoir, Loon Lake (stations 11427400, 11428700, and 11429350, repsectively), Stumpy Meadows Lake, usable capacity, 17,500 acre-ft, several smaller reservoirs, and Oxbow Powerplant (station 11433212). Robbs Peak Powerplant (station 11429300) and Georgetown Divide Ditch, capacity about 60 ft^3/s, divert water out of basin upstream from station. See schematic diagrams of lower Sacramento River Basin and Middle Fork American and Rubicon River Basins.

COOPERATION.—Records provided by Placer County Water Agency, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2079.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 310,000 ft^3/s, Dec. 23, 1964, gage height, 69.0 ft, from floodmarks, site and datum then in use, caused by overtopping of the partly constructed Hell Hole Dam on the Rubicon River, from rating curve extended above 28,000 ft^3/s, on basis of slope-area measurement at gage height 38.0 ft and slope-conveyance study at gage height 69.0 ft, at site and datum then in use; next highest peak, 123,000 ft^3/s, Jan. 2, 1997, gage height, 29.56 ft, from rating curve extended above 37,000 ft^3/s; minimum, 35 ft^3/s, Oct. 10–20, 1961.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	863	615	398	1280	705	1630	1010	816	734	434	537	612
2	780	458	453	1400	737	1500	1030	638	746	562	409	613
3	872	498	383	1130	791	1320	990	727	706	377	579	627
4	643	459	383	931	821	1310	944	827	566	460	633	701
5	122	465	443	834	834	1390	1040	915	444	398	551	628
6	114	432	515	586	823	1340	865	595	530	679	632	646
7	110	296	1270	795	612	1190	581	718	530	731	607	850
8	108	283	596	817	629	1430	918	569	587	561	624	611
9	114	433	593	895	792	1620	634	810	620	417	669	390
10	123	438	753	844	592	1730	629	801	709	422	671	567
11	123	436	929	823	694	1680	928	757	684	627	634	538
12	121	476	688	617	622	1720	790	781	574	594	625	537
13	117	385	814	826	803	1540	737	778	536	606	619	520
14	119	418	1330	814	683	1520	868	655	581	651	486	556
15	128	419	1030	896	741	1680	766	699	599	645	430	598
16	153	333	804	929	1500	1810	800	790	516	665	541	630
17	193	408	645	907	2600	1730	569	797	590	478	770	650
18	189	447	547	857	2120	1800	704	695	503	553	643	532
19	160	445	613	793	2340	1730	793	810	415	656	645	411
20	150	491	597	847	2170	1490	1040	806	351	610	633	480
21	123	429	860	819	1620	1460	974	700	514	673	508	539
22	139	434	774	787	1250	1670	975	467	491	713	423	696
23	113	438	680	791	1390	1630	835	457	538	602	475	542
24	107	370	1330	715	1230	1580	595	583	447	492	554	553
25	107	426	1920	712	1950	1430	718	582	432	611	585	497
26	132	239	1220	709	2920	1520	500	399	279	674	675	537
27	499	252	853	761	2270	1120	712	596	345	600	620	529
28	411	93	773	843	1810	1250	917	680	521	618	564	530
29	491	93	782	576	1710	1060	790	500	492	576	663	562
30	519	356	1070	743	---	1130	707	577	406	658	643	654
31	363	---	839	679	---	916	---	662	---	519	663	---
TOTAL	8306	11765	24885	25956	37759	45926	24359	21187	15986	17862	18311	17336
MEAN	268	392	803	837	1302	1481	812	683	533	576	591	578
MAX	872	615	1920	1400	2920	1810	1040	915	746	731	770	850
MIN	107	93	383	576	592	916	500	399	279	377	409	390
AC-FT	16470	23340	49360	51480	74890	91090	48320	42020	31710	35430	36320	34390
a	10310	19210	35340	40030	45070	60210	32150	33890	27120	31700	31720	31280

a Diversion, in acre-feet, through Oxbow Powerplant (station 11433212), provided by Placer County Water Agency.

11433300 MIDDLE FORK AMERICAN RIVER NEAR FORESTHILL, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	430	639	1121	1600	1822	1812	1710	1521	1002	662	625	525
MAX	1634	2952	7172	8778	8815	5076	5572	4642	3300	1836	1142	1084
(WY)	1963	1984	1965	1997	1986	1983	1982	1963	1983	1983	1983	1983
MIN	54.3	47.1	64.8	85.2	111	240	110	120	124	99.2	47.2	42.8
(WY)	1961	1960	1960	1991	1991	1977	1977	1977	1977	1966	1959	1962

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1959 - 2004	
ANNUAL TOTAL	352456		269638			
ANNUAL MEAN	966		737		1119	
HIGHEST ANNUAL MEAN					2723	1982
LOWEST ANNUAL MEAN					179	1977
HIGHEST DAILY MEAN	3650	May 4	2920	Feb 26	65000	Dec 23 1964
LOWEST DAILY MEAN	93	Nov 28	93	Nov 28	35	Oct 19 1961
ANNUAL SEVEN-DAY MINIMUM	116	Oct 6	116	Oct 6	38	Oct 14 1961
MAXIMUM PEAK FLOW			5750	Aug 5	310000	Dec 23 1964
MAXIMUM PEAK STAGE			16.81	Aug 5	69.00	Dec 23 1964
ANNUAL RUNOFF (AC-FT)	699100		534800		810600	
TOTAL DIVERSION (AC-FT) a	499600		398000			
10 PERCENT EXCEEDS	1720		1360		2320	
50 PERCENT EXCEEDS	855		636		746	
90 PERCENT EXCEEDS	386		381		102	

a Diversion, in acre-feet, through Oxbow Powerplant (station 11433212), provided by Placer County Water Agency.

11433790 NORTH FORK AMERICAN RIVER AT AUBURN DAM SITE, NEAR AUBURN, CA

LOCATION (REVISED).—Lat 38°52'37", long 121°03'24", in SW 1/4 NW 1/4 sec.23, T.12 N., R.8 E., Placer County, Hydrologic Unit 18020128, on the right bank, downstream side of the Auburn Dam Site diversion tunnel, 0.7 mi upstream from Knickerbocker Creek, and 1.3 mi southeast of Auburn.

DRAINAGE AREA.— 972 mi^2.

PERIOD OF DAILY RECORD.—June 1999 to current year.
WATER TEMPERATURE: June 1999 to current year.

INSTRUMENTATION.—Water-temperature recorder since June 4, 1999. Prior to Dec. 2, 2003, water-temperature recorder at site 0.7 mi upstream on right bank.

REMARKS.—Water-temperature records rated excellent. Water temperature can be affected by upstream releases. Interruption in record was due to malfunction of the recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.—
WATER TEMPERATURE: Maximum recorded, 25.0°C, July 2, 2001; minimum recorded, 3.0°C, Jan. 31, 2002.

EXTREMES FOR CURRENT YEAR.—
WATER TEMPERATURE: Maximum recorded, 24.5°C, July 6; minimum recorded, 5.5°C, several days in December, January, and February.

TEMPERATURE, WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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

11433790 NORTH FORK AMERICAN RIVER AT AUBURN DAM SITE, NEAR AUBURN, CA—Continued

TEMPERATURE, WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	12.5	10.5	15.5	13.5	20.5	16.5	23.0	19.5	21.0	17.0	19.0	15.5
2	12.5	10.5	16.0	13.5	20.5	16.5	23.5	20.0	20.5	17.0	18.5	16.0
3	12.5	10.5	16.5	14.0	20.5	16.5	23.0	20.0	21.5	18.0	18.0	15.0
4	12.5	11.0	16.5	14.5	21.0	16.5	24.0	20.0	20.5	17.0	18.0	14.5
5	13.0	11.0	16.0	14.5	21.0	17.0	24.0	19.5	19.5	14.5	18.0	14.5
6	13.0	11.0	15.5	14.0	22.0	18.0	24.5	21.0	20.5	16.5	18.5	15.0
7	13.0	11.0	16.5	14.0	21.0	18.5	22.5	19.0	20.0	16.0	18.0	15.0
8	13.5	11.5	16.5	14.0	20.5	17.5	21.0	17.5	20.0	16.0	18.0	14.5
9	14.0	12.0	16.5	14.0	20.0	16.5	21.5	18.0	20.5	16.5	18.0	15.0
10	14.5	12.0	16.0	14.0	20.0	16.5	22.0	18.5	19.5	16.5	19.0	15.5
11	14.5	12.5	16.0	13.0	19.5	15.5	22.5	18.5	19.5	16.0	18.5	15.0
12	14.5	12.5	16.0	12.5	20.5	16.0	22.0	18.0	20.0	16.0	18.5	15.0
13	14.0	12.5	16.5	13.0	21.0	17.0	21.0	18.0	19.5	16.5	18.0	15.5
14	14.0	12.0	17.0	13.5	21.5	17.5	21.0	17.0	20.0	17.0	18.0	15.5
15	13.5	12.0	17.0	14.5	22.0	18.0	20.5	17.0	20.5	16.5	18.0	15.0
16	13.0	11.0	17.5	14.5	22.0	18.0	20.5	17.0	21.0	17.5	18.0	15.0
17	12.5	11.0	17.5	14.5	22.0	18.5	20.5	17.0	20.5	17.5	18.0	15.0
18	12.0	10.5	17.5	14.5	22.0	18.0	22.0	17.5	19.5	16.0	17.0	15.0
19	11.5	10.5	18.0	14.5	22.5	18.5	22.0	18.5	20.0	16.5	15.0	13.5
20	12.0	10.5	17.5	14.0	23.0	19.0	21.5	18.0	20.0	16.0	15.5	12.5
21	12.0	10.5	17.5	14.0	23.5	19.5	22.0	18.0	20.0	16.5	16.5	13.5
22	13.0	10.5	18.0	15.0	23.0	20.0	20.5	17.0	19.0	17.0	16.5	14.0
23	13.5	11.0	18.5	15.0	23.0	19.5	21.5	17.5	19.5	16.5	16.0	13.5
24	14.5	11.5	18.5	15.5	22.0	19.0	21.0	17.5	20.0	17.0	17.0	14.0
25	15.5	12.5	19.0	16.0	23.0	18.5	22.0	17.5	19.5	17.0	17.0	14.0
26	16.0	13.5	19.5	16.0	23.0	19.0	21.5	17.5	19.5	16.5	17.0	14.0
27	16.5	14.0	19.5	17.0	23.5	20.0	21.0	17.0	19.0	15.5	16.5	14.0
28	16.0	14.5	18.5	16.5	24.0	20.5	21.0	17.0	19.5	15.5	16.5	14.5
29	16.0	14.0	19.0	15.5	22.5	20.0	20.5	17.0	19.5	16.5	16.5	14.5
30	15.5	13.0	19.5	16.0	22.5	19.0	20.5	17.5	19.0	15.5	16.5	14.0
31	---	---	20.0	16.5	---	---	20.0	16.5	19.0	15.5	---	---
MONTH	16.5	10.5	20.0	12.5	24.0	15.5	24.5	16.5	21.5	14.5	19.0	12.5

CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	TIME	Depth at sample location, feet (81903)	Temperature, water, deg C (00010)	Location in X-sect. looking dwnstrm ft from l bank (00009)
JUL				
23...*	0832	24.0	17.5	1.20
23...*	0836	25.0	17.5	3.60
23...*	0841	25.0	17.5	6.00
23...*	0844	25.5	17.5	8.40
23...*	0847	25.5	17.5	10.8
23...*	0850	25.5	17.5	13.2
23...*	0853	25.6	17.4	15.6
23...*	0856	26.0	17.4	18.0
23...*	0859	25.0	17.4	20.4
23...*	0902	24.0	17.4	22.8
SEP				
01...*	1620	23.0	17.9	1.25
01...*	1624	22.0	17.8	3.75
01...*	1627	22.0	17.8	6.25
01...*	1629	23.0	17.9	8.75
01...*	1632	23.0	17.9	11.2
01...*	1634	23.0	17.9	13.8
01...*	1637	23.0	17.9	16.2
01...*	1639	23.0	17.9	18.8
01...*	1641	23.5	18.0	21.2
01...*	1643	22.0	18.0	24.8

* Instantaneous discharge at time of cross-sectional measurement: Unknown.

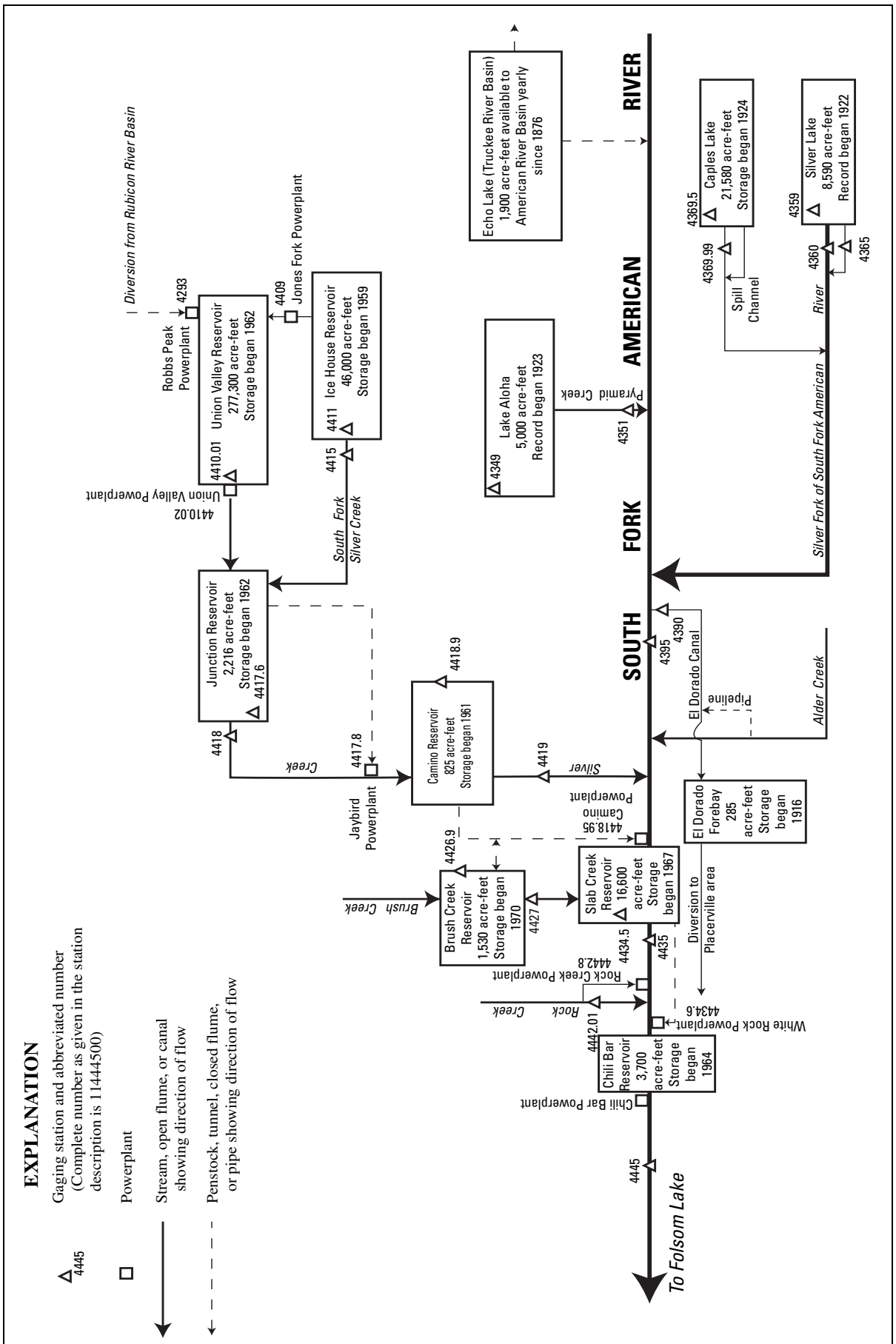


Figure 35. Diversions and storage in South Fork American River Basin.

11434900 LAKE ALOHA NEAR PHILLIPS, CA

LOCATION.—Lat 38°51'36", long 120°08'11", in sec.30, T.12 N., R.17 E., El Dorado County, Hydrologic Unit 18020129, Eldorado National Forest, on upstream face of dam at outlet structure, and 4.3 mi northwest of Phillips.

DRAINAGE AREA.—3.36 mi^2.

PERIOD OF RECORD.—May 2000 to current year.

GAGE.—Non-recording gage observed intermittently during the summer months. Elevation of gage is 8,116 ft above NGVD of 1929, from topographic map.

REMARKS.—Reservoir formed by cut stone gravity dam completed in 1917. Usable capacity, 5,000 acre-ft, between gage heights 5.0 ft and 19.7 ft, spillway. See schematic diagram of South Fork American River Basin.

COOPERATION.—Records were collected by the El Dorado Irrigation District, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 184.

Capacity table (gage height, in feet, and contents, in acre-feet)
(Based on table provided by El Dorado Irrigation District, dated Oct. 28, 1932)

5.0	0	9.0	237	13.0	1,610	17.0	3,510
7.0	104	11.0	824	15.0	2,510	19.7	5,000

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	---	---
2	76	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	3450	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	4070	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	3960	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	3350	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	3610	---	---	---	---
14	---	---	---	---	---	---	---	---	3250	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	0	---
17	29	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	3640	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	3200	---	2350	0	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	2510	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MAX	--	---	---	---	---	---	--	--	--	--	--	---
MIN	--	---	---	---	---	---	--	--	--	--	--	---

11435100 PYRAMID CREEK AT TWIN BRIDGES, CA

LOCATION.—Lat 38°48'57", long 120°06'58", in NW 1/4 SW 1/4 sec.9, T.11 N., R.17 E., El Dorado County, Hydrologic Unit 18020129, Eldorado National Forest, on right bank, 0.5 mi northeast of Twin Bridges, 2.2 mi west of Phillips, and 3.6 mi downstream from Lake Aloha.

DRAINAGE AREA.—8.76 mi^2.

PERIOD OF RECORD.—October 1970 to current year.

GAGE.—Water-stage recorder. Elevation of gage is 6,320 ft above NGVD of 1929, from topographic map. Prior to October 1987, at datum 1.00 ft higher.

REMARKS.—Flow regulated by Lake Aloha, capacity, 5,000 acre-ft. Lake of the Woods, Ropi Lake, and Toem Lake (unknown capacities) also regulate at times. See schematic diagram of South Fork American River Basin.

COOPERATION.—Records were collected by the El Dorado Irrigation District, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 184.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 2,920 ft^3/s, Jan. 2, 1997, gage height, 7.22 ft, from rating curve extended above 300 ft^3/s; minimum daily, 0.03 ft^3/s, Oct. 26–28, 1992.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	2.9	4.8	19	12	14	39	82	97	22	65	2.4
2	1.9	2.7	5.6	e19	12	14	32	103	99	26	64	2.3
3	1.8	3.2	5.7	e18	15	13	38	114	100	22	63	2.2
4	1.9	3.5	5.1	e18	13	13	53	131	98	20	62	2.1
5	2.2	3.0	11	e17	13	13	69	134	91	20	61	2.1
6	2.4	2.7	26	e16	12	14	66	109	90	21	59	2.0
7	2.5	2.7	20	15	12	19	55	92	90	51	59	2.0
8	2.5	2.8	18	16	13	26	63	89	85	55	57	1.9
9	2.4	3.7	17	15	12	31	67	90	83	62	52	1.7
10	2.4	5.0	16	15	15	35	62	85	80	62	48	1.3
11	2.4	4.6	17	15	11	33	57	57	77	61	46	0.97
12	2.4	4.3	15	15	11	33	63	50	76	60	43	0.76
13	2.4	4.3	17	15	11	34	62	59	74	60	40	0.59
14	2.4	4.0	18	15	11	38	43	109	74	60	37	0.49
15	2.4	4.9	17	15	11	46	38	117	54	59	33	0.41
16	2.4	5.7	14	15	26	46	33	114	42	58	28	0.34
17	2.4	6.3	13	15	34	44	30	119	41	57	15	0.29
18	2.4	7.6	13	15	23	53	29	107	39	56	7.0	0.26
19	2.4	7.9	14	14	19	64	28	94	37	56	4.9	0.24
20	2.3	8.9	16	14	16	63	28	100	35	55	4.1	0.28
21	2.4	7.1	16	13	15	70	28	95	32	54	3.7	0.29
22	2.3	5.9	14	13	14	71	28	95	31	53	3.4	0.28
23	2.3	5.0	13	13	14	74	29	102	30	53	3.2	0.30
24	2.3	4.4	17	13	13	64	39	99	30	52	3.1	0.33
25	2.3	3.9	e18	13	13	47	51	99	30	51	3.1	0.41
26	2.2	4.0	e19	13	21	37	68	96	29	51	2.9	0.47
27	2.2	3.5	19	13	25	30	87	111	27	53	2.8	0.46
28	2.2	3.4	18	13	18	32	94	199	26	53	2.7	0.42
29	2.2	3.8	20	13	15	39	78	97	23	52	2.6	0.38
30	2.1	4.6	e20	13	---	46	68	96	21	53	2.5	0.36
31	2.3	---	20	12	---	43	---	97	---	64	2.5	---
TOTAL	70.9	136.3	477.2	458	450	1199	1525	3141	1741	1532	880.5	28.33
MEAN	2.29	4.54	15.4	14.8	15.5	38.7	50.8	101	58.0	49.4	28.4	0.94
MAX	2.5	8.9	26	19	34	74	94	199	100	64	65	2.4
MIN	1.8	2.7	4.8	12	11	13	28	50	21	20	2.5	0.24
AC-FT	141	270	947	908	893	2380	3020	6230	3450	3040	1750	56

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 2004, BY WATER YEAR (WY)

MEAN	11.3	17.0	16.1	19.7	17.5	24.8	41.1	96.3	100	65.9	43.5	17.9
MAX	35.8	57.1	53.2	133	55.6	63.2	70.2	160	249	198	90.2	77.4
(WY)	1996	1997	1997	1997	1982	1982	1997	1974	1998	1995	1974	1983
MIN	0.18	0.74	1.93	2.25	3.54	7.13	14.7	29.5	14.7	18.9	2.52	0.28
(WY)	1991	1991	1991	1991	1991	1977	1975	1977	2001	2001	1981	1981

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1971 - 2004	
ANNUAL TOTAL	13459.0		11639.23			
ANNUAL MEAN	36.9		31.8		39.4	
HIGHEST ANNUAL MEAN					65.1	1982
LOWEST ANNUAL MEAN					15.3	1977
HIGHEST DAILY MEAN	226	May 30	199	May 28	1570	Jan 2 1997
LOWEST DAILY MEAN	1.8	Oct 3	0.24	Sep 19	0.03	Oct 26 1992
ANNUAL SEVEN-DAY MINIMUM	2.1	Oct 1	0.28	Sep 17	0.04	Oct 22 1992
MAXIMUM PEAK FLOW			327	May 28	2920	Jan 2 1997
MAXIMUM PEAK STAGE			3.87	May 28	7.22	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	26700		23090		28530	
10 PERCENT EXCEEDS	112		85		97	
50 PERCENT EXCEEDS	23		18		20	
90 PERCENT EXCEEDS	2.9		2.2		3.5	

e Estimated.

11435900 SILVER LAKE NEAR KIRKWOOD, CA

LOCATION.—Lat 38°40'07", long 120°07'14", in NW 1/4 SE 1/4 sec.32, T.10 N., R.17 E., Amador County, Hydrologic Unit 18020129, Eldorado National Forest, on outlet structure, 3.5 mi southwest of Kirkwood.

DRAINAGE AREA.—15.2 mi^2.

PERIOD OF RECORD.—October 1985 to current year. Unpublished records for water years 1981–85 available in files of U.S. Geological Survey.

GAGE.—Water-stage recorder. Datum of gage is 7,184.3 ft above NGVD of 1929 (levels by Pacific Gas & Electric Co.). October 1985 to Mar. 5, 1991, nonrecording gage at same site and datum.

REMARKS.—Lake is formed by earthfill and rock masonry dam initially constructed in 1876 and enlarged in 1929. Capacity, 8,590 acre-ft, between gage heights 0.0 ft, invert of outlet, and 22.7 ft, top of radial gates and flashboards. Released water is used for power development on South Fork American River. See schematic diagram of South Fork American River Basin.

COOPERATION.—Records were collected by El Dorado Irrigation District, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 184.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 8,791 acre-ft, June 3, 1996, gage height, 23.10 ft; minimum, 0 acre-ft, Feb. 13, 15, 20, 22, 27, 1991, gage height, 0 ft.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 8,620 acre-ft, May 28, gage height, 22.66 ft; minimum, 785 acre-ft, Feb. 15, gage height, 2.97 ft.

Capacity table (gage height, in feet, and contents, in acre-feet)
(Based on table provided by El Dorado Irrigation District, dated Sept. 30, 1999)

0.0	0	6.0	1,671	15.0	5,003	21.0	7,799
2.0	519	9.0	2,646	18.0	6,364	24.0	8,792
4.0	1,076	12.0	3,756				

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5240	3230	1880	985	920	968	3820	8130	8580	8330	7190	6140
2	5170	3180	1800	1010	931	954	3850	8340	8570	8330	7140	6110
3	5090	3140	1720	1020	923	940	3920	8390	8560	8310	7110	6080
4	5020	3090	1640	1020	906	928	4000	8380	8530	8280	7070	6040
5	4940	3040	1630	1020	894	917	4100	8400	8510	8250	7030	6020
6	4870	2990	1700	1030	889	908	4120	8330	8480	8220	6990	5990
7	4810	2950	1660	1050	872	917	4180	8270	8490	8180	6950	5960
8	4730	2900	1630	1060	866	937	4280	8230	8500	8140	6920	5930
9	4660	2900	1600	1050	824	965	4360	8210	8510	8100	6890	5900
10	4590	2850	1560	1050	821	1020	4580	8150	8510	8060	6850	5870
11	4520	2820	1510	1060	813	1080	4850	8110	8520	8020	6820	5850
12	4460	2760	1450	1060	804	1160	5140	8160	8540	7980	6790	5810
13	4390	2710	1400	1070	799	1250	5380	8220	8550	7940	6760	5790
14	4330	2670	1360	1080	787	1350	5560	8240	8580	7900	6720	5760
15	4250	2630	1300	1090	785	1490	5700	8220	8600	7860	6690	5690
16	4190	2580	1250	1100	830	1640	5820	8200	8600	7820	6660	5590
17	4120	2550	1190	1110	866	1800	5890	8170	8600	7780	6630	5490
18	4060	2500	1140	1110	903	2000	5950	8120	8600	7740	6590	5400
19	4000	2460	1100	1110	906	2220	6010	8080	8590	7700	6570	5310
20	3940	2410	1080	1080	911	2460	6070	8080	8570	7660	6530	5230
21	3880	2360	1040	1070	914	2740	6150	8110	8550	7620	6500	5120
22	3820	2320	1020	1050	917	3010	6210	8110	8530	7580	6470	5040
23	3760	2260	991	1040	914	3230	6320	8130	8500	7550	6430	4950
24	3700	2230	1010	1020	917	3390	6490	8160	8470	7510	6400	4870
25	3640	2190	999	1010	959	3500	6750	8220	8440	7470	6370	4780
26	3570	2140	971	991	993	3530	7110	8320	8410	7430	6340	4690
27	3520	2100	940	993	985	3510	7500	8450	8400	7390	6300	4600
28	3450	2060	917	971	979	3510	7830	8620	8360	7350	6270	4500
29	3390	2020	945	959	968	3580	7960	8540	8350	7310	6230	4400
30	3330	1960	920	948	---	3650	7980	8560	8350	7270	6210	4300
31	3280	---	931	931	---	3750	---	8570	---	7230	6180	---
MAX	5240	3230	1880	1110	993	3750	7980	8620	8600	8330	7190	6140
MIN	3280	1960	917	931	785	908	3820	8080	8350	7230	6180	4300
a	10.77	6.93	3.49	3.49	3.62	11.99	21.37	22.56	22.11	19.83	17.60	13.34
b	-2030	-1320	-1029	0	+37	+2782	+4230	+590	-220	-1120	-1050	-1880

CAL YR 2003 MAX 8716 MIN 917 b -1199
WTR YR 2004 MAX 8620 MIN 785 b -1010

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

11436000 SILVER LAKE OUTLET NEAR KIRKWOOD, CA

LOCATION.—Lat 38°40'18", long 120°07'19", in NE 1/4 SW 1/4 sec.32, T.10 N., R.17 E., El Dorado County, Hydrologic Unit 18020129, Eldorado National Forest, on right bank, 1,000 ft downstream from Silver Lake Dam, and 3.5 mi southwest of Kirkwood.

DRAINAGE AREA.—15.2 mi^2.

PERIOD OF RECORD.—September 1922 to current year. Records for water year 1923 incomplete, yearly estimate published in WSP 1315-A.

REVISED RECORDS.—WDR CA-75-4: 1927(M), 1929(M), 1932(M), 1937–38(M), 1940–45(M), 1950–53(M), 1955–58(M), 1963(M), 1965(M), 1967(M), 1969–70(M), 1973(M).

GAGE.—Water-stage recorder. Concrete control since Sept. 8, 1986. Datum of gage is 7,198.0 ft above NGVD of 1929 (levels by Pacific Gas & Electric Co.).

REMARKS.—Low and medium flow regulated by Silver Lake (station 11435900) 1,000 ft upstream. Some water, in addition to that released through dam and over spillway, escapes from Silver Lake through porous rock formation and is measured at staff gage (station 11436500) 0.25 mi east of station. For leakage from Silver Lake, refer to monthly figures below. See schematic diagram of South Fork American River Basin.

COOPERATION.—Records were collected by El Dorado Irrigation District, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 184.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 2,170 ft^3/s, Jan. 2, 1997, gage height, 7.79 ft, from rating curve extended above 430 ft^3/s; no flow many days in February and March 1948, Jan. 13, 14, 1954, and Nov. 3, 1959, to Feb. 5, 1960.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	24	41	3.6	13	14	59	86	65	3.0	3.2	3.6
2	29	24	41	3.5	13	13	60	84	70	3.1	2.9	3.4
3	29	24	40	3.4	13	13	64	169	70	3.0	3.0	3.4
4	29	24	39	4.2	13	13	74	234	69	2.9	3.0	3.3
5	29	24	38	4.8	12	12	93	200	69	2.7	3.0	3.3
6	29	23	39	3.7	12	12	117	200	58	3.0	2.8	3.2
7	29	23	39	3.5	12	12	106	174	38	3.4	2.9	3.2
8	29	23	25	3.5	12	12	98	150	14	3.4	2.8	3.2
9	28	23	21	3.5	11	13	114	146	5.2	3.2	2.7	3.4
10	28	23	38	3.5	11	14	51	127	4.9	3.2	2.8	3.5
11	28	23	38	3.5	11	11	7.0	82	4.9	3.6	3.0	3.6
12	28	23	36	3.5	11	5.7	7.3	48	4.8	3.5	3.1	3.3
13	28	22	35	3.2	10	5.5	7.4	41	4.6	3.2	3.0	3.2
14	27	22	35	3.2	10	5.8	7.5	80	4.6	2.9	2.8	3.3
15	27	22	34	3.2	10	6.1	7.5	109	4.5	3.6	2.8	25
16	27	22	32	3.2	10	6.4	7.5	110	4.4	5.0	2.9	38
17	27	22	31	3.2	11	6.2	7.5	110	4.4	4.1	2.9	38
18	26	22	29	3.2	12	5.4	7.4	109	4.4	3.9	2.8	38
19	26	22	27	7.6	13	5.7	7.3	90	4.4	3.5	2.7	38
20	26	21	26	15	13	6.0	7.3	58	4.3	3.4	3.1	37
21	26	21	24	15	13	6.3	7.3	46	4.1	3.4	2.9	37
22	26	21	21	15	13	23	7.3	47	4.1	3.6	2.9	37
23	26	20	20	14	13	50	7.6	51	4.0	3.6	2.8	36
24	25	20	20	14	13	53	7.6	47	3.6	3.7	2.9	36
25	25	20	21	14	13	55	7.9	29	3.1	3.8	3.0	35
26	25	20	20	14	15	56	11	13	3.0	3.7	2.8	35
27	25	20	19	14	15	56	8.9	13	3.1	3.7	3.5	41
28	25	20	18	14	14	56	13	111	4.4	3.7	4.3	45
29	25	21	18	14	14	56	61	132	5.7	3.6	3.9	44
30	24	42	18	14	---	56	105	64	4.4	3.6	3.7	44
31	24	---	9.5	14	---	57	---	60	---	3.5	3.7	---
TOTAL	834	681	892.5	242.0	356	716.1	1146.3	3020	547.9	107.5	94.6	650.9
MEAN	26.9	22.7	28.8	7.81	12.3	23.1	38.2	97.4	18.3	3.47	3.05	21.7
MAX	29	42	41	15	15	57	117	234	70	5.0	4.3	45
MIN	24	20	9.5	3.2	10	5.4	7.0	13	3.0	2.7	2.7	3.2
AC-FT	1650	1350	1770	480	706	1420	2270	5990	1090	213	188	1290
a	18	0	0	0	0	0	68	680	770	615	331	99

a Leakage (station 11436500), in acre-feet, from Silver Lake, provided by El Dorado Irrigation District.

11436000 SILVER LAKE OUTLET NEAR KIRKWOOD, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1923 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	25.4	18.3	15.9	14.8	13.4	15.6	44.6	126	86.2	19.0	8.13	36.3
MAX	54.3	110	116	188	93.2	98.2	133	306	353	186	50.5	74.6
(WY)	1953	1951	1951	1997	1963	1986	1943	1969	1983	1983	1987	1983
MIN	0.11	0.15	0.00	0.00	0.09	0.01	0.20	1.37	1.43	0.91	0.44	0.16
(WY)	1930	1929	1960	1960	1948	1948	1924	1977	1977	1959	1925	1923

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1923 - 2004	
ANNUAL TOTAL	13432.8		9288.8			
ANNUAL MEAN	36.8		25.4		35.4	
HIGHEST ANNUAL MEAN					85.4	1983
LOWEST ANNUAL MEAN					8.76	1976
HIGHEST DAILY MEAN	398	May 24	234	May 4	1940	Jan 2 1997
LOWEST DAILY MEAN	2.6	Aug 30	2.7	Jul 5	0.00	Feb 24 1948
ANNUAL SEVEN-DAY MINIMUM	2.8	Jul 19	2.8	Aug 13	0.00	Feb 28 1948
MAXIMUM PEAK FLOW			258	May 4	2170	Jan 2 1997
MAXIMUM PEAK STAGE			4.68	May 4	7.79	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	26640		18420		25630	
ANNUAL LEAKAGE (AC-FT) a	2200		2580			
10 PERCENT EXCEEDS	57		59		94	
50 PERCENT EXCEEDS	13		14		12	
90 PERCENT EXCEEDS	3.0		3.2		0.80	

a Leakage (station 11436500), in acre-feet, from Silver Lake, provided by El Dorado Irrigation District.

11436950 CAPLES LAKE NEAR KIRKWOOD, CA

LOCATION.—Lat 38°42'27", long 120°02'55", in SW 1/4 SW 1/4 sec.18, T.10 N., R.18 E., Alpine County, Hydrologic Unit 18020129, Eldorado National Forest, on Caples Lake Dam, near the center of the earthfill portion, and 1.3 mi east of Kirkwood.

DRAINAGE AREA.—13.5 mi^2.

PERIOD OF RECORD.—October 1985 to current year. Unpublished records for water years 1981–85 available in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder since Oct. 1, 1991. Datum of gage is 7,894.0 ft above NGVD of 1929 (levels by Pacific Gas & Electric Co.). Prior to Oct. 1, 1991, nonrecording gage read periodically except for Oct. 16, 1986, to Sept. 30, 1987; Dec. 18, 1990, to May 26, 1991; and July 30 to Sept. 16, 1991, when there was a water-stage recorder at same site and datum.

REMARKS.—Lake is formed by one earthfill and one concrete dam at spillway; dam was completed and storage began in 1924. Capacity, 21,580 acre-ft, between gage heights 6.0 and 62.0 ft, top of 3 ft of flashboards; capacity, 19,751 acre-ft, at spillway level. Released water is measured at Caples Creek Release (station 11436999). When gage height is above spillway crest of 59.0 ft, there is leakage or spill which is not measured. Released water is used for power development on South Fork American River. See schematic diagram of South Fork American River Basin.

COOPERATION.—Records were collected by El Dorado Irrigation District, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 184.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 22,505 acre-ft, June 28, 29, 2003, gage height, 62.27 ft; minimum, 2,427 acre-ft, Mar. 30, 31, 1987, gage height, 20.7 ft.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 21,800 acre-ft, June 26, gage height, 61.10 ft; minimum, 9,210 acre-ft, Mar. 12, gage height, 37.49 ft.

Capacity table (gage height, in feet, and contents, in acre-feet)
(Based on survey by El Dorado Irrigation District, dated Sept. 30, 1999)

15.0	1,347	30.0	6,086	45.0	12,743	60.0	21,103
20.0	2,665	35.0	8,129	50.0	15,331	63.0	22,338
25.0	4,254	40.0	10,349	55.0	18,122		

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18800	17200	13500	11500	10800	10600	10200	13600	19500	21700	18900	15400
2	18800	17000	13300	11400	10900	10400	10300	13800	19900	21700	18800	15300
3	18800	17000	13000	11300	10900	10200	10400	14200	20100	21700	18700	15200
4	18700	16700	12700	11300	10900	10000	10400	14600	20300	21700	18600	15100
5	18700	16600	12500	11200	10800	9820	10600	14900	20500	21700	18500	15000
6	18700	16400	12400	11200	10800	9590	10600	15200	20700	21700	18400	14900
7	18600	16300	12400	11200	10800	9370	10800	15500	20800	21700	18300	14800
8	18700	16200	12300	11200	10800	9260	10900	15700	20800	21600	18200	14700
9	18600	16200	12300	11200	10800	9260	11000	15900	20800	21600	18100	14600
10	18500	16100	12400	11200	10800	9260	11100	16100	20800	21500	18000	14600
11	18500	15900	12400	11200	10700	9240	11200	16100	20900	21500	17900	14500
12	18500	15800	12400	11200	10700	9210	11300	16300	21100	21400	17900	14500
13	18400	15700	12300	11200	10700	9220	11500	16400	21100	21300	17800	14500
14	18400	15600	12300	11100	10700	9240	11600	16500	21100	21200	17800	14400
15	18400	15500	12200	11100	10700	9240	11600	16700	21200	21100	17700	14400
16	18400	15400	12200	11100	10700	9260	11700	16900	21200	21000	17700	14400
17	18300	15300	12100	11000	10700	9310	11800	17100	21300	20900	17600	14300
18	18300	15200	12100	11000	10800	9340	11800	17200	21300	20800	17400	14300
19	18400	15000	12000	11000	10800	9400	11900	17400	21400	20700	17300	14300
20	18300	14900	12000	11000	10800	9480	11900	17500	21500	20500	17200	14300
21	18200	14800	11900	10900	10800	9570	12000	17600	21500	20400	17000	14300
22	18200	14700	11900	10900	10800	9660	12000	17600	21600	20300	16900	14200
23	18200	14600	11800	10900	10800	9790	12000	17800	21700	20200	16800	14200
24	18100	14400	11900	10900	10800	9870	12100	17900	21700	20000	16600	14200
25	18200	14300	11900	10900	10900	9960	12300	18000	21700	19900	16500	14200
26	18000	14200	11800	10900	10900	10000	12500	18200	21800	19800	16300	14200
27	17900	14100	11700	10900	10900	10000	12700	18400	21700	19600	16200	14100
28	17800	13900	11700	10900	10800	10000	12900	18800	21700	19500	16000	14100
29	17600	13800	11600	10900	10700	10100	13200	19000	21700	19400	15900	14100
30	17600	13700	11600	10900	---	10200	13300	19300	21700	19200	15700	14100
31	17300	---	11500	10900	---	10200	---	19400	---	19100	15600	---
MAX	18800	17200	13500	11500	10900	10600	13300	19400	21800	21700	18900	15400
MIN	17300	13700	11500	10900	10700	9210	10200	13600	19500	19100	15600	14100
a	53.63	46.84	42.38	41.08	40.79	39.72	46.19	57.13	60.98	56.67	50.45	47.66
b	-1600	-3600	-2200	-600	-200	-500	+3100	+6100	+2300	-2700	-3400	-1500

CAL YR 2003 MAX 22505 MIN 11500 b -2300
WTR YR 2004 MAX 21800 MIN 9210 b -4800

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

11436999 CAPLES CREEK RELEASE BELOW CAPLES DAM, NEAR KIRKWOOD, CA

LOCATION.—Lat 38°42'31", long 120°03'02", in NW 1/4 SW 1/4 sec.18, T.10 N., R.18 E., Alpine County, Hydrologic Unit 18020129, Eldorado National Forest, on right bank, 500 ft downstream from main dam and outlet gate of Caples Lake, and 1.3 mi east of Kirkwood.

DRAINAGE AREA.—13.5 mi^2.

PERIOD OF RECORD.—October 1992 to current year. Unpublished records for water years 1971 and 1978–92 available in files of the U.S. Geological Survey. Records of release flows plus spillway flows for September 1922 to September 1992 were published as "Caples Lake Outlet near Kirkwood" (station 11437000).

REVISED RECORDS.—WSP 1931: Drainage area.

GAGE.—Water-stage recorder and concrete control. Elevation of gage is 7,730 ft above NGVD of 1929, from topographic map.

REMARKS.—Flow regulated by Caples Lake (station 11436950) 500 ft upstream. Flow over Caples Lake Spillway bypasses this gage. No diversion upstream from station. See schematic diagram of South Fork American River Basin.

COOPERATION.—Records were collected by El Dorado Irrigation District, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 184.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 368 ft^3/s, May 31, 2003, gage height, 3.42 ft; minimum daily, 4.6 ft^3/s, Sept. 16, 2004.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	78	90	50	9.4	85	16	13	28	29	73	68
2	13	78	110	50	9.4	84	17	13	28	29	73	58
3	13	78	150	50	9.4	98	19	13	28	29	58	50
4	13	77	168	41	9.4	107	19	20	29	29	45	48
5	13	70	145	21	9.4	114	19	28	29	29	45	48
6	13	61	116	12	9.4	124	19	28	29	35	45	48
7	13	61	43	6.7	9.4	123	19	28	29	40	45	42
8	13	60	9.2	6.4	16	76	19	28	29	40	45	35
9	13	60	9.2	6.3	20	18	19	28	29	40	44	31
10	13	60	9.2	6.2	9.4	18	19	28	29	40	44	20
11	13	59	9.2	6.3	9.4	18	19	28	29	45	32	15
12	13	59	20	13	9.4	18	16	28	29	49	20	15
13	13	59	30	18	9.5	18	12	28	29	56	21	15
14	13	59	30	19	9.5	18	12	28	29	63	20	15
15	13	59	30	21	9.6	19	13	29	29	63	20	9.7
16	13	59	29	21	9.7	19	13	29	29	67	37	4.6
17	13	58	29	21	9.6	17	13	29	29	74	53	5.3
18	13	58	25	21	9.6	16	13	29	29	74	61	6.9
19	13	58	29	17	9.6	16	13	28	29	74	66	6.8
20	13	58	29	9.2	8.5	16	13	27	29	74	66	6.4
21	13	58	29	9.2	7.4	16	13	28	29	74	66	6.0
22	15	61	29	9.2	7.6	16	13	28	29	74	66	6.1
23	15	64	34	9.2	7.6	16	13	28	29	74	65	6.1
24	15	64	28	9.2	7.6	16	13	28	29	74	69	6.0
25	15	64	20	9.2	7.6	16	13	28	29	74	75	6.0
26	15	64	27	9.2	7.5	16	13	28	29	74	77	6.0
27	38	63	41	9.2	22	16	13	28	29	74	77	6.0
28	66	63	e50	9.2	36	16	13	28	29	73	77	6.1
29	73	63	e50	9.2	63	16	13	28	29	73	76	6.1
30	73	76	e50	9.2	---	16	13	28	29	73	76	6.1
31	75	---	e50	9.2	---	16	---	28	---	73	75	---
TOTAL	675	1909	1517.8	517.3	371.9	1198	452	818	867	1789	1712	608.2
MEAN	21.8	63.6	49.0	16.7	12.8	38.6	15.1	26.4	28.9	57.7	55.2	20.3
MAX	75	78	168	50	63	124	19	29	29	74	77	68
MIN	13	58	9.2	6.2	7.4	16	12	13	28	29	20	4.6
AC-FT	1340	3790	3010	1030	738	2380	897	1620	1720	3550	3400	1210

e Estimated.

11436999 CAPLES CREEK RELEASE BELOW CAPLES DAM, NEAR KIRKWOOD, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	26.6	27.2	22.0	28.2	23.9	20.4	25.5	59.1	99.1	52.5	28.2	28.0
MAX	54.5	63.6	49.0	116	92.4	40.0	83.5	134	203	183	64.5	55.3
(WY)	1996	2004	2004	1997	1997	1997	1995	1999	1995	1995	1995	1995
MIN	6.72	6.75	6.60	8.70	8.81	7.22	5.80	8.18	5.90	5.99	10.1	15.2
(WY)	1998	1998	1998	2002	2002	2003	2003	2001	2001	2001	1999	2002

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1993 - 2004	
ANNUAL TOTAL	13941.5		12435.2			
ANNUAL MEAN	38.2		34.0		36.7	
HIGHEST ANNUAL MEAN					63.1	1995
LOWEST ANNUAL MEAN					19.8	2001
HIGHEST DAILY MEAN	362	May 31	168	Dec 4	362	May 31 2003
LOWEST DAILY MEAN	5.7	Apr 30	4.6	Sep 16	4.6	Sep 16 2004
ANNUAL SEVEN-DAY MINIMUM	5.7	May 7	6.0	Sep 16	5.7	May 7 2003
MAXIMUM PEAK FLOW			170	Dec 4	368	May 31 2003
MAXIMUM PEAK STAGE			2.80	Dec 4	3.42	May 31 2003
ANNUAL RUNOFF (AC-FT)	27650		24670		26610	
10 PERCENT EXCEEDS	85		74		81	
50 PERCENT EXCEEDS	15		28		20	
90 PERCENT EXCEEDS	5.8		9.2		7.9	

11439500 SOUTH FORK AMERICAN RIVER NEAR KYBURZ, CA

LOCATION.—Lat 38°45'49", long 120°19'39", in SW 1/4 SW 1/4 sec.29, T.11 N., R.15 E., El Dorado County, Hydrologic Unit 18020129, Eldorado National Forest, on right bank, 0.8 mi downstream from Silver Fork American River, and 1.9 mi southwest of Kyburz.

DRAINAGE AREA.—193 mi^2.

PERIOD OF RECORD.—August to December 1907, October 1922 to current year. Prior to October 1956, records for river and El Dorado Canal published separately; combined flow only, October 1956 to September 1960.
CHEMICAL DATA: Water years 1979, 1980.
BIOLOGICAL DATA: Water years 1979, 1980.
WATER TEMPERATURE: Water years 1966–79.
SUSPENDED SEDIMENT: Water year 1980.

REVISED RECORDS.—WSP 1445: 1923(M), 1925(M), 1927(M), 1928 (river only), 1935–37(M). WSP 1515: 1928 (combined). WSP 1931: Drainage area.

GAGE.—Water-stage recorder on river; water-stage recorder for canal diversion (station 11439000). Elevation of gage is 3,840 ft above NGVD of 1929, from topographic map. Prior to Oct. 1, 1962, at datum 1.00 ft higher.

REMARKS.—Low and medium flows regulated by Echo Lake, Silver Lake, Caples Lake, and Lake Aloha (stations 10336608, 11435900, 11436950, and 11434900, respectively), total capacity, 37,100 acre-ft. Some water is diverted out of river 0.6 mi upstream at diversion dam to El Dorado Canal (station 11439000). Part of this water is used for irrigation and domestic use and the remainder is returned to river at El Dorado Powerplant. See schematic diagram of South Fork American River Basin.

COOPERATION.—Records were collected by El Dorado Irrigation District, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 184.

EXTREMES FOR PERIOD OF RECORD.—River only: Maximum discharge, 25,000 ft^3/s, Jan. 2, 1997, gage height, 14.26 ft (from floodmarks), from rating curve extended above 6,300 ft^3/s, on basis of contracted-opening measurement at gage height 10.40 ft; minimum daily, 0.13 ft^3/s, Nov. 26, 1977.
Combined flow: Maximum discharge, 25,000 ft^3/s, Jan. 2, 1997; minimum daily, 10 ft^3/s, Oct. 17, 19, 1929.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52	59	70	58	59	120	661	814	396	59	57	54
2	47	58	58	65	59	118	498	946	403	62	56	49
3	46	61	69	58	59	134	524	1120	394	65	55	49
4	46	54	86	64	61	118	714	1290	366	58	61	45
5	47	61	122	105	66	120	881	1260	330	58	55	43
6	48	57	247	103	61	129	929	1120	304	59	57	43
7	47	55	297	88	61	157	804	935	279	61	58	42
8	47	55	133	87	66	221	832	870	212	59	56	44
9	46	71	91	92	63	214	861	839	174	56	58	44
10	47	62	90	94	63	279	814	769	152	56	57	46
11	48	58	66	92	61	307	685	572	140	55	56	44
12	47	56	61	88	63	297	738	450	133	56	59	43
13	47	57	87	67	61	297	735	449	130	55	53	43
14	46	56	89	56	59	334	572	566	133	56	54	43
15	46	63	70	56	59	442	503	641	121	59	53	43
16	46	59	67	55	86	493	411	624	133	58	54	55
17	46	59	64	57	310	499	350	638	123	57	54	44
18	45	62	63	56	187	541	299	579	118	59	55	43
19	47	60	63	55	109	652	272	486	117	55	55	44
20	49	61	71	59	85	682	284	446	123	56	52	44
21	48	59	87	56	70	799	337	406	112	56	53	52
22	48	55	64	62	65	855	328	392	112	58	54	47
23	48	57	59	63	61	932	310	400	93	57	54	46
24	47	58	130	58	61	858	398	388	90	56	56	42
25	47	57	127	57	89	710	523	364	76	57	57	43
26	48	56	68	62	122	527	689	333	66	56	57	44
27	47	58	60	65	78	416	924	365	66	56	55	47
28	60	58	86	61	93	411	1030	906	64	59	56	47
29	58	58	67	60	90	480	845	627	60	59	55	45
30	52	62	65	58	---	598	738	434	62	55	57	46
31	52	---	62	59	---	624	---	414	---	60	56	---
TOTAL	1495	1762	2839	2116	2427	13364	18489	20443	5082	1788	1725	1364
MEAN	48.2	58.7	91.6	68.3	83.7	431	616	659	169	57.7	55.6	45.5
MAX	60	71	297	105	310	932	1030	1290	403	65	61	55
MIN	45	54	58	55	59	118	272	333	60	55	52	42
AC-FT	2970	3490	5630	4200	4810	26510	36670	40550	10080	3550	3420	2710

11439500 SOUTH FORK AMERICAN RIVER NEAR KYBURZ, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1923 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	37.3	79.0	128	155	175	280	638	1196	833	181	28.3	26.7
MAX	223	1283	1587	1964	1333	1252	1497	2765	3551	1628	343	417
(WY)	1984	1951	1951	1997	1986	1986	1982	1969	1983	1995	1983	1983
MIN	0.77	0.49	0.69	0.57	0.76	2.42	38.9	56.8	0.76	0.62	0.58	0.54
(WY)	1929	1929	1931	1929	1931	1933	1977	1977	1924	1924	1926	1924

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1923 - 2004	
ANNUAL TOTAL	126241		72894			
ANNUAL MEAN	346		199		313	
HIGHEST ANNUAL MEAN					907	1983
LOWEST ANNUAL MEAN					19.4	1977
HIGHEST DAILY MEAN	2700	May 29	1290	May 4	18000	Jan 2 1997
LOWEST DAILY MEAN	45	Oct 18	42	Sep 7	0.13	Nov 26 1977
ANNUAL SEVEN-DAY MINIMUM	46	Oct 12	44	Sep 5	0.36	Nov 5 1928
MAXIMUM PEAK FLOW			1680	May 3	25000	Jan 2 1997
MAXIMUM PEAK STAGE			4.94	May 3	14.26	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	250400		144600		227000	
10 PERCENT EXCEEDS	835		630		1020	
50 PERCENT EXCEEDS	129		62		55	
90 PERCENT EXCEEDS	55		47		3.0	

11439501 SOUTH FORK AMERICAN RIVER NEAR KYBURZ, CA—Continued

SOUTH FORK AMERICAN RIVER AND EL DORADO CANAL NEAR KYBURZ, CA

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	85	123	151	132	98	226	760	961	541	143	155	91
2	80	122	154	125	102	219	630	1090	549	157	153	81
3	77	125	189	132	101	217	671	1260	540	164	152	75
4	77	117	222	123	97	230	830	1440	512	129	132	71
5	77	116	248	121	95	232	972	1410	476	122	126	70
6	77	106	381	104	96	255	1020	1270	450	115	124	70
7	76	104	399	89	94	291	894	1080	426	141	122	68
8	76	104	152	88	87	358	964	1020	357	152	120	67
9	75	121	91	93	106	355	1010	985	321	156	116	76
10	76	111	109	95	96	425	961	915	300	155	111	72
11	77	107	108	93	94	451	832	718	288	151	109	64
12	76	105	102	94	92	441	886	595	279	154	92	59
13	76	106	141	103	95	441	883	595	275	151	86	58
14	75	105	154	107	95	478	720	712	276	159	83	58
15	75	112	126	111	94	587	650	787	248	156	79	58
16	75	108	126	111	138	639	558	769	227	155	76	82
17	75	108	123	110	417	645	499	783	217	162	86	73
18	73	111	120	112	304	687	447	723	208	161	83	68
19	71	109	118	112	226	798	420	630	198	159	89	71
20	73	110	137	112	194	799	432	591	186	157	87	72
21	74	108	161	106	173	917	485	553	175	155	87	71
22	74	103	135	100	162	1000	475	538	169	153	87	69
23	74	104	125	105	154	1080	458	546	164	152	86	68
24	72	105	197	105	147	1000	544	534	157	149	86	63
25	72	104	198	103	186	860	671	506	151	147	89	62
26	73	102	151	97	217	675	836	477	143	145	93	62
27	72	104	123	105	193	565	973	510	138	147	92	61
28	99	104	151	102	190	560	1040	1050	143	146	93	68
29	115	104	155	100	193	628	933	772	142	145	92	70
30	115	108	154	101	---	746	885	580	145	143	92	76
31	115	---	149	98	---	754	---	559	---	154	91	---
TOTAL	2477	3276	5050	3289	4336	17559	22339	24959	8401	4635	3169	2074
MEAN	79.9	109	163	106	150	566	745	805	280	150	102	69.1
MAX	115	125	399	132	417	1080	1040	1440	549	164	155	91
MIN	71	102	91	88	87	217	420	477	138	115	76	58
AC-FT	4910	6500	10020	6520	8600	34830	44310	49510	16660	9190	6290	4110
a	1950	3000	4390	2330	3790	8320	7630	8940	6580	5650	2860	1410

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1923 - 2004, BY WATER YEAR (WY)

MEAN	109	158	214	237	267	380	739	1313	958	301	145	131
MAX	365	1301	1698	1964	1412	1344	1533	2905	3561	1637	357	424
(WY)	1983	1951	1951	1997	1986	1986	1982	1969	1983	1995	1983	1983
MIN	20.8	25.1	44.2	35.9	38.4	53.7	178	207	99.7	55.4	65.6	46.4
(WY)	1978	1930	1960	1929	1977	1977	1977	1977	1924	2001	2001	1987

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1923 - 2004	
ANNUAL TOTAL	134021		101564			
ANNUAL MEAN	367		277		413	
HIGHEST ANNUAL MEAN					980	1983
LOWEST ANNUAL MEAN					104	1977
HIGHEST DAILY MEAN	2700	May 29	1440	May 4	18000	Jan 2 1997
LOWEST DAILY MEAN	71	Oct 19	58	Sep 13	10	Oct 17 1929
ANNUAL SEVEN-DAY MINIMUM	73	Oct 19	64	Sep 9	13	Oct 6 1929
MAXIMUM PEAK FLOW			1830	May 3	25000	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	265800		201500		299100	
ANNUAL DIVERSION (AC-FT) a	15450		56850			
10 PERCENT EXCEEDS	835		770		1120	
50 PERCENT EXCEEDS	143		140		166	
90 PERCENT EXCEEDS	91		75		74	

a Diversion, in acre-feet, to El Dorado Canal (station 11439000), provided by El Dorado Irrigation District.

11441001 UNION VALLEY RESERVOIR NEAR RIVERTON, CA

LOCATION.—Lat 38°51'53", long 120°26'13", in NW 1/4 NW 1/4 sec.29, T.12 N., R.14 E., El Dorado County, Hydrologic Unit 18020129, Eldorado National Forest, in valve control house, near left bank at Union Valley Dam, on Silver Creek, 0.7 mi upstream from Little Silver Creek, and 6.6 mi north of Riverton.

DRAINAGE AREA.—83.7 mi^2.

PERIOD OF RECORD.—October 1962 to current year.
CHEMICAL ANALYSES: Water year 1996.

GAGE.—Water-stage recorder. Datum of gage is NGVD of 1929 (levels by Sacramento Municipal Utility District).

REMARKS.—Reservoir is formed by earthfill dam completed in December 1962; storage began May 1962. Usable capacity, 270,300 acre-ft, between elevations 4,645.0 ft, minimum operating level, and 4,870.0 ft, top of radial spillway gates. Dead storage, 7,000 acre-ft. Reservoir receives water from the South Fork Rubicon River via Robbs Peak Powerplant (station 11429300) and from South Fork Silver Creek, since April 1985, via Jones Fork Powerplant (station 11440900). Water is used for power development in the South Fork American River Basin. Discharge to Union Valley Powerplant (station 11441002) is shown as a line item below this table. Records, including extremes, represent total contents. See schematic diagrams of Middle Fork American and Rubicon River Basins and South Fork American River Basin.

COOPERATION.—Records were collected by Sacramento Municipal Utility District, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2101. Contents not rounded to U.S. Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 279,100 acre-ft, July 9, 1974, elevation, 4,870.6 ft; minimum since reservoir first filled, 18,300 acre-ft, Jan. 13, 1977, elevation, 4,683.3 ft.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 262,700 acre-ft, June 4, elevation, 4,868.56 ft; minimum, 132,300 acre-ft, Feb. 13, elevation, 4,812.60 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Table provided by Sacramento Municipal Utility District, based on May, 2000, survey)

4,680	11,975	4,740	42,705	4,800	111,259	4,840	188,042
4,700	19,134	4,760	60,412	4,820	145,982	4,870	266,912
4,720	29,169	4,780	83,008				

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	185300	172800	158100	157500	139400	139100	178700	226800	261100	250700	224400	190800
2	184700	172600	158100	157000	138800	138700	180400	228900	261300	250300	223000	189500
3	184200	172700	158200	156300	137600	138400	182100	231700	261800	249400	221600	188200
4	184200	172600	158300	156200	136900	138400	184400	233900	262700	249000	220400	187200
5	183200	172700	158500	155500	136300	138600	186500	235800	262200	247700	219600	185900
6	184000	171700	159700	154600	135700	139200	189000	237500	261200	247000	218400	184600
7	184200	170800	160700	153600	135700	139500	190600	239100	261700	246400	217300	183100
8	183300	169600	161100	153100	135600	139700	192900	240600	261900	245700	215500	181700
9	182400	168300	161200	152400	134900	140700	195100	241600	261900	245100	214400	180200
10	182200	167400	161800	152200	134300	141500	196400	243000	261500	244400	213600	178100
11	182100	167100	160500	151400	134100	142100	198200	243900	261200	244100	212500	176200
12	181400	166000	159900	150500	132700	142900	200000	245700	260400	243400	211600	175500
13	180900	164800	160200	149400	132300	143600	201300	247100	260100	242600	210800	173900
14	180800	164800	160000	148500	132400	145100	202600	248000	259900	241700	210200	172300
15	180400	165000	159500	148100	132600	146500	203900	249000	259400	240100	209200	170700
16	180100	164700	158300	147600	133900	147800	205200	249900	258500	239100	208100	168900
17	179500	164200	158100	147000	135500	148900	206200	250900	258000	238100	207500	168800
18	178900	163400	157200	146700	136700	150500	207300	251700	256000	237300	206100	168800
19	178100	162900	156100	146000	137800	152200	207700	252500	256300	236200	205500	168900
20	177600	162600	156300	145500	138400	153800	208700	252500	256500	234300	204000	166900
21	177500	162600	156700	145600	139000	156600	210200	252800	255600	233000	203100	165500
22	177200	162500	156000	144100	139200	158600	211700	253300	255400	232400	202500	163300
23	175600	161900	155500	143300	138900	160600	213100	253700	255300	231900	201300	162100
24	176100	161300	156700	142400	139000	162200	214000	254200	254800	231400	200300	160200
25	174800	160200	157600	141900	139700	164600	215300	254700	254200	230100	199100	158900
26	174800	159200	158000	140900	140100	166800	216800	255600	252900	229200	197500	158200
27	174600	159200	158300	140100	139800	168200	219000	256700	252200	228400	196600	156800
28	174500	159000	158200	139800	139300	170000	221300	258300	251900	226600	195600	155000
29	173800	158600	157700	139000	139400	172100	223000	259400	252100	226400	194600	154100
30	173200	157900	157500	139000	---	174800	225100	260700	251500	225800	193800	153500
31	173400	---	157500	139100	---	176900	---	261500	---	224700	192300	---
MAX	185300	172800	161800	157500	140100	176900	225100	261500	262700	250700	224400	190800
MIN	173200	157900	155500	139000	132300	138400	178700	226800	251500	224700	192300	153500
a	4833.45	4826.03	4825.87	4816.35	4816.49	4835.06	4855.04	4868.17	4864.72	4854.89	4841.84	4823.84
b	-12800	-15500	-400	-18400	+300	+37500	+48200	+36400	-10000	-26800	-32400	-38800
c	18680	22240	15850	35960	19520	25140	9500	5430	25920	40300	47180	47410

CAL YR 2003 MAX 258700 MIN 143200 b +2400 c 348900
WTR YR 2004 MAX 262700 MIN 132300 b -32700 c 313100

a Elevation, in feet, at end of month.
b Change in contents, in acre-feet.
c Diversion, in acre-feet, to Union Valley Powerplant (station 11441002), provided by Sacramento Municipal Utility District.

11441100 ICE HOUSE RESERVOIR NEAR KYBURZ, CA

LOCATION.—Lat 38°49'51", long 120°21'35", in SE 1/4 NW 1/4 sec.1, T.11 N., R.14 E., El Dorado County, Hydrologic Unit 18020129, Eldorado National Forest, in powerplant intake structure, near right bank, 0.5 mi north of Ice House Dam on South Fork Silver Creek, and 5.2 mi northwest of Kyburz.

DRAINAGE AREA.—27.2 mi^2.

PERIOD OF RECORD.—October 1959 to current year.
CHEMICAL ANALYSES: June to September 1996.

REVISED RECORDS.—WSP 1931: 1960.

GAGE.—Water-stage recorder. Datum of gage is NGVD of 1929 (levels by Sacramento Municipal Utility District). Prior to July 15, 1985, at site 0.5 mi downstream at Ice House Dam at same datum.

REMARKS.—Reservoir is formed by an earthfill dam; storage began Dec. 15, 1959. Usable capacity, 45,839 acre-ft, between elevations 5,327.5 ft, centerline of fishwater outlet, and 5,450.0 ft, top of spillway gates. Dead storage, 160 acre-ft. Reservoir is used to store water for power development. Reservoir is also forebay for Jones Fork Powerplant (station 11440900), which diverts up to 350 ft^3/s to powerplant completed in April 1985, then to Union Valley Reservoir (station 11441001). Records, including extremes, represent total contents. See schematic diagram of South Fork American River Basin.

COOPERATION.—Records were collected by Sacramento Municipal Utility District, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2101.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 46,400 acre-ft, June 27, 1971, elevation, 5,450.6 ft; minimum since reservoir first filled, 1,450 acre-ft, Dec. 8, 1983, elevation, 5,347.9 ft.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 42,800 acre-ft, June 21, 22, maximum elevation, 5,449.07 ft, June 22; minimum, 23,100 acre-ft, Mar. 15, 16, minimum elevation, 5,415.29 ft, Mar. 15.

Capacity table (elevation, in feet, and contents in acre-feet)
(Table provided by Sacramento Municipal Utility District, based on June, 2000, survey)

5,345	849	5,360	3,145	5,400	15,956	5,440	37,061
5,350	1,451	5,380	8,400	5,420	25,587	5,451	44,074

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30800	28700	27100	28100	25300	24800	24500	33500	41000	42500	37800	31200
2	30700	28600	27100	28100	25300	24700	24500	33700	41100	42400	37600	30900
3	30700	28600	27100	28000	25300	24600	24800	34000	41300	42400	37400	30700
4	30700	28400	27100	27900	25300	24500	24900	34600	41400	42400	37100	30400
5	30600	28200	27100	27600	25300	24300	25300	35200	41600	42400	36900	30400
6	30400	28200	27300	27600	25300	24200	25700	35700	41700	42200	36700	30100
7	30300	28100	27400	27600	25300	24000	26000	36100	41800	42100	36500	29900
8	30300	28100	27500	27500	25200	23800	26400	36400	41900	41900	36400	29600
9	30200	28100	27500	27400	25200	23700	26900	36800	42000	41700	36200	29400
10	30200	28100	27600	27400	25200	23500	27300	37100	42100	41500	36000	29100
11	30200	28000	27600	27400	25200	23500	27700	37200	42100	41500	35700	28900
12	30100	27900	27700	27200	25200	23400	28100	37100	42100	41300	35500	28900
13	30100	27900	27800	27100	25200	23200	28500	37300	42200	41100	35300	28600
14	30100	27900	27800	26900	25200	23200	28900	37500	42300	40900	35200	28300
15	30000	27900	27900	26700	25200	23100	29100	37800	42400	40700	35100	28100
16	30000	27800	27900	26400	25300	23100	29400	38000	42400	40500	34800	27800
17	30000	27800	27900	26200	25300	23200	29500	38300	42500	40200	34500	27700
18	29900	27700	27900	26000	25400	23200	29700	38500	42600	40200	34300	27700
19	29900	27700	27900	25800	25400	23300	29800	38600	42700	40000	34000	27700
20	29800	27700	27900	25600	25400	23400	30000	38800	42700	39800	33800	27400
21	29600	27600	27900	25400	25400	23500	30200	38900	42800	39600	33500	27100
22	29600	27600	27900	25300	25400	23700	30400	39100	42800	39400	33500	26900
23	29600	27500	27900	25300	25300	24000	30600	39200	42700	39100	33300	26700
24	29500	27300	28000	25400	25200	24200	30800	39300	42700	38900	33000	26400
25	29400	27300	28000	25300	25200	24400	31200	39500	42600	38900	32800	26200
26	29100	27300	28000	25300	25300	24400	31600	e39700	42600	38600	32600	26100
27	29000	27200	28000	25300	25100	24400	32100	e40000	42600	38500	32300	25900
28	28800	27200	28000	25300	25000	24300	32600	40200	42500	38300	32000	25700
29	28700	27200	28000	25300	24900	24300	33100	40400	42500	38200	31900	25500
30	28700	27100	28000	25300	---	24400	33300	40600	42500	38000	31700	25400
31	28700	---	28000	25300	---	24500	---	40800	---	37800	31500	---
MAX	30800	28700	28000	28100	25400	24800	33300	40800	42800	42500	37800	31200
MIN	28700	27100	27100	25300	24900	23100	24500	33500	41000	37800	31500	25400
a	5425.74	5422.81	5424.56	5419.41	5418.77	5417.89	5433.82	5445.94	5448.58	5441.22	5430.62	5419.65
b	-2100	-1600	+900	-2700	-400	-400	+8800	+7500	+1700	-4700	-6300	-6100

CAL YR 2003 MAX 42200 MIN 18300 b +4700
WTR YR 2004 MAX 42800 MIN 23100 b -5400

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

11441500 SOUTH FORK SILVER CREEK NEAR ICE HOUSE, CA

LOCATION.—Lat 38°49'08", long 120°21'51", in NW 1/4 NW 1/4 sec.12, T.11 N., R.14 E., El Dorado County, Hydrologic Unit 18020129, Eldorado National Forest, on right bank, 300 ft upstream from Peavine Creek, 0.4 mi downstream from Ice House Dam, and 4.8 mi northwest of Kyburz.

DRAINAGE AREA.—27.5 mi^2.

PERIOD OF RECORD.—October 1924 to current year.

REVISED RECORDS.—WSP 1395: 1928, 1938. WSP 1635: Drainage area at former site.

GAGE.—Water-stage recorder and concrete control. Elevation of gage is 5,290 ft above NGVD of 1929, from topographic map. Prior to Oct. 1, 1959, at site 0.3 mi upstream at different datum.

REMARKS.—Flow regulated by Ice House Reservoir (station 11441100) beginning in December 1959. Diversion to Jones Fork Powerplant (station 11440900) starting April 1985 bypasses station and returns to Silver Creek at Union Valley Reservoir (station 11441001). See schematic diagram of South Fork American River Basin.

COOPERATION.—Records were collected by Sacramento Municipal Utility District, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2101.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge prior to construction of Ice House Dam in 1959, 3,940 ft^3/s, Dec. 23, 1955, gage height, 6.71 ft, site and datum then in use, from rating curve extended above 540 ft^3/s, on basis of slope-area measurement at gage height 6.69 ft; no flow Oct. 31 to Nov. 9, 1958. Maximum discharge since construction of the dam, 7,530 ft^3/s, May 16, 1996, gage height, 7.64 ft, from rating curve extended above 730 ft^3/s, on basis of computation of flow over dam at gage height 5.66 ft; minimum daily, 1.2 ft^3/s, Mar. 17–19, 1960.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	16	6.1	6.6	4.9	5.2	5.8	129	10	19	19	20
2	20	16	6.1	6.6	5.2	5.2	5.7	10	10	19	19	20
3	20	15	6.1	6.6	5.5	5.2	5.6	10	10	19	19	20
4	20	15	6.1	6.4	5.2	5.2	5.5	10	10	19	19	20
5	20	13	6.4	6.4	5.2	5.2	5.5	10	10	19	19	20
6	17	13	6.8	6.4	5.2	5.4	5.5	10	10	19	19	20
7	15	13	7.2	6.4	5.4	5.7	5.2	10	10	19	19	19
8	15	13	6.2	6.6	5.2	5.8	4.9	10	10	19	19	19
9	15	13	6.1	6.8	5.2	5.6	5.0	10	10	20	19	19
10	15	13	6.3	6.7	5.0	5.6	5.2	10	10	20	19	19
11	16	13	6.4	6.4	4.9	5.6	5.3	11	10	20	19	19
12	16	13	6.3	6.4	4.9	5.6	4.9	10	10	20	19	19
13	16	13	6.8	5.6	4.9	5.6	4.9	10	10	20	19	19
14	16	13	6.7	4.6	4.9	5.5	4.4	10	10	20	18	19
15	15	13	6.4	4.4	5.0	5.9	3.9	11	10	20	18	19
16	15	13	6.2	4.4	6.6	6.1	3.9	11	10	20	18	19
17	16	8.7	6.2	4.4	6.3	6.4	3.9	10	10	20	18	19
18	16	5.2	6.5	4.0	6.5	6.5	4.1	10	10	20	18	19
19	16	5.3	6.5	3.9	5.5	6.1	4.4	10	10	20	18	19
20	16	5.2	6.9	3.9	5.5	6.0	4.4	10	10	20	18	19
21	16	5.2	7.1	3.9	5.2	6.0	4.5	10	10	20	18	20
22	16	4.9	6.8	3.9	5.2	6.0	4.1	10	10	20	18	19
23	15	4.9	6.7	3.9	5.4	5.9	3.9	10	10	20	18	19
24	15	5.6	7.5	3.9	5.5	5.8	3.9	10	10	19	18	19
25	15	6.1	6.9	3.9	6.2	6.0	3.9	10	10	19	18	19
26	15	6.3	6.6	4.1	6.3	6.3	3.9	10	10	20	18	18
27	15	6.3	6.4	4.2	5.3	6.0	3.9	10	10	19	19	18
28	15	6.1	6.6	4.5	5.2	5.9	3.9	11	10	19	20	18
29	15	6.1	6.8	4.9	5.2	5.9	3.9	11	10	19	20	18
30	15	6.1	6.8	4.9	---	5.9	5.0	10	14	19	20	18
31	15	---	6.8	4.9	---	5.8	---	10	---	19	20	---
TOTAL	502	300.0	203.3	160.5	156.5	178.9	138.9	434	304	605	580	572
MEAN	16.2	10.0	6.56	5.18	5.40	5.77	4.63	14.0	10.1	19.5	18.7	19.1
MAX	20	16	7.5	6.8	6.6	6.5	5.8	129	14	20	20	20
MIN	15	4.9	6.1	3.9	4.9	5.2	3.9	10	10	19	18	18
AC-FT	996	595	403	318	310	355	276	861	603	1200	1150	1130
a	1180	1420	615	3860	2070	7310	2270	1260	745	3680	4970	4930

a Diversion, in acre-feet, to Jones Fork Powerplant (station 11440900), provided by Sacramento Municipal Utility District.

11441500 SOUTH FORK SILVER CREEK NEAR ICE HOUSE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 1959, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	4.98	24.1	36.6	31.3	35.8	61.6	155	296	197	42.7	5.82	2.03
MAX	28.0	326	305	163	91.7	191	280	531	418	132	22.8	7.62
(WY)	1948	1951	1951	1956	1925	1928	1943	1952	1952	1952	1952	1952
MIN	.65	.64	2.34	3.00	3.00	6.92	54.9	66.2	35.0	2.92	.22	.18
(WY)	1933	1930	1933	1933	1933	1933	1944	1934	1931	1934	1931	1931

SUMMARY STATISTICS	WATER YEARS 1925 - 1959	
ANNUAL MEAN	74.5	
HIGHEST ANNUAL MEAN	123	1956
LOWEST ANNUAL MEAN	25.3	1931
HIGHEST DAILY MEAN	2780	Dec 23 1955
LOWEST DAILY MEAN	.00	Oct 31 1958
ANNUAL SEVEN-DAY MINIMUM	.00	Oct 31 1958
MAXIMUM PEAK FLOW	3940	Dec 23 1955
MAXIMUM PEAK STAGE	6.71	Dec 23 1955
ANNUAL RUNOFF (AC-FT)	53970	
10 PERCENT EXCEEDS	237	
50 PERCENT EXCEEDS	20	
90 PERCENT EXCEEDS	1.4	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 1984, BY WATER YEAR (WY)

MEAN	112	87.6	49.4	57.1	71.2	43.6	56.0	125	157	78.1	80.9	90.1
MAX	330	332	171	216	316	199	348	449	382	363	378	360
(WY)	1970	1966	1980	1982	1971	1969	1983	1982	1983	1983	1983	1983
MIN	5.64	5.05	5.21	4.76	5.48	3.67	2.94	4.17	3.80	4.02	3.79	3.97
(WY)	1965	1963	1963	1967	1973	1984	1977	1977	1977	1977	1977	1977

SUMMARY STATISTICS	WATER YEARS 1961 - 1984	
ANNUAL MEAN	84.0	
HIGHEST ANNUAL MEAN	226	1983
LOWEST ANNUAL MEAN	24.8	1977
HIGHEST DAILY MEAN	1560	Jan 22 1970
LOWEST DAILY MEAN	1.3	Jan 26 1984
ANNUAL SEVEN-DAY MINIMUM	1.4	Jan 24 1984
MAXIMUM PEAK FLOW	1930	May 26 1982
MAXIMUM PEAK STAGE	5.74	May 26 1982
ANNUAL RUNOFF (AC-FT)	60830	
10 PERCENT EXCEEDS	256	
50 PERCENT EXCEEDS	12	
90 PERCENT EXCEEDS	5.3	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 2004, BY WATER YEAR (WY)

MEAN	10.8	7.86	5.62	14.7	5.60	8.33	5.23	12.9	21.1	15.7	12.9	13.1
MAX	16.2	11.2	7.26	184	7.11	55.0	6.13	87.9	168	61.9	19.1	20.3
(WY)	2004	1997	2002	1997	2002	1986	1990	1996	1995	1995	2003	2003
MIN	5.32	5.65	4.78	3.65	3.97	4.13	4.01	5.49	5.54	5.46	5.21	5.29
(WY)	1989	1993	1990	1987	1987	1987	1986	1988	1988	1987	1992	1992

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1986 - 2004	
ANNUAL TOTAL	4100.5		4135.1			
ANNUAL MEAN	11.2		11.3		11.2	
HIGHEST ANNUAL MEAN					26.2	1995
LOWEST ANNUAL MEAN					5.68	1988
HIGHEST DAILY MEAN	28	May 29	129	May 1	2840	Jan 2 1997
LOWEST DAILY MEAN	3.5	Mar 18	3.9	Jan 19	2.8	Jan 3 1986
ANNUAL SEVEN-DAY MINIMUM	3.6	Mar 18	3.9	Jan 19	3.0	Apr 11 1989
MAXIMUM PEAK FLOW			396	May 1	7530	May 16 1996
MAXIMUM PEAK STAGE			4.30	May 1	7.64	May 16 1996
ANNUAL RUNOFF (AC-FT)	8130		8200		8110	
ANNUAL DIVERSION (AC-FT) a	39510		34290			
10 PERCENT EXCEEDS	20		19		16	
50 PERCENT EXCEEDS	10		10		6.2	
90 PERCENT EXCEEDS	5.4		4.9		4.6	

a Diversion, in acre-feet, to Jones Fork Powerplant (station 11440900), provided by Sacramento Municipal Utility District.

11441760 JUNCTION RESERVOIR NEAR POLLOCK PINES, CA

LOCATION.—Lat 38°51'07", long 120°27'22", in SW 1/4 SW 1/4 sec.30, T.12 N., R.14 E., El Dorado County, Hydrologic Unit 18020129, in outlet structure to Jaybird Powerplant, 100 ft upstream from left abutment of Junction Diversion Dam, 0.3 mi downstream from South Fork Silver Creek, and 9.0 mi northeast of Pollock Pines.

DRAINAGE AREA.—147 mi^2.

PERIOD OF RECORD.—October 1991 to current year. Unpublished records for water years 1980–91 available in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder. Datum of gage is NGVD of 1929 (levels by Sacramento Municipal Utility District). Prior to Apr. 13, 1987, nonrecording gage at same site and datum.

REMARKS.—Reservoir is formed by concrete arch dam completed in 1962. Storage began in 1962. Usable capacity, 2,216 acre-ft, between elevations, 4,397 ft, maximum drawdown level, and 4,450 ft, crest of spillway. Dead storage, 392 acre-ft. Most of the flow is diverted at this reservoir to Jaybird Powerplant (station 11441780). Records, including extremes, represent total contents at 2400 hours. See schematic diagram of South Fork American River Basin.

COOPERATION.—Records were collected by Sacramento Municipal Utility District, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2101.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 3,737 acre-ft, Jan. 2, 1997, elevation, 4,459.10 ft; minimum, 462 acre-ft, May 3–7, 2001, minimum elevation, 4,394.70 ft, May 3, 2001.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 2,550 acre-ft, Nov. 10, elevation, 4,449.07 ft; minimum, 1,500 acre-ft, Feb. 26, elevation, 4,429.33 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on table provided by Sacramento Municipal Utility District, surveyed May 2000)

4,390	380	4,410	816	4,440	2,020	4,460	3,305
4,400	568	4,420	1,134				

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2140	2370	2080	1970	1710	2000	2030	2010	2160	2000	2110	2150
2	2070	2440	2090	2020	1920	1880	2040	2040	2170	1850	2110	2210
3	2100	2270	2100	2200	2110	1830	2020	2010	2310	2050	2330	2180
4	1750	2150	2110	1770	2060	2030	1990	1980	2040	1820	2070	2100
5	2010	2150	2140	1870	2100	1990	2070	1930	2160	1670	2250	2220
6	1560	2020	2240	2040	2010	1940	2010	1920	2310	1990	2130	2230
7	1530	2130	2370	2110	1780	2050	2070	1830	2230	2130	2040	2090
8	1990	2290	2260	1750	1720	2110	2160	2070	2130	2110	2020	2140
9	2340	2450	2100	1920	2000	2040	1820	2510	2090	2190	2130	1960
10	2180	2550	1830	1880	1850	2140	2170	2470	2060	2100	2100	1990
11	1880	2350	2120	1970	1560	2050	2130	2360	1940	2020	2150	2150
12	2000	2220	1930	2010	2270	2020	2000	2300	2230	2220	2090	2130
13	2080	2160	1630	2030	2190	2110	2240	2000	2270	2100	1990	2160
14	1910	2020	1980	2040	2030	2060	2220	2090	2160	2040	2060	2040
15	2010	1580	1750	1810	1830	2120	2050	1930	2070	2140	2060	2010
16	1780	1610	1960	1900	1550	2140	1990	1970	2080	2230	2100	2100
17	2050	1530	1880	2020	1580	2060	1980	1880	2080	1970	2100	2270
18	2050	2200	2040	1940	2130	2250	1910	1790	2300	1750	2150	2180
19	2330	2130	2090	2050	2010	2260	2050	1650	2240	1520	2140	1840
20	2070	2080	2010	2020	1980	2210	2020	1980	2120	1900	2120	2160
21	2120	2080	1670	1540	1790	2110	1940	2250	2130	2000	2040	1970
22	1870	1770	2120	2060	1950	2190	1900	2250	2050	2030	2040	2220
23	2420	1970	2020	1970	2090	2060	1830	2070	1870	2070	2010	2270
24	2060	2130	1780	1900	1960	2280	2060	1790	1950	2050	1970	2190
25	2290	2020	1890	2000	1550	2200	1940	1790	2070	1880	1880	2010
26	2470	2110	1690	2030	1500	1900	1940	1810	1930	2080	2050	2120
27	2300	2020	1520	1860	1750	2070	1970	1800	2030	2320	2000	2060
28	2050	2030	1590	1700	2040	2170	2010	1960	2080	2030	2030	2230
29	2030	2080	1990	1970	2030	2000	1990	2300	1960	2130	2160	2270
30	2170	2260	1970	1880	---	2090	1960	2110	2070	2020	2140	2160
31	2140	---	1900	1810	---	2050	---	2060	---	2010	2120	---
MAX	2470	2550	2370	2200	2270	2280	2240	2510	2310	2320	2330	2270
MIN	1530	1530	1520	1540	1500	1830	1820	1650	1870	1520	1880	1840
a	4442.25	4444.35	4437.68	4435.87	4440.10	4440.56	4438.96	4440.70	4441.01	4439.87	4441.78	4442.95
b	-80	+120	-360	-90	+220	+20	-90	+100	+10	-60	+110	+40

CAL YR 2003 MAX 2550 MIN 1140 b -110
WTR YR 2004 MAX 2550 MIN 1500 b -60

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

11441800 SILVER CREEK BELOW JUNCTION DAM, NEAR POLLOCK PINES, CA

LOCATION.—Lat 38°51'08", long 120°27'22", in SW 1/4 SW 1/4 sec.30, T.12 N., R.14 E., El Dorado County, Hydrologic Unit 18020129, Eldorado National Forest, at outlet structure, on Junction Dam, and 9 mi northeast of Pollock Pines.

DRAINAGE AREA.—147 mi^2.

PERIOD OF RECORD.—October 1987 to current year (low-flow records only). Unpublished records for water years 1965–87 available in files of the U.S. Geological Survey.

GAGE.—Differential-pressure gage and orifice control in outlet pipe. Auxiliary nonrecording gage 550 ft downstream at different datum. Elevation of gage is 4,280 ft above NGVD of 1929, from topographic map. August 1964 to December 1986, nonrecording gage at site 500 ft downstream at different datum. December 1986 to September 1987, nonrecording gage at site 550 ft downstream.

REMARKS.—Records not computed above 30 ft^3/s. Flow completely regulated by Junction Dam. Flow over the spillway bypasses this station. Diversion through Jaybird Powerplant (station 11441780) since 1962 bypasses this station. See schematic diagram of South Fork American River Basin.

COOPERATION.—Records were collected by Sacramento Municipal Utility District, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2101.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	22	11	11	11	11	11	16	16	16	16	16
2	22	22	11	11	11	11	11	16	16	16	16	16
3	22	22	11	11	11	11	11	16	16	16	16	16
4	22	19	11	16	11	11	11	16	16	16	16	16
5	22	11	11	11	11	11	11	16	16	16	16	16
6	22	11	11	11	11	11	11	16	16	16	16	16
7	22	11	11	11	11	11	11	16	16	16	16	16
8	22	11	11	11	11	11	11	16	16	16	16	16
9	22	11	11	11	11	11	11	16	16	16	16	16
10	22	11	11	11	11	11	11	16	16	16	16	16
11	22	11	11	11	11	11	11	16	16	16	16	16
12	22	11	11	11	11	11	9.5	16	16	16	16	16
13	22	11	11	11	11	11	8.6	16	16	16	16	16
14	22	11	11	11	11	11	8.6	16	16	16	16	16
15	22	11	11	11	11	11	8.5	16	16	16	16	16
16	22	11	11	11	11	11	8.6	16	16	16	16	16
17	22	11	11	11	11	11	8.6	16	16	16	16	16
18	22	11	11	11	11	11	8.5	16	16	16	16	16
19	22	11	11	11	11	11	8.6	16	16	16	16	16
20	22	11	11	11	11	11	9.0	16	16	16	16	16
21	22	11	11	11	11	11	9.6	16	16	16	16	16
22	22	11	11	11	11	11	9.6	16	16	16	16	16
23	22	11	11	11	11	11	9.6	16	16	16	16	16
24	22	11	11	11	11	11	9.6	16	16	16	16	16
25	22	11	11	11	11	11	9.6	16	16	16	16	16
26	22	11	11	11	11	11	9.6	16	16	16	16	16
27	22	11	11	11	11	11	9.6	16	16	16	16	16
28	22	11	11	11	11	11	9.6	16	16	16	16	16
29	22	11	11	11	11	11	9.6	16	16	16	16	16
30	22	11	11	11	---	11	14	16	16	16	16	16
31	22	---	11	11	---	11	---	16	---	16	16	---
TOTAL	682	371	341	346	319	341	299.9	496	480	496	496	480
MEAN	22.0	12.4	11.0	11.2	11.0	11.0	10.0	16.0	16.0	16.0	16.0	16.0
MAX	22	22	11	16	11	11	14	16	16	16	16	16
MIN	22	11	11	11	11	11	8.5	16	16	16	16	16
AC-FT	1350	736	676	686	633	676	595	984	952	984	984	952
a	18750	22520	18300	37570	23300	33340	13720	7300	26500	40810	47480	47720

CAL YR 2003 a 384900
WTR YR 2004 a 337300

a Diversion, in acre-feet, to Jaybird Powerplant (station 11441780), provided by Sacramento Municipal Utility District.

11441890 CAMINO RESERVOIR NEAR POLLOCK PINES, CA

LOCATION.—Lat 38°49'44", long 120°32'09", in NW 1/4 NW 1/4 sec.4, T.11 N., R.13 E., El Dorado County, Hydrologic Unit 18020129, Eldorado National Forest, in outlet tower to Camino Powerplant, 100 ft upstream from right abutment of Camino Diversion Dam, 0.3 mi upstream from Round Tent Canyon, and 5.3 mi northwest of Pollock Pines.

DRAINAGE AREA.—160 mi^2.

PERIOD OF RECORD.—October 1991 to current year. Unpublished records for water years 1980–91 available in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder. Datum of gage is NGVD of 1929 (levels by Sacramento Municipal Utility District). Prior to Apr. 8, 1987, nonrecording gage at same site and datum.

REMARKS.—Reservoir is formed by concrete-arch dam completed in 1961. Storage began in 1961. Usable capacity, 775 acre-ft, between elevations, 2,840 ft, centerline of outlet valve, and 2,915 ft, maximum water surface level. Dead storage, 50 acre-ft. Most of the water is diverted at this reservoir to Camino Powerplant (station 11441895). Records, including extremes, represent total contents at 2400 hours. See schematic diagram of South Fork American River Basin.

COOPERATION.—Records were collected by Sacramento Municipal Utility District, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2101.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 819 acre-ft, Jan. 21, 1993, elevation, 2,915.29 ft; no storage on many days in 1999.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 763 acre-ft, Oct. 31, elevation, 2,912.24 ft; minimum, 220 acre-ft, Nov. 2, elevation, 2,869.62 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on table provided by Sacramento Municipal Utility District, recomputed October 1991)

2,860	149	2,880	315	2,900	564	2,920	910
2,870	223	2,890	428	2,910	724		

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	516	746	590	564	573	567	562	553	571	554	544	565
2	545	220	628	559	588	602	543	573	670	555	564	563
3	600	552	656	605	576	577	568	582	630	568	562	727
4	569	502	671	565	590	568	574	536	583	561	564	624
5	656	542	691	583	564	544	560	510	635	574	726	524
6	585	519	706	555	571	524	564	527	525	578	607	531
7	586	562	583	610	592	569	538	559	569	620	584	569
8	554	597	555	605	528	616	592	506	569	618	524	547
9	601	638	564	549	543	563	437	561	561	548	650	565
10	579	573	593	565	544	540	557	654	565	569	575	535
11	489	678	573	575	628	539	565	584	568	664	585	554
12	570	695	568	561	607	531	577	555	578	582	580	633
13	537	653	525	640	655	579	558	547	595	638	588	563
14	551	539	582	622	613	580	575	552	570	684	591	583
15	582	485	558	548	551	571	585	565	540	578	543	570
16	600	479	569	473	554	568	582	550	495	557	495	534
17	574	745	599	590	603	570	568	552	539	574	572	552
18	597	633	563	555	578	558	576	561	579	522	588	578
19	572	557	579	573	566	598	564	576	650	524	585	646
20	560	559	593	587	519	526	567	574	572	606	588	575
21	518	512	592	574	563	604	525	569	661	605	514	696
22	586	561	593	563	563	556	547	538	649	591	598	597
23	561	557	615	577	588	577	562	555	555	612	616	555
24	539	569	603	520	597	565	560	602	528	571	576	572
25	548	552	575	580	599	625	716	549	570	563	609	610
26	493	580	593	549	558	577	555	493	723	623	594	520
27	652	543	540	583	567	593	558	501	578	519	631	562
28	735	676	571	572	570	601	544	563	585	661	696	575
29	724	579	629	562	571	592	540	627	562	687	562	534
30	756	590	601	559	---	584	519	595	581	707	569	569
31	763	---	548	567	---	559	---	609	---	614	596	---
MAX	763	746	706	640	655	625	716	654	723	707	726	727
MIN	489	220	525	473	519	524	437	493	495	519	495	520
a	2912.24	2901.75	2898.89	2900.19	2900.49	2899.63	2896.89	2903.01	2901.18	2903.35	2902.15	2899.65
b	+220	-173	-42	+19	+4	-12	-40	+90	-28	+33	-18	-27

CAL YR 2003 MAX 763 MIN 220 b -22
WTR YR 2004 MAX 763 MIN 220 b +26

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

11441900 SILVER CREEK BELOW CAMINO DIVERSION DAM, CA

LOCATION.—Lat 38°49'26", long 120°32'18", on line between secs.4 and 5, T.11 N., R.13 E., El Dorado County, Hydrologic Unit 18020129, Eldorado National Forest, on right bank, 300 ft downstream from Round Tent Canyon, 0.4 mi downstream from diversion dam, and 5 mi northeast of Pollock Pines.

DRAINAGE AREA.—171 mi^2.

PERIOD OF RECORD.—October 1960 to current year.

GAGE.—Water-stage recorder. Datum of gage is 2,754.06 ft above NGVD of 1929 (Sacramento Municipal Utility District benchmark).

REMARKS.—Flow is regulated by Ice House Reservoir (station 11441100) since 1959, Union Valley Reservoir (station 11441001) since 1962, and Junction and Camino Reservoirs (stations 11441760 and 11441890). Diversion to Camino Powerplant (station 11441895) since 1961 bypasses this station. See schematic diagram of South Fork American River Basin.

COOPERATION.—Records were collected by Sacramento Municipal Utility District, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2101.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, about 47,700 ft^3/s, Jan. 2, 1997, gage height, 15.72 ft, backwater from log jam, from rating curve extended above 4,700 ft^3/s, on basis of slope-area measurement at gage height 11.28 ft; minimum daily, 1.0 ft^3/s, Nov. 1, 1980.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	26	15	23	18	22	11	16	15	16	15	15
2	24	25	14	21	18	21	11	16	15	15	15	16
3	24	25	14	18	19	20	11	16	15	15	15	15
4	24	28	14	17	18	19	11	16	15	15	15	15
5	24	12	14	16	18	18	11	16	15	16	16	15
6	24	13	15	16	17	18	11	16	15	15	15	15
7	24	24	13	17	17	19	11	16	15	15	15	16
8	23	12	22	18	17	22	11	16	15	15	15	15
9	24	16	13	19	17	22	11	16	17	15	15	16
10	23	21	14	20	16	22	12	16	19	15	15	17
11	24	17	12	21	16	21	12	19	27	15	15	17
12	24	13	13	20	16	20	11	16	26	15	15	17
13	25	13	21	21	17	19	10	21	27	15	15	17
14	24	12	22	20	16	18	8.9	27	22	15	15	17
15	24	12	17	20	16	17	8.7	27	16	15	15	238
16	24	12	15	20	30	16	10	27	16	15	15	17
17	23	38	14	19	35	18	10	27	16	15	15	19
18	24	75	14	19	49	19	11	22	15	15	15	19
19	24	14	13	18	41	18	11	18	15	15	15	19
20	24	14	14	18	32	16	12	19	16	15	15	19
21	24	15	17	18	28	14	11	15	15	15	15	19
22	24	14	17	17	26	13	11	15	15	15	15	20
23	24	14	17	16	24	12	11	15	15	15	15	20
24	23	14	29	16	26	12	11	15	15	16	15	19
25	24	14	37	16	34	12	11	15	15	15	15	19
26	23	14	25	16	41	13	10	15	16	15	15	19
27	24	14	21	17	33	12	9.4	15	15	15	15	19
28	24	14	19	18	27	11	9.4	15	15	15	15	19
29	44	14	20	18	24	11	9.4	15	15	15	15	19
30	71	15	19	17	---	11	13	15	15	15	15	19
31	27	---	18	18	---	11	---	15	---	15	15	---
TOTAL	810	564	542	568	706	517	321.8	548	503	468	466	746
MEAN	26.1	18.8	17.5	18.3	24.3	16.7	10.7	17.7	16.8	15.1	15.0	24.9
MAX	71	75	37	23	49	22	13	27	27	16	16	238
MIN	23	12	12	16	16	11	8.7	15	15	15	15	15
AC-FT	1610	1120	1080	1130	1400	1030	638	1090	998	928	924	1480
a	19270	23760	21450	41080	29220	40510	16480	8570	27890	42370	48670	48030

a Diversion, in acre-feet, to Camino Powerplant (station 11441895), provided by Sacramento Municipal Utility District.

11441900 SILVER CREEK BELOW CAMINO DIVERSION DAM, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	27.2	41.6	66.7	184	118	106	107	171	133	61.3	31.2	25.9
MAX	138	1088	856	4122	1168	1207	956	1505	1019	503	364	188
(WY)	1995	1984	1965	1997	1986	1986	1962	1995	1995	1995	1962	1962
MIN	3.12	3.44	5.39	5.21	5.45	3.56	3.14	3.30	3.29	2.98	3.11	3.18
(WY)	1978	1978	1977	1977	1977	1977	1977	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1961 - 2004	
ANNUAL TOTAL	8474		6759.8			
ANNUAL MEAN	23.2		18.5		89.4	
HIGHEST ANNUAL MEAN					461	1997
LOWEST ANNUAL MEAN					4.16	1977
HIGHEST DAILY MEAN	75	Nov 18	238	Sep 15	32900	Jan 2 1997
LOWEST DAILY MEAN	12	Mar 21	8.7	Apr 15	1.0	Nov 1 1980
ANNUAL SEVEN-DAY MINIMUM	13	Apr 4	9.9	Apr 12	2.7	Mar 2 1977
MAXIMUM PEAK FLOW			656	Sep 15	47700	Jan 2 1997
MAXIMUM PEAK STAGE			5.26	Sep 15	15.72	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	16810		13410		64780	
ANNUAL DIVERSION (AC-FT) a	429000		367300			
10 PERCENT EXCEEDS	35		24		101	
50 PERCENT EXCEEDS	23		16		19	
90 PERCENT EXCEEDS	14		12		7.6	

a Diversion, in acre-feet, to Camino Powerplant (station 11441895), provided by Sacramento Municipal Utility District.

11442690 BRUSH CREEK RESERVOIR NEAR POLLOCK PINES, CA

LOCATION.—Lat 38°48'42", long 120°37'14", in NW 1/4 SE 1/4 sec.10, T.11 N., R.12 E., El Dorado County, Hydrologic Unit 18020129, Eldorado National Forest, in outlet tower to Camino Powerplant, 200 ft upstream from left abutment of Brush Creek Diversion Dam, and 4.0 mi northwest of Pollock Pines.

DRAINAGE AREA.—7.99 mi^2.

PERIOD OF RECORD.—October 1991 to current year. Unpublished records for water years 1980–91 available in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder. Datum of gage is NGVD of 1929 (levels by Sacramento Municipal Utility District). Prior to Apr. 7, 1987, nonrecording gage at same site and datum.

REMARKS.—Reservoir is formed by concrete-arch dam completed in 1970. Storage began in 1970. Usable capacity, 1,275 acre-ft, between elevations 2,825 ft, invert of tunnel, and 2,915 ft, crest of spillway. Dead storage, 255 acre-ft. Most of the water is diverted at this reservoir to Camino Powerplant (station 11441895). Records, including extremes, represent total contents at 2400 hours. See schematic diagram of South Fork American River Basin.

COOPERATION.—Records were collected by Sacramento Municipal Utility District, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2101.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 1,546 acre-ft, Jan. 25, 1997, elevation, 2,915.72 ft; minimum, 541 acre-ft, June 29, 1995, elevation, 2,853.64 ft.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 1,480 acre-ft, Feb. 29, elevation, 2,912.60 ft; minimum, 1,040 acre-ft, Nov. 11, elevation, 2,888.96 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on table provided by Sacramento Municipal Utility District, November, 1999)

2,820	220	2,850	499	2,880	900	2,900	1,239
2,830	300	2,860	619	2,890	1,062	2,915	1,532
2,840	393	2,870	753				

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1280	1440	1320	1420	1340	1350	1400	1320	1230	1330	1340	1300
2	1270	1120	1310	1430	1340	1360	1390	1320	1270	1320	1330	1290
3	1270	1110	1310	1430	1340	1380	1390	1310	1330	1320	1320	1290
4	1260	1100	1300	1430	1340	1380	1390	1300	1330	1310	1320	1340
5	1260	1090	1290	1420	1330	1390	1380	1290	1320	1310	1340	1340
6	1310	1080	1350	1420	1330	1400	1380	1290	1320	1300	1390	1330
7	1300	1070	1410	1420	1330	1380	1370	1280	1310	1290	1380	1320
8	1290	1060	1400	1420	1330	1390	1370	1270	1310	1290	1380	1310
9	1290	1060	1390	1420	1330	1400	1360	1260	1310	1280	1370	1310
10	1280	1050	1390	1420	1320	1410	1360	1340	1300	1270	1360	1300
11	1280	1040	1390	1410	1320	1410	1350	1330	1300	1270	1350	1290
12	1270	1170	1380	1410	1310	1420	1350	1330	1290	1260	1350	1280
13	1270	1280	1400	1410	1310	1420	1340	1320	1290	1280	1340	1280
14	1260	1300	1420	1410	1310	1420	1330	1310	1290	1330	1330	1270
15	1250	1290	1420	1410	1300	1430	1330	1300	1280	1360	1330	1260
16	1250	1280	1410	1400	1310	1430	1320	1290	1280	1350	1320	1250
17	1240	1280	1400	1400	1320	1430	1320	1280	1270	1340	1310	1250
18	1240	1320	1390	1400	1360	1430	1310	1280	1270	1340	1300	1240
19	1230	1310	1390	1390	1380	1430	1310	1270	1320	1330	1300	1240
20	1230	1300	1380	1390	1390	1430	1300	1260	1330	1320	1290	1230
21	1220	1290	1380	1380	1400	1430	1300	1260	1330	1320	1280	1230
22	1220	1280	1370	1380	1400	1420	1300	1250	1350	1310	1280	1310
23	1210	1270	1370	1370	1410	1420	1290	1240	1240	1300	1270	1300
24	1210	1260	1380	1360	1410	1420	1290	1240	1230	1300	1260	1290
25	1200	1250	1400	1360	1450	1420	1350	1230	1230	1290	1260	1290
26	1200	1240	1400	1350	1420	1420	1360	1220	1280	1280	1250	1280
27	1270	1230	1400	1350	1450	1420	1350	1210	1350	1360	1240	1270
28	1360	1330	1400	1350	1470	1420	1350	1210	1350	1360	1240	1270
29	1450	1340	1400	1350	1480	1410	1340	1200	1340	1080	1310	1260
30	1460	1330	1400	1340	---	1410	1330	1250	1340	1220	1310	1250
31	1470	---	1400	1340	---	1400	---	1240	---	1340	1310	---
MAX	1470	1440	1420	1430	1480	1430	1400	1340	1350	1360	1390	1340
MIN	1200	1040	1290	1340	1300	1350	1290	1200	1230	1080	1240	1230
a	2911.79	2904.90	2908.52	2905.52	2912.60	2908.72	2904.92	2899.94	2905.20	2905.66	2903.82	2900.72
b	+180	-140	+70	-60	+140	-80	-70	-90	+100	0	-30	-60

CAL YR 2003 MAX 1500 MIN 1040 b +50
WTR YR 2004 MAX 1480 MIN 1040 b -40

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

11442700 BRUSH CREEK BELOW BRUSH CREEK DAM, NEAR POLLOCK PINES, CA

LOCATION.—Lat 38°48'41", long 120°37'20", in NW 1/4 SE 1/4 sec.10, T.11 N., R.12 E., El Dorado County, Hydrologic Unit 18020129, Eldorado National Forest, at outlet structure on Brush Creek Dam, and 4.0 mi northwest of Pollock Pines.

DRAINAGE AREA.—7.99 mi^2.

PERIOD OF RECORD.—October 1987 to current year. Unpublished records for water years 1971–87 available in files of the U.S. Geological Survey.

GAGE.—Differential-pressure gage and orifice control in outlet pipe. Auxiliary water-stage recorder 200 ft downstream at different datum. Elevation of gage is 2,700 ft above NGVD of 1929, from topographic map. Prior to October 1987, nonrecording gage 400 ft downstream at different datum.

REMARKS.—Flow completely regulated by Brush Creek Reservoir (station 11442690). See schematic diagram of South Fork American River Basin.

COOPERATION.—Records were collected by Sacramento Municipal Utility District, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2101.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 620 ft^3/s, Jan. 2, 1997; minimum daily, 2.1 ft^3/s, many days in 1988.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	6.9	7.0	7.2	6.9	6.9	6.9	6.9	4.6	3.4	3.4	3.4
2	3.7	6.9	7.0	7.2	7.0	6.9	6.9	6.9	3.2	3.4	3.4	3.4
3	3.7	6.9	7.0	7.1	7.0	6.9	6.9	6.9	3.3	3.3	3.4	3.4
4	3.7	6.9	7.0	7.1	6.9	6.9	6.9	6.8	3.2	3.4	3.4	3.4
5	3.7	6.9	6.9	7.0	6.9	6.9	6.9	6.8	3.2	3.4	3.4	3.4
6	3.7	6.9	7.0	7.0	6.9	6.9	6.9	6.8	3.2	3.3	3.3	3.4
7	3.7	6.9	7.1	7.0	6.9	6.9	6.9	6.8	3.2	3.3	3.4	3.4
8	3.7	6.9	7.1	7.0	6.9	6.9	6.8	6.8	3.2	3.4	3.3	3.4
9	3.7	6.9	7.0	6.9	6.9	6.9	6.8	6.8	3.2	3.8	3.3	3.4
10	3.7	6.8	7.1	7.0	6.9	7.0	6.9	6.8	3.3	3.7	3.4	3.4
11	3.7	6.8	7.1	6.9	6.9	7.0	6.9	6.9	3.3	4.0	3.3	3.3
12	3.7	6.9	7.0	6.9	6.9	7.0	6.9	6.9	3.3	3.7	3.4	3.3
13	3.7	6.9	7.1	6.9	6.9	7.0	6.9	6.9	3.3	3.6	3.3	3.3
14	3.7	6.9	7.1	6.9	6.9	7.0	6.9	6.9	3.2	3.4	3.4	3.3
15	3.7	6.9	7.1	6.9	6.9	7.0	6.9	6.9	3.2	3.4	3.3	3.3
16	3.6	6.9	7.1	6.9	6.9	6.9	6.8	6.8	3.2	3.4	3.4	3.4
17	3.6	6.9	7.0	6.9	6.9	6.9	6.9	6.8	3.2	3.4	3.4	3.4
18	3.6	7.0	7.0	6.9	7.0	6.9	6.9	6.8	3.2	3.4	3.5	3.4
19	3.6	7.0	7.0	6.9	7.0	6.9	6.9	6.8	3.2	3.4	3.4	3.5
20	3.6	7.0	7.0	6.9	7.0	6.9	6.9	6.8	3.3	3.4	3.4	3.5
21	3.6	7.0	7.0	6.9	7.0	6.9	6.9	6.7	3.3	3.4	3.4	3.5
22	3.6	7.0	7.0	6.9	7.0	6.9	6.8	6.7	3.3	3.4	3.4	3.5
23	3.6	7.0	7.0	6.9	7.0	6.9	6.8	6.7	3.3	3.4	3.4	3.5
24	3.7	6.9	7.1	6.9	7.0	6.9	6.9	6.7	3.3	3.4	3.4	3.5
25	3.6	6.9	7.1	6.9	7.2	6.9	6.9	6.7	3.3	3.4	3.4	3.5
26	3.6	6.9	7.0	6.9	7.1	6.9	7.0	6.7	3.2	3.4	3.4	3.5
27	3.6	6.9	7.1	7.0	7.0	6.9	7.0	6.7	3.3	3.4	3.4	3.5
28	3.7	6.9	7.0	7.0	7.0	6.9	6.9	6.7	3.4	3.4	3.4	3.5
29	3.7	7.0	7.1	6.9	7.0	6.9	6.9	6.7	3.4	3.3	3.4	3.5
30	3.7	7.0	7.0	6.9	---	6.9	6.9	6.8	3.4	3.3	3.4	3.5
31	5.1	---	7.0	6.9	---	6.9	---	6.7	---	3.4	3.4	---
TOTAL	115.0	207.6	218.1	215.6	201.8	214.5	206.7	210.6	99.2	106.7	104.9	102.7
MEAN	3.71	6.92	7.04	6.95	6.96	6.92	6.89	6.79	3.31	3.44	3.38	3.42
MAX	5.1	7.0	7.1	7.2	7.2	7.0	7.0	6.9	4.6	4.0	3.5	3.5
MIN	3.6	6.8	6.9	6.9	6.9	6.9	6.8	6.7	3.2	3.3	3.3	3.3
AC-FT	228	412	433	428	400	425	410	418	197	212	208	204

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2004, BY WATER YEAR (WY)

MEAN	3.19	5.92	5.90	8.89	5.96	6.12	6.21	6.07	3.48	3.21	3.17	3.19
MAX	4.09	8.06	7.81	58.0	7.76	8.95	10.4	9.09	6.85	4.26	3.94	4.00
(WY)	2003	1990	1990	1997	1997	1997	1997	1997	2003	1995	2002	2002
MIN	2.44	4.16	4.09	4.10	4.12	4.39	4.23	4.28	2.24	2.18	2.14	2.14
(WY)	1993	1991	1988	1988	1988	1992	1988	1988	1988	1988	1988	1988

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1988 - 2004	
ANNUAL TOTAL	2143.4		2003.4			
ANNUAL MEAN	5.87		5.47		5.11	
HIGHEST ANNUAL MEAN					10.5	1997
LOWEST ANNUAL MEAN					3.39	1988
HIGHEST DAILY MEAN	7.1	Dec 7	7.2	Jan 1	620	Jan 2 1997
LOWEST DAILY MEAN	3.6	Jul 3	3.2	Jun 2	2.1	Jul 4 1988
ANNUAL SEVEN-DAY MINIMUM	3.6	Jul 3	3.2	Jun 2	2.1	Aug 15 1988
ANNUAL RUNOFF (AC-FT)	4250		3970		3700	
10 PERCENT EXCEEDS	7.0		7.0		7.0	
50 PERCENT EXCEEDS	6.9		6.9		4.4	
90 PERCENT EXCEEDS	3.6		3.3		2.6	

11443450 SLAB CREEK RESERVOIR NEAR CAMINO, CA

LOCATION.—Lat 38°46'21", long 120°41'58", in SW 1/4 NE 1/4 sec.25, T.11 N., R.11 E., El Dorado County, Hydrologic Unit 18020129, Eldorado National Forest, on left bank, 100 ft upstream from dam on South Fork American River, 1,600 ft upstream from Iowa Canyon, and 2.7 mi northwest of Camino.

DRAINAGE AREA.—493 mi^2.

PERIOD OF RECORD.—May 1987 to current year. Unpublished records for water years 1969–86 available in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder. Datum of gage is NGVD of 1929 (levels by Sacramento Municipal Utility District). Prior to May 26, 1987, nonrecording gage at same site and datum. September 1980 to October 1993, supplementary water-stage recorder at left abutment of dam operated by U.S. Geological Survey during periods of spill.

REMARKS.—Reservoir is formed by concrete-arch dam completed in 1967. Storage began in October 1967. Usable capacity, 16,567 acre-ft, between elevations 1,670 ft, invert of tunnel, and 1,850 ft, crest of spillway. Dead storage, 600 acre-ft. Reservoir receives water from South Fork American River and Silver Creek via El Dorado and Camino Powerplants (station 11441895) 10 mi upstream. Nearly the entire flow is diverted at this reservoir to White Rock Powerplant (station 11443460). See South Fork American River near Camino (station 11443500) for additional information on diversions and releases from Slab Creek Reservoir. Records, including extremes, represent usable contents. See schematic diagram of South Fork American River Basin.

COOPERATION.—Records were collected by Sacramento Municipal Utility District, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2101.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 18,637 acre-ft, Jan. 1, 1997, elevation, 1,859.70 ft; minimum, 3,917 acre-ft, Oct. 27, 1991, elevation unknown.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 13,300 acre-ft, Oct. 30, 31, maximum elevation, 1,850.02 ft, Oct. 30, minimum, 8,390 acre-ft, Jan. 14, elevation, 1,823.82 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey by Sacramento Municipal Utility District, May 2000)

1,730	928	1,760	2,281	1,820	7,825	1,850	13,302
1,740	1,309	1,780	3,596	1,840	11,183	1,855	14,493
1,750	1,758	1,800	5,381				

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10700	13200	12500	9190	10200	9940	10400	10100	10500	10400	12200	11300
2	10700	13100	12400	9560	10300	10600	10400	10800	10500	10400	12400	12000
3	10400	11600	12300	9120	9820	10800	10700	11000	11100	10400	12200	11900
4	10000	11200	11800	9480	9990	10300	10200	10300	10700	10200	12100	10900
5	10500	11400	11500	9840	10200	10200	10200	10800	9660	10500	12200	10700
6	10700	11100	11800	11100	10500	10200	10100	10100	9770	10500	12300	10100
7	10100	10400	12500	10300	10600	10300	10100	9300	10100	10600	12100	10700
8	10200	10600	12300	9600	9970	10100	10000	10300	10600	11200	11900	10500
9	9830	11400	11600	9990	10400	9830	10100	10200	10100	11500	12300	10600
10	9910	12000	10900	9380	10300	9760	10700	9820	10200	11100	12800	11100
11	10000	11800	10600	8990	10400	9930	10200	10700	10200	10400	11700	10700
12	9950	12500	10300	8520	10400	9990	10200	10500	10300	11000	11500	10900
13	9720	11400	10400	8650	9940	10100	10100	10300	10500	11700	11500	11400
14	9850	10600	10500	8390	10100	10200	10400	10600	10300	12300	11000	12200
15	9870	11100	10100	9540	9920	9940	10400	10500	10300	12500	10800	12300
16	9860	11200	10400	9760	9090	9580	10300	9630	9890	12100	10900	12900
17	9630	11300	11200	9990	9400	9220	10000	10300	10300	11800	10100	12400
18	9840	11100	11600	10400	10400	10200	9910	10200	10900	11800	10900	11700
19	9730	11100	11600	10200	10500	10100	10400	10100	10600	11900	11000	11000
20	9040	11000	11700	10400	10400	10000	10400	10400	10700	11900	10500	11700
21	9560	10600	11700	10200	10500	9900	10100	10300	11200	12000	10400	11100
22	10100	10900	11500	10200	10400	10100	10300	9990	10700	12500	10400	10800
23	10800	10800	11300	10400	10500	10400	10500	10600	10800	11600	9700	10000
24	10900	10800	11200	10200	10400	9810	10200	11300	10500	11200	10300	10000
25	11900	11500	10000	9810	9640	10000	10100	10800	11000	10300	10000	10500
26	11500	11800	10200	9800	9470	10300	10400	10600	11400	10900	10700	9610
27	11900	11700	10200	8960	10100	10100	10800	10200	11200	11400	11000	9650
28	12600	11400	9140	9710	10700	10200	10400	10700	10500	12500	10900	9100
29	13100	11900	9280	10700	10600	10400	10000	10600	10400	12400	10900	9510
30	13300	12100	9330	10900	---	10200	10200	10400	10400	12100	11000	9550
31	13300	---	9500	10400	---	10200	---	9860	---	12500	11000	---
MAX	13300	13200	12500	11100	10700	10800	10800	11300	11400	12500	12800	12900
MIN	9040	10400	9140	8390	9090	9220	9910	9300	9660	10200	9700	9100
a	1849.91	1844.40	1830.74	1836.09	1836.73	1834.67	1834.97	1832.83	1835.70	1846.39	1838.83	1831.07
b	+3000	-1200	-2600	+900	+200	-400	0	-340	+540	+2100	-1500	-1450

CAL YR 2003 MAX 13700 MIN 7910 b -140
WTR YR 2004 MAX 13300 MIN 8390 b -750

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

11443500 SOUTH FORK AMERICAN RIVER NEAR CAMINO, CA

LOCATION.—Lat 38°46'23", long 120°42'02", in SW 1/4 NE 1/4 sec.25, T.11 N., R.11 E., El Dorado County, Hydrologic Unit 18020129, on right bank, 500 ft upstream from Iowa Canyon Creek, and 2.8 mi northwest of Camino.

DRAINAGE AREA.—493 mi^2.

PERIOD OF RECORD.—October 1922 to current year. Monthly discharge only for October 1922, WSP 1315-A. Records for river and American River Flume, published separately October 1922 to September 1956 and October 1962 to December 1964, when flume was destroyed. Records of river and flume combined October 1956 to September 1962.

REVISED RECORDS.—WSP 931: 1928, 1938, 1940(M). WSP 1931: Drainage area at former site.

GAGE.—Acoustic-velocity meter. Elevation of gage is 1,625 ft above NGVD of 1929, from topographic map. Prior to May 26, 1987, water-stage recorder at different datum at site 1,000 ft downstream. Auxiliary water-stage recorder on Slab Creek Dam records spill discharges which are combined with release discharges. See WSP 2131 for history of changes prior to Oct. 12, 1966.

REMARKS.—Flow regulated by several reservoirs. Since 1967 diversion from Slab Creek Dam to White Rock Powerplant (station 11443460) bypasses this station. Echo Lake Conduit (station 11434500) imports up to 1,900 acre-ft each year from Truckee River Basin. Variable amounts of El Dorado Canal water, up to 40 ft^3/s May to October, and about 7 ft^3/s remainder of the year, diverted for irrigation and domestic use between Pollock Pines and Placerville. Water from Jenkinson Lake in North Fork Cosumnes River Basin diverted to Camino and substituted for flow from El Dorado Canal in some years. Since October 1962, water is imported from the Upper Rubicon River Basin by way of Robbs Peak Powerplant (station 11429300). See schematic diagram of South Fork American River Basin.

COOPERATION.—Records were collected by Sacramento Municipal Utility District, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2101.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 62,300 ft^3/s, Jan. 2, 1997, from rating curve extended above 24,000 ft^3/s, on basis of computation of peak flow over dam; minimum daily, 1.3 ft^3/s, Aug. 24, 1931.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	37	38	38	38	38	38	38	37	38	38	38
2	37	37	38	38	38	38	38	38	38	38	38	39
3	37	37	38	38	38	38	38	38	37	38	38	39
4	37	37	38	38	38	38	38	38	38	38	38	38
5	37	37	38	38	38	38	38	38	37	38	38	38
6	37	37	38	38	38	38	38	38	37	38	38	38
7	37	38	38	38	38	38	38	37	37	38	38	38
8	37	38	38	38	38	38	38	38	38	38	38	38
9	37	38	38	38	38	38	38	38	38	38	38	38
10	37	38	38	38	38	38	38	38	38	38	38	38
11	37	38	38	38	38	38	38	38	38	38	38	38
12	37	37	38	38	38	38	38	38	38	38	38	38
13	37	38	38	38	38	38	38	38	38	36	38	38
14	37	38	38	38	38	38	38	38	38	38	38	38
15	37	38	38	38	38	38	38	38	38	39	38	38
16	37	38	38	38	38	38	38	38	38	38	38	38
17	37	38	38	38	37	38	38	38	38	38	38	38
18	37	38	38	38	38	38	38	38	38	38	38	38
19	37	38	38	38	38	38	38	38	38	38	38	38
20	37	38	38	38	38	38	38	38	38	38	38	38
21	37	38	38	38	38	38	38	38	38	38	38	38
22	37	38	38	38	38	38	38	38	38	38	38	38
23	37	38	38	38	38	38	38	38	38	38	38	38
24	37	38	38	38	38	38	38	38	38	38	38	38
25	37	38	38	38	37	38	38	38	38	38	38	38
26	37	38	38	38	38	38	38	38	38	38	37	38
27	37	38	38	38	38	38	38	37	38	38	38	38
28	37	38	38	38	38	38	38	38	38	38	38	38
29	37	38	38	38	38	38	38	38	38	38	38	38
30	37	38	38	38	---	38	38	38	38	38	38	38
31	37	---	38	38	---	37	---	38	---	38	38	---
TOTAL	1147	1133	1178	1178	1100	1177	1140	1176	1135	1177	1177	1142
MEAN	37.0	37.8	38.0	38.0	37.9	38.0	38.0	37.9	37.8	38.0	38.0	38.1
MAX	37	38	38	38	38	38	38	38	38	39	38	39
MIN	37	37	38	38	37	37	38	37	37	36	37	38
AC-FT	2280	2250	2340	2340	2180	2330	2260	2330	2250	2330	2330	2270
a	19410	30660	40570	52810	51910	92600	66940	60480	43410	46940	54810	52450

a Diversion, in acre-feet, to White Rock Powerplant (station 11443460), provided by Sacramento Municipal Utility District.

11443500 SOUTH FORK AMERICAN RIVER NEAR CAMINO, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1923 - 1957, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	54.8	254	569	601	855	1171	2069	2681	1557	285	39.7	31.1
MAX	221	3951	4780	3422	2125	3367	4015	6382	4031	1310	168	150
(WY)	1952	1951	1951	1956	1927	1943	1952	1952	1952	1952	1951	1951
MIN	4.43	5.46	12.9	43.0	116	146	620	418	13.8	1.97	2.01	6.97
(WY)	1930	1930	1950	1929	1929	1924	1924	1934	1924	1931	1931	1955

SUMMARY STATISTICS	WATER YEARS 1923 - 1957	
ANNUAL MEAN	846	
HIGHEST ANNUAL MEAN	1760	1951
LOWEST ANNUAL MEAN	161	1924
HIGHEST DAILY MEAN	40000	Dec 23 1955
LOWEST DAILY MEAN	1.3	Aug 24 1931
ANNUAL SEVEN-DAY MINIMUM	1.5	Jul 29 1931
MAXIMUM PEAK FLOW	49800	Dec 23 1955
MAXIMUM PEAK STAGE	32.6	Dec 23 1955
ANNUAL RUNOFF (AC-FT)	612700	
10 PERCENT EXCEEDS	2520	
50 PERCENT EXCEEDS	230	
90 PERCENT EXCEEDS	13	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1923 - 1957, COMBINED RIVER PLUS FLUME, BY WATER YEAR (WY)

MEAN	167	364	684	713	959	1259	2176	2815	1695	413	154	142
MAX	288	4051	4780	3422	2229	3490	4181	6552	4201	1474	324	227
(WY)	1948	1951	1951	1956	1927	1943	1952	1952	1952	1952	1952	1952
MIN	44.1	49.8	134	141	212	252	727	533	97.3	50.2	35.5	53.4
(WY)	1930	1930	1924	1929	1933	1924	1924	1934	1924	1931	1931	1924

SUMMARY STATISTICS	WATER YEARS 1923 - 1957	
ANNUAL MEAN	960	
HIGHEST ANNUAL MEAN	1860	1952
LOWEST ANNUAL MEAN	249	1924
HIGHEST DAILY MEAN	40000	Dec 23 1955
LOWEST DAILY MEAN	20	Aug 24 1931
ANNUAL SEVEN-DAY MINIMUM	30	Aug 19 1931
ANNUAL RUNOFF (AC-FT)	695700	
10 PERCENT EXCEEDS	2660	
50 PERCENT EXCEEDS	350	
90 PERCENT EXCEEDS	120	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	46.4	80.7	121	305	209	117	116	301	269	77.4	35.2	35.1
MAX	453	1093	1112	4836	2709	1090	1402	2434	2619	936	45.1	48.2
(WY)	1968	1968	1984	1997	1986	1986	1971	1995	1995	1995	1980	1980
MIN	9.97	10.2	10.0	10.0	5.63	10.9	10.0	9.73	9.98	9.93	10.4	10.1
(WY)	1978	1978	1988	1988	1970	1992	1988	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1968 - 2004	
ANNUAL TOTAL	13747		13860			
ANNUAL MEAN	37.7		37.9		142	
HIGHEST ANNUAL MEAN					608	1995
LOWEST ANNUAL MEAN					13.3	1977
HIGHEST DAILY MEAN	67	Jul 16	39	Jul 15	48900	Jan 2 1997
LOWEST DAILY MEAN	36	May 23	36	Jul 13	2.4	Feb 12 1970
ANNUAL SEVEN-DAY MINIMUM	37	Jul 26	37	Oct 1	2.6	Feb 9 1970
MAXIMUM PEAK FLOW			41	Jun 9	62300	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	27270		27490		103200	
ANNUAL DIVERSION (AC-FT) a	767500		613000			
10 PERCENT EXCEEDS	38		38		69	
50 PERCENT EXCEEDS	38		38		36	
90 PERCENT EXCEEDS	37		37		11	

a Diversion, in acre-feet, to White Rock Powerplant (station 11443460), provided by Sacramento Municipal Utility District.

11444201 ROCK CREEK NEAR PLACERVILLE, CA

LOCATION.—Lat 38°47'39", long 120°46'28", in NE 1/4 NW 1/4 sec.20, T.11 N., R.11 E., El Dorado County, Hydrologic Unit 18020129, on left bank, 500 ft downstream from Rock Creek Road, and 4.0 mi north of Placerville.

DRAINAGE AREA.—73.0 mi^2.

PERIOD OF RECORD.—October 1986 to current year.

GAGE.—Water-stage recorder and broad-crested weir; water-stage recorder and sharp-crested weir. Elevation of gages is 1,305 ft above NGVD of 1929, from topographic map.

REMARKS.—Flow at this station has two components which are combined for publication: flow over a broad-crested weir (station 11444200) and flow over a sharp-crested weir (station 11444260). Water is diverted upstream from weirs through a tunnel to Rock Creek Powerplant (station 11444280), returning to Rock Creek at its confluence with the South Fork American River. Extremes represent combined flows. See schematic diagram of South Fork American River Basin.

COOPERATION.—Records provided by Enel North America, Inc., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 3189.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 6,690 ft^3/s, Jan. 2, 1997; no flow Sept. 29 to Oct. 3, 1987.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e8.3	e11	22	229	29	26	31	23	13	9.9	7.0	5.9
2	e8.5	e11	26	129	31	25	30	20	13	9.9	7.1	6.1
3	e8.3	e17	21	22	40	24	28	19	13	9.7	7.1	6.0
4	e8.3	e16	20	24	27	25	28	18	12	9.5	7.0	5.9
5	e8.3	e14	21	22	25	25	27	18	12	9.2	6.9	5.9
6	e8.2	e14	27	23	25	28	27	18	12	9.0	6.8	6.0
7	e8.1	e17	57	23	25	25	26	18	12	8.8	7.0	5.9
8	e8.1	e18	25	22	41	25	26	18	12	8.9	7.0	5.8
9	e8.1	e40	19	23	40	25	26	18	13	8.9	6.9	6.0
10	e8.3	e22	26	22	36	24	25	18	13	8.9	6.7	6.0
11	e8.3	e15	22	23	34	24	25	19	12	8.6	6.6	5.9
12	e8.1	e14	28	35	33	24	25	18	12	7.9	6.5	5.8
13	e8.1	e13	58	34	30	24	24	18	12	7.3	6.4	6.0
14	e8.0	e16	87	32	29	24	25	18	12	7.2	6.4	6.2
15	e8.0	e31	28	31	28	24	24	18	11	8.0	6.5	6.3
16	e7.9	e27	28	30	37	24	25	18	11	7.8	6.5	6.2
17	e7.8	e20	29	29	41	28	25	17	11	7.6	6.5	6.0
18	e7.9	e19	24	28	163	39	25	18	11	7.4	6.4	6.2
19	e8.0	e20	22	25	26	38	25	18	11	7.2	6.4	7.8
20	e8.0	e21	26	25	25	36	31	17	11	7.4	6.3	11
21	e7.9	e19	31	24	27	35	27	17	11	7.8	6.3	8.7
22	e7.9	20	25	24	25	34	25	18	11	7.5	6.4	7.8
23	e7.9	20	24	24	25	34	24	17	11	7.0	6.9	7.4
24	e7.9	21	86	25	31	33	24	17	11	7.0	7.0	7.1
25	e7.9	21	87	25	139	32	23	17	10	7.0	6.9	7.1
26	e7.8	21	24	23	407	25	22	17	10	6.8	6.9	7.0
27	e7.7	21	22	26	302	36	21	16	10	6.8	6.9	6.8
28	e7.6	21	29	24	79	35	21	17	9.9	6.8	6.3	6.8
29	e7.7	22	46	31	25	33	22	18	9.8	6.8	6.1	6.9
30	e7.9	22	79	31	---	32	23	16	9.9	6.8	6.0	7.0
31	e8.7	---	22	32	---	33	---	15	---	6.9	6.0	---
TOTAL	249.5	584	1091	1120	1825	899	760	552	342.6	246.3	205.7	199.5
MEAN	8.05	19.5	35.2	36.1	62.9	29.0	25.3	17.8	11.4	7.95	6.64	6.65
MAX	8.7	40	87	229	407	39	31	23	13	9.9	7.1	11
MIN	7.6	11	19	22	25	24	21	15	9.8	6.8	6.0	5.8
AC-FT	495	1160	2160	2220	3620	1780	1510	1090	680	489	408	396
a	0.00	0.00	1120	1020	2620	1790	0.00	0.00	0.00	0.00	0.00	0.00

e Estimated.
a Discharge, in acre-feet, through Rock Creek Powerplant (station 11444280) near Placerville, provided by Enel North America, Inc.

11444201 ROCK CREEK NEAR PLACERVILLE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	13.1	20.9	53.1	124	105	84.1	39.1	31.6	19.4	14.2	12.0	10.2
MAX	25.0	36.6	403	737	326	454	99.6	127	31.5	35.2	39.2	25.7
(WY)	2001	1999	1997	1997	1998	1995	1995	1995	1995	1999	1999	1998
MIN	4.60	6.15	9.97	11.4	12.5	16.4	16.6	11.3	6.35	3.18	1.97	1.86
(WY)	1993	1993	1990	1991	1991	1988	1994	1992	1992	1988	1994	1992

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1987 - 2004	
ANNUAL TOTAL	9489.0		8074.6			
ANNUAL MEAN	26.0		22.1		43.7	
ANNUAL MEAN a	42.6		31.1			
HIGHEST ANNUAL MEAN					118	1997
LOWEST ANNUAL MEAN					14.3	1988
HIGHEST DAILY MEAN	473	Apr 13	407	Feb 26	4660	Jan 2 1997
LOWEST DAILY MEAN	7.6	Sep 24	5.8	Sep 8	0.00	Sep 29 1987
ANNUAL SEVEN-DAY MINIMUM	7.7	Sep 23	5.9	Sep 6	0.35	Sep 28 1987
MAXIMUM PEAK FLOW			580	Feb 26	6690	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	18820		16020		31640	
TOTAL DIVERSION (AC-FT) b	12000		6550			
ANNUAL RUNOFF (AC-FT) a	30820		22560			
10 PERCENT EXCEEDS	34		32		62	
50 PERCENT EXCEEDS	22		18		21	
90 PERCENT EXCEEDS	8.1		6.8		5.5	

a Adjusted for Rock Creek Powerplant near Placerville.
b Discharge, in acre-feet, through Rock Creek Powerplant (station 11444280) near Placerville, provided by Enel North America, Inc.

11444500 SOUTH FORK AMERICAN RIVER NEAR PLACERVILLE, CA

LOCATION.—Lat 38°46'16", long 120°48'55", in NE 1/4 SW 1/4 sec.25, T.11 N., R.10 E., El Dorado County, Hydrologic Unit 18020129, on right bank, 700 ft downstream from Chili Bar Dam, 0.5 mi upstream from Big Canyon, and 2.5 mi north of Placerville.

DRAINAGE AREA.—598 mi^2.

PERIOD OF RECORD.—August 1911 to July 1920 (monthly discharge only for some periods, published in WSP 1315-A), July 1964 to current year.

REVISED RECORDS.—WSP 1931: Drainage area.

GAGE.—Water-stage recorder. Elevation of gage is 925 ft above NGVD of 1929, from topographic map. Aug. 11, 1911, to July 31, 1920, nonrecording gage 0.6 mi downstream at different datum.

REMARKS.—Flow regulated by Chili Bar Reservoir, capacity, 3,700 acre-ft, Chili Bar Powerplant, and other storage and powerplants (see station 11443500). See schematic diagrams of South Fork American River and lower Sacramento River Basins.

COOPERATION.—Records provided by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2155.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 71,000 ft^3/s, Jan. 2, 1997, gage height unknown, on basis of computations of flow over dam, maximum gage height, 17.4 ft, from floodmarks, datum then in use, Dec. 23, 1964; minimum daily, 0.2 ft^3/s, Nov. 12, 1964.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	357	510	188	1550	608	1980	1300	1300	931	564	616	1090
2	432	964	298	1180	870	1420	1650	1360	1050	838	1040	654
3	445	1090	367	1170	1520	1400	1430	1510	635	685	1020	957
4	520	865	507	1090	931	1480	1510	2020	896	651	1390	1670
5	633	604	499	1070	999	961	1840	1560	1670	755	920	1110
6	328	1070	341	560	779	916	1430	1890	1370	702	1010	1450
7	325	1090	523	1450	643	1060	1540	1640	613	698	1240	750
8	493	799	536	1540	847	1590	1600	875	728	523	1100	1190
9	407	456	758	1290	586	1610	1550	1290	1380	516	757	1100
10	493	615	705	1110	778	1820	1200	1330	988	1060	607	890
11	188	824	1490	1120	884	1760	1550	809	1010	856	1290	1250
12	470	310	1140	1570	764	1890	1620	1100	979	569	1060	730
13	616	1380	903	1020	965	1690	1400	1000	632	450	957	864
14	435	1080	888	1390	467	1560	1200	888	749	576	699	620
15	307	460	1540	409	506	2100	924	918	1030	883	1110	974
16	579	357	1030	772	1410	2310	1140	1590	1210	1500	831	1070
17	388	358	735	822	1400	2250	1010	607	614	1380	1350	560
18	412	435	539	754	1290	1470	913	1040	652	1000	798	501
19	413	529	1010	1040	1430	2020	808	1020	530	1140	639	606
20	831	428	442	1140	1350	2160	777	664	503	1120	1420	853
21	495	631	806	932	894	1730	1120	875	238	1190	1090	1330
22	204	437	587	992	1060	2240	798	718	887	668	771	1380
23	174	343	1010	906	1250	2190	610	750	656	1220	1170	1590
24	140	658	1130	1250	1240	2430	1070	282	958	992	664	1200
25	170	658	1740	957	2270	1700	1190	1050	540	1330	1290	714
26	140	385	689	1040	3100	1450	1380	745	653	690	841	1170
27	192	435	706	1590	1950	1540	1300	903	710	553	800	879
28	265	408	1180	671	1540	1220	1450	824	1080	430	1160	1450
29	126	191	953	249	1520	1590	1480	1020	512	1200	854	611
30	190	216	1030	539	---	1540	979	1060	524	1130	722	521
31	389	---	880	527	---	1720	---	1410	---	669	1220	---
TOTAL	11557	18586	25150	31700	33851	52797	37769	34048	24928	26538	30436	29734
MEAN	373	620	811	1023	1167	1703	1259	1098	831	856	982	991
MAX	831	1380	1740	1590	3100	2430	1840	2020	1670	1500	1420	1670
MIN	126	191	188	249	467	916	610	282	238	430	607	501
AC-FT	22920	36870	49890	62880	67140	104700	74910	67530	49440	52640	60370	58980

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2004, BY WATER YEAR (WY)

MEAN	509	750	1244	1768	1759	1897	2006	2479	1943	1159	953	833
MAX	935	3806	5386	9673	6613	5561	5382	6159	6496	3648	1719	1401
(WY)	1984	1984	1965	1997	1986	1983	1982	1995	1983	1983	1998	1995
MIN	126	106	320	188	125	124	255	295	228	88.2	142	206
(WY)	2002	1978	1977	1977	1977	1977	1977	1977	1977	1977	1977	2001

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1965 - 2004	
ANNUAL TOTAL	443202		357094			
ANNUAL MEAN	1214		976		1440	
HIGHEST ANNUAL MEAN					3275	1983
LOWEST ANNUAL MEAN					224	1977
HIGHEST DAILY MEAN	4440	May 31	3100	Feb 26	57100	Jan 2 1997
LOWEST DAILY MEAN	126	Oct 29	126	Oct 29	0.20	Nov 12 1964
ANNUAL SEVEN-DAY MINIMUM	172	Oct 23	172	Oct 23	20	Feb 11 1977
MAXIMUM PEAK FLOW			4700	Feb 26	71000	Jan 2 1997
MAXIMUM PEAK STAGE			7.06	Feb 26	17.40	Dec 23 1964
ANNUAL RUNOFF (AC-FT)	879100		708300		1043000	
10 PERCENT EXCEEDS	2620		1560		3200	
50 PERCENT EXCEEDS	940		931		1000	
90 PERCENT EXCEEDS	389		429		330	

11446030 SOUTH FORK AMERICAN RIVER NEAR PILOT HILL, CA

LOCATION.—Lat 38°45'47", long 121°00'26", in SE 1/4 NE 1/4 sec.31, T.11 N., R.9 E., El Dorado County, Hydrologic Unit 18020128, on left bank, 0.1 mi downstream from Weber Creek, and 5.0 mi south of Pilot Hill.

DRAINAGE AREA.—801 mi^2.

PERIOD OF DAILY RECORD.—August 1999 to current year.
WATER TEMPERATURE: August 1999 to current year.

INSTRUMENTATION.—Water-temperature recorder since Aug. 4, 1999.

REMARKS.—Water-temperature records rated excellent. Water temperature can be affected by upstream powerplant releases.

EXTREMES FOR PERIOD OF DAILY RECORD.—
WATER TEMPERATURE: Maximum recorded, 25.5°C, Aug. 17, 2001; minimum recorded, 3.0°C, Jan. 23, 24, 30, 31, Feb. 2–5, 2002.

EXTREMES FOR CURRENT YEAR.—
WATER TEMPERATURE: Maximum recorded, 22.0°C, July 8; minimum recorded, 5.0°C, several days in January and February.

TEMPERATURE, WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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

11446030 SOUTH FORK AMERICAN RIVER NEAR PILOT HILL, CA—Continued

TEMPERATURE, WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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

11446200 FOLSOM LAKE NEAR FOLSOM, CA

LOCATION.—Lat 38°42'29", long 121°09'22", in NW 1/4 NE 1/4 sec.24, T.10 N., R.7 E., Sacramento County, Hydrologic Unit 18020128, near center of dam on American River, 0.7 mi downstream from South Fork American River, and 2.3 mi northeast of Folsom.

DRAINAGE AREA.—1,861 mi^2.

PERIOD OF RECORD.—February 1955 to current year. Prior to October 1959, published as "Folsom Reservoir near Folsom."

REVISED RECORDS.—WSP 1931: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is NGVD of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.—Reservoir is formed by concrete gravity-type dam with rolled-earth-wing dams, auxiliary dams, and dikes, completed May 14, 1956; storage began Feb. 25, 1955. Total capacity, 1,010,300 acre-ft, between elevations 205.5 ft, invert of lower tier of river outlets, and 466.0 ft gross pool elevation, all of which are available for release. Spillway design flood pool elevation, 475.4 ft, capacity, 1,120,200 acre-ft. Records, including extremes, represent usable contents at 2400 hours. See schematic diagram of lower Sacramento River Basin.

COOPERATION.—Records provided by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 1,024,400 acre-ft, June 15, 1963, elevation, 467.23 ft; minimum since storage pool first filled, 140,600 acre-ft, Nov. 20, 21, 1977, elevation, 347.57 ft.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 713,200 acre-ft, Apr. 5, elevation, 440.71 ft; minimum, 376,400 acre-ft, Sept. 30, elevation, 399.55 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey by U.S. Bureau of Reclamation in 1992)

345	123,600	370	210,500	400	376,900	460	908,400
350	137,900	380	258,600	420	525,500	479	1,125,000
360	170,600	390	314,100	440	703,800		

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	657500	558400	496900	542000	553200	623100	707200	630700	634700	560200	427100	389700
2	655900	555000	494300	550200	553700	628000	708500	631600	634900	556100	423800	389400
3	654300	554200	491900	554300	557300	631300	709300	632400	634600	551500	421800	387800
4	652700	552800	489100	557200	560600	634700	710600	634900	633700	546900	421000	388700
5	651000	550300	486600	559200	561700	636800	713200	637200	633600	541700	420500	388500
6	648200	548500	485100	559200	563000	638400	710300	638800	634500	537000	417700	388900
7	645600	547400	488000	558600	563600	639900	701800	640600	632200	532900	416600	388700
8	642300	546000	488000	558100	563500	642000	693000	639800	629800	528600	415200	388200
9	639000	543700	486900	556700	563900	646200	684100	639200	628300	523700	413500	387600
10	635600	541700	487300	555400	563800	650100	678400	639800	626200	518100	411800	386800
11	631800	539500	490000	553800	564200	654600	674000	639700	624500	512600	410700	385700
12	628900	537000	491400	553100	564000	658400	671700	638700	622700	507700	410000	385700
13	625800	535100	493500	552000	564100	661300	669300	638100	620600	502000	408600	384200
14	622400	534300	498000	552700	563600	663900	665100	637100	617800	496200	407000	383400
15	619000	532800	501900	551000	563300	667100	659900	636600	615800	491000	404500	382100
16	615700	530300	503800	549100	564400	672000	654300	637300	614700	487000	402400	382200
17	613000	527900	503900	549500	575700	676300	647400	637200	611900	483400	401500	381100
18	610000	525600	502700	550100	589800	680100	641300	637000	608200	478500	400700	379900
19	606700	523700	503000	550400	595100	684100	635800	637100	604700	473900	399700	378900
20	603200	521700	502700	551200	592700	688000	631900	637200	600800	469400	399200	377400
21	600500	519800	503400	551800	588000	690800	629800	637400	596400	465100	399200	376900
22	596400	518100	503800	551800	582000	695900	629400	637300	593100	460600	398300	377300
23	592500	515700	504700	552200	576900	699500	627900	636200	590200	455800	396700	378200
24	588300	513700	509100	553200	572100	703000	626700	634900	586800	451700	395900	378200
25	584300	512200	518800	553600	575400	705500	625800	634600	583500	447700	394600	377800
26	579800	509900	522900	553300	594300	706900	625700	634400	580000	444900	394400	377400
27	576000	507600	523800	554900	606200	707100	627100	633800	576400	441700	393300	376600
28	572600	505200	524200	556200	612500	706100	627800	633800	573100	438000	393100	376600
29	569000	502100	527300	555400	617300	706300	629700	634000	570000	435200	391800	376600
30	565600	499000	530500	555100	---	706200	630200	634200	565000	423800	391000	376400
31	561900	---	532500	554000	---	706600	---	634700	---	430300	390000	---
MAX	657500	558400	532500	559200	617300	707100	713200	640600	634900	560200	427100	389700
MIN	561900	499000	485100	542000	553200	623100	625700	630700	565000	423800	390000	376400
a	424.06	416.40	420.55	423.13	430.41	440.02	431.84	432.34	424.43	407.34	401.58	399.55
b	-96200	-62900	+33500	+21500	+63300	+89300	-76400	+4500	-69700	-134700	-40300	-13600
c	3013	952	458	238	869	2600	4969	3884	5875	5633	4146	3646

CAL YR 2003 b -5000
WTR YR 2004 b -281700

a Elevation, in feet, at end of month.
b Change in contents, in acre-feet.
c Total evaporation, in acre-feet, provided by U.S. Bureau of Reclamation; not reviewed by U.S. Geological Survey.

11446220 AMERICAN RIVER BELOW FOLSOM DAM, NEAR FOLSOM, CA

LOCATION.—Lat 38°42'14", long 121°09'48", in NE 1/4 SE 1/4 sec.24, T.10 N., R.7 E., Sacramento County, Hydrologic Unit 18020111, on left bank, 0.3 mi downstream from Folsom Dam, and 1.5 mi north of Folsom.

DRAINAGE AREA.— 1,862 mi^2.

PERIOD OF DAILY RECORD.—October 1998 to current year.
WATER TEMPERATURE.—October 1998 to current year.

INSTRUMENTATION.—Water-temperature recorder since Oct. 23, 1998.

REMARKS.—Water-temperature records rated excellent except Apr. 1–6, 15, 16, which are rated good. Interruptions in record due to malfunction of the recording instrument. Water temperature is affected by upstream releases from Folsom Dam.

EXTREMES FOR PERIOD OF DAILY RECORD.—
WATER TEMPERATURE: Maximum recorded, 21.0°C, several days in October 2001; minimum recorded, 6.5°C, Feb. 9, 2002.

EXTREMES FOR CURRENT YEAR.—
WATER TEMPERATURE: Maximum recorded, 20.0°C, several days in July, August, and September; minimum recorded, 8.0°C, many days in January and February.

TEMPERATURE, WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	17.0	14.0	17.5	15.0	13.5	13.0	10.5	10.0	8.5	8.0	9.0	8.5
2	17.0	14.0	17.5	16.0	13.5	12.5	10.5	10.0	8.5	8.0	9.5	8.5
3	17.5	14.0	17.0	15.0	13.5	12.5	10.5	9.5	8.5	8.0	9.5	9.0
4	17.5	14.0	17.0	13.5	13.5	12.5	10.5	9.0	9.0	8.5	9.5	9.0
5	17.0	14.0	15.5	13.0	13.5	12.5	10.0	9.0	9.0	8.5	10.0	9.0
6	17.0	14.0	15.5	13.0	13.0	12.5	10.0	9.5	9.0	8.5	9.5	9.0
7	17.5	14.5	15.0	14.0	13.5	12.5	9.5	9.0	9.0	8.0	10.0	9.5
8	17.5	15.0	15.0	13.5	13.5	12.0	9.5	9.0	9.0	8.5	10.0	9.5
9	17.5	15.0	15.5	13.5	13.0	12.5	9.5	9.0	9.0	8.5	10.5	9.5
10	18.0	15.5	15.0	14.0	13.0	12.0	9.5	9.0	9.0	8.0	11.0	9.5
11	18.0	15.0	15.0	13.5	13.0	12.5	9.5	9.0	9.0	8.5	10.5	9.0
12	18.0	17.0	15.5	14.0	13.0	12.0	9.5	9.0	9.0	8.0	10.5	10.0
13	18.0	15.5	15.0	14.0	12.5	12.0	9.5	9.0	9.0	8.0	10.5	10.0
14	18.0	15.0	15.0	14.0	12.5	12.0	9.5	9.0	9.0	8.0	11.0	10.0
15	18.0	15.0	15.0	13.5	12.5	11.5	9.5	8.5	9.0	8.0	11.0	10.0
16	18.0	14.5	15.0	13.0	12.0	11.0	9.0	8.5	9.0	8.0	11.0	10.5
17	18.0	14.5	15.0	13.5	12.0	11.0	9.0	8.5	8.5	8.0	11.0	10.0
18	18.0	15.0	15.0	13.5	12.0	11.0	9.0	8.5	9.0	8.5	11.0	10.0
19	17.5	15.0	15.0	13.5	12.0	11.0	9.0	8.5	9.0	8.5	11.0	10.0
20	18.0	15.0	15.0	13.5	11.5	11.0	9.0	8.5	8.5	8.0	11.5	10.0
21	18.0	14.0	15.0	14.0	11.5	11.0	9.0	8.5	8.5	8.0	11.0	10.0
22	18.0	15.0	15.0	13.0	11.5	11.0	9.0	8.5	8.5	8.0	10.5	9.5
23	18.0	14.5	14.5	13.0	11.5	10.5	9.0	8.0	9.0	8.0	11.0	10.0
24	18.0	15.0	14.5	13.0	11.5	10.5	9.0	8.0	8.5	8.0	11.0	10.0
25	18.0	15.5	14.0	13.0	11.5	10.5	9.0	8.0	9.0	8.5	11.0	10.0
26	18.0	14.0	14.0	13.0	11.5	10.0	9.0	8.0	9.5	9.0	11.0	10.0
27	18.0	15.0	14.0	12.5	11.0	10.0	8.5	8.0	9.5	9.0	11.5	10.0
28	18.0	15.5	14.0	13.0	11.0	10.0	9.0	8.5	9.5	9.0	11.0	10.5
29	18.0	15.0	13.5	12.5	11.0	10.0	9.0	8.5	9.5	9.0	11.5	10.5
30	17.5	15.0	13.5	12.5	11.0	10.5	9.0	8.5	---	---	11.0	10.0
31	17.5	15.5	---	---	11.0	10.0	9.0	8.0	---	---	11.0	10.5
MONTH	18.0	14.0	17.5	12.5	13.5	10.0	10.5	8.0	9.5	8.0	11.5	8.5

11446220 AMERICAN RIVER BELOW FOLSOM DAM, NEAR FOLSOM, CA—Continued

TEMPERATURE, WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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

11446500 AMERICAN RIVER AT FAIR OAKS, CA

LOCATION.—Lat 38°38'08", long 121°13'36", in SE 1/4 NE 1/4 sec.17, T.9 N., R.7 E., Sacramento County, Hydrologic Unit 18020111, on right bank, 2,100 ft downstream from Nimbus Dam, 2.4 mi east of Fair Oaks, 8.1 mi downstream from South Fork, and at mile 22.2.

DRAINAGE AREA.—1,888 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—November 1904 to current year. Monthly discharge only for some periods, published in WSP 1315-A.

REVISED RECORDS.—WSP 1181: 1928(M). WSP 1515: 1907(M), 1910, 1931(M), 1943(M). WSP 1931: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is 71.53 ft above NGVD of 1929. See WSP 2131 for history of changes prior to July 15, 1970.

REMARKS.—Records good. Flow regulated by Folsom Lake (station 11446200) beginning Feb. 25, 1955. Some minor regulation of high flows by temporary pondage during period of construction January 1953 to February 1955. Diurnal fluctuations from Folsom Powerplant re-regulated by Nimbus Reservoir, capacity, 2,800 acre-ft, between normal operating elevations 118.5 and 125.0 ft, and by Nimbus Powerplant. Many diversions upstream from station for irrigation, municipal, and domestic water supply. Diversions for San Juan Suburban Water District, city of Folsom, city of Roseville, and State of California are made at Folsom Dam. Diversion to Folsom South Canal from Nimbus Reservoir started in June 1973. Some inflow from Bear and Yuba River Basins. See schematic diagram of lower Sacramento River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 180,000 ft^3/s, Nov. 21, 1950, gage height, 31.85 ft, site and datum then in use; minimum, 3.6 ft^3/s, Aug. 16, 1924. Maximum discharge since regulation by Folsom Lake in 1955, 134,000 ft^3/s, Feb. 19, 1986, gage height, 27.96 ft; minimum daily, 215 ft^3/s, Apr. 20, 1977.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1730	2470	1990	1980	2200	2940	3040	2390	1720	3030	2430	1470
2	1740	2440	1990	1990	2200	2940	2930	2380	1720	3050	2430	1470
3	1720	1960	1990	1990	2180	2940	2930	2400	1730	3050	2040	1470
4	1720	1950	1990	1980	2160	2950	2920	2400	1740	3040	1970	1450
5	1720	1970	1990	1990	2170	3030	2920	2420	1730	3040	1960	1440
6	1740	1980	1990	1990	2180	2930	4830	2440	1720	3040	1960	1460
7	1760	1980	1980	3400	2180	2950	7910	2440	1910	3050	1960	1450
8	2000	1970	1990	3580	2200	2940	7930	2440	2250	3040	1960	1440
9	2010	1960	1990	3580	2190	2950	7540	2440	2240	3050	1960	1440
10	2010	1980	1980	3570	2170	2930	6290	2450	2250	3520	1960	1450
11	2010	1980	1990	3590	2170	2940	5450	2440	2200	3530	1960	1440
12	2010	1980	1990	3570	2170	3390	4900	2440	2170	3480	1950	1440
13	1990	1980	1990	3110	2170	3410	4570	2450	2170	3530	1960	1440
14	1980	1990	2000	3090	2180	3410	4940	2440	2190	3540	1960	1440
15	1980	1990	1990	3100	2190	3500	5460	2030	2200	3550	1940	1430
16	1980	1990	1990	3070	2190	3490	5530	1940	2200	3440	1930	1440
17	1980	1980	1990	2300	2180	3450	5550	1940	2440	3430	1940	1440
18	1980	1990	1990	2230	2190	3470	5310	1920	2450	3430	1950	1440
19	1970	1990	2000	2220	5030	3470	4750	1910	2440	3430	1580	1440
20	1970	1990	1990	2220	7010	3480	4260	1810	2450	3430	1470	1450
21	1970	1990	1990	2180	7010	3480	3770	1650	2450	3430	1480	1440
22	1970	1990	1990	2180	7030	3710	3280	1650	2440	3420	1470	1440
23	1980	1990	1990	2180	7040	3930	2950	1640	2450	3430	1470	1430
24	1980	1990	1990	2190	6660	3910	2890	1680	2440	3420	1470	1430
25	1970	1990	1990	2190	5910	3900	2890	1710	2450	3040	1470	1430
26	1980	1990	1990	2180	5950	3900	2670	1720	2440	2530	1470	1440
27	1980	1990	1990	2190	5220	3900	2370	1760	2440	2430	1470	1440
28	1990	1980	1990	2200	3760	3900	2380	1720	2430	2440	1470	1440
29	1970	1980	1970	2200	3290	3900	2380	1730	2440	2430	1460	1200
30	1960	1990	1990	2190	---	3900	2380	1720	3000	2430	1470	939
31	2470	---	1980	2200	---	3520	---	1730	---	2430	1470	---
TOTAL	60220	60400	61660	78630	103180	105460	127920	64230	66900	97130	55440	42569
MEAN	1943	2013	1989	2536	3558	3402	4264	2072	2230	3133	1788	1419
MAX	2470	2470	2000	3590	7040	3930	7930	2450	3000	3550	2430	1470
MIN	1720	1950	1970	1980	2160	2930	2370	1640	1720	2430	1460	939
AC-FT	119400	119800	122300	156000	204700	209200	253700	127400	132700	192700	110000	84440

11446500 AMERICAN RIVER AT FAIR OAKS, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1905 - 1954, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	455	1327	2504	4483	5831	6647	8258	8656	5149	1293	342	269
MAX	1430	16450	17360	24290	15540	24710	15640	18200	17720	6336	1497	813
(WY)	1905	1951	1951	1909	1909	1907	1907	1952	1911	1906	1907	1907
MIN	100	85.0	254	284	650	879	1998	1488	206	26.8	15.8	24.4
(WY)	1930	1930	1906	1918	1920	1924	1924	1924	1924	1924	1924	1924

SUMMARY STATISTICS	WATER YEARS 1905 - 1954	
ANNUAL MEAN	3752	
HIGHEST ANNUAL MEAN	7896	1907
LOWEST ANNUAL MEAN	731	1924
HIGHEST DAILY MEAN	132000	Nov 21 1950
LOWEST DAILY MEAN	4.6	Jul 29 1924
ANNUAL SEVEN-DAY MINIMUM	4.8	Jul 29 1924
MAXIMUM PEAK FLOW	180000	Nov 21 1950
MAXIMUM PEAK STAGE	31.85	Nov 21 1950
ANNUAL RUNOFF (AC-FT)	2718000	
10 PERCENT EXCEEDS	9980	
50 PERCENT EXCEEDS	1420	
90 PERCENT EXCEEDS	216	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1918	2367	3767	5273	5633	5003	4185	4235	3725	3605	2705	2209
MAX	4102	11700	19360	31780	31140	19340	17760	14270	9828	10710	4500	4014
(WY)	1970	1984	1965	1997	1986	1983	1982	1995	1983	1995	1983	1998
MIN	284	272	252	350	408	273	258	520	1135	869	855	602
(WY)	1978	1978	1978	1962	1991	1977	1977	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1956 - 2004	
ANNUAL TOTAL	1054560		923739			
ANNUAL MEAN	2889		2524		3711	
HIGHEST ANNUAL MEAN					8854	1983
LOWEST ANNUAL MEAN					778	1977
HIGHEST DAILY MEAN	7000	Jun 3	7930	Apr 8	131000	Feb 19 1986
LOWEST DAILY MEAN	1570	Jan 1	939	Sep 30	215	Apr 20 1977
ANNUAL SEVEN-DAY MINIMUM	1580	Jan 1	1330	Sep 24	237	Jan 7 1978
MAXIMUM PEAK FLOW			8120	Apr 7	134000	Feb 19 1986
MAXIMUM PEAK STAGE			8.72	Apr 7	27.96	Feb 19 1986
ANNUAL RUNOFF (AC-FT)	2092000		1832000		2689000	
10 PERCENT EXCEEDS	5350		3580		7520	
50 PERCENT EXCEEDS	2080		2170		2480	
90 PERCENT EXCEEDS	1760		1470		955	

11446500 AMERICAN RIVER AT FAIR OAKS, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—Water years 1906–07, 1951–58, 1960–79, 1999 to current year.
CHEMICAL DATA: Water years 1906–07, 1951–58, 1960–63.
WATER TEMPERATURE: Water years 1951–58, 1960–79, 1999 to current year.

PERIOD OF DAILY RECORD.—
WATER TEMPERATURE: March 1951 to September 1958, November 1959 to January 1979, October 1998 to current year.

INSTRUMENTATION.—Water-temperature recorder March 1951 to September 1958, November 1959 to January 1979, and since October 1998. Water-temperature probe was relocated 300 ft upstream on May 10, 2001, to obtain more representative stream temperatures.

REMARKS.—Water-temperature records rated excellent except for Dec. 28 to Jan. 15, Mar. 13 to Apr. 11, Apr. 30 to May 10, July 4–9, and Aug. 1–19, which are rated good; Oct. 1–11, which is rated fair; and Oct. 12–14, which is rated poor. Water temperature is affected by upstream releases from Nimbus Dam. Interruptions in record were due to malfunction of the recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.—
WATER TEMPERATURE: (1951–55) Maximum recorded, 27.0°C, July 27, Aug. 3, 1954; minimum recorded, 3.5°C, Oct. 30, 31, 1954. Extremes since construction of Folsom Dam beginning in February 1955: Maximum recorded, 26.0°C, Sept. 28, 1961; minimum recorded, 0.0°C, Nov. 25–29, 1957.

EXTREMES FOR CURRENT YEAR.—
WATER TEMPERATURE: Maximum recorded, 20.0°C, Aug. 26, Sept. 2, 3; minimum recorded, 8.5°C, Jan. 26, 27, Feb. 4.

TEMPERATURE, WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	17.5	17.0	16.5	16.5	13.5	13.5	10.5	10.5	9.0	9.0	10.0	9.5
2	17.5	17.0	16.5	16.5	13.5	13.5	10.5	10.0	9.0	9.0	10.0	9.5
3	17.5	17.0	16.5	16.5	13.5	13.5	10.0	10.0	9.0	9.0	10.0	9.5
4	17.5	17.0	16.5	16.0	13.5	13.5	10.0	10.0	9.0	8.5	10.0	9.5
5	18.0	17.5	16.5	15.5	13.5	13.0	10.0	10.0	9.0	9.0	10.0	9.5
6	18.0	17.5	15.5	15.0	13.5	13.0	10.0	10.0	9.0	9.0	10.0	9.5
7	17.5	17.5	15.0	15.0	13.5	13.0	10.0	9.5	9.5	9.0	10.0	10.0
8	18.0	17.5	15.0	15.0	13.0	13.0	10.0	9.5	9.5	9.0	10.5	10.0
9	18.0	17.5	15.0	15.0	13.0	12.5	10.0	9.5	9.5	9.0	11.0	10.5
10	18.0	17.5	15.0	14.5	12.5	12.5	10.0	9.5	9.5	9.0	11.0	10.5
11	17.5	17.5	15.0	14.5	13.0	12.5	9.5	9.5	9.5	9.0	11.0	11.0
12	18.0	17.5	15.0	14.5	12.5	12.5	9.5	9.5	9.5	9.0	11.5	11.0
13	18.0	17.5	15.0	14.5	12.5	12.5	9.5	9.5	9.5	9.0	11.5	11.0
14	18.0	17.0	15.0	14.5	12.5	12.5	9.5	9.0	9.0	9.0	11.5	11.0
15	18.0	17.5	14.5	14.5	12.5	12.0	9.5	9.0	9.5	9.0	11.5	11.0
16	17.5	17.5	14.5	14.0	12.0	12.0	9.0	9.0	9.5	9.0	12.0	11.5
17	18.0	17.5	14.5	14.5	12.0	12.0	9.0	9.0	9.5	9.0	12.0	11.5
18	17.5	17.5	14.5	14.5	12.0	11.5	9.0	9.0	9.5	9.5	12.0	11.0
19	18.0	17.5	14.5	14.5	12.0	11.5	9.0	9.0	10.0	9.5	12.0	11.5
20	18.0	17.5	14.5	14.5	11.5	11.5	9.0	9.0	9.5	9.0	12.0	11.5
21	18.0	17.5	14.5	14.0	11.5	11.5	9.0	9.0	9.0	9.0	12.0	11.5
22	18.0	17.5	14.0	13.5	11.5	11.5	9.0	9.0	9.0	9.0	12.0	11.5
23	18.0	17.5	13.5	13.5	11.5	11.5	9.0	9.0	9.5	9.0	12.0	11.0
24	18.0	17.5	14.0	13.5	11.5	11.5	9.0	9.0	9.5	9.0	11.5	11.5
25	18.0	17.5	14.0	13.5	11.5	11.0	9.0	9.0	9.5	9.0	11.5	11.0
26	18.0	17.5	13.5	13.5	11.5	11.0	9.0	8.5	9.5	9.0	11.0	10.5
27	18.0	17.5	13.5	13.5	11.0	10.5	9.0	8.5	9.5	9.5	11.5	11.0
28	18.0	17.5	13.5	13.5	10.5	10.5	9.0	9.0	10.0	9.5	12.0	11.5
29	18.0	17.5	13.5	13.5	10.5	10.0	9.0	9.0	10.0	9.5	12.0	11.5
30	17.5	17.5	13.5	13.5	10.5	10.0	9.0	9.0	---	---	12.0	11.5
31	17.5	16.5	---	---	10.5	10.5	9.0	9.0	---	---	12.0	11.5
MONTH	18.0	16.5	16.5	13.5	13.5	10.0	10.5	8.5	10.0	8.5	12.0	9.5

11446500 AMERICAN RIVER AT FAIR OAKS, CA—Continued

TEMPERATURE, WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	12.0	11.5	14.5	14.0	---	---	17.0	16.0	19.0	18.0	19.0	18.0
2	12.5	11.5	14.5	14.0	---	---	17.0	16.5	19.0	18.0	20.0	18.5
3	12.5	12.5	15.0	14.0	18.0	17.0	17.0	16.5	19.0	18.5	20.0	19.0
4	13.0	12.0	15.0	14.5	18.0	17.0	17.5	17.0	19.0	18.5	19.0	18.5
5	13.0	12.0	15.5	14.5	18.0	17.0	17.5	17.0	19.0	18.0	19.0	18.0
6	12.5	12.0	15.0	14.5	18.0	17.0	17.5	17.0	19.0	18.0	19.0	18.0
7	12.5	11.5	15.5	14.5	18.0	17.0	18.0	17.0	19.5	18.5	19.0	18.0
8	12.5	11.5	15.5	14.5	18.0	17.5	18.0	17.5	19.5	18.5	18.5	18.0
9	12.5	12.0	15.5	15.0	18.0	17.5	18.0	17.5	19.0	18.5	19.0	18.0
10	13.0	12.0	16.0	15.0	17.5	16.5	---	---	19.5	18.5	19.0	18.0
11	13.0	12.5	15.5	15.0	17.5	16.5	---	---	19.5	18.5	19.0	18.0
12	13.0	12.5	16.0	15.5	17.5	17.0	---	---	19.0	17.5	18.5	17.5
13	12.5	12.5	16.0	15.0	17.5	16.5	18.5	18.0	19.0	18.0	19.0	18.5
14	12.5	12.0	16.0	15.5	18.5	17.0	18.5	18.0	19.0	17.5	19.5	19.0
15	12.5	12.0	16.0	15.5	18.5	17.0	18.5	17.0	18.5	18.0	19.5	18.5
16	12.5	12.0	16.5	15.5	18.0	16.5	18.0	17.0	19.0	18.0	19.0	18.5
17	12.5	12.5	16.5	15.5	17.5	17.0	18.5	17.5	19.0	18.0	---	---
18	12.5	12.0	16.5	15.5	18.0	17.0	18.5	18.0	19.5	17.5	---	---
19	12.5	12.0	16.0	15.5	17.5	17.0	19.0	18.0	19.0	17.0	---	---
20	12.5	12.0	16.5	15.5	18.0	17.0	19.0	18.5	18.5	17.5	---	---
21	12.5	12.0	16.5	16.0	18.0	17.5	19.0	18.0	19.0	17.5	18.0	17.5
22	13.0	12.5	16.5	16.0	18.0	17.0	18.5	17.5	19.0	17.5	18.0	17.5
23	13.5	12.5	17.0	16.0	17.5	16.0	18.5	18.0	18.5	18.0	18.5	18.0
24	14.0	13.0	16.5	16.0	16.5	16.0	18.5	18.0	19.0	17.5	18.5	18.0
25	14.0	13.5	17.0	16.0	16.5	15.5	19.0	18.0	19.0	18.0	18.5	18.0
26	14.5	14.0	17.5	16.5	16.0	15.5	19.0	18.0	20.0	18.0	18.5	18.0
27	14.5	13.5	17.5	16.5	16.0	15.5	18.5	18.0	19.5	18.5	18.5	18.0
28	15.0	14.0	---	---	16.0	15.5	18.5	18.5	19.0	18.0	18.5	18.0
29	15.0	14.0	---	---	17.0	16.0	18.5	18.0	18.5	17.5	18.5	18.0
30	14.5	14.0	---	---	17.0	16.5	19.0	18.0	19.0	17.5	18.5	18.0
31	---	---	---	---	---	---	19.0	18.0	19.0	18.0	---	---
MONTH	15.0	11.5	---	---	---	---	---	---	20.0	17.0	---	---

CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	TIME	Depth at sample location, feet (81903)	Temperature, water, deg C (00010)	Location in X-sect. looking dwnstrm ft from l bank (00009)
MAY				
05...*	1005	5.90	15.5	268
05...*	1007	12.9	15.5	240
05...*	1009	14.1	15.5	212
05...*	1012	12.0	15.5	184
05...*	1015	11.1	15.6	156
05...*	1017	14.4	15.6	128
05...*	1019	14.6	15.6	100
05...*	1024	17.0	15.6	72.0
05...*	1027	16.9	15.6	44.0
05...*	1030	10.1	15.7	26.0
SEP				
14...*	0841	8.70	18.6	257
14...*	0844	13.2	18.5	230
14...*	0846	11.1	18.5	203
14...*	0849	10.7	18.6	176
14...*	0851	12.0	18.6	149
14...*	0854	13.4	18.6	122
14...*	0856	14.3	18.6	95.0
14...*	0858	16.3	18.6	68.0
14...*	0900	16.3	18.6	41.0
14...*	0902	8.20	18.5	14.0

* Instantaneous discharge at time of cross-sectional measurement: May 5, 2,420 ft^3/s; Sep. 14, 1,430 ft^3/s.

11446700 AMERICAN RIVER AT WILLIAM B. POND PARK, AT CARMICHAEL, CA

LOCATION.—Lat 38°35'29", long 121°19'54", in T.9 N., R.6.E., Rio de Los Americanos Grant, Sacramento County, Hydrologic Unit 18020111, on right bank, 20 ft downstream of the pedestrian bridge at William B. Pond Park on the American River Parkway, and 15.8 mi downstream of Folsom Dam.

DRAINAGE AREA.— 1,932 mi^2.

PERIOD OF DAILY RECORD.—October 2000 to current year.
WATER TEMPERATURE: October 2000 to current year.

INSTRUMENTATION.—Water-temperature recorder since October 10, 2000.

REMARKS.—Water-temperature records rated excellent except for Dec. 4–19, which are rated good; Dec. 20 to Jan. 4, which are rated fair; and Jan. 5–12, which are rated poor. Interruption in record due to malfunction of the recording instrument.

EXREMES FOR PERIOD OF DAILY RECORD.—
WATER TEMPERATURE: Maximum recorded, 23.5°C, Aug. 24, 2001; minimum recorded, 7.0°C, several days January and February 2002.

EXTREMES FOR CURRENT YEAR.—
WATER TEMPERATURE: Maximum recorded, 22.0°C, several days in August; minimum recorded, 8.0°C, Jan. 23, Feb. 5.

TEMPERATURE, WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	19.5	17.0	17.5	16.0	14.0	13.5	10.5	10.0	9.5	8.5	10.0	9.5
2	19.0	16.5	17.0	16.0	14.5	13.5	10.5	9.5	9.0	8.5	11.0	9.0
3	19.5	16.5	17.0	15.5	14.5	13.5	10.5	9.0	9.0	8.5	10.5	9.0
4	19.5	17.0	17.0	---	13.5	13.5	10.0	9.0	10.0	8.5	11.0	9.0
5	19.5	17.0	17.0	15.5	14.0	13.5	10.0	9.0	10.0	8.0	10.5	9.5
6	20.0	17.5	16.0	15.0	13.5	13.0	10.0	9.0	10.0	8.5	11.5	9.0
7	19.5	17.0	16.5	15.0	14.0	13.0	10.0	9.5	10.5	8.5	12.0	10.0
8	19.5	17.0	16.0	15.0	13.5	12.5	10.0	9.5	10.5	8.5	12.5	10.0
9	19.5	17.0	16.0	15.0	13.0	12.5	10.0	9.5	10.5	8.5	13.0	10.0
10	19.0	16.5	16.0	14.5	13.0	12.5	10.0	9.5	10.5	8.5	13.0	10.5
11	19.0	16.5	15.5	14.0	13.0	12.0	10.5	9.5	10.5	8.5	13.0	11.0
12	19.0	16.5	16.0	14.0	12.5	12.0	10.0	9.0	10.5	8.5	13.5	10.5
13	19.0	16.5	16.0	14.5	13.0	12.0	9.5	9.0	9.5	8.5	13.0	11.0
14	19.5	17.0	15.5	14.5	13.0	12.0	9.5	9.0	10.5	8.5	13.5	11.0
15	19.5	17.0	15.0	14.5	13.0	11.5	9.5	9.0	10.0	9.0	13.5	11.0
16	19.5	17.0	15.5	14.0	12.5	11.5	9.5	9.0	10.0	9.0	13.5	11.5
17	19.0	17.0	15.0	14.0	12.5	11.0	9.5	9.0	10.0	9.5	14.0	11.5
18	19.5	17.0	15.5	14.0	12.5	11.0	9.5	9.0	---	---	14.0	11.5
19	19.5	17.0	15.5	14.0	12.0	11.0	9.0	8.5	---	---	14.0	11.5
20	19.5	17.0	15.0	14.0	12.0	11.5	9.5	8.5	9.5	9.0	14.0	11.5
21	19.5	17.5	15.0	14.0	12.5	11.5	10.0	8.5	---	---	14.0	11.5
22	19.5	17.0	14.5	13.0	12.0	11.0	10.0	8.5	---	---	14.0	11.5
23	19.5	17.5	14.5	12.5	11.5	11.5	10.0	8.0	---	---	14.0	11.5
24	19.5	17.0	14.0	13.0	11.5	11.0	9.5	9.0	9.5	9.0	13.5	11.5
25	19.5	17.0	14.5	13.0	11.5	10.5	10.0	8.5	9.5	9.0	12.0	11.0
26	19.5	17.0	14.5	13.0	11.5	10.0	9.5	8.5	9.5	9.0	12.5	11.0
27	19.5	17.0	14.0	13.0	11.0	10.0	9.0	8.5	10.0	9.0	13.5	11.0
28	19.5	17.0	14.0	13.0	10.5	9.5	9.5	8.5	11.0	9.0	13.5	11.5
29	19.0	17.5	14.0	13.0	10.0	9.5	9.5	8.5	11.0	9.5	14.0	11.5
30	18.5	17.0	13.5	13.0	10.5	9.5	9.5	8.5	---	---	13.0	11.5
31	17.5	16.5	---	---	10.5	10.0	10.0	8.5	---	---	13.5	11.5
MONTH	20.0	16.5	17.5	12.5	14.5	9.5	10.5	8.0	---	---	14.0	9.0

11446700 AMERICAN RIVER AT WILLIAM B. POND PARK, AT CARMICHAEL, CA—Continued

TEMPERATURE, WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	14.0	11.5	17.5	14.0	21.0	17.0	19.0	16.0	21.5	18.0	21.5	17.5
2	14.0	11.5	18.0	14.5	21.5	17.0	19.5	16.0	21.0	18.0	21.5	18.0
3	15.0	12.0	18.0	14.5	20.5	17.0	19.5	16.0	22.0	18.0	21.0	18.5
4	14.5	12.0	18.0	14.5	20.5	17.0	19.5	16.5	21.5	18.0	21.5	18.5
5	14.0	11.5	18.0	14.5	21.0	16.5	19.5	16.5	21.5	18.0	21.5	18.5
6	---	---	17.5	15.0	21.5	17.5	20.0	16.5	21.5	18.0	21.5	17.5
7	---	---	18.0	14.5	21.0	16.5	20.0	16.5	21.5	17.5	21.5	17.5
8	13.0	12.0	18.0	14.5	20.5	17.0	20.0	17.0	22.0	18.5	21.5	18.0
9	13.5	12.0	18.5	15.0	20.5	17.0	20.0	17.0	22.0	18.0	21.5	17.5
10	14.0	12.5	18.0	15.0	20.5	16.5	20.0	17.0	21.5	18.0	21.5	17.5
11	14.0	12.5	18.0	15.0	20.0	16.5	20.5	17.0	22.0	18.5	21.5	17.5
12	14.5	12.5	18.5	15.0	20.0	16.0	20.5	17.5	22.0	18.5	21.0	18.0
13	14.5	12.0	18.5	15.5	20.0	17.0	20.5	17.5	21.5	17.5	21.5	17.5
14	13.5	12.0	18.5	15.0	20.5	16.5	21.0	18.0	21.0	17.5	21.5	18.0
15	13.5	12.0	19.0	15.0	20.5	17.5	20.5	17.5	21.0	17.0	21.5	18.0
16	13.5	12.0	19.0	15.5	20.5	17.0	20.0	17.0	21.5	17.5	21.5	18.0
17	14.0	12.5	18.5	15.0	20.0	16.5	20.5	17.5	21.5	17.5	21.0	18.0
18	13.0	12.5	19.0	15.5	21.0	16.5	20.5	18.0	21.5	18.0	19.5	17.5
19	13.5	12.5	19.0	15.0	20.5	17.0	21.0	18.0	21.5	17.5	18.5	17.5
20	13.5	12.0	19.0	15.0	20.5	16.5	21.0	18.0	21.5	17.0	20.0	17.0
21	14.0	12.0	19.5	15.0	20.5	17.0	21.0	18.5	21.5	17.5	20.0	17.0
22	15.0	12.0	19.0	15.5	20.0	17.5	21.0	18.0	20.5	17.0	20.5	17.0
23	15.5	12.5	19.5	16.0	20.0	16.5	20.5	17.5	21.0	17.5	20.5	17.0
24	16.0	13.0	19.5	15.5	19.0	16.0	20.5	18.0	21.5	17.5	21.0	17.5
25	16.5	13.5	19.5	15.5	19.5	15.5	21.5	18.0	21.5	17.0	21.0	17.5
26	17.0	13.5	20.0	16.0	19.0	15.5	21.5	18.0	21.0	18.0	20.5	17.5
27	17.5	14.5	19.5	16.0	19.0	15.0	21.5	18.0	22.0	18.5	20.5	17.5
28	17.5	14.0	19.5	16.5	19.0	15.5	21.5	18.0	22.0	18.0	20.0	17.5
29	17.0	14.0	20.0	16.0	19.0	15.5	21.5	18.0	21.5	18.0	20.0	17.5
30	17.5	14.0	20.5	16.5	19.0	16.0	21.0	18.0	21.5	17.5	20.0	17.5
31	---	---	20.5	16.5	---	---	21.5	18.0	21.5	17.5	---	---
MONTH	17.5	11.5	20.5	14.0	21.5	15.0	21.5	16.0	22.0	17.0	21.5	17.0

CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 2003 TO 2004

DATE	TIME	Depth at sample location, feet (81903)	Temperature, water, deg C (00010)	Location in X-sect. looking dwnstrm ft from l bank (00009)
MAY				
05...*	1319	2.30	17.4	72.0
05...*	1321	2.80	17.3	122
05...*	1331	2.60	17.3	172
05...*	1334	2.50	17.3	222
05...*	1337	2.80	17.3	272
05...*	1340	3.00	17.3	322
05...*	1345	7.60	17.4	372
05...*	1351	19.2	17.4	422
05...*	1355	11.6	17.4	472
SEP				
14...*	1132	1.80	19.0	17.0
14...*	1136	1.90	19.0	51.0
14...*	1140	2.40	19.0	85.0
14...*	1142	2.30	19.0	119
14...*	1145	2.70	19.0	153
14...*	1148	3.20	19.0	187
14...*	1157	6.60	19.0	221
14...*	1200	9.30	19.0	255
14...*	1204	21.5	19.0	289
14...*	1208	12.9	19.1	323

* Estimated discharge at time of cross-sectional measurement: May 5, 2,450 ft^3/s; Sep. 14, 1,430 ft^3/s.

11446980 AMERICAN RIVER BELOW WATT AVENUE BRIDGE, NEAR CARMICHAEL, CA

LOCATION.—Lat 38°34'32", long 121°23'14", in SE 1/4 NW 1/4 sec.12, T.8 N., R.5 E., Sacramento County, Hydrologic Unit 18020111, on right bank, 19.8 mi downstream from Folsom Dam, and 5 mi southwest of Carmichael.

DRAINAGE AREA.—1,938 mi^2.

PERIOD OF DAILY RECORD.—November 1998 to current year.
WATER TEMPERATURE.—November 1998 to current year.

INSTRUMENTATION.—Water-temperature recorder since Nov. 13, 1998.

REMARKS.—Water-temperature records rated excellent except for Mar. 20 to Apr. 6, Apr. 10–16, which are rated good. Water temperature can be affected by releases from Folsom and Nimbus Dams. Interruption in record due to vandalism.

EXTREMES FOR PERIOD OF DAILY RECORD.—
WATER TEMPERATURE: Maximum recorded, 24.0°C, Aug. 24, 2001; minimum recorded, 6.5°C, Jan. 30, 31, 2002.

EXTREMES FOR CURRENT YEAR.—
WATER TEMPERATURE: Maximum recorded, 23.0°C, Aug. 8; minimum recorded, 8.0°C, several days in January and February.

TEMPERATURE, WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	19.5	17.0	17.0	15.0	13.5	13.0	10.5	10.0	9.5	8.5	10.5	9.5
2	19.0	16.5	16.5	15.0	14.5	13.0	10.0	9.5	9.5	9.0	11.5	9.5
3	19.5	16.5	16.5	15.0	14.0	13.0	10.0	9.0	9.5	8.5	10.5	9.0
4	19.0	17.0	16.5	14.5	13.5	13.0	10.0	8.5	10.5	8.5	11.5	9.0
5	19.5	17.0	16.5	15.0	13.5	13.0	10.0	8.5	10.0	8.0	11.0	9.5
6	20.0	17.5	16.0	14.5	13.5	13.0	10.0	9.0	10.5	8.5	12.0	9.5
7	19.5	17.0	16.0	14.5	14.0	13.0	10.0	9.5	11.0	9.0	12.5	9.5
8	19.5	17.0	15.5	14.5	13.0	12.0	10.5	9.5	10.5	8.5	13.0	10.0
9	19.5	17.0	16.0	14.5	12.5	12.0	10.0	9.5	11.0	8.0	13.5	10.0
10	18.5	16.5	15.5	14.0	12.5	12.0	10.5	9.5	10.5	8.5	13.5	10.5
11	19.0	16.5	15.0	13.5	12.5	11.5	10.5	9.5	10.5	8.0	13.5	11.0
12	19.0	16.5	15.5	13.0	12.0	11.5	10.0	9.5	11.0	8.5	14.0	11.0
13	19.0	16.0	15.5	14.0	13.0	11.5	10.0	9.5	10.0	8.5	13.5	11.0
14	19.0	16.5	15.0	14.0	13.0	12.0	9.5	9.0	11.0	9.0	14.0	11.0
15	19.0	16.5	14.5	14.0	12.0	11.0	9.5	9.0	10.5	9.0	14.0	11.0
16	19.0	16.5	14.5	13.0	12.0	11.0	9.5	9.5	10.5	9.5	14.0	11.0
17	19.0	17.0	15.0	13.5	11.5	10.5	9.5	9.0	10.5	10.0	14.5	11.0
18	19.5	16.5	15.0	13.5	12.0	10.5	10.0	9.0	12.0	10.5	14.5	11.5
19	19.0	17.0	15.0	13.0	11.5	10.5	9.5	8.5	11.5	9.0	14.0	11.0
20	19.5	17.0	14.5	13.5	11.5	11.5	9.5	9.0	10.0	9.0	14.0	11.0
21	19.5	17.0	14.5	13.0	12.5	11.5	10.0	8.0	9.5	9.0	14.5	11.5
22	19.0	17.0	13.5	12.5	12.0	11.0	10.0	8.0	9.5	9.0	14.5	11.5
23	19.0	17.0	13.5	11.5	11.5	11.0	10.0	8.0	10.0	9.0	14.0	11.5
24	19.0	16.5	13.0	12.0	11.5	11.0	9.5	9.0	10.0	9.0	14.0	11.0
25	19.0	16.5	13.5	12.0	11.5	10.5	10.0	8.5	9.5	9.0	12.0	11.0
26	19.0	17.0	13.5	12.0	11.5	10.0	9.0	8.0	10.0	9.0	12.5	10.5
27	19.5	17.0	13.0	12.0	10.5	9.0	---	---	10.5	9.0	13.5	10.5
28	19.0	17.0	13.5	12.5	10.5	9.0	---	---	11.0	9.0	14.0	11.0
29	19.0	17.0	13.0	12.5	10.0	9.5	---	---	11.0	9.5	14.0	11.5
30	18.0	16.0	13.0	12.5	10.5	9.5	---	---	---	---	13.0	11.0
31	17.0	16.0	---	---	11.0	10.0	10.0	8.0	---	---	14.0	11.0
MONTH	20.0	16.0	17.0	11.5	14.5	9.0	---	---	12.0	8.0	14.5	9.0

11446980 AMERICAN RIVER BELOW WATT AVENUE BRIDGE, NEAR CARMICHAEL, CA—Continued

TEMPERATURE, WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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

CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	TIME	Depth at sample location, feet (81903)	Temperature, water, deg C (00010)	Location in X-sect. looking dwnstrm ft from l bank (00009)
MAY				
05...*	1527	1.00	17.9	10.0
05...*	1530	2.20	17.8	30.0
05...*	1532	3.50	17.8	50.0
05...*	1534	7.20	17.8	70.0
05...*	1536	6.90	17.9	90.0
05...*	1538	5.50	17.9	110
05...*	1540	4.70	17.9	130
05...*	1542	3.10	18.0	150
05...*	1544	1.80	18.0	170
05...*	1546	2.10	18.1	190
SEP				
14...*	1421	1.00	20.1	149
14...*	1424	1.80	20.0	134
14...*	1426	3.00	19.9	119
14...*	1428	4.50	19.8	104
14...*	1429	6.20	19.8	89.0
14...*	1430	4.50	19.7	74.0
14...*	1432	4.10	19.7	59.0
14...*	1433	3.60	19.7	44.0
14...*	1434	3.40	19.8	29.0
14...*	1435	1.50	20.2	14.0

* Estimated discharge at time of cross-sectional measurement: May 5, 2,420 ft^3/s; Sep. 14, 1,440 ft^3/s.

11447293 DRY CREEK AT VERNON STREET BRIDGE, AT ROSEVILLE, CA

LOCATION.—Lat 38°44'00", long 121°18'03", in SE 1/4 SE 1/4 sec.10, T.10 N, R.6 E, Placer County, Hydrologic Unit 18020111, on left bank downstream side of bridge, and 0.5 mi below confluence of Cirby Creek at Roseville.

DRAINAGE AREA.—80.1 mi^2.

PERIOD OF RECORD.—October 1996 to September 1999 (no low-flow records), October 1999 to current year.

GAGE.—Water-stage recorder and crest-stage gage. Datum of gage is 99.86 ft above NGVD of 1929 (levels by City of Roseville). Prior to Nov. 10, 1999, at site 30 ft upstream at same datum.

REMARKS.—Records good. Low summer flow sustained by ground-water seepage and residential and industrial wastewater.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 7,950 ft^3/s, Jan. 22, 1997, gage height, 24.39 ft; minimum daily, excluding no-flow records, 4.4 ft^3/s, Oct. 27, 2001, Oct. 30, 2003.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than a base discharge of 1,500 ft^3/s, or maximum:

Date	Time	Discharge (ft^3/s)	Gage height (ft^3/s)	Date	Time	Discharge (ft^3/s)	Gage height (ft^3/s)
Feb. 18	0730	1,910	15.42	Feb. 25	1900	1,840	15.27

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	30	84	717	67	355	43	23	17	12	13	9.3
2	20	11	108	279	219	338	41	23	13	11	9.9	11
3	22	129	46	151	272	164	33	22	12	11	12	10
4	25	29	30	114	163	136	31	19	11	10	12	12
5	22	18	32	96	107	118	31	18	12	9.5	11	13
6	22	11	83	95	100	108	32	22	15	9.4	14	11
7	21	33	128	256	133	102	33	25	13	10	13	10
8	21	83	44	134	91	101	35	24	13	8.8	11	9.6
9	20	159	33	108	81	98	31	23	15	9.3	10	12
10	20	47	162	102	72	87	31	21	15	12	9.0	10
11	20	28	153	86	65	85	31	24	15	14	9.0	11
12	20	21	88	77	64	83	28	23	14	14	9.2	11
13	20	21	254	74	61	78	31	21	13	9.2	10	13
14	21	25	484	70	59	72	31	21	12	8.8	9.6	14
15	18	61	137	66	55	66	35	17	11	7.5	12	18
16	20	43	85	63	180	58	36	18	11	7.4	14	13
17	23	27	69	61	173	61	36	15	9.3	8.5	15	15
18	24	24	58	59	1220	57	45	16	10	7.7	15	13
19	26	20	78	57	253	59	50	18	13	8.2	14	59
20	23	18	177	55	164	55	61	17	15	7.8	12	53
21	11	20	255	53	140	50	59	16	15	6.9	12	33
22	7.0	18	94	49	144	49	52	18	16	7.6	12	26
23	5.9	20	98	54	136	50	44	19	15	8.7	16	21
24	5.1	18	413	81	158	51	37	19	12	9.8	21	18
25	4.9	20	217	73	912	79	32	17	13	8.8	18	18
26	4.9	19	107	66	834	101	29	19	11	9.5	16	15
27	4.8	18	75	131	409	62	27	16	11	10	15	14
28	4.5	18	66	160	208	54	28	26	10	8.5	15	13
29	5.6	19	383	83	163	53	25	27	9.8	8.3	12	17
30	4.4	21	286	101	---	52	24	24	9.3	10	10	18
31	28	---	120	85	---	49	---	19	---	16	9.9	---
TOTAL	515.1	1029	4447	3656	6703	2931	1082	630	381.4	300.2	391.6	520.9
MEAN	16.6	34.3	143	118	231	94.5	36.1	20.3	12.7	9.68	12.6	17.4
MAX	28	159	484	717	1220	355	61	27	17	16	21	59
MIN	4.4	11	30	49	55	49	24	15	9.3	6.9	9.0	9.3
AC-FT	1020	2040	8820	7250	13300	5810	2150	1250	757	595	777	1030

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2004, BY WATER YEAR (WY)

MEAN	25.4	35.8	106	141	231	118	81.5	51.8	19.9	12.8	16.9	21.2
MAX	54.2	50.4	166	272	591	173	122	84.5	24.3	17.1	27.4	29.8
(WY)	2001	2002	2003	2000	2000	2000	2003	2003	2000	2000	2003	2000
MIN	16.6	27.7	26.7	80.4	76.3	86.2	36.1	20.3	12.7	9.68	12.6	17.3
(WY)	2004	2001	2000	2003	2003	2003	2004	2004	2004	2004	2001	2003

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2000 - 2004	
ANNUAL TOTAL	22012.1		22587.2			
ANNUAL MEAN	60.3		61.7		70.9	
HIGHEST ANNUAL MEAN					110	2000
LOWEST ANNUAL MEAN					56.1	2001
HIGHEST DAILY MEAN	723	Mar 15	1220	Feb 18	3020	Jan 24 2000
LOWEST DAILY MEAN	4.4	Oct 30	4.4	Oct 30	4.4	Oct 27 2001
ANNUAL SEVEN-DAY MINIMUM	4.9	Oct 24	4.9	Oct 24	4.9	Oct 24 2003
MAXIMUM PEAK FLOW			1910	Feb 18	4010	Jan 24 2000
MAXIMUM PEAK STAGE			15.42	Feb 18	19.04	Jan 24 2000
ANNUAL RUNOFF (AC-FT)	43660		44800		51390	
10 PERCENT EXCEEDS	126		136		144	
50 PERCENT EXCEEDS	36		23		28	
90 PERCENT EXCEEDS	12		9.7		12	

11447360 ARCADE CREEK NEAR DEL PASO HEIGHTS, CA

LOCATION.—Lat 38°38'01", long 121°22'54", in Del Paso Grant, Sacramento County, Hydrologic Unit 18020111, on right bank, 500 ft upstream from bridge on Watt Avenue, at intersection with Longview Drive, and 1.3 mi east of Del Paso Heights.

DRAINAGE AREA.—31.4 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—July 1963 to June 1978, December 1995 to current year.

GAGE.—Water-stage recorder. Elevation of gage is 50 ft above NGVD of 1929, from topographic map. Prior to December 1995, at site 0.3 mi upstream at different datum.

REMARKS.—Records fair except for estimated daily discharge and discharges below 1 ft^3/s, which are poor. Low summer flow sustained by residential and industrial wastewater. See schematic diagram of lower Sacramento River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 3,320 ft^3/s, Feb. 3, 1998, gage height, 15.63; no flow for many days in most years.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than a base discharge of 500 ft^3/s, or maximum:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 14	1015	568	9.69	Feb. 18	1200	1,340	a12.90
Dec. 29	2100	731	10.72	Feb. 25	1700	1,050	12.09
Jan. 1	1430	787	11.00				

a From outside highwater mark.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.92	5.9	54	339	3.1	145	0.94	1.7	1.7	1.7	1.3	2.0
2	0.93	1.7	41	23	91	87	0.65	1.8	1.8	2.0	1.3	1.7
3	0.80	116	3.6	9.1	42	11	0.73	1.8	1.7	2.4	1.4	1.9
4	0.85	4.1	1.7	5.0	9.2	7.2	1.0	1.8	1.6	2.6	1.4	1.5
5	0.87	2.0	3.5	3.9	3.9	5.9	1.2	1.9	1.5	2.0	1.3	1.9
6	0.75	0.94	26	3.4	6.0	5.0	1.1	1.6	1.5	1.7	1.6	2.0
7	0.83	9.1	40	70	25	4.4	1.1	2.0	1.6	1.7	1.5	1.8
8	0.73	43	3.5	7.3	3.5	4.0	1.3	1.8	1.8	1.8	1.7	1.9
9	0.92	82	2.1	5.1	2.5	3.6	1.3	1.8	1.8	2.1	1.8	2.0
10	0.60	3.5	72	6.5	2.2	3.2	1.5	1.7	1.7	1.7	1.8	1.9
11	0.53	1.5	42	2.9	2.1	2.8	1.5	1.7	1.7	1.7	1.7	1.9
12	0.49	0.97	6.6	2.3	1.9	1.5	1.4	1.5	1.8	1.8	1.7	1.9
13	0.44	0.79	64	2.2	1.7	2.5	1.1	1.5	1.7	1.7	1.5	2.0
14	0.38	7.3	191	2.1	1.8	2.6	1.1	1.4	1.7	1.7	1.5	2.0
15	0.46	27	9.0	1.8	1.6	2.6	1.0	1.6	1.6	1.4	1.6	2.2
16	0.55	4.9	3.9	1.7	89	2.4	1.1	1.7	1.9	1.4	1.7	1.9
17	0.61	1.2	2.9	1.7	e10	2.0	11	1.6	1.5	1.4	1.7	1.9
18	0.67	0.63	2.8	1.7	e335	2.0	11	1.6	1.4	1.5	1.6	2.0
19	0.80	0.36	18	1.6	e30	2.1	3.7	1.8	1.4	1.5	1.6	37
20	0.83	0.13	58	1.4	6.6	2.2	6.9	1.4	1.5	1.3	e1.4	15
21	0.46	0.07	88	1.5	5.8	2.0	3.4	1.6	1.4	1.4	1.6	2.6
22	0.57	0.00	6.3	1.5	e7.9	2.0	2.2	1.5	1.5	1.3	1.6	1.6
23	0.52	0.00	16	1.5	e7.9	1.8	2.0	1.4	1.4	1.3	e1.6	1.4
24	0.34	0.00	165	18	e25	1.6	2.2	1.5	1.3	1.4	e1.6	1.2
25	0.24	0.00	16	5.6	492	20	2.1	1.5	1.5	1.4	1.6	1.3
26	0.39	0.00	5.1	3.6	157	e16	2.2	1.4	1.6	1.2	1.9	1.2
27	0.47	0.17	3.7	29	22	e3.5	1.9	1.4	2.1	1.0	2.0	1.2
28	0.44	0.28	3.4	41	9.8	2.4	1.9	4.1	2.4	1.3	1.9	1.1
29	0.42	0.27	288	5.8	7.0	2.0	1.7	2.5	1.9	2.0	1.9	0.93
30	0.39	0.49	88	11	---	1.6	1.5	2.0	1.8	1.5	2.0	0.90
31	0.39	---	7.5	5.4	---	1.2	---	1.8	---	1.4	2.0	---
TOTAL	18.59	314.30	1332.6	615.6	1402.5	353.1	71.72	54.4	49.8	50.3	50.8	99.83
MEAN	0.60	10.5	43.0	19.9	48.4	11.4	2.39	1.75	1.66	1.62	1.64	3.33
MAX	0.93	116	288	339	492	145	11	4.1	2.4	2.6	2.0	37
MIN	0.24	0.00	1.7	1.4	1.6	1.2	0.65	1.4	1.3	1.0	1.3	0.90
AC-FT	37	623	2640	1220	2780	700	142	108	99	100	101	198

e Estimated.

11447360 ARCADE CREEK NEAR DEL PASO HEIGHTS, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	4.81	21.0	35.1	62.7	51.1	18.5	12.1	6.27	2.98	3.15	3.12	3.22
MAX	16.9	76.0	92.4	227	232	64.0	34.7	27.6	5.90	10.0	8.81	14.0
(WY)	2001	1974	1997	1969	1998	1975	1996	1998	1975	1974	2003	1965
MIN	0.60	1.67	0.40	3.15	0.93	0.85	0.12	0.64	0.00	0.00	0.00	1.02
(WY)	2004	2001	2000	1976	1971	1966	1977	1965	1977	1977	1977	1996

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1963 - 2004	
ANNUAL TOTAL	4375.11		4413.54			
ANNUAL MEAN	12.0		12.1		17.7	
HIGHEST ANNUAL MEAN					38.2	1998
LOWEST ANNUAL MEAN					2.64	1977
HIGHEST DAILY MEAN	349	Mar 15	492	Feb 25	1910	Feb 3 1998
LOWEST DAILY MEAN	0.00	Jan 20	0.00	Nov 22	0.00	Oct 27 1963
ANNUAL SEVEN-DAY MINIMUM	0.03	Nov 20	0.03	Nov 20	0.00	Dec 31 1963
MAXIMUM PEAK FLOW			1340	Feb 18	3320	Feb 3 1998
MAXIMUM PEAK STAGE			a12.90	Feb 18	15.63	Feb 3 1998
ANNUAL RUNOFF (AC-FT)	8680		8750		12810	
10 PERCENT EXCEEDS	26		19		23	
50 PERCENT EXCEEDS	1.6		1.8		2.2	
90 PERCENT EXCEEDS	0.29		0.74		0.43	

a From outside highwater mark.

11447360 ARCADE CREEK NEAR DEL PASO HEIGHTS, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—Water years 1996–99, 2001 to current year.
CHEMICAL DATA: Water years 1996–99, 2001 to current year.
SPECIFIC CONDUCTANCE: Water years 1996–99, 2001 to current year.
WATER TEMPERATURE: Water years 1996–99, 2001 to current year.
SEDIMENT DATA: Water years 1996–99, 2001 to current year.

PERIOD OF DAILY RECORD.—
SPECIFIC CONDUCTANCE: July 1997 to September 1999.
WATER TEMPERATURE: July 1997 to September 1999.

INSTRUMENTATION.—Water-quality monitor July 1997 to September 1999.

REMARKS.—National Water-Quality Assessment (NAWQA) Program urban runoff study. Variability of chemical concentration result from fluctuations in discharge and storm-drain runoff.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Alkalinity, wat flt Gran, field, mg/L as CaCO3 (29802)	Chloride, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)
NOV										
14...	1030	.59	764	6.9	7.5	158	12.0	34.0	11.3	10.0
JAN										
20...	1130	1.4	764	8.4	8.0	269	8.5	91.0	22.2	14.4
MAR										
26...	1530	e9.8	767	8.2	7.4	127	15.0	--	7.99	6.4
APR										
29...	1230	1.6	760	5.4	7.6	312	19.0	--	31.7	10.8
MAY										
21...	1510	1.7	763	9.6	7.7	223	20.5	--	19.9	7.2
JUN										
25...	1100	1.6	765	12.0	7.7	268	21.5	--	35.9	9.5
JUL										
30...	1430	1.5	760	11.7	8.1	227	23.5	--	21.8	8.0
AUG										
22...	1030	1.6	--	--	--	--	--	--	--	--
SEP										
16...	1400	2.0	760	7.4	7.7	226	21.5	--	23.0	7.7

Date	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, wat unf by analysis, mg/L (62855)	Biomass periphyton, ashfree drymass g/m2 (49954)	Periphyton biomass ash weight, g/m2 (00572)	Periphyton biomass dry weight, g/m2 (00573)
NOV									
14...	<.04	.64	.010	.078	.153	1.23	--	--	--
JAN									
20...	e.04	.92	.010	.077	.142	1.51	--	--	--
MAR									
26...	.33	.85	.061	.113	.27	2.27	--	--	--
APR									
29...	<.04	.64	.059	.187	.32	1.52	--	--	--
MAY									
21...	<.04	<.06	<.008	.191	.25	.79	--	--	--
JUN									
25...	<.04	<.06	<.008	.204	.27	.83	--	--	--
JUL									
30...	<.04	.30	.008	.193	.24	.75	--	--	--
AUG									
22...	--	--	--	--	--	--	3.8	79	82.60
SEP									
16...	<.04	.37	e.007	.144	.19	.80	--	--	--

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

11447360 ARCADE CREEK NEAR DEL PASO HEIGHTS, CA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Pheophytin a, periphyton, mg/m2 (62359)	Chlorophyll a periphyton, chromofluoro, mg/m2 (70957)	2,6-Diethylaniline water fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)	Acetochlor, water, fltrd, ug/L (49260)	Alachlor, water, fltrd, ug/L (46342)	alpha-HCH, water, fltrd, ug/L (34253)	Atrazine, water, fltrd, ug/L (39632)	Azinphosmethyl, water, fltrd 0.7u GF ug/L (82686)
NOV									
14...	--	--	<.006	--	--	--	<.005	<.007	<.050
JAN									
20...	--	--	<.006	<.006	<.006	<.005	<.005	<.007	<.050
MAR									
26...	--	--	<.006	<.006	<.006	<.005	<.005	<.007	<.050
APR									
29...	--	--	<.006	<.006	<.006	<.005	<.005	<.007	<.050
MAY									
21...	--	--	<.006	<.006	<.006	<.005	<.005	<.007	<.050
JUN									
25...	--	--	<.006	<.006	<.006	<.005	<.005	<.007	<.050
JUL									
30...	--	--	<.006	<.006	<.006	<.005	<.005	<.007	<.050
AUG									
22...	4.5	9.9	--	--	--	--	--	--	--
SEP									
16...	--	--	<.006	<.006	<.006	<.005	<.005	<.007	<.050

Date	Benfluralin, water, fltrd 0.7u GF ug/L (82673)	Butylate, water, fltrd, ug/L (04028)	Carbaryl, water, fltrd 0.7u GF ug/L (82680)	Carbofuran, water, fltrd 0.7u GF ug/L (82674)	Chlorpyrifos water, fltrd, ug/L (38933)	cis-Permethrin water fltrd 0.7u GF ug/L (82687)	Cyanazine, water, fltrd, ug/L (04041)	DCPA, water fltrd 0.7u GF ug/L (82682)	Desulfinyl fipronil, water, fltrd, ug/L (62170)
NOV									
14...	--	<.004	e.111	<.020	e.005	<.006	--	.003	--
JAN									
20...	<.010	<.004	e.024	<.020	.006	<.006	<.018	<.003	e.006
MAR									
26...	<.010	<.004	e.248	<.020	e.021	<.006	<.018	.004	e.010
APR									
29...	<.010	<.004	e1.06	<.020	<.005	<.006	<.018	.003	e.011
MAY									
21...	<.010	<.004	e.057	<.020	<.005	<.006	<.018	<.003	e.008
JUN									
25...	<.010	<.004	e.053	<.040	.005	<.006	<.018	<.003	e.009
JUL									
30...	<.010	<.004	e.016	<.075	e.006	<.006	<.018	<.003	e.007
AUG									
22...	--	--	--	--	--	--	--	--	--
SEP									
16...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	e.009

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

11447360 ARCADE CREEK NEAR DEL PASO HEIGHTS, CA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Diazi-non, water, fltrd, ug/L (39572)	Diel-drin, water, fltrd, ug/L (39381)	Disul-foton, water, fltrd 0.7u GF ug/L (82677)	EPTC, water, fltrd 0.7u GF ug/L (82668)	Ethal-flur-alin, water, fltrd 0.7u GF ug/L (82663)	Etho-prop, water, fltrd 0.7u GF ug/L (82672)	Desulf-inyl-fipro-nil amide, wat flt ug/L (62169)	Fipro-nil sulfide water, fltrd, ug/L (62167)	Fipro-nil sulfone water, fltrd, ug/L (62168)
NOV									
14...	.125	<.009	<.02	<.004	--	<.005	--	--	--
JAN									
20...	.036	<.009	<.02	<.004	<.009	<.005	<.029	e.005	e.010
MAR									
26...	.170	<.009	<.02	<.004	<.009	<.005	<.029	e.006	<.024
APR									
29...	.218	<.009	<.02	<.004	<.009	<.005	e.002	e.007	e.012
MAY									
21...	.034	<.009	<.02	<.004	<.009	<.005	<.029	e.006	e.008
JUN									
25...	.061	<.009	<.02	<.004	<.009	<.005	e.004	e.006	e.011
JUL									
30...	.066	<.009	<.02	<.004	<.009	<.005	<.029	e.006	e.010
AUG									
22...	--	--	--	--	--	--	--	--	--
SEP									
16...	.013	<.009	<.02	<.004	<.009	<.005	<.029	e.006	e.01

Date	Fipro-nil, water, fltrd, ug/L (62166)	Fonofos water, fltrd, ug/L (04095)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF ug/L (82666)	Mala-thion, water, fltrd, ug/L (39532)	Methyl para-thion, water, fltrd 0.7u GF ug/L (82667)	Metola-chlor, water, fltrd, ug/L (39415)	Metri-buzin, water, fltrd, ug/L (82630)	Moli-nate, water, fltrd 0.7u GF ug/L (82671)
NOV									
14...	--	<.003	<.004	<.035	e.015	--	--	<.006	<.003
JAN									
20...	e.080	<.003	<.004	<.035	<.027	<.015	<.013	<.006	<.003
MAR									
26...	e.050	<.003	<.004	<.035	.225	<.015	.123	<.006	<.003
APR									
29...	e.029	<.003	.015	<.035	<.027	<.100	.014	<.006	<.003
MAY									
21...	e.010	<.003	<.004	<.035	<.027	<.015	<.013	<.006	<.003
JUN									
25...	e.019	<.003	<.004	<.035	<.027	<.015	e.007	<.006	<.003
JUL									
30...	e.013	<.003	<.004	<.035	<.027	<.015	e.008	<.006	<.003
AUG									
22...	--	--	--	--	--	--	--	--	--
SEP									
16...	e.019	<.003	<.004	<.035	<.027	<.015	<.013	<.006	<.003

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

11447360 ARCADE CREEK NEAR DEL PASO HEIGHTS, CA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Naprop-amide, water, fltrd 0.7u GF ug/L (82684)	p,p'-DDE, water, fltrd, ug/L (34653)	Para-thion, water, fltrd, ug/L (39542)	Peb-ulate, water, fltrd 0.7u GF ug/L (82669)	Pendi-meth-alin, water, fltrd 0.7u GF ug/L (82683)	Phorate water fltrd 0.7u GF ug/L (82664)	Prome-ton, water, fltrd, ug/L (04037)	Propy-zamide, water, fltrd 0.7u GF ug/L (82676)	Propa-chlor, water, fltrd, ug/L (04024)
NOV									
14...	<.007	<.003	--	<.004	<.022	<.011	.12	<.020	<.025
JAN									
20...	<.007	<.003	<.010	<.004	<.022	<.011	.05	<.004	<.025
MAR									
26...	<.007	<.003	<.010	<.004	e.065	<.011	.57	<.004	<.025
APR									
29...	<.007	<.003	<.010	<.004	e.010	<.011	.57	<.004	<.025
MAY									
21...	<.007	<.003	<.010	<.004	<.022	<.011	.05	<.004	<.025
JUN									
25...	<.007	<.003	<.010	<.004	<.022	<.011	.12	<.004	<.025
JUL									
30...	<.007	<.003	<.010	<.004	<.022	<.011	.07	<.004	<.025
AUG									
22...	--	--	--	--	--	--	--	--	--
SEP									
16...	<.007	<.003	<.010	<.004	<.022	<.011	.15	<.004	<.025

Date	Pro-panil, water, fltrd 0.7u GF ug/L (82679)	Propar-gite, water, fltrd 0.7u GF ug/L (82685)	Sima-zine, water, fltrd, ug/L (04035)	Tebu-thiuron water fltrd 0.7u GF ug/L (82670)	Terba-cil, water, fltrd 0.7u GF ug/L (82665)	Terbu-fos, water, fltrd 0.7u GF ug/L (82675)	Thio-bencarb water fltrd 0.7u GF ug/L (82681)	Tri-allate, water, fltrd 0.7u GF ug/L (82678)	Tri-flur-alin, water, fltrd 0.7u GF ug/L (82661)
NOV									
14...	<.011	<.02	<.007	<.02	<.034	<.02	<.010	<.002	e.007
JAN									
20...	<.011	<.02	.038	e.01	<.034	<.02	<.010	<.002	e.004
MAR									
26...	<.011	<.02	.072	e.07	<.034	<.02	<.010	<.002	e.006
APR									
29...	<.011	<.02	.029	.05	<.034	<.02	<.010	<.002	<.009
MAY									
21...	<.011	<.02	<.005	<.02	<.034	<.02	<.010	<.002	<.009
JUN									
25...	<.011	<.05	<.010	<.02	<.034	<.02	<.010	<.002	<.009
JUL									
30...	<.011	<.02	<.005	<.02	<.075	<.02	<.010	<.002	<.009
AUG									
22...	--	--	--	--	--	--	--	--	--
SEP									
16...	<.011	<.02	<.005	<.02	<.034	<.02	<.010	<.002	<.009

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

11447360 ARCADE CREEK NEAR DEL PASO HEIGHTS, CA—Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Temperature, water, deg C (00010)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)	Suspnd. sediment, sieve diametr percent <.063mm (70331)
NOV						
14...SS	1030	.59	12.0	17	.03	50
JAN						
20...SS	1130	1.4	8.5	5	.02	69
MAR						
26...SS	1530	e9.8	15.0	31	e.83	100
APR						
29...SS	1230	1.6	19.0	16	.07	94
MAY						
21...SS	1510	1.7	20.5	12	.06	92
JUN						
25...SS	1100	1.6	21.5	16	.07	99
JUL						
30...SS	1430	1.5	23.5	7	.03	98
SEP						
16...SS	1400	2.0	21.5	18	.10	86

SS Suspended sediment data determined from a sample collected and processed according to National Water Quality Assessment (NAWQA) protocol.
e Estimated.

11447500 SACRAMENTO RIVER AT SACRAMENTO, CA

LOCATION.—Lat 38°35'12", long 121°30'16", in T.9 N., R.4 E., Sacramento County, Hydrologic Unit 18020109, on left bank, 1,000 ft upstream from I Street Bridge, in city of Sacramento, 0.5 mi downstream from American River.

DRAINAGE AREA.—23,502 mi^2.

PERIOD OF RECORD.—January 1904 to July 1905 (gage heights only), June to November 1921, October 1948 to September 1979 (water discharge), October 1985 to September 1989 (peak elevation of year only, see station 11447650), October 1989 to September 1996, October 2001 to current year (elevation only). Gage heights collected in this vicinity November 1879 to May 1888, December 1890 to September 1963, are contained in reports of National Weather Service. Elevation for October 1979 to September 1989 in files of the U.S. Geological Survey.

CHEMICAL ANALYSES: Water years 1906–08 (published as "above Sacramento"), 1951–79.
WATER TEMPERATURE: Water years 1955–79.
TURBIDITY: Water years 1972–79.
SEDIMENT DATA: Water years 1957–79.

REVISED RECORDS.—WDR CA-76-4; Drainage area.

GAGE.—Water-stage recorder. Datum of gage is NGVD of 1929. Prior to Oct. 15, 1912, nonrecording gage in vicinity of I Street Bridge. Oct. 15, 1912, to Nov. 16, 1956, water-stage recorder at various sites in vicinity of I Street Bridge. Prior to November 1956, datum of gage at low-water mark of Oct. 23, 1856, 0.12 ft above NGVD of 1929.

REMARKS.— Natural flow of stream affected by storage reservoirs, power development, diversions for irrigation, and return flow from irrigated areas. Floodflows bypass station through Sacramento Weir Spill to Yolo Bypass (stations 11426000 and 11453000). Interruption in record was due to malfunction of recording instrument. See schematic diagram of lower Sacramento River Basin.

EXTREMES FOR PERIOD OF RECORD (since 1949).—Maximum elevation, 30.58 ft, Feb. 19, 1986; minimum elevation prior to October 1989 is unknown. Minimum elevation since October 1989, 0.67 ft, Nov. 15, 1991.

EXTREMES FOR CURRENT YEAR.—Maximum elevation, 21.90 ft, Feb. 26; minimum, 2.72 ft, Oct. 20, Apr. 27.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	5.12	3.75	4.47	3.06	4.45	3.34	16.75	14.41	7.35	6.79	20.97	20.83
2	5.12	3.69	4.23	3.07	4.75	3.81	18.00	16.75	7.79	6.63	20.94	20.86
3	5.10	3.56	4.37	3.36	5.16	4.15	18.13	18.00	---	---	20.86	20.55
4	4.93	3.47	4.07	3.11	5.55	4.58	18.08	17.83	---	---	20.57	20.47
5	4.74	3.36	4.15	3.29	5.75	4.86	17.83	16.74	11.41	10.92	20.48	20.10
6	4.54	3.33	4.12	3.20	5.85	4.84	16.74	14.90	11.34	10.70	20.10	19.83
7	4.53	3.40	4.29	3.24	6.15	4.98	14.90	13.54	10.70	9.67	19.83	19.53
8	4.55	3.56	4.73	3.32	7.00	5.36	13.54	12.58	9.67	8.96	19.53	19.20
9	4.48	3.57	4.94	3.78	7.77	6.80	12.58	12.31	9.00	8.36	19.20	18.85
10	4.12	3.21	4.96	3.84	7.53	7.12	12.55	12.29	8.44	7.78	18.85	18.27
11	4.22	3.17	5.05	3.94	7.18	6.57	13.11	12.49	7.84	7.27	18.27	17.37
12	4.08	3.09	5.26	3.98	8.02	6.82	13.40	13.11	7.43	6.89	17.37	16.40
13	4.27	2.92	5.13	4.08	8.07	7.64	13.40	12.48	7.22	6.56	16.40	15.18
14	4.38	2.99	5.01	3.79	8.33	7.75	12.48	11.23	7.06	6.29	15.18	13.78
15	4.61	3.01	4.87	3.66	9.63	8.26	11.23	10.36	6.91	6.11	13.78	12.53
16	4.53	3.06	4.63	3.47	10.16	9.63	10.36	9.72	7.31	6.03	12.53	11.50
17	4.30	2.79	4.39	3.37	10.10	9.15	9.72	9.10	8.87	6.52	11.50	10.66
18	4.18	2.73	4.06	3.21	9.15	8.38	9.27	8.69	14.30	8.87	10.66	9.93
19	4.34	2.90	4.11	3.19	8.60	8.16	8.79	8.27	18.76	14.30	9.93	9.44
20	4.01	2.72	4.34	3.34	8.46	7.96	8.42	7.88	20.90	18.76	9.44	9.15
21	3.93	2.74	4.35	3.32	8.63	7.90	7.98	7.45	21.37	20.90	9.29	8.97
22	4.10	3.02	4.15	3.10	9.15	8.18	7.65	7.09	21.40	21.34	9.09	8.71
23	4.09	3.02	4.40	3.04	9.41	8.60	7.34	6.79	21.34	21.11	9.10	8.68
24	4.00	2.93	4.80	3.08	9.72	8.69	7.14	6.60	21.11	20.89	9.62	9.10
25	4.13	2.87	5.02	3.29	11.39	9.31	7.01	6.32	21.55	20.80	9.75	9.50
26	4.32	2.85	4.76	3.44	12.11	11.39	6.56	5.99	21.90	21.55	9.78	9.34
27	4.64	2.86	4.37	3.16	12.54	12.04	6.39	5.77	21.84	21.59	9.49	8.68
28	4.91	3.14	4.32	2.97	12.75	12.54	6.50	5.90	21.59	21.25	8.68	7.81
29	5.51	3.20	4.26	3.06	12.75	12.50	7.19	6.28	21.25	20.97	7.92	7.24
30	5.28	3.67	4.23	3.14	13.04	12.45	7.76	6.94	---	---	7.68	6.96
31	4.84	3.30	---	---	14.41	13.04	7.52	6.92	---	---	7.11	6.38
MONTH	5.51	2.72	5.26	2.97	14.41	3.34	18.13	5.77	---	---	20.97	6.38

11447500 SACRAMENTO RIVER AT SACRAMENTO CA—Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	6.60	5.97	4.09	2.91	5.19	3.79	6.69	5.38	6.77	5.72	5.41	4.63
2	6.32	5.88	4.13	2.91	5.61	3.92	6.66	5.42	6.67	5.65	5.48	4.65
3	6.45	5.78	4.30	2.93	5.72	3.76	6.71	5.52	6.37	5.48	5.48	4.42
4	6.85	5.92	4.75	3.19	5.21	3.39	6.77	5.69	6.17	5.47	5.45	4.50
5	7.40	6.60	5.23	3.68	5.29	3.51	6.77	5.70	6.08	5.36	5.47	4.48
6	8.52	7.23	5.45	3.73	5.21	3.58	6.58	5.74	6.04	5.24	5.55	4.47
7	9.59	8.52	5.40	3.73	5.28	3.90	6.54	5.78	6.00	5.13	5.54	4.43
8	10.07	9.59	5.34	3.65	5.26	4.23	6.46	5.76	5.97	5.19	5.62	4.51
9	10.52	9.93	5.13	3.67	5.05	4.33	6.54	5.76	6.22	5.31	5.70	4.56
10	10.81	10.46	5.22	3.88	5.33	4.31	6.55	5.85	6.22	5.15	5.75	4.51
11	10.72	10.28	4.67	3.65	5.20	4.17	6.66	5.99	6.15	5.13	5.61	4.48
12	10.35	9.86	4.51	3.60	5.22	4.20	6.82	6.06	6.28	5.27	5.65	4.62
13	9.88	9.34	4.62	3.46	5.30	4.20	7.02	6.25	6.45	5.32	5.69	4.54
14	9.36	8.80	4.55	3.37	5.39	4.26	7.05	6.21	6.45	5.36	5.29	4.26
15	8.96	8.71	4.58	3.33	5.46	4.24	7.00	6.14	6.14	5.07	5.20	4.30
16	8.99	8.63	4.67	3.31	5.72	4.46	7.01	6.10	5.96	4.93	5.20	4.33
17	9.00	8.74	5.02	3.52	6.23	4.71	7.05	6.23	5.75	4.83	5.63	4.38
18	8.76	7.72	4.94	3.37	5.96	4.55	7.07	6.24	5.69	4.94	5.56	4.43
19	7.72	6.72	4.87	3.40	5.95	4.54	7.04	6.27	5.76	4.96	5.50	4.40
20	6.82	5.96	5.04	3.49	5.87	4.48	6.94	6.13	5.75	4.94	5.50	4.02
21	6.16	5.28	5.12	3.48	5.68	4.36	6.66	5.87	5.97	5.04	5.07	3.82
22	5.66	4.48	5.12	3.51	5.46	4.20	6.39	5.70	6.03	5.12	5.13	3.82
23	5.16	4.07	5.03	3.32	5.24	4.19	6.22	5.66	6.16	5.13	5.14	3.79
24	5.06	3.80	4.71	3.27	4.95	4.04	6.42	5.87	6.23	5.15	5.00	3.71
25	4.71	3.36	4.69	3.34	4.93	3.95	6.57	5.73	6.50	5.27	4.96	3.75
26	4.29	2.89	4.47	3.27	5.04	3.97	6.56	5.77	6.47	5.14	4.88	3.68
27	3.84	2.72	4.46	3.13	5.16	4.06	6.79	5.93	6.12	4.88	4.70	3.67
28	3.96	2.73	4.35	3.11	5.38	4.22	7.12	6.12	6.05	4.90	4.64	3.69
29	3.85	2.73	4.31	3.15	6.08	4.66	7.30	6.03	6.10	4.97	4.59	3.60
30	4.02	2.80	4.41	3.15	6.51	5.22	7.15	5.95	6.09	4.94	4.58	3.48
31	---	---	4.75	3.47	---	---	7.07	5.88	5.74	4.75	---	---
MONTH	10.81	2.72	5.45	2.91	6.51	3.39	7.30	5.38	6.77	4.75	5.75	3.48

11447650 SACRAMENTO RIVER AT FREEPORT, CA

LOCATION.—Lat 38°27'15", long 121°29'54", in SW 1/4 SW 1/4 sec.13, T.7 N., R.4 E., Sacramento County, Hydrologic Unit 18020109, on left bank, 630 ft downstream from drawbridge at Freeport, and 11 mi south of Sacramento.

DRAINAGE AREA.—Indeterminate.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—January 1904 to July 1905 (gage heights only), June to November 1921, October 1948 to current year. Prior to October 1979, published as "Sacramento River at Sacramento" (station 11447500).

REVISED RECORD.—WDR CA-96-4: 1994–1995 (P).

GAGE.—Water-stage recorder and acoustic-velocity system. Datum of gage is 100 ft below NGVD of 1929. Prior to Nov. 16, 1956, nonrecording gage and water-stage recorder at various sites in vicinity of I Street Bridge in Sacramento, 13 mi upstream at datum of low-water mark of Oct. 23, 1856, 0.12 ft above NGVD of 1929. Nov. 17, 1956, to Sept. 20, 1979, at site 1,000 ft upstream from I Street Bridge. Sept. 21, 1979, to Oct. 1, 2001, datum was NGVD of 1929.

REMARKS.—Records good. Natural flow of stream affected by storage reservoirs, power development, diversions for irrigation, return flow from irrigated areas, and tide. Floodflows bypass station through Sacramento Weir Spill to Yolo Bypass (stations 11426000 and 11453000). See schematic diagram of lower Sacramento River Basin.

EXTREMES FOR PERIOD OF RECORD (since 1949).—Maximum discharge, 117,000 ft^3/s, Feb. 19, 1986, elevation, 125.00 ft, at present datum; minimum daily, 3,970 ft^3/s, Oct. 15, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.—Maximum discharge known prior to Nov. 21, 1950, 103,000 ft^3/s, Jan. 17, 1909, elevation, 129.6 ft, site then in use at present datum, from reports of California Department of Water Resources.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12600	11500	12500	52900	23500	71300	22200	11700	13900	18200	19400	15700
2	12800	11700	13900	59300	22800	71000	21000	11600	13600	18400	19100	16100
3	12400	12100	15100	61000	24500	70300	20400	11500	13100	18600	19400	16200
4	12200	11800	16300	61200	32400	69500	20900	11200	12600	19100	19200	16000
5	11900	12000	16700	59000	38400	68600	23500	11900	12700	19500	19300	16100
6	11500	11900	15900	53800	38100	67500	25900	12800	12500	19700	19300	16000
7	11500	12000	16200	48100	34600	66300	31400	13200	13000	19600	19100	16000
8	11500	11800	19000	43800	31600	65400	33600	13100	15400	20000	18800	16200
9	11900	12800	23600	42000	29600	63800	34900	13000	16400	20400	18600	15900
10	11700	13600	22600	42200	27800	62400	36100	13800	17100	21000	18500	15300
11	11100	14200	21400	43300	26000	60000	35800	14300	16700	21300	18300	15300
12	11100	14500	23900	45200	24600	57000	34800	14200	16300	21200	18100	14900
13	10600	14400	26000	44500	23300	53400	33100	14000	16000	21500	18100	15300
14	10600	13700	26300	40700	22200	49200	31600	13100	15900	21500	17900	15000
15	10500	13500	29800	37200	21200	44800	30400	12100	15400	21600	18000	14800
16	10900	13300	35000	34700	20300	41200	30400	11600	14900	21500	17700	14600
17	10500	13500	34400	32500	22900	38300	30200	11300	15000	21400	17400	14100
18	10300	13500	31100	30500	39000	35500	28700	12300	15300	21800	17400	14700
19	10900	12800	28800	28600	56600	33300	24800	12200	15600	21800	17300	14700
20	10600	12400	27400	26900	69300	32000	21600	12200	15800	21700	17100	14700
21	10500	12100	26900	25500	73300	31200	19000	11900	15700	21200	16700	14400
22	10300	11900	28400	24200	73800	30400	17500	11800	15300	20400	16900	14500
23	10900	11400	28900	23000	73100	30000	16000	12300	15400	20000	17500	14300
24	10400	11200	28600	22400	71900	32200	15200	12400	15700	20600	17700	e13500
25	10000	11300	32900	21700	71900	33100	14400	12500	15600	21000	18100	e13100
26	9860	11700	39700	21100	74600	33200	13300	12400	15400	20400	18000	e12900
27	9970	11800	42300	20500	74700	32100	12000	12000	15300	20100	17200	e12400
28	10500	11400	44000	21300	73800	29400	11600	12100	15300	20200	16800	e12100
29	9420	11700	43100	23400	72400	26800	11800	12700	15600	20300	16400	e11900
30	10900	12000	43700	24900	---	25000	11700	13400	17400	19900	16200	e11600
31	11300	---	47000	24400	---	23700	---	13900	---	19800	15900	---
TOTAL	341150	373500	861400	1139800	1288200	1447900	713800	388500	453900	633700	555400	438300
MEAN	11000	12450	27790	36770	44420	46710	23790	12530	15130	20440	17920	14610
MAX	12800	14500	47000	61200	74700	71300	36100	14300	17400	21800	19400	16200
MIN	9420	11200	12500	20500	20300	23700	11600	11200	12500	18200	15900	11600
AC-FT	676700	740800	1709000	2261000	2555000	2872000	1416000	770600	900300	1257000	1102000	869400

e Estimated.

11447650 SACRAMENTO RIVER AT FREEPORT, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	12320	16120	26480	35230	41010	37870	29230	24480	18220	15380	14740	14860
MAX	28690	48820	74510	87110	81370	78290	76580	69820	55690	31000	25180	25320
(WY)	1963	1984	1984	1997	1998	1983	1982	1952	1998	1983	1998	1998
MIN	4494	6380	7208	8984	8003	6573	5961	6414	6865	6345	7061	6838
(WY)	1978	1993	1960	1991	1977	1977	1977	1992	1977	1949	1949	1977

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1949 - 2004	
ANNUAL TOTAL	9242450		8635550			
ANNUAL MEAN	25320		23590		23750	
HIGHEST ANNUAL MEAN					46900	1983
LOWEST ANNUAL MEAN					7608	1977
HIGHEST DAILY MEAN	65300	Jan 3	74700	Feb 27	115000	Feb 19 1986
LOWEST DAILY MEAN	9420	Oct 29	9420	Oct 29	3970	Oct 15 1977
ANNUAL SEVEN-DAY MINIMUM	10200	Oct 23	10200	Oct 23	4060	Oct 13 1977
MAXIMUM PEAK FLOW			77000	Feb 27	117000	Feb 19 1986
MAXIMUM PEAK STAGE			116.59	Feb 26	125.00	Feb 19 1986
ANNUAL RUNOFF (AC-FT)	18330000		17130000		17200000	
10 PERCENT EXCEEDS	45300		44200		55200	
50 PERCENT EXCEEDS	21500		18000		16200	
90 PERCENT EXCEEDS	11900		11700		9100	

11447650 SACRAMENTO RIVER AT FREEPORT, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—Water years 1957 to current year.
CHEMICAL DATA: Water years 1959 to current year.
BIOLOGICAL DATA: Water years 1974–81.
SPECIFIC CONDUCTANCE: Water years 1974–75, 1989–98.
WATER TEMPERATURE: Water years 1960 to current year.
SEDIMENT DATA: Water years 1957 to current year (prior to water year 1980, published as 11447500 "Sacramento River at Sacramento").

PERIOD OF DAILY RECORD.—
CHEMICAL DATA: June 1960 to June 1963.
SPECIFIC CONDUCTANCE: February 1974 to July 1975, November 1988 to September 1994, October 1995 to September 1998.
WATER TEMPERATURE: June 1960 to current year.
SUSPENDED SEDIMENT DISCHARGE: October 1956 to current year.

INSTRUMENTATION.—Water-temperature recorder June 1960 to November 1988. Water-quality monitor since November 1988.

REMARKS.—Water-temperature records rated excellent except for Nov. 17–26, which are rated good. Records of sediment discharge from 1957 to 1979 were obtained at "Sacramento River at Sacramento" (station 11447500) and are considered equivalent. Additional specific-conductance, monthly chemical, and trace-element data are available in files of the U.S. Geological Survey. Interruptions in record were due to malfunction of the recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.—
SPECIFIC CONDUCTANCE: Maximum recorded, 318 microsiemens, Nov. 22, 1974; minimum recorded, 32 microsiemens, Apr. 6, 1974.
WATER TEMPERATURE: Maximum recorded, 27.0°C, Sept. 8, 1977; minimum recorded, 3.0°C, Dec. 25–27, 1990.
SEDIMENT CONCENTRATION: Maximum daily mean, 1,960 mg/L, Dec. 24, 1964; minimum daily, 1 mg/L, Sept. 22, 2003.
SEDIMENT LOAD: Maximum daily, 525,000 tons, Dec. 24, 1964; minimum daily, 35 tons, Jan. 31, 1991.

EXTREMES FOR CURRENT YEAR.—
WATER TEMPERATURE: Maximum recorded, 24.0°C, June 7; minimum recorded, 8.0°C, Jan. 4–7.
SEDIMENT CONCENTRATION: Maximum daily mean, 330 mg/L, Feb. 19; minimum daily mean, 3 mg/L, Oct. 23, 24, Nov. 20.
SEDIMENT LOAD: Maximum daily, 58,900 tons, Feb. 20; minimum daily, 89 tons, Oct. 24.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Alkalinity, wat flt Gran, field, mg/L as CaCO3 (29802)	Chloride, water, fltrd, mg/L (00940)
NOV									
20...	1340	7240	763	10.4	7.4	162	12.5	64.0	5.81
JAN									
14...	1340	39900	766	9.6	7.8	135	8.0	52.0	4.24
FEB									
24...	1300	72000	764	9.8	7.2	122	11.0	--	3.14
MAR									
17...	1310	37200	764	10.9	7.7	148	15.0	--	4.11
APR									
23...	1320	18300	770	10.7	7.5	139	15.0	--	4.55
MAY									
27...	1320	11600	765	10.4	7.7	171	21.0	--	6.70
JUN									
24...	1300	16500	770	14.3	7.3	116	21.6	--	5.23
JUL									
29...	1410	23700	770	13.1	8.5	e130	21.2	--	3.62
SEP									
27...	1530	e12400	723	7.2	7.4	120	19.5	--	4.53

e Estimated.

11447650 SACRAMENTO RIVER AT FREEPORT, CA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Sulfate water, fltrd, mg/L (00945)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho-phos-phate, water, fltrd, mg/L as P (00671)	Phos-phorus, water, unfltrd mg/L (00665)	Total nitro-gen, wat unf by analysis, mg/L (62855)	2,6-Di-ethyl-aniline water fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)
NOV									
20...	7.6	<.04	.12	.008	.022	.059	.36	<.006	<.006
JAN									
14...	5.8	<.04	.25	<.008	.027	.085	.50	<.006	<.006
FEB									
24...	4.5	<.04	<.06	<.008	.028	.128	.41	<.006	<.006
MAR									
17...	6.3	<.04	.13	.026	.007	.087	.42	<.006	<.006
APR									
23...	5.1	<.04	.19	<.008	.013	.046	.30	<.006	<.006
MAY									
27...	8.0	<.04	.08	.009	.022	.055	.21	<.006	<.006
JUN									
24...	5.0	<.04	<.06	.013	.023	.047	.21	<.006	<.006
JUL									
29...	4.6	<.04	<.06	<.008	.016	.046	.15	<.006	<.006
SEP									
27...	4.6	<.04	e.05	<.008	.021	.040	.19	<.006	<.006

Date	Aceto-chlor, water, fltrd, ug/L (49260)	Ala-chlor, water, fltrd, ug/L (46342)	alpha-HCH, water, fltrd, ug/L (34253)	Atra-zine, water, fltrd, ug/L (39632)	Azin-phos-methyl, water, fltrd 0.7u GF ug/L (82686)	Ben-flur-alin, water, fltrd 0.7u GF ug/L (82673)	Butyl-ate, water, fltrd, ug/L (04028)	Car-baryl, water, fltrd 0.7u GF ug/L (82680)	Carbo-furan, water, fltrd 0.7u GF ug/L (82674)
NOV									
20...	<.006	<.005	<.005	<.007	<.050	<.010	<.004	<.041	<.050
JAN									
14...	<.006	<.005	<.005	<.007	<.050	<.010	<.004	<.041	<.020
FEB									
24...	<.006	<.005	<.005	.008	<.050	<.010	<.004	<.041	e.004
MAR									
17...	<.006	<.005	<.005	<.007	<.050	<.010	<.004	<.041	<.020
APR									
23...	<.006	<.005	<.005	<.007	<.050	<.010	<.004	<.041	<.020
MAY									
27...	<.006	<.005	<.005	<.007	<.050	<.010	<.004	<.041	<.020
JUN									
24...	<.006	<.005	<.005	<.007	<.050	<.010	<.004	<.041	<.020
JUL									
29...	<.006	<.005	<.005	e.002	<.050	<.010	<.004	<.041	e.006
SEP									
27...	<.006	<.005	<.005	<.007	<.050	<.010	<.004	<.041	<.020

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

11447650 SACRAMENTO RIVER AT FREEPORT, CA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Chlor-pyrifos water, fltrd, ug/L (38933)	cis-Per-methrin water fltrd 0.7u GF ug/L (82687)	Cyana-zine, water, fltrd, ug/L (04041)	DCPA, water fltrd 0.7u GF ug/L (82682)	Desulf-inyl fipro-nil, water, fltrd, ug/L (62170)	Diazi-non, water, fltrd, ug/L (39572)	Diel-drin, water, fltrd, ug/L (39381)	Disul-foton, water, fltrd 0.7u GF ug/L (82677)	EPTC, water, fltrd 0.7u GF ug/L (82668)
NOV									
20...	<.010	<.006	<.018	<.003	<.012	<.005	<.009	<.02	<.004
JAN									
14...	<.005	<.006	<.018	<.003	<.012	.005	<.009	<.02	<.004
FEB									
24...	<.005	<.006	<.018	<.003	<.012	.011	<.009	<.02	<.004
MAR									
17...	<.005	<.006	<.018	<.003	<.012	<.005	<.009	<.02	<.004
APR									
23...	<.005	<.006	<.018	<.003	<.012	<.005	<.009	<.02	<.004
MAY									
27...	.007	<.006	<.018	<.003	<.012	<.005	<.009	<.02	<.004
JUN									
24...	.012	<.006	<.018	<.003	<.012	<.005	<.009	<.02	<.004
JUL									
29...	e.003	<.006	<.018	<.003	<.012	<.005	<.009	<.02	<.004
SEP									
27...	<.005	<.006	<.018	<.003	<.012	<.005	<.009	<.02	<.004

Date	Ethal-flur-alin, water, fltrd 0.7u GF ug/L (82663)	Etho-prop, water, fltrd 0.7u GF ug/L (82672)	Desulf-inyl-fipro-nil amide, wat flt ug/L (62169)	Fipro-nil sulfide water, fltrd, ug/L (62167)	Fipro-nil sulfone water, fltrd, ug/L (62168)	Fipro-nil, water, fltrd, ug/L (62166)	Fonofos water, fltrd, ug/L (04095)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF ug/L (82666)
NOV									
20...	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035
JAN									
14...	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035
FEB									
24...	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035
MAR									
17...	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035
APR									
23...	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035
MAY									
27...	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035
JUN									
24...	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035
JUL									
29...	e.004	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035
SEP									
27...	<.009	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035

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

11447650 SACRAMENTO RIVER AT FREEPORT, CA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Mala-thion, water, fltrd, ug/L (39532)	Methyl para-thion, water, fltrd 0.7u GF ug/L (82667)	Metola-chlor, water, fltrd, ug/L (39415)	Metri-buzin, water, fltrd, ug/L (82630)	Moli-nate, water, fltrd 0.7u GF ug/L (82671)	Naprop-amide, water, fltrd 0.7u GF ug/L (82684)	p,p'-DDE, water, fltrd, ug/L (34653)	Para-thion, water, fltrd, ug/L (39542)	Peb-ulate, water, fltrd 0.7u GF ug/L (82669)
NOV									
20...	<.027	<.015	<.013	<.006	<.040	<.007	<.003	<.010	<.004
JAN									
14...	<.027	<.015	<.013	<.006	.008	<.007	<.003	<.010	<.004
FEB									
24...	<.027	<.015	e.008	<.006	.006	<.007	<.003	<.010	<.004
MAR									
17...	<.027	<.015	e.006	<.006	<.003	<.007	<.003	<.010	<.004
APR									
23...	<.027	<.015	e.008	<.006	.007	<.007	<.003	<.010	<.004
MAY									
27...	<.027	<.015	.021	<.006	.601	<.007	<.003	<.010	<.004
JUN									
24...	<.027	<.015	e.010	<.006	.051	<.007	<.003	<.010	<.004
JUL									
29...	<.027	<.015	e.005	<.006	.011	<.007	<.003	<.010	<.004
SEP									
27...	<.027	<.015	<.013	<.006	<.003	<.007	<.003	<.010	<.004

Date	Pendi-meth-alin, water, fltrd 0.7u GF ug/L (82683)	Phorate water fltrd 0.7u GF ug/L (82664)	Prome-ton, water, fltrd, ug/L (04037)	Propy-zamide, water, fltrd 0.7u GF ug/L (82676)	Propa-chlor, water, fltrd, ug/L (04024)	Pro-panil, water, fltrd 0.7u GF ug/L (82679)	Propar-gite, water, fltrd 0.7u GF ug/L (82685)	Sima-zine, water, fltrd, ug/L (04035)	Tebu-thiuron water fltrd 0.7u GF ug/L (82670)
NOV									
20...	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005	<.04
JAN									
14...	<.022	<.011	<.01	<.004	<.025	<.011	<.02	.017	<.02
FEB									
24...	<.022	<.011	<.01	<.004	<.025	<.011	<.02	.060	<.02
MAR									
17...	<.022	<.011	<.01	<.004	<.025	<.011	<.02	.011	<.02
APR									
23...	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.008	<.02
MAY									
27...	<.022	<.011	<.01	<.004	<.025	e.025	<.02	<.005	<.02
JUN									
24...	e.012	<.011	<.01	<.004	<.025	.109	<.02	e.004	<.02
JUL									
29...	<.022	<.011	<.01	<.004	<.025	e.008	<.02	<.005	<.02
SEP									
27...	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005	<.02

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

11447650 SACRAMENTO RIVER AT FREEPORT, CA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Terba-cil, water, fltrd 0.7u GF ug/L (82665)	Terbu-fos, water, fltrd 0.7u GF ug/L (82675)	Thio-bencarb water fltrd 0.7u GF ug/L (82681)	Tri-allate, water, fltrd 0.7u GF ug/L (82678)	Tri-flur-alin, water, fltrd 0.7u GF ug/L (82661)
NOV					
20...	<.034	<.02	e.008	<.002	<.009
JAN					
14...	<.034	<.02	<.010	<.002	<.009
FEB					
24...	<.034	<.02	e.005	<.002	<.009
MAR					
17...	<.034	<.02	<.010	<.002	<.009
APR					
23...	<.034	<.02	.013	<.002	<.009
MAY					
27...	<.034	<.02	e.106	<.002	e.004
JUN					
24...	<.034	<.02	.015	<.002	<.009
JUL					
29...	<.034	<.02	e.006	<.002	<.009
SEP					
27...	<.034	<.02	<.010	<.002	<.009

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

11447650 SACRAMENTO RIVER AT FREEPORT, CA—Continued

TEMPERATURE, WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	20.5	19.5	---	---	11.5	11.0	8.5	8.5	9.5	9.0	11.0	11.0
2	20.5	19.5	---	---	12.0	11.5	8.5	8.5	10.0	9.5	11.0	10.5
3	20.0	19.0	---	---	12.5	12.0	9.0	8.5	10.0	9.5	11.0	10.5
4	19.5	19.0	---	---	12.5	12.0	9.0	8.0	10.0	9.5	11.0	10.5
5	20.0	18.5	---	---	13.0	12.5	8.5	8.0	9.5	9.0	11.5	10.5
6	20.0	19.0	---	---	13.5	12.5	8.5	8.0	9.5	8.5	11.5	11.0
7	---	---	---	---	13.5	12.5	9.0	8.0	10.0	9.0	12.5	11.5
8	---	---	---	---	13.0	12.5	9.5	8.5	10.0	9.5	13.0	12.0
9	---	---	---	---	12.5	12.0	10.0	9.0	10.5	9.5	13.5	12.5
10	---	---	---	---	12.0	11.5	10.5	9.5	10.0	9.5	14.0	13.0
11	---	---	---	---	12.0	11.0	10.5	9.5	10.5	9.5	14.5	13.5
12	---	---	---	---	11.5	11.0	10.5	10.5	10.5	9.5	15.0	14.0
13	---	---	---	---	11.0	10.5	10.5	10.5	10.5	10.0	15.0	14.0
14	---	---	---	---	11.0	10.5	10.5	10.5	11.0	10.0	15.0	14.0
15	---	---	---	---	11.0	10.5	10.5	10.0	11.0	10.5	15.5	14.5
16	---	---	---	---	11.0	10.0	10.5	10.0	11.0	10.5	16.0	14.5
17	---	---	---	---	10.5	10.0	10.5	10.0	11.5	11.0	16.0	15.0
18	---	---	---	---	10.0	9.5	10.5	10.0	12.0	11.5	16.5	15.0
19	---	---	13.5	13.0	10.0	9.5	10.5	10.0	12.0	11.5	16.5	15.5
20	---	---	13.5	13.0	10.0	9.5	10.5	10.0	12.5	11.5	17.0	16.0
21	---	---	13.5	13.0	10.5	10.0	10.5	10.0	12.5	12.0	17.0	16.0
22	---	---	13.0	12.5	11.0	10.5	10.5	10.0	12.0	11.5	17.0	16.0
23	---	---	12.5	11.5	11.0	10.5	11.0	10.0	12.0	11.5	17.0	16.0
24	---	---	12.0	11.0	11.0	11.0	10.0	10.0	12.0	11.5	16.5	15.0
25	---	---	11.5	11.0	11.0	11.0	10.5	9.5	12.0	11.0	15.5	14.5
26	---	---	11.0	10.5	11.0	10.5	10.0	9.5	11.5	11.0	14.5	13.5
27	---	---	11.0	10.0	11.0	10.0	10.0	9.5	11.0	10.5	14.0	13.5
28	---	---	10.5	10.5	10.0	9.5	10.0	9.5	11.0	10.5	14.5	13.5
29	---	---	11.0	10.5	9.5	9.0	10.0	9.5	11.5	11.0	15.0	14.0
30	---	---	11.0	10.5	9.0	8.5	10.0	9.5	---	---	15.0	14.5
31	---	---	---	---	9.0	8.5	9.5	9.0	---	---	15.5	14.0
MONTH	---	---	---	---	13.5	8.5	11.0	8.0	12.5	8.5	17.0	10.5

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	15.5	14.5	21.0	19.5	22.5	21.5	---	---	22.0	20.5	23.0	21.5
2	15.5	14.5	21.5	20.0	23.0	22.0	22.5	21.0	22.0	20.5	22.5	21.5
3	16.0	14.5	22.0	20.0	23.0	22.0	23.0	21.0	22.0	20.5	22.0	20.5
4	16.0	15.0	22.0	20.5	23.5	22.0	23.0	21.5	22.0	20.5	21.5	20.0
5	16.0	15.0	21.5	20.5	23.0	21.5	23.5	21.5	22.0	20.5	21.5	20.0
6	16.0	14.5	21.0	19.5	23.5	22.0	23.5	21.5	22.0	20.5	22.0	20.5
7	15.5	15.0	20.5	19.5	24.0	22.5	23.0	21.5	22.5	21.0	22.0	21.0
8	16.0	15.0	20.5	19.5	23.0	22.0	23.0	21.5	23.0	21.5	22.5	21.0
9	16.0	15.0	20.5	19.5	22.5	21.0	22.5	20.5	23.0	21.5	23.0	21.5
10	16.5	15.5	20.0	19.5	22.0	20.5	22.0	20.0	23.0	21.5	22.5	21.5
11	16.5	16.0	20.0	19.5	21.0	20.0	22.5	20.5	23.5	21.5	22.5	21.5
12	16.0	15.5	20.0	19.0	21.0	20.0	22.5	20.5	23.0	21.5	22.5	21.0
13	16.5	15.5	20.0	19.5	22.0	20.5	22.5	20.5	23.0	21.0	22.0	21.0
14	16.0	15.5	20.5	19.0	22.5	21.0	22.5	20.5	22.5	21.0	21.5	20.5
15	16.0	15.0	20.5	19.5	23.0	21.5	22.5	20.5	22.0	20.5	21.5	20.5
16	15.5	14.5	21.5	19.5	23.5	22.0	23.0	20.5	22.0	20.5	21.5	20.0
17	15.0	14.5	21.0	20.0	23.0	22.0	23.0	20.5	22.5	21.0	21.5	20.5
18	15.0	14.0	21.0	20.0	22.5	21.5	23.0	21.0	23.0	21.0	21.0	20.0
19	15.0	14.0	21.5	20.0	22.5	21.5	23.0	21.0	23.0	21.0	20.5	19.0
20	15.0	14.0	21.0	20.0	---	---	23.0	21.0	23.0	21.5	19.5	18.0
21	15.0	14.0	21.0	20.0	---	---	23.5	21.5	22.5	21.5	19.0	18.0
22	15.5	14.5	21.0	19.5	---	---	23.5	21.5	22.5	21.0	19.0	18.0
23	16.5	15.0	20.5	19.5	---	---	23.5	21.5	22.0	21.0	19.0	17.5
24	17.5	16.0	21.0	20.0	---	---	23.0	21.5	22.0	21.0	19.5	18.0
25	18.5	17.0	21.0	20.0	---	---	23.0	21.5	22.0	20.5	20.0	18.5
26	19.5	18.0	21.5	20.0	---	---	23.0	21.5	22.0	21.0	20.5	18.5
27	20.5	18.5	22.0	20.5	---	---	23.0	21.5	22.5	21.0	20.5	19.0
28	21.0	19.5	22.0	20.5	---	---	22.5	21.0	22.5	21.0	20.0	19.0
29	20.5	19.5	22.0	20.5	---	---	22.0	21.0	22.5	21.0	20.0	19.0
30	21.0	19.5	22.5	21.0	---	---	22.0	21.0	22.5	21.5	20.0	18.5
31	---	---	22.5	21.0	---	---	22.0	20.5	23.0	21.5	---	---
MONTH	21.0	14.0	22.5	19.0	---	---	---	---	23.5	20.5	23.0	17.5

11447650 SACRAMENTO RIVER AT FREEPORT, CA—Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Temperature, water, deg C (00010)	Suspnd. sediment, sieve diametr percent <.063mm (70331)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)
OCT						
01...	1140	9800	20.0	88	11	291
NOV						
18...	1120	11100	13.0	90	16	480
20...SS	1340	7240	12.5	93	10	195
JAN						
07...	1155	48400	8.0	57	112	14600
14...SS	1340	39900	8.0	88	49	5280
FEB						
24...SS	1300	72000	11.0	81	94	18300
MAR						
03...	1313	70000	10.5	44	138	26100
17...SS	1310	37200	15.0	97	63	6330
APR						
14...	1117	32300	15.5	66	48	4190
23...SS	1320	18300	15.0	98	40	1980
MAY						
21...	1200	16100	20.5	92	20	869
27...SS	1320	11600	21.0	96	20	626
JUN						
24...SS	1300	16500	21.6	97	19	846
JUL						
01...	1117	22300	21.0	90	36	2170
29...SS	1410	23700	21.2	99	24	1540
AUG						
13...	1025	21600	21.5	87	23	1340
SEP						
27...SS	1530	e12400	19.5	94	15	e502

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED-MATERIAL, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Temperature, water, deg C (00010)	Bed sediment, dry svd sve dia percent <.063mm (80164)	Bed sediment, dry svd sve dia percent <.125mm (80165)	Bed sediment, dry svd sve dia percent <.25mm (80166)	Bed sediment, dry svd sve dia percent <.5 mm (80167)	Bed sediment, dry svd sve dia percent <1 mm (80168)	Bed sediment, dry svd sve dia percent <2 mm (80169)	Bed sediment, dry svd sve dia percent <4 mm (80170)	Bed sediment, dry svd sve dia percent <8 mm (80171)	Number of sampling points, count (00063)
MAR												
03...	1330	70000	10.5	--	--	3	74	97	100	--	--	1
03...	1331	70000	10.5	--	--	3	61	86	95	98	100	1
03...	1332	70000	10.5	--	1	17	99	100	--	--	--	1
03...	1333	70000	10.5	--	--	8	85	98	100	--	--	1
03...	1334	70000	10.5	--	1	28	94	100	--	--	--	1
JUL												
01...	1145	22300	21.0	2	12	16	60	92	98	98	100	1
01...	1148	22300	21.0	1	5	7	59	87	93	97	100	1
01...	1151	22300	21.0	--	2	26	86	99	100	--	--	1
01...	1154	22300	21.0	1	3	19	87	99	100	--	--	1
01...	1157	22300	21.0	6	28	59	92	95	98	100	--	1

SS Suspended-sediment data obtained from a sample collected and processed according to National Water-Quality Assessment (NAWQA) protocol.

e Estimated.

11447650 SACRAMENTO RIVER AT FREEPORT, CA—Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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	12600	10	348	11500	10	323	12500	8	268
2	12800	10	357	11700	10	320	13900	10	360
3	12400	12	406	12100	10	322	15100	16	665
4	12200	14	463	11800	10	305	16300	25	1090
5	11900	16	515	12000	9	301	16700	38	1690
6	11500	18	558	11900	9	281	15900	51	2190
7	11500	20	609	12000	7	217	16200	64	2810
8	11500	19	591	11800	8	255	19000	78	3980
9	11900	18	576	12800	10	356	23600	90	5730
10	11700	16	507	13600	13	463	22600	94	5710
11	11100	14	420	14200	15	569	21400	95	5500
12	11100	12	359	14500	17	651	23900	98	6310
13	10600	10	285	14400	18	689	26000	106	7450
14	10600	8	233	13700	17	632	26300	115	8190
15	10500	7	212	13500	16	594	29800	130	10500
16	10900	7	215	13300	16	557	35000	194	18300
17	10500	9	255	13500	15	537	34400	182	16900
18	10300	11	306	13500	14	501	31100	156	13100
19	10900	13	383	12800	8	292	28800	122	9520
20	10600	15	430	12400	3	101	27400	92	6840
21	10500	16	447	12100	4	123	26900	87	6320
22	10300	10	266	11900	6	178	28400	86	6570
23	10900	3	94	11400	7	225	28900	88	6880
24	10400	3	89	11200	9	275	28600	94	7280
25	10000	4	118	11300	11	321	32900	129	11500
26	9860	6	149	11700	9	288	39700	186	19900
27	9970	7	183	11800	7	225	42300	297	33900
28	10500	8	229	11400	5	166	44000	287	34100
29	9420	10	245	11700	6	189	43100	252	29300
30	10900	11	319	12000	7	226	43700	214	25300
31	11300	11	326	---	---	---	47000	182	23100
TOTAL	341150	---	10493	373500	---	10482	861400	---	331253
		JANUARY			FEBRUARY			MARCH	
1	52900	233	33300	23500	55	3460	71300	145	28000
2	59300	287	46000	22800	52	3170	71000	151	29000
3	61000	267	44000	24500	53	3480	70300	141	26700
4	61200	238	39300	32400	114	9990	69500	139	26100
5	59000	192	30600	38400	248	25700	68600	146	27100
6	53800	140	20300	38100	208	21400	67500	135	24600
7	48100	119	15500	34600	163	15200	66300	119	21300
8	43800	114	13500	31600	125	10600	65400	108	19100
9	42000	137	15500	29600	90	7160	63800	123	21200
10	42200	132	15100	27800	72	5380	62400	125	21100
11	43300	122	14200	26000	65	4530	60000	123	20000
12	45200	111	13500	24600	63	4180	57000	129	19900
13	44500	102	12200	23300	61	3850	53400	135	19400
14	40700	102	11200	22200	59	3550	49200	140	18600
15	37200	98	9860	21200	57	3270	44800	145	17500
16	34700	75	6990	20300	55	3010	41200	144	16000
17	32500	72	6310	22900	95	5870	38300	136	14100
18	30500	74	6090	39000	311	32800	35500	125	12000
19	28600	75	5770	56600	330	50400	33300	115	10400
20	26900	68	4950	69300	315	58900	32000	108	9360
21	25500	65	4500	73300	292	57800	31200	102	8580
22	24200	64	4170	73800	221	44000	30400	95	7790
23	23000	61	3800	73100	156	30800	30000	86	6940
24	22400	51	3110	71900	174	33700	32200	79	6870
25	21700	48	2780	71900	197	38300	33100	72	6470
26	21100	45	2580	74600	216	43600	33200	56	5050
27	20500	45	2490	74700	176	35500	32100	53	4580
28	21300	46	2650	73800	160	31800	29400	51	4050
29	23400	58	3690	72400	152	29600	26800	46	3360
30	24900	61	4080	---	---	---	25000	24	1630
31	24400	58	3800	---	---	---	23700	21	1320
TOTAL	1139800	---	401820	1288200	---	621000	1447900	---	458100

11447650 SACRAMENTO RIVER AT FREEPORT, CA—Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	22200	21	1280	11700	20	620	13900	21	771
2	21000	23	1320	11600	22	697	13600	20	741
3	20400	32	1750	11500	24	745	13100	21	729
4	20900	37	2080	11200	19	588	12600	19	650
5	23500	41	2600	11900	14	463	12700	17	592
6	25900	44	3100	12800	14	481	12500	15	522
7	31400	43	3640	13200	18	650	13000	14	479
8	33600	43	3920	13100	23	817	15400	13	556
9	34900	55	5140	13000	28	981	16400	19	839
10	36100	62	6050	13800	33	1210	17100	23	1080
11	35800	59	5690	14300	32	1220	16700	30	1380
12	34800	52	4900	14200	28	1080	16300	37	1620
13	33100	50	4470	14000	25	955	16000	36	1570
14	31600	44	3780	13100	24	862	15900	35	1490
15	30400	38	3120	12100	24	777	15400	34	1430
16	30400	37	3000	11600	23	726	14900	34	1370
17	30200	32	2610	11300	23	689	15000	13	529
18	28700	27	2090	12300	21	703	15300	12	498
19	24800	23	1540	12200	16	543	15600	16	670
20	21600	25	1440	12200	16	511	15800	20	851
21	19000	25	1280	11900	18	567	15700	23	983
22	17500	25	1180	11800	17	541	15300	22	889
23	16000	23	1010	12300	16	531	15400	19	794
24	15200	14	573	12400	17	560	15700	18	765
25	14400	15	581	12500	25	860	15600	23	989
26	13300	17	609	12400	19	621	15400	30	1260
27	12000	13	407	12000	18	581	15300	37	1540
28	11600	8	251	12100	20	652	15300	44	1820
29	11800	10	316	12700	22	743	15600	51	2140
30	11700	16	515	13400	22	779	17400	53	2510
31	---	---	---	13900	21	790	---	---	---
TOTAL	713800	---	70242	388500	---	22543	453900	---	32057
		JULY			AUGUST			SEPTEMBER	
1	18200	42	2060	19400	32	1670	15700	23	972
2	18400	38	1900	19100	31	1600	16100	25	1080
3	18600	35	1740	19400	30	1560	16200	26	1150
4	19100	31	1620	19200	28	1450	16000	20	867
5	19500	28	1490	19300	26	1360	16100	11	471
6	19700	25	1350	19300	24	1260	16000	8	326
7	19600	25	1350	19100	22	1150	16000	27	1170
8	20000	27	1440	18800	20	1040	16200	30	1330
9	20400	32	1760	18600	18	927	15900	27	1180
10	21000	37	2100	18500	15	756	15300	12	513
11	21300	42	2420	18300	14	674	15300	10	395
12	21200	48	2740	18100	13	649	14900	8	331
13	21500	57	3290	18100	20	978	15300	10	418
14	21500	57	3290	17900	23	1130	15000	22	895
15	21600	55	3220	18000	24	1150	14800	17	671
16	21500	54	3120	17700	23	1100	14600	10	378
17	21400	51	2960	17400	18	828	14100	13	514
18	21800	49	2860	17400	17	777	14700	16	628
19	21800	45	2640	17300	16	753	14700	17	692
20	21700	37	2170	17100	16	724	14700	19	744
21	21200	30	1730	16700	15	688	14400	19	720
22	20400	32	1740	16900	15	677	14500	18	706
23	20000	34	1840	17500	14	681	14300	18	678
24	20600	37	2040	17700	14	679	e13500	17	e623
25	21000	39	2230	18100	14	683	e13100	17	e587
26	20400	40	2180	18000	9	441	e12900	16	e562
27	20100	27	1480	17200	4	177	e12400	16	e524
28	20200	28	1550	16800	5	239	e12100	15	e496
29	20300	34	1870	16400	10	437	e11900	15	e472
30	19900	34	1820	16200	15	635	e11600	14	e446
31	19800	33	1760	15900	20	880	---	---	---
TOTAL	633700	---	65760	555400	---	27753	438300	---	20539
YEAR	8635550		2072042						

e Estimated.

11447650 SACRAMENTO RIVER AT FREEPORT, CA—Continued

CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DATE	TIME	Depth at sample location, feet (81903)	Temperature, water, deg C (00010)	Location in X-sect. looking dwnstrm ft from l bank (00009)
JUL				
01...*	1220	20.3	21.1	172
01...*	1223	23.1	21.1	274
01...*	1226	24.0	21.1	377
01...*	1229	25.5	21.1	462
01...*	1232	28.2	21.2	547
AUG				
13...*	1052	20.2	21.4	172
13...*	1055	23.2	21.4	274
13...*	1058	24.5	21.4	377
13...*	1101	25.4	21.4	462
13...*	1104	27.6	21.4	547

* Instantaneous discharge at time of cross-sectional measurement: July 1, 22,500 ft^3/s; Aug. 13, 21,800 ft^3/s.

11449500 KELSEY CREEK NEAR KELSEYVILLE, CA

LOCATION.—Lat 38°55'39", long 122°50'33", in SE 1/4 SE 1/4 sec.34, T.13 N., R.9 W., Lake County, Hydrologic Unit 18020116, on left bank, 1.6 mi downstream from Widow Creek, and 3.5 mi south of Kelseyville.

DRAINAGE AREA.—36.6 mi^2.

PERIOD OF RECORD.—October 1946 to current year.

REVISED RECORDS.—WSP 1285: 1947–48(M), 1950–52(P). WSP 1931: Drainage area. WDR CA-96-4: 1956–93(P).

GAGE.—Water-stage recorder. Datum of gage is 1,475.44 ft above NGVD of 1929. Prior to July 16, 1955, at site 600 ft upstream at different datum.

REMARKS.—Records good except for estimated daily discharges, which are fair. Some minor diversions upstream from station. See schematic diagram of lower Sacramento River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 8,600 ft^3/s, Mar. 9, 1995, gage height, 13.80 ft; minimum daily, 0.13 ft^3/s, Sept. 6–11, 1992.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 2,400 ft^3/s, or maximum:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 24	0815	2,570	9.28	Feb. 17	1645	6,420	12.19
Dec. 29	1315	3,900	10.68	Feb. 25	0845	2,650	9.37
Jan. 1	1000	3,000	9.76				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	6.1	131	1030	47	210	38	20	e10	5.9	e3.1	1.9
2	4.0	6.3	134	402	397	184	38	19	10	5.9	e3.0	1.9
3	4.1	6.7	51	245	254	156	37	18	9.5	5.3	e2.9	2.0
4	4.3	6.9	34	178	159	139	36	18	9.1	5.1	e2.9	e2.0
5	4.3	7.3	35	145	121	127	35	17	9.1	4.8	e2.9	2.0
6	4.4	7.4	302	122	102	115	35	18	9.3	4.8	e2.9	e2.0
7	4.3	8.2	143	123	96	105	33	18	9.3	4.7	e2.8	e2.0
8	4.2	34	58	126	82	96	33	17	10	4.8	e2.8	e1.9
9	4.3	59	72	286	73	90	32	16	e11	5.0	e2.8	e1.9
10	4.4	24	399	239	67	84	31	17	e9.4	5.2	e2.7	e1.8
11	4.1	13	170	171	62	79	29	17	e8.8	4.9	e2.7	e1.8
12	4.6	10	84	139	58	75	29	16	e8.6	4.6	e2.6	e1.9
13	4.6	9.3	147	118	55	72	28	16	e8.3	4.5	e2.6	e2.0
14	4.5	11	744	109	54	67	28	16	e8.2	4.5	e2.6	e2.1
15	4.6	16	155	100	54	64	29	15	e8.0	4.4	e2.5	2.4
16	4.7	13	92	88	513	61	27	15	e7.8	4.2	e2.5	2.2
17	4.8	10	68	80	3530	58	27	15	e7.8	4.1	e2.5	2.3
18	5.0	9.3	55	73	1360	56	26	15	e8.0	4.1	e2.5	2.4
19	5.1	8.7	52	68	493	54	30	16	7.3	3.9	e2.4	2.8
20	4.7	8.4	201	64	320	51	39	15	7.0	3.9	e2.4	3.0
21	4.6	8.4	216	59	245	49	32	14	6.7	3.8	e2.3	3.1
22	4.8	8.3	111	55	212	48	27	e14	6.5	3.8	e2.3	2.9
23	5.0	8.6	254	53	176	47	27	e13	6.5	3.8	e2.2	2.7
24	5.0	8.3	1070	56	185	46	25	e13	6.3	3.7	2.5	e2.4
25	4.9	e7.8	329	51	e1280	58	24	e12	6.1	3.6	2.3	e2.3
26	4.8	e7.9	178	48	e850	63	23	e12	6.0	3.6	2.5	2.4
27	4.8	7.8	124	56	e395	54	22	e11	6.2	e3.3	2.6	2.2
28	4.8	7.7	98	59	315	47	21	e11	5.9	e3.2	2.3	2.5
29	4.7	10	1650	52	242	44	21	e12	5.8	e3.2	2.1	2.7
30	5.2	14	560	51	---	42	20	e11	6.0	e3.2	2.0	2.9
31	5.7	---	263	47	---	41	---	e10	---	e3.1	1.9	---
TOTAL	143.3	363.4	7980	4493	11797	2482	882	467	238.5	132.9	79.1	68.4
MEAN	4.62	12.1	257	145	407	80.1	29.4	15.1	7.95	4.29	2.55	2.28
MAX	5.7	59	1650	1030	3530	210	39	20	11	5.9	3.1	3.1
MIN	4.0	6.1	34	47	47	41	20	10	5.8	3.1	1.9	1.8
AC-FT	284	721	15830	8910	23400	4920	1750	926	473	264	157	136

e Estimated.

11449500 KELSEY CREEK NEAR KELSEYVILLE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	10.8	44.3	133	202	214	148	77.3	31.8	13.0	5.67	3.53	3.69
MAX	154	334	688	929	919	640	429	163	64.1	19.2	9.40	16.3
(WY)	1963	1974	1956	1995	1986	1983	1982	1983	1998	1998	1998	1957
MIN	1.22	3.55	4.19	4.83	8.97	11.4	5.67	6.12	1.98	0.46	0.20	0.16
(WY)	1992	1991	1991	1991	1977	1977	1977	1977	1977	1977	1977	1992

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1947 - 2004	
ANNUAL TOTAL	28664.2		29126.6			
ANNUAL MEAN	78.5		79.6		73.2	
HIGHEST ANNUAL MEAN					206	1983
LOWEST ANNUAL MEAN					4.78	1977
HIGHEST DAILY MEAN	1650	Dec 29	3530	Feb 17	6020	Feb 17 1986
LOWEST DAILY MEAN	2.8	Aug 12	1.8	Sep 10	0.13	Sep 6 1992
ANNUAL SEVEN-DAY MINIMUM	3.3	Aug 6	1.9	Sep 6	0.13	Sep 5 1992
MAXIMUM PEAK FLOW			6420	Feb 17	8600	Mar 9 1995
MAXIMUM PEAK STAGE			12.19	Feb 17	13.80	Mar 9 1995
ANNUAL RUNOFF (AC-FT)	56860		57770		53060	
10 PERCENT EXCEEDS	192		172		155	
50 PERCENT EXCEEDS	34		12		13	
90 PERCENT EXCEEDS	4.0		2.5		2.5	

11450000 CLEAR LAKE AT LAKEPORT, CA

LOCATION.—Lat 39°02'21", long 122°54'44", in NE 1/4 NE 1/4 sec.25, T.14 N., R.10 W., Lake County, Hydrologic Unit 18020116, on pier behind 410 Esplanade Street in Lakeport.

DRAINAGE AREA.—528 mi^2.

PERIOD OF RECORD.—1874–1900 (incomplete), January 1913 to April 1982, October 1984 to current year.

GAGE.—Water-stage recorder. Datum of gage is 1,318.26 ft above NGVD of 1929 (California State Land Commission Benchmark). Prior to July 8, 1947, nonrecording gage, and July 8, 1947, to Mar. 17, 1949, at municipal wharf at foot of Third Street in Lakeport at datum 0.33 ft higher. Mar. 18, 1949, to Sept. 30, 1967, at private pier at foot of Fourth Street at datum 0.33 ft higher. Gage relocated at same datum, Apr. 20, 1982, and published as "at Clearlake" for 1982–84.

REMARKS.—This natural lake is regulated by gates on a dam at outlet, completed in 1915. Capacity between gage heights 0.00 and 7.56 ft, limits stipulated by court decree of 1920, about 319,000 acre-ft. Water is released down natural channel of Cache Creek (station 11451000), from which it is diverted for irrigation. See schematic diagram of lower Sacramento River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum gage height, 11.44 ft, Feb. 24, 1998, minimum observed, –3.50 ft, Sept. 24–27, 1920.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood of Mar. 4, 1983, reached a stage of 11.24 ft, present datum, from floodmarks.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.78	2.15	2.34	5.49	6.13	8.77	7.67	7.34	6.22	4.97	3.74	2.43
2	2.76	2.13	2.37	5.73	6.23	8.69	7.66	7.32	6.20	4.94	3.71	2.37
3	2.75	2.12	2.38	5.79	6.40	8.58	7.63	7.29	6.16	4.90	3.69	2.33
4	2.72	2.12	2.40	5.80	6.50	8.47	7.62	7.25	6.12	4.86	3.63	2.31
5	2.70	2.14	2.41	5.78	6.57	8.36	7.61	7.21	6.06	4.84	3.58	2.32
6	2.68	2.15	2.43	5.77	6.62	8.26	7.60	7.18	6.00	4.80	3.54	2.32
7	2.66	2.15	2.48	5.78	6.68	8.14	7.59	7.15	5.93	4.76	3.51	2.28
8	2.62	2.23	2.52	5.77	6.72	8.03	7.58	7.11	5.90	4.73	3.48	2.25
9	2.57	2.27	2.59	5.75	6.76	7.92	7.57	7.06	5.86	4.69	3.45	2.22
10	2.56	2.27	2.67	5.76	6.77	7.82	7.56	6.99	5.82	4.66	3.43	2.19
11	2.53	2.26	2.74	5.75	6.79	7.72	7.55	6.98	5.78	4.62	3.40	2.16
12	2.51	2.26	2.82	5.74	6.83	7.63	7.54	6.97	5.73	4.58	3.36	2.14
13	2.49	2.27	2.89	5.71	6.84	7.57	7.52	6.93	5.69	4.54	3.34	2.12
14	2.47	2.26	3.04	5.72	6.85	7.57	7.53	6.89	5.67	4.49	3.32	2.11
15	2.45	2.26	3.18	5.75	6.91	7.58	7.53	6.84	5.64	4.50	3.19	2.05
16	2.43	2.26	3.22	5.79	7.10	7.59	7.53	6.80	5.61	4.44	3.15	2.02
17	2.42	2.26	3.25	5.82	7.57	7.60	7.52	6.74	5.58	4.39	3.12	1.96
18	2.40	2.26	3.29	5.84	8.21	7.61	7.54	6.72	5.53	4.34	3.11	1.90
19	2.39	2.25	3.32	5.86	8.47	7.61	7.56	6.69	5.48	4.30	3.08	1.86
20	2.39	2.23	3.41	5.89	8.55	7.60	7.54	6.65	5.44	4.24	3.04	1.85
21	2.37	2.20	3.53	5.90	8.53	7.58	7.53	6.61	5.39	4.20	2.98	1.82
22	2.35	2.22	3.60	5.91	8.47	7.57	7.52	6.56	5.35	4.16	2.94	1.80
23	2.34	2.21	3.68	5.92	8.38	7.57	7.49	6.54	5.32	4.12	2.91	1.78
24	2.33	2.20	3.92	5.96	8.31	7.58	7.49	6.51	5.26	4.08	2.86	1.76
25	2.31	2.18	4.14	5.97	8.46	7.61	7.48	6.48	5.19	4.05	2.80	1.73
26	2.29	2.19	4.26	5.99	8.73	7.64	7.47	6.45	5.14	4.01	2.76	1.71
27	2.27	2.20	4.33	6.01	8.85	7.66	7.45	6.40	5.12	3.97	2.71	1.68
28	2.26	2.20	4.39	6.04	8.86	7.68	7.44	6.35	5.09	3.93	2.65	1.66
29	2.20	2.22	4.70	6.06	8.81	7.68	7.40	6.33	5.04	3.89	2.61	1.64
30	2.17	2.28	5.10	6.07	---	7.65	7.37	6.30	5.01	3.85	2.58	1.62
31	2.17	---	5.27	6.09	---	7.66	---	6.26	---	3.79	2.50	---
MEAN	2.46	2.21	3.31	5.85	7.48	7.84	7.54	6.80	5.61	4.41	3.17	2.01
MAX	2.78	2.28	5.27	6.09	8.86	8.77	7.67	7.34	6.22	4.97	3.74	2.43
MIN	2.17	2.12	2.34	5.49	6.13	7.57	7.37	6.26	5.01	3.79	2.50	1.62

11451000 CACHE CREEK NEAR LOWER LAKE, CA

LOCATION.—Lat 38°55'27", long 122°33'53", in sec.6, T.12 N., R.6 W., Lake County, Hydrologic Unit 18020116, on left bank, 500 ft downstream from Cache Creek Dam, 1.9 mi downstream from Copsey Creek, and 2.5 mi northeast of Lower Lake.

DRAINAGE AREA.—528 mi^2.

PERIOD OF RECORD.—May 1944 to current year.
CHEMICAL DATA: Water year 2000.
SEDIMENT DATA: Water year 2000.

GAGE.—Water-stage recorder and rain gage (station 385525122335501). Datum of gage is 1,279.34 ft above NGVD of 1929. Prior to Oct. 2, 1987, at datum 1.00 ft higher.

REMARKS.—Records good except for estimated daily discharges, which are fair. Flow regulated by Clear Lake (station 11450000) from Cache Creek Dam, 500 ft upstream. See schematic diagram of lower Sacramento River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 10,200 ft^3/s, Feb. 17, 1998, gage height, 11.01 ft, present datum; no flow Nov. 8–20, 1977, Apr. 5, 6, 1987.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	185	7.1	3.4	471	12	3810	167	405	471	575	333	441
2	170	7.0	3.6	1640	12	3800	206	435	493	556	338	430
3	155	6.7	3.6	1920	12	3640	210	487	503	544	357	390
4	155	6.7	3.6	1900	e13	3570	212	517	531	508	382	362
5	167	6.4	3.6	1890	e13	3500	233	519	553	494	423	352
6	178	6.2	3.9	1800	e13	3410	269	508	562	462	447	352
7	178	6.0	4.3	1800	e14	3300	357	488	586	434	444	358
8	177	6.0	4.4	1850	e14	3240	425	460	596	426	439	383
9	177	6.0	4.5	1960	e14	3170	452	428	586	427	471	374
10	171	5.9	4.2	1920	e14	2340	258	396	494	402	485	360
11	166	5.9	3.9	1900	e14	2770	51	400	445	374	482	339
12	166	6.1	3.9	1780	e14	2240	51	445	470	363	482	294
13	166	5.8	4.0	1410	e14	787	50	488	475	346	463	268
14	154	3.9	4.4	556	e14	132	50	526	480	359	481	268
15	143	3.4	4.4	102	e14	67	50	558	466	389	502	293
16	143	3.2	4.5	11	e1090	67	51	578	480	415	471	325
17	109	3.3	4.5	11	e4770	67	51	585	535	442	421	336
18	8.5	3.5	4.6	11	e4380	173	51	586	565	446	406	335
19	7.9	3.4	4.8	12	e3410	315	51	560	564	421	408	334
20	95	3.5	5.0	12	3300	531	148	537	563	395	408	332
21	125	3.6	4.9	18	3300	378	211	526	562	393	410	304
22	125	3.1	4.9	10	3270	56	208	514	551	391	408	264
23	125	2.8	5.1	11	3240	37	204	489	531	391	408	249
24	131	2.9	6.9	11	3190	38	209	470	520	397	406	240
25	143	3.0	5.3	11	4580	38	258	457	522	402	411	233
26	150	3.1	5.6	11	4130	211	296	434	509	403	418	241
27	178	3.2	5.6	11	3980	40	295	426	498	402	430	257
28	206	3.2	5.8	12	3920	37	335	436	508	414	439	272
29	211	3.2	804	12	3850	37	369	470	556	436	447	280
30	219	3.3	172	11	---	88	384	496	590	421	463	278
31	112	---	7.6	10	---	118	---	478	---	369	459	---
TOTAL	4596.4	137.4	1110.8	23084	50611	42007	6162	15102	15765	13197	13342	9544
MEAN	148	4.58	35.8	745	1745	1355	205	487	526	426	430	318
MAX	219	7.1	804	1960	4770	3810	452	586	596	575	502	441
MIN	7.9	2.8	3.4	10	12	37	50	396	445	346	333	233
AC-FT	9120	273	2200	45790	100400	83320	12220	29950	31270	26180	26460	18930
a	0.00	4.42	12.95	2.09	6.74	0.93	0.31	0.00	0.00	0.00	0.00	0.01

e Estimated.
a Precipitation in inches.

11451000 CACHE CREEK NEAR LOWER LAKE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	34.4	15.2	106	628	828	813	532	342	384	402	324	172
MAX	191	683	2584	3047	4988	4919	3538	951	702	651	514	325
(WY)	1996	1984	1984	1997	1998	1983	1958	1983	2000	1998	1999	1995
MIN	0.40	0.17	0.14	0.18	0.17	0.32	0.42	0.40	0.29	0.41	0.71	0.55
(WY)	1978	1978	1991	1991	1991	1955	1990	1990	1991	1977	1977	1977

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1945 - 2004	
ANNUAL TOTAL	175896.6		194658.6			
ANNUAL MEAN	482		532		379	
HIGHEST ANNUAL MEAN					1342	1983
LOWEST ANNUAL MEAN					0.67	1990
HIGHEST DAILY MEAN	3050	Apr 29	4770	Feb 17	7200	Feb 18 1998
LOWEST DAILY MEAN	2.8	Nov 23	2.8	Nov 23	0.00	Nov 8 1977
ANNUAL SEVEN-DAY MINIMUM	3.0	Nov 22	3.0	Nov 22	0.00	Nov 8 1977
MAXIMUM PEAK FLOW			7930	Feb 25	10200	Feb 17 1998
MAXIMUM PEAK STAGE			10.70	Feb 25	11.01	Feb 17 1998
ANNUAL RUNOFF (AC-FT)	348900		386100		274900	
10 PERCENT EXCEEDS	1750		1480		634	
50 PERCENT EXCEEDS	281		336		65	
90 PERCENT EXCEEDS	4.9		4.9		1.2	

11451100 NORTH FORK CACHE CREEK AT HOUGH SPRINGS, NEAR CLEARLAKE OAKS, CA

LOCATION.—Lat 39°09'56", long 122°37'08", in SE 1/4 NW 1/4 sec.10, T.15 N., R.7 W., Lake County, Hydrologic Unit 18020116, on right bank, 0.5 mi upstream from Spanish Creek, 0.9 mi upstream from Hough Springs, and 10 mi northeast of Clearlake Oaks.

DRAINAGE AREA.—60.2 mi^2.

PERIOD OF RECORD.—October 1971 to current year.

GAGE.—Water-stage recorder and crest-stage gage. Elevation of gage is 1,534.13 ft above NGVD of 1929. Prior to Jan. 13, 1980, at datum 2.0 ft higher. Recording rain gage (station 391056122420801) 4.7 mi northwest of gage. Elevation of rain gage is 2,050 ft above NGVD of 1929, from topographic map.

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

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 13,200 ft^3/s, Jan. 1, 1997, gage height, 14.14 ft, from rating curve extended above 3,900 ft^3/s, on basis of slope-area measurement at gage height 11.23 ft; no flow at times in 1972, 1976–77, 1987–88, 1990–92, 1994.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 1,500 ft^3/s, or maximum:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 14	0500	2,600	8.18	Jan. 1	1115	3,150	8.72
Dec. 24	0900	3,460	9.00	Feb. 17	1845	6,290	11.09
Dec. 29	1245	5,110	10.30				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	3.8	247	1640	126	460	65	e32	13	5.2	0.73	0.24
2	1.1	3.2	170	1010	461	396	62	30	12	5.4	0.76	0.24
3	1.1	3.9	66	630	451	331	60	29	12	4.1	0.76	0.19
4	1.1	3.5	46	454	341	286	57	e29	11	3.6	0.78	0.20
5	1.1	3.3	78	357	281	251	56	e30	11	3.1	0.72	0.21
6	1.1	3.5	451	302	250	221	53	e27	10	2.8	0.72	0.20
7	1.1	5.1	280	314	233	198	51	e27	10	2.5	0.80	0.20
8	1.1	33	118	347	207	180	49	e26	11	2.5	0.80	0.20
9	1.2	27	103	486	187	164	48	e26	12	2.6	0.69	0.20
10	1.2	12	449	521	170	151	46	e25	11	2.7	0.55	0.18
11	1.3	7.6	302	421	157	141	45	e25	11	2.4	0.50	0.18
12	1.4	5.9	210	351	145	132	43	e24	10	2.3	0.42	0.19
13	1.3	5.1	492	300	137	121	43	e24	9.7	2.1	0.37	0.20
14	1.4	5.9	1280	274	132	112	43	21	9.3	1.9	0.30	0.27
15	1.4	16	380	248	179	106	44	21	8.7	1.8	0.32	0.28
16	1.4	13	221	224	1240	101	43	20	8.2	1.7	0.35	0.33
17	1.5	8.7	157	201	3780	98	42	20	7.8	1.7	0.37	e0.40
18	1.6	7.1	124	181	e2780	94	41	e22	7.6	1.5	0.37	e0.60
19	1.6	6.3	138	166	e1240	89	48	21	7.5	1.3	0.32	e0.75
20	1.5	5.9	345	153	e820	85	60	19	7.0	1.4	0.32	e0.77
21	1.5	5.6	339	139	e550	83	58	20	6.6	1.4	0.31	e0.72
22	1.4	5.5	239	129	e420	80	54	20	6.3	1.3	0.31	0.69
23	1.5	5.5	394	124	e334	76	47	19	6.0	1.2	0.44	0.67
24	1.5	5.3	1960	125	359	74	44	18	5.7	1.1	0.56	0.58
25	1.4	5.3	846	114	1550	96	40	17	5.4	0.96	0.58	0.58
26	1.7	5.3	467	108	1470	91	38	16	5.3	0.89	0.56	0.55
27	1.7	5.1	320	161	1020	99	36	16	5.3	0.80	0.45	0.54
28	1.8	5.3	257	166	e694	82	35	15	5.1	0.75	0.32	0.55
29	1.9	9.1	2330	143	e512	76	34	15	5.0	0.73	0.30	0.57
30	2.7	29	1280	136	---	72	e33	15	4.9	0.74	0.26	0.64
31	6.5	---	688	127	---	69	---	14	---	0.72	0.23	---
TOTAL	49.2	260.8	14777	10052	20226	4615	1418	683	255.4	63.19	15.27	12.12
MEAN	1.59	8.69	477	324	697	149	47.3	22.0	8.51	2.04	0.49	0.40
MAX	6.5	33	2330	1640	3780	460	65	32	13	5.4	0.80	0.77
MIN	1.1	3.2	46	108	126	69	33	14	4.9	0.72	0.23	0.18
AC-FT	98	517	29310	19940	40120	9150	2810	1350	507	125	30	24
a	0.54	6.04	18.08	5.15	13.91	1.82	0.84	0.00	0.00	0.00	0.00	0.01

e Estimated.
a Precipitation, in inches.

11451100 NORTH FORK CACHE CREEK AT HOUGH SPRINGS, NEAR CLEARLAKE OAKS, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3.05	51.7	169	311	348	270	116	48.5	15.8	4.62	1.61	1.22
MAX	12.4	405	738	1750	1382	1258	631	242	90.9	26.7	10.8	6.75
(WY)	1980	1982	1997	1995	1998	1995	1982	1995	1998	1998	1998	1998
MIN	0.19	1.11	1.17	4.74	9.59	9.88	5.13	3.93	1.69	0.19	0.00	0.00
(WY)	1992	1977	1977	1991	1991	1977	1977	1977	1977	1977	1977	1994

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1972 - 2004	
ANNUAL TOTAL	49471.15		52426.98			
ANNUAL MEAN	136		143		111	
HIGHEST ANNUAL MEAN					335	1995
LOWEST ANNUAL MEAN					3.67	1977
HIGHEST DAILY MEAN	2330	Dec 29	3780	Feb 17	8340	Feb 17 1986
LOWEST DAILY MEAN	0.76	Sep 26	0.18	Sep 10	0.00	Aug 27 1972
ANNUAL SEVEN-DAY MINIMUM	0.86	Sep 23	0.19	Sep 6	0.00	Aug 27 1972
MAXIMUM PEAK FLOW			6290	Feb 17	13200	Jan 1 1997
MAXIMUM PEAK STAGE			11.09	Feb 17	14.14	Jan 1 1997
ANNUAL RUNOFF (AC-FT)	98130		104000		80170	
10 PERCENT EXCEEDS	357		358		270	
50 PERCENT EXCEEDS	45		16		12	
90 PERCENT EXCEEDS	1.3		0.55		0.54	

11451290 INDIAN VALLEY RESERVOIR NEAR CLEARLAKE OAKS, CA

LOCATION.—Lat 39°04'50", long 122°32'02", in SE 1/4 SW 1/4 sec.4, T.14 N., R.6 W., Lake County, Hydrologic Unit 18020116, 8.6 mi northeast of Clearlake Oaks.

DRAINAGE AREA.—120 mi^2.

PERIOD OF RECORD.—December 2002 to current year.

GAGE.—Water-stage recorder. Datum of gage is 1,500 ft above NGVD of 1929.

REMARKS.—Interuptions in record were due to malfunction of the sensing and (or) recording equipment. Reservoir is formed by earthfill dam; storage began October 1983. Storage capacity is 300,000 acre-ft. Water is released down North Fork Cache Creek for agricultural use.

EXTREMES FOR PERIOD OF RECORD.—Maximum recorded gage height, 1477.36 ft, Apr. 10, 2004; minimum, 1406.31 ft, Dec. 5, 2002.

ELEVATION OF RESERVOIR WATER SURFACE ABOVE DATUM, FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	1442.01	1441.98	1441.05	1440.88	1441.11	1440.80	1454.94	1453.68	1461.25	1461.16	1476.61	1476.28
2	1442.00	1441.96	1440.89	1440.74	1441.25	1441.10	1455.69	1454.93	1461.72	1461.24	1476.84	1476.61
3	1441.97	1441.94	1440.76	1440.65	1441.30	1441.24	1456.16	1455.67	1462.05	1461.72	1476.97	1476.83
4	1441.96	1441.92	1440.68	1440.60	1441.35	1441.29	1456.50	1456.16	1462.30	1462.05	1477.07	1476.97
5	1441.94	1441.92	1440.61	1440.58	1441.41	1441.34	1456.77	1456.50	1462.50	1462.30	1477.15	1477.05
6	1441.93	1441.88	1440.59	1440.57	---	1441.39	1456.99	1456.77	1462.69	1462.49	1477.20	1477.14
7	1441.90	1441.87	1440.61	1440.57	1441.99	---	1457.26	1456.99	1462.83	1462.65	1477.22	1477.19
8	1441.89	1441.85	1440.71	1440.59	1442.06	1441.96	1457.54	1457.25	1462.99	1462.83	1477.24	1477.21
9	1441.88	1441.84	1440.74	1440.68	1442.24	1442.05	1457.95	1457.54	1463.09	1462.96	1477.25	1477.22
10	1441.90	1441.80	1440.75	1440.72	1442.73	1442.24	1458.33	1457.94	1463.16	1463.06	1477.24	1477.20
11	1441.82	1441.77	1440.75	1440.72	1442.97	1442.72	1458.63	1458.30	1463.27	1463.16	1477.23	1477.19
12	1441.80	1441.76	1440.76	1440.69	1443.16	1442.95	1458.88	1458.62	1463.37	1463.27	1477.20	1477.16
13	1441.78	1441.73	1440.71	1440.69	1443.55	1443.15	1459.09	1458.88	1463.47	1463.35	1477.16	1477.12
14	1441.75	1441.71	1440.73	1440.69	1444.48	1443.52	1459.31	1459.09	1463.56	1463.45	1477.13	1477.07
15	1441.73	1441.70	1440.75	1440.71	1444.76	1444.47	1459.49	1459.31	1463.72	1463.55	1477.08	1477.01
16	1441.71	1441.68	1440.76	1440.72	1444.93	1444.75	1459.65	1459.49	1464.96	1463.69	1477.02	1476.95
17	1441.69	1441.63	1440.76	1440.73	1445.04	1444.92	1459.79	1459.64	1467.63	1464.96	1476.96	1476.89
18	1441.65	1441.51	1440.76	1440.74	1445.11	1445.03	1459.91	1459.78	1469.48	1467.63	1476.89	1476.82
19	1441.51	1441.40	1440.76	1440.73	1445.28	1445.10	1460.02	1459.90	1470.35	1469.47	1476.82	1476.75
20	1441.40	1441.34	1440.76	1440.72	1445.63	1445.28	1460.12	1460.01	1470.91	1470.35	1476.75	1476.66
21	1441.34	1441.32	1440.75	1440.73	1445.91	1445.63	1460.21	1460.11	1471.33	1470.91	1476.67	1476.60
22	1441.33	1441.28	1440.75	1440.70	1446.10	1445.91	1460.30	1460.20	1471.71	1471.33	1476.60	1476.52
23	1441.32	1441.26	1440.73	1440.69	1446.45	1446.09	1460.39	1460.29	1471.99	1471.71	1476.59	1476.53
24	1441.29	1441.24	1440.71	1440.68	1448.03	1446.45	1460.47	1460.38	1472.32	1471.99	1476.65	1476.58
25	1441.27	1441.20	1440.70	1440.66	1448.68	1448.03	1460.55	1460.47	1473.78	1472.32	1476.73	1476.63
26	1441.22	1441.16	1440.69	1440.67	1449.04	1448.67	1460.64	1460.53	1474.95	1473.78	1476.75	1476.68
27	1441.18	1441.14	1440.69	1440.66	1449.27	1449.04	1460.79	1460.61	1475.64	1474.95	1476.83	1476.74
28	1441.18	1441.13	1440.69	1440.65	1449.51	1449.27	1460.90	1460.77	1476.02	1475.64	1476.89	1476.83
29	1441.17	1441.09	1440.76	1440.67	1452.07	1449.50	1461.00	1460.89	1476.28	1476.02	1476.93	1476.88
30	1441.12	1441.09	1440.83	1440.70	1453.13	1452.07	1461.08	1460.98	---	---	1477.00	1476.92
31	1441.17	1441.04	---	---	1453.69	1453.13	1461.16	1461.07	---	---	1477.05	1476.99
MONTH	1442.01	1441.04	1441.05	1440.57	---	---	1461.16	1453.68	1476.28	1461.16	1477.25	1476.28

11451290 INDIAN VALLEY RESERVOIR NEAR CLEARLAKE OAKS, CA—Continued

ELEVATION OF RESERVOIR WATER SURFACE ABOVE DATUM, FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	APRIL MAX	APRIL MIN	MAY MAX	MAY MIN	JUNE MAX	JUNE MIN	JULY MAX	JULY MIN	AUGUST MAX	AUGUST MIN	SEPTEMBER MAX	SEPTEMBER MIN
1	1477.11	1477.04	1474.26	1474.13	---	---	1463.95	1463.73	---	---	1454.06	1453.99
2	1477.14	1477.06	1474.13	1473.99	---	---	1463.73	1463.52	---	---	1454.00	1453.91
3	1477.15	1477.10	1473.99	1473.86	1469.47	1469.31	1463.52	1463.30	---	---	1453.96	1453.80
4	1477.18	1477.14	1473.86	1473.70	1469.31	1469.15	1463.31	1463.08	---	---	1453.82	1453.73
5	1477.22	1477.18	1473.71	1473.57	1469.15	1468.98	1463.08	1462.86	---	---	1453.74	1453.66
6	1477.26	1477.22	1473.57	1473.42	1468.99	1468.81	1462.86	1462.63	1456.34	1456.24	1453.67	1453.59
7	1477.28	1477.25	1473.44	1473.28	1468.81	1468.64	1462.63	1462.41	1456.24	1456.14	1453.60	1453.53
8	1477.32	1477.28	1473.29	1473.15	1468.65	1468.47	1462.41	1462.19	1456.15	1456.05	1453.53	1453.46
9	1477.34	1477.31	1473.16	1473.00	1468.48	1468.31	1462.19	1461.96	1456.05	1455.94	1453.46	1453.39
10	1477.36	1477.17	1473.01	1472.86	1468.32	1468.13	1461.96	1461.73	1455.95	1455.86	1453.40	1453.32
11	1477.17	1476.96	1472.86	1472.72	1468.14	1467.93	1461.73	1461.51	1455.86	1455.77	1453.33	1453.25
12	1476.96	1476.78	1472.73	1472.59	1467.93	1467.72	1461.51	1461.27	1455.77	1455.68	1453.26	1453.18
13	1476.79	1476.60	1472.60	1472.46	1467.72	1467.50	1461.27	1461.05	1455.68	1455.59	1453.20	1453.11
14	1476.60	1476.40	1472.46	1472.32	1467.51	1467.30	1461.05	1460.80	1455.59	1455.50	1453.12	1453.02
15	1476.40	1476.21	1472.32	1472.19	1467.30	1467.09	1460.80	1460.56	1455.50	1455.41	1453.04	1452.96
16	---	---	1472.19	1472.05	1467.09	1466.88	1460.57	1460.34	1455.41	1455.31	1452.98	1452.93
17	---	---	1472.05	1471.89	1466.88	1466.67	1460.34	1460.10	1455.32	1455.23	1452.94	1452.88
18	---	---	1471.90	1471.75	1466.68	1466.47	1460.11	1459.88	1455.23	1455.14	1452.92	1452.87
19	---	---	1471.75	1471.61	1466.47	1466.26	1459.88	1459.64	1455.14	1455.05	1452.89	1452.85
20	---	---	1471.61	1471.46	1466.26	1466.04	1459.64	1459.42	1455.05	1454.96	1452.88	1452.82
21	---	---	1471.46	1471.31	1466.04	1465.83	1459.43	1459.21	1454.96	1454.86	1452.84	1452.80
22	1475.28	1475.17	1471.32	1471.16	1465.83	1465.62	1459.21	1459.00	1454.86	1454.77	1452.81	1452.78
23	1475.18	1475.09	1471.16	1471.02	1465.63	1465.40	1459.00	1458.78	1454.77	1454.66	1452.78	1452.76
24	1475.09	1474.99	1471.02	1470.87	1465.41	1465.19	1458.78	1458.56	1454.68	1454.58	1452.77	1452.74
25	1474.99	1474.89	1470.87	1470.72	1465.19	1464.97	1458.57	1458.35	1454.59	1454.50	1452.75	1452.72
26	1474.89	1474.79	1470.72	1470.56	1464.97	1464.77	1458.35	1458.12	1454.52	1454.42	1452.74	1452.71
27	1474.80	1474.67	---	---	1464.77	1464.56	1458.13	1457.91	1454.45	1454.34	1452.72	1452.68
28	1474.68	1474.53	---	---	1464.56	1464.35	---	---	1454.35	1454.27	1452.69	1452.66
29	1474.53	1474.38	---	---	1464.37	1464.15	---	---	1454.28	1454.21	1452.68	1452.64
30	1474.39	1474.26	---	---	1464.15	1463.95	---	---	1454.22	1454.13	1452.67	1452.64
31	---	---	---	---	---	---	---	---	1454.14	1454.06	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	1454.06	1452.64

11451300 NORTH FORK CACHE CREEK NEAR CLEARLAKE OAKS, CA

LOCATION.—Lat 39°04'32", long 122°31'59", in SE 1/4 NW 1/4 sec.9, T.14 N., R.6 W., Lake County, Hydrologic Unit 18020116, on right bank, 1,900 ft downstream from Indian Valley Dam, and 8 mi northeast of Clearlake Oaks.

DRAINAGE AREA.—121 mi^2.

PERIOD OF RECORD.—October 1983 to September 1985 (operated as a low-flow station only), October 1985 to current year.
CHEMICAL DATA: Water year 2000.
SEDIMENT DATA: Water year 2000.

GAGE.—Water-stage recorder and crest-stage gage. Elevation of gage is 1,320 ft above NGVD of 1929, from topographic map. Recording rain gage (station 390500122321601) located on top of Indian Valley Dam.

REMARKS.—Records good except for estimated daily discharges, which are fair. Flow completely regulated by Indian Valley Reservoir, capacity 300,000 acre-ft. See schematic diagram of lower Sacramento River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 7,950 ft^3/s, Feb. 11, 1998, gage height, 10.61 ft, maximum gage height, 10.62 ft, Jan. 2, 1997; minimum daily, 0.37 ft^3/s, Oct. 15, 1994.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood of Jan. 26, 1983, reached a stage of 12.74 ft, present datum, discharge about 9,500 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.5	205	7.8	8.3	7.9	288	9.5	285	e278	e349	270	92
2	6.5	175	7.4	8.1	8.9	286	8.8	284	e280	357	254	92
3	6.5	129	7.3	7.9	8.2	286	8.8	282	e280	367	226	92
4	6.5	81	7.4	7.8	8.1	286	9.1	283	e280	371	194	92
5	6.8	25	7.5	7.8	8.0	287	9.6	282	e280	368	155	92
6	7.1	6.5	7.8	7.8	8.0	287	9.7	283	e280	368	139	92
7	7.3	6.7	e7.7	7.8	8.0	287	9.8	283	e280	368	139	92
8	7.9	7.1	7.6	7.8	8.0	287	9.9	281	e280	368	139	92
9	7.9	7.1	7.9	8.1	8.0	287	9.8	285	e285	368	128	92
10	8.0	7.1	8.4	8.0	7.9	287	393	277	e330	369	118	92
11	8.1	7.1	7.9	7.9	8.0	287	464	268	e380	368	118	92
12	8.0	7.1	7.9	7.8	8.1	287	403	265	e385	369	118	93
13	7.9	7.1	7.9	7.8	8.1	287	407	262	e385	368	119	93
14	7.8	7.2	e8.7	7.8	8.1	288	429	261	e382	368	119	93
15	7.8	7.3	e7.8	7.8	8.2	285	453	261	e378	368	119	e71
16	7.8	7.3	7.8	7.8	11	285	468	261	e375	368	119	e37
17	61	7.3	7.8	7.8	11	285	435	276	e371	368	119	e17
18	157	7.3	7.8	7.8	10	285	421	283	e368	367	120	e10
19	156	7.4	7.9	7.8	13	286	439	283	e365	369	120	e10
20	72	7.4	8.5	7.8	9.5	286	341	283	e361	355	120	e10
21	7.0	7.4	8.0	7.8	9.4	286	232	e280	e358	344	120	e9.8
22	7.0	7.4	7.6	7.4	9.4	250	e230	e280	e354	345	121	e9.8
23	7.0	7.4	7.7	7.8	9.4	10	230	e280	e351	344	119	e9.7
24	7.0	7.0	8.6	7.8	9.4	11	230	e280	e349	344	109	e9.7
25	7.0	7.8	7.8	7.8	11	109	230	e280	e348	344	87	e9.6
26	7.1	7.4	7.6	7.9	11	134	234	e280	e345	344	87	e9.6
27	7.1	7.3	7.5	8.0	150	6.8	271	e280	e344	336	88	e9.6
28	7.1	7.3	7.5	8.0	290	8.4	285	e280	e342	328	89	e9.5
29	7.1	7.4	12	7.9	287	10	284	e280	e340	328	83	e9.5
30	7.1	7.4	8.5	7.9	---	11	285	e280	e344	298	92	e9.5
31	146	---	7.9	7.9	---	9.9	---	e280	---	270	92	---
TOTAL	780.9	795.8	247.5	243.7	962.6	6575.1	7249.0	8608	10078	10946	4040	1542.3
MEAN	25.2	26.5	7.98	7.86	33.2	212	242	278	336	353	130	51.4
MAX	157	205	12	8.3	290	288	468	285	385	371	270	93
MIN	6.5	6.5	7.3	7.4	7.9	6.8	8.8	261	278	270	83	9.5
AC-FT	1550	1580	491	483	1910	13040	14380	17070	19990	21710	8010	3060
a	0.51	2.45	6.15	2.82	6.53	0.81	0.24	0.00	0.00	0.00	0.00	0.09

e Estimated.
a Precipitation, in inches.

11451300 NORTH FORK CACHE CREEK NEAR CLEARLAKE OAKS, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	34.6	14.9	21.2	125	286	185	208	208	258	234	134	93.6
MAX	172	35.5	187	1675	1964	849	557	717	659	559	342	348
(WY)	1998	1997	1999	1997	1998	1986	1987	1987	2001	2001	1996	1996
MIN	6.65	6.96	7.21	7.02	4.63	1.90	7.78	6.98	8.10	8.16	8.17	9.10
(WY)	1994	1995	1994	1994	1994	1994	2003	1993	1993	1993	1990	1990

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1986 - 2004	
ANNUAL TOTAL	29472.2		52068.9			
ANNUAL MEAN	80.7		142		149	
HIGHEST ANNUAL MEAN					326	1997
LOWEST ANNUAL MEAN					8.54	1990
HIGHEST DAILY MEAN	803	May 22	468	Apr 16	6690	Feb 11 1998
LOWEST DAILY MEAN	6.4	Sep 12	6.5	Oct 1	0.37	Oct 15 1994
ANNUAL SEVEN-DAY MINIMUM	6.7	Oct 1	6.7	Oct 1	1.8	Mar 9 1994
MAXIMUM PEAK FLOW			638	Apr 10	7950	Feb 11 1998
MAXIMUM PEAK STAGE			4.37	Apr 10	10.62	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	58460		103300		108200	
10 PERCENT EXCEEDS	259		362		386	
50 PERCENT EXCEEDS	8.0		92		13	
90 PERCENT EXCEEDS	7.0		7.4		7.4	

11451540 HARLEY GULCH NEAR WILBUR SPRINGS, CA

LOCATION.—Lat 39°00'33", long 122°26'04", in sec.5, T.13 N., R.5 W., Lake County, Hydrologic Unit 18020116, on right bank, 500 ft downstream of Highway 20, and 2.2 mi southwest of Wilbur Hot Springs Resort.

DRAINAGE AREA.—2.90 mi^2.

PERIOD OF RECORD.—December 1999 to current year.
CHEMICAL ANALYSES: Water year 2000.
SEDIMENT DATA: Water year 2000.

GAGE.—Water-stage recorder. Elevation of gage is 1,530 ft above NGVD of 1929, from topographic map.

REMARKS.—Records poor. No regulation or diversion upstream from station. See schematic diagram of lower Sacramento River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 357 ft^3/s, Dec. 16, 2002, gage height, 4.58 ft; no flow at times each year.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 60 ft^3/s, or maximum:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 24	unknown	unknown	unknown	Feb. 17	unknown	unknown	unknown
Dec. 29	unknown	unknown	unknown	Feb. 25	unknown	unknown	unknown

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	e0.00	e0.29	e2.1	e0.05	e8.5	0.56	e0.22	e0.07	e0.03	e0.02	e0.00
2	0.00	e0.00	e0.15	e0.95	e6.5	e10	0.55	e0.20	e0.07	e0.03	e0.02	e0.00
3	0.00	e0.00	e0.08	e0.36	e1.1	e2.7	0.56	e0.20	e0.07	e0.03	e0.02	e0.00
4	0.00	e0.00	e0.09	e0.24	e0.38	e2.3	0.54	e0.18	e0.07	e0.03	e0.02	e0.00
5	0.00	e0.00	e0.05	e0.17	e0.22	2.1	0.54	e0.18	e0.06	e0.03	e0.02	e0.00
6	0.00	e0.00	e0.10	e0.14	e0.18	1.8	e0.52	e0.18	e0.06	e0.03	e0.01	e0.00
7	e0.00	e0.01	e0.02	e0.18	e0.18	1.6	e0.52	e0.18	e0.06	e0.03	e0.01	e0.00
8	e0.00	e0.01	e0.02	e0.28	e0.13	1.4	e0.49	e0.18	e0.06	e0.03	e0.01	e0.00
9	e0.00	e0.05	e0.02	e0.95	e0.12	1.3	e0.44	e0.17	e0.06	e0.03	e0.01	e0.01
10	e0.00	e0.01	e4.2	e0.71	e0.11	1.1	e0.42	e0.15	e0.05	e0.03	e0.01	e0.01
11	e0.00	e0.01	e1.6	e0.33	e0.10	1.0	e0.40	e0.15	e0.05	e0.03	e0.01	e0.01
12	e0.00	e0.01	e0.11	e0.23	e0.10	0.98	e0.39	e0.15	e0.05	e0.02	e0.01	e0.01
13	e0.00	e0.00	e0.26	e0.17	e0.09	0.86	e0.39	e0.15	e0.05	e0.02	e0.01	e0.01
14	e0.00	e0.01	e2.3	e0.18	e0.09	0.79	e0.39	e0.13	e0.05	e0.02	e0.01	e0.01
15	e0.00	e0.01	e0.13	e0.15	e0.11	0.74	e0.39	e0.12	e0.05	e0.02	e0.01	e0.01
16	e0.00	e0.01	e0.04	e0.13	e25	0.73	e0.39	e0.12	e0.04	e0.02	e0.01	e0.01
17	e0.00	e0.01	e0.02	e0.11	e82	0.73	e0.40	e0.12	e0.04	e0.02	e0.01	e0.00
18	e0.00	e0.00	e0.02	e0.11	e20	0.76	e0.42	e0.12	e0.04	e0.02	e0.01	e0.00
19	e0.00	e0.00	e0.04	e0.10	e4.4	0.73	e0.44	e0.11	e0.04	e0.02	e0.01	e0.00
20	e0.00	e0.01	e2.9	e0.09	e2.0	0.72	e0.43	e0.11	e0.04	e0.02	e0.00	e0.00
21	e0.00	e0.00	e1.8	e0.07	e1.2	0.70	e0.42	e0.11	e0.04	e0.02	e0.00	e0.00
22	e0.00	e0.00	e0.16	e0.07	e1.1	0.72	e0.40	e0.11	e0.04	e0.02	e0.00	e0.00
23	e0.01	e0.00	e0.14	e0.07	e0.83	0.69	e0.35	e0.11	e0.04	e0.02	e0.00	e0.00
24	e0.01	e0.01	e9.9	e0.07	e0.71	0.68	e0.34	e0.11	e0.04	e0.02	e0.00	e0.00
25	e0.01	e0.01	e7.5	e0.07	e46	1.5	e0.32	e0.10	e0.04	e0.02	e0.00	e0.00
26	e0.01	e0.01	e6.0	e0.07	e11	1.1	e0.30	e0.09	e0.03	e0.02	e0.00	e0.00
27	e0.01	e0.01	e0.18	e0.10	e3.4	1.1	e0.29	e0.09	e0.03	e0.02	e0.00	e0.00
28	e0.01	e0.01	e0.08	e0.09	e1.8	0.78	e0.26	e0.09	e0.03	e0.02	e0.00	e0.00
29	e0.01	e0.01	e52	e0.07	e1.3	0.75	e0.25	e0.08	e0.03	e0.02	e0.00	e0.00
30	e0.01	e0.02	e4.6	e0.06	---	0.84	e0.23	e0.08	e0.03	e0.02	e0.00	e0.00
31	e0.01	---	e0.85	e0.03	---	0.68	---	e0.08	---	e0.02	e0.00	---
TOTAL	0.09	0.23	95.65	8.45	210.20	50.38	12.34	4.17	1.43	0.73	0.24	0.08
MEAN	0.00	0.01	3.09	0.27	7.25	1.63	0.41	0.13	0.05	0.02	0.01	0.00
MAX	0.01	0.05	52	2.1	82	10	0.56	0.22	0.07	0.03	0.02	0.01
MIN	0.00	0.00	0.02	0.03	0.05	0.68	0.23	0.08	0.03	0.02	0.00	0.00
AC-FT	0.2	0.5	190	17	417	100	24	8.3	2.8	1.4	0.5	0.2

e Estimated.

11451540 HARLEY GULCH NEAR WILBUR SPRINGS, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.02	0.15	2.60	1.02	2.85	1.20	0.30	0.14	0.03	0.01	0.01	0.01
MAX	0.07	0.27	6.68	2.32	7.25	1.95	0.41	0.23	0.05	0.02	0.02	0.02
(WY)	2001	2002	2003	2002	2004	2001	2004	2003	2004	2004	2000	2000
MIN	0.00	0.01	0.06	0.27	0.35	0.23	0.16	0.07	0.02	0.00	0.00	0.00
(WY)	2002	2004	2000	2004	2002	2002	2002	2002	2002	2002	2001	2001

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2000 - 2004	
ANNUAL TOTAL	206.25		383.99			
ANNUAL MEAN	0.57		1.05		0.74	
HIGHEST ANNUAL MEAN					1.05	2004
LOWEST ANNUAL MEAN					0.49	2001
HIGHEST DAILY MEAN	52	Dec 29	82	Feb 17	82	Feb 17 2004
LOWEST DAILY MEAN	0.00	Jul 20	0.00	Oct 1	0.00	Jul 12 2001
ANNUAL SEVEN-DAY MINIMUM	0.00	Jul 20	0.00	Oct 1	0.00	Jul 12 2001
MAXIMUM PEAK FLOW			unknown		357	Dec 16 2002
MAXIMUM PEAK STAGE			unknown		4.58	Dec 16 2002
ANNUAL RUNOFF (AC-FT)	409		762		538	
10 PERCENT EXCEEDS	0.69		1.1		0.79	
50 PERCENT EXCEEDS	0.04		0.05		0.09	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

11451600 DAVIS CREEK AT DAM, NEAR KNOXVILLE, CA

LOCATION.—Lat 38°51'51", long 122°21'11", in sec.30, T.12 N., R.6 W., Yolo County, Hydrologic Unit 18020116, on left bank of Davis Creek Dam spillway, and 2.5 mi northwest of Knoxville.

DRAINAGE AREA.—10.2 mi^2.

PERIOD OF RECORD.—December 1999 to September 2004 (discontinued).

REVISED RECORDS.—WDR CA-03-4: 2000 and 2002 (M).

GAGE.—Water-stage recorder. Datum of gage is 1,480 ft above NGVD of 1929, from topographic map.

REMARKS.—Records fair. Flow is completely regulated by Davis Creek Reservoir. See schematic diagram of lower Sacramento River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 455 ft^3/s, Feb. 17, 2004, gage height, 28.72 ft; no flow for many days each year.

EXTREMES FOR CURRENT YEAR.—Maximum discharge, 455 ft^3/s, Feb. 17, gage height, 28.72 ft; no flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	82	5.5	41	3.1	1.3	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	63	43	76	2.2	1.6	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	34	45	43	2.3	1.6	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	21	22	32	2.5	1.5	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	15	15	27	2.3	0.78	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	12	12	23	2.2	0.35	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	12	12	19	2.4	0.29	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	12	9.9	15	2.6	0.29	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	18	8.7	14	2.4	0.26	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	25	7.3	13	2.1	0.11	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	17	6.6	11	2.0	0.09	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	12	6.4	11	1.9	0.07	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	10	6.9	10	1.7	0.06	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	9.5	6.6	9.3	1.6	0.04	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	8.9	7.0	8.6	1.4	0.03	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	8.2	112	8.0	1.4	0.01	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	7.4	297	8.3	1.7	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	7.0	217	8.1	1.5	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	6.3	85	7.4	1.8	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	6.1	53	6.9	1.9	0.02	0.00	0.00	0.00	0.00
21	0.00	0.00	0.16	5.6	40	6.7	2.0	0.06	0.00	0.00	0.00	0.00
22	0.00	0.00	1.5	5.4	35	6.4	2.0	0.09	0.00	0.00	0.00	0.00
23	0.00	0.00	8.2	6.1	27	5.7	1.7	0.07	0.00	0.00	0.00	0.00
24	0.00	0.00	146	7.4	25	5.0	1.7	0.06	0.00	0.00	0.00	0.00
25	0.00	0.00	63	6.6	201	6.7	1.8	0.04	0.00	0.00	0.00	0.00
26	0.00	0.00	23	6.3	131	7.9	2.0	0.03	0.00	0.00	0.00	0.00
27	0.00	0.00	11	8.5	73	5.3	2.0	0.01	0.00	0.00	0.00	0.00
28	0.00	0.00	8.0	9.2	51	3.7	1.7	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	164	7.8	40	3.2	1.0	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	122	6.8	---	3.1	1.1	0.00	0.00	0.00	0.00	0.00
31	0.00	---	44	6.1	---	3.5	---	0.00	---	0.00	0.00	---
TOTAL	0.00	0.00	590.86	462.2	1600.9	448.8	58.0	8.76	0.00	0.00	0.00	0.00
MEAN	0.000	0.000	19.1	14.9	55.2	14.5	1.93	0.28	0.000	0.000	0.000	0.000
MAX	0.00	0.00	164	82	297	76	3.1	1.6	0.00	0.00	0.00	0.00
MIN	0.00	0.00	0.00	5.4	5.5	3.1	1.0	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	0.00	1170	917	3180	890	115	17	0.00	0.00	0.00	0.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2004, BY WATER YEAR (WY)

MEAN	0.000	0.000	19.0	13.1	19.6	9.93	3.48	1.25	0.042	0.000	0.000	0.000
MAX	0.000	0.000	44.0	29.3	55.2	18.9	10.1	5.27	0.21	0.000	0.000	0.000
(WY)	2001	2001	2003	2002	2004	2000	2003	2003	2003	2000	2000	2000
MIN	0.000	0.000	0.000	0.000	0.17	2.08	0.14	0.000	0.000	0.000	0.000	0.000
(WY)	2001	2001	2001	2000	2001	2002	2002	2001	2000	2000	2000	2000

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2000 - 2004	
ANNUAL TOTAL	2176.19		3169.52			
ANNUAL MEAN	5.96		8.66		5.37	
HIGHEST ANNUAL MEAN					8.66	2004
LOWEST ANNUAL MEAN					0.61	2001
HIGHEST DAILY MEAN	164	Dec 29	297	Feb 17	317	Dec 16 2002
LOWEST DAILY MEAN	0.00	Jun 19	0.00	Oct 1	0.00	Dec 8 1999
ANNUAL SEVEN-DAY MINIMUM	0.00	Jun 19	0.00	Oct 1	0.00	Dec 8 1999
MAXIMUM PEAK FLOW			455	Feb 17	455	Feb 17 2004
MAXIMUM PEAK STAGE			28.72	Feb 17	28.72	Feb 17 2004
ANNUAL RUNOFF (AC-FT)	4320		6290		3890	
10 PERCENT EXCEEDS	13		17		9.3	
50 PERCENT EXCEEDS	0.00		0.00		0.00	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

11451690 SULPHUR CREEK AT WILBUR SPRINGS, CA

LOCATION.—Lat 39°02'19", long 122°25'08", in sec.28, T.14 N., R.5 W., Colusa County, Hydrologic Unit 18020116, on right bank, 0.85 mi upstream from mouth at Bear Creek, and at Wilbur Springs.

DRAINAGE AREA.—9.87 mi^2.

PERIOD OF RECORD.—October 1999 to September 2004 (discontinued).
CHEMICAL DATA: Water year 2000.
SEDIMENT DATA: Water year 2000.

GAGE.—Water-stage recorder. Elevation of gage is 1,315 ft above NGVD of 1929, from topographic map.

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

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 650 ft^3/s, Dec. 29, 2003, gage height, 6.40 ft; minimum daily, 0.04 ft^3/s, several days in August 2004.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 180 ft^3/s, or maximum.

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 24	1000	230	4.57	Feb. 16	1430	397	5.43
Dec. 29	1345	650	6.40	Feb. 25	0830	384	5.37
Feb. 2	1145	217	4.49	Mar. 1	2200	298	4.94

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.21	0.22	10	30	4.1	61	4.5	1.8	0.67	0.06	0.04	0.08
2	0.22	0.21	6.4	19	53	68	4.3	1.7	0.64	0.05	0.06	0.09
3	0.22	0.21	1.5	12	21	33	4.2	1.7	0.59	0.05	0.07	0.09
4	0.21	0.21	0.93	9.5	12	22	4.1	1.5	0.57	0.05	0.06	0.10
5	0.22	0.22	1.1	7.6	8.5	18	4.1	1.5	0.54	0.05	0.04	0.11
6	0.23	0.22	3.6	6.8	8.0	16	4.0	1.5	0.53	0.05	0.04	0.11
7	0.20	0.27	5.2	7.7	8.0	14	3.8	1.5	0.51	0.05	0.04	0.11
8	0.16	0.64	1.5	10	6.6	13	3.7	1.5	0.51	0.06	0.04	0.11
9	0.17	3.1	1.6	19	5.9	12	3.4	1.5	0.62	0.06	0.04	0.09
10	0.17	0.94	42	17	5.5	10	3.2	1.4	0.56	0.06	0.25	0.08
11	0.18	0.60	16	11	5.4	9.8	3.1	1.4	0.52	0.07	0.28	0.09
12	0.19	0.51	5.5	8.7	5.1	9.2	3.0	1.4	0.50	0.08	0.23	0.10
13	0.20	0.44	9.4	7.4	5.0	8.6	3.0	1.3	0.49	0.11	0.23	0.11
14	0.21	0.51	31	7.7	4.9	8.1	3.0	1.2	0.43	0.14	0.25	0.13
15	0.21	0.67	6.0	7.0	5.5	7.6	3.0	1.2	0.30	0.20	0.21	0.21
16	0.21	0.56	3.1	6.2	106	7.3	3.0	1.1	0.22	0.20	0.17	0.22
17	0.22	0.50	2.2	5.6	199	7.0	3.1	1.1	0.21	0.21	0.15	0.20
18	0.22	0.47	1.7	5.2	94	6.8	3.2	1.1	0.30	0.20	0.14	e0.26
19	0.22	0.49	2.9	4.9	44	6.4	3.4	1.2	0.32	0.16	0.13	e0.24
20	0.23	0.51	35	4.7	28	6.2	3.3	1.2	0.27	0.09	0.10	e0.20
21	0.22	0.48	27	4.3	22	6.0	e3.5	1.2	0.26	0.09	0.13	e0.17
22	0.23	0.46	7.5	4.1	21	5.9	e3.0	1.2	0.15	0.12	0.11	0.08
23	0.21	0.46	13	4.2	18	5.6	e2.7	0.99	0.19	0.16	0.09	0.08
24	0.24	0.50	66	4.7	17	5.3	e2.5	1.00	0.21	0.08	0.06	0.10
25	0.25	0.52	17	4.1	143	6.6	e2.4	0.94	0.19	0.08	0.05	0.11
26	0.27	0.52	8.0	3.9	71	6.3	e2.3	0.85	0.13	0.08	0.04	0.13
27	0.28	0.52	4.7	5.2	38	6.9	e2.1	0.78	0.08	0.07	0.06	0.13
28	0.29	0.55	4.4	5.0	27	5.4	e2.0	0.78	0.08	0.06	0.08	0.14
29	0.30	0.92	154	4.4	21	5.1	e1.9	0.74	0.07	0.07	0.07	0.15
30	0.26	1.6	45	4.2	---	5.1	e1.9	0.70	0.06	0.09	0.07	0.15
31	0.42	---	18	4.0	---	4.8	---	0.69	---	0.08	0.07	---
TOTAL	7.07	18.03	551.23	255.1	1007.5	407.0	94.7	37.67	10.72	2.98	3.40	3.97
MEAN	0.23	0.60	17.8	8.23	34.7	13.1	3.16	1.22	0.36	0.10	0.11	0.13
MAX	0.42	3.1	154	30	199	68	4.5	1.8	0.67	0.21	0.28	0.26
MIN	0.16	0.21	0.93	3.9	4.1	4.8	1.9	0.69	0.06	0.05	0.04	0.08
AC-FT	14	36	1090	506	2000	807	188	75	21	5.9	6.7	7.9

e Estimated.

11451690 SULPHUR CREEK AT WILBUR SPRINGS, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.27	0.94	12.9	8.79	14.3	7.37	2.43	1.33	0.43	0.18	0.15	0.20
MAX	0.32	2.56	25.4	16.8	34.7	13.1	3.87	2.70	0.79	0.22	0.19	0.26
(WY)	2001	2002	2003	2002	2004	2004	2003	2003	2003	2001	2002	2002
MIN	0.23	0.36	0.63	3.39	2.70	1.72	1.14	0.66	0.21	0.10	0.11	0.13
(WY)	2004	2003	2000	2001	2002	2002	2002	2002	2002	2004	2004	2004

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2000 - 2004	
ANNUAL TOTAL	1494.93		2399.37			
ANNUAL MEAN	4.10		6.56		4.31	
HIGHEST ANNUAL MEAN					6.56	2004
LOWEST ANNUAL MEAN					1.99	2001
HIGHEST DAILY MEAN	154	Dec 29	199	Feb 17	199	Feb 17 2004
LOWEST DAILY MEAN	0.11	Aug 10	0.04	Aug 1	0.04	Aug 1 2004
ANNUAL SEVEN-DAY MINIMUM	0.13	Aug 7	0.05	Aug 3	0.05	Aug 3 2004
MAXIMUM PEAK FLOW			650	Dec 29	650	Dec 29 2003
MAXIMUM PEAK STAGE			6.40	Dec 29	6.40	Dec 29 2003
ANNUAL RUNOFF (AC-FT)	2970		4760		3120	
10 PERCENT EXCEEDS	8.2		15		7.6	
50 PERCENT EXCEEDS	1.2		0.78		0.63	
90 PERCENT EXCEEDS	0.17		0.08		0.16	

11451715 BEAR CREEK ABOVE HOLSTEN CHIMNEY CANYON, NEAR RUMSEY, CA

LOCATION.—Lat 38°57'28", long 122°20'30", in NW 1/4 SE 1/4 sec.19, T.13 N., R.4 W., Colusa County, Hydrologic Unit 18020116, on the left bank downstream side of Highway 16 bridge, 2.9 mi upstream from confluence with Cache Creek, and 7.4 mi northwest of Rumsey.

DRAINAGE AREA.—94.9 mi^2.

PERIOD OF RECORD.—November 1997 to current year.
CHEMICAL DATA: January 2000 to June 2000.
SEDIMENT DATA: January 2000 to June 2000.

GAGE.—Water-stage recorder and crest-stage gage. Elevation of gage is 920 ft above NGVD of 1929, from topographic map.

REMARKS.—Records good except for estimated daily discharges, which are fair. Some minor diversions upstream from station. See schematic diagram of lower Sacramento River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 8,510 ft^3/s, Feb. 2, 1998, gage height, 13.57 ft, from rating curve extended above 3,000 ft^3/s; minimum daily, 0.56 ft^3/s, Aug. 15, 2002.

EXTREMES OUTSIDE PERIOD OF RECORD.—Maximum discharge, 9,200 ft^3/s, Jan. 5, 1965.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 2,000 ft^3/s, or maximum:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 24	1145	2,370	9.97	Feb. 17	unknown	7,760	13.25
Dec. 29	1530	5,570	12.20	Feb. 25	0945	3,280	10.75

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	4.3	12	531	40	464	50	16	6.7	4.7	2.7	1.5
2	2.4	3.3	47	254	458	649	46	16	6.4	4.9	2.7	1.5
3	2.4	3.0	23	149	233	255	44	15	6.1	4.5	2.7	1.5
4	2.5	2.9	12	114	105	215	42	14	5.8	4.3	2.6	1.4
5	2.5	2.9	9.4	98	79	188	41	13	5.8	4.2	2.4	1.5
6	2.4	3.0	9.3	88	70	170	41	13	6.0	3.9	2.2	1.6
7	2.4	3.3	37	101	76	153	39	13	6.0	3.7	2.3	1.7
8	2.4	4.7	23	131	63	140	37	13	6.5	3.9	2.3	1.6
9	2.4	10	14	202	57	130	35	13	7.1	4.1	2.3	1.6
10	2.4	7.8	322	196	52	119	34	13	6.7	4.2	2.1	1.6
11	2.3	4.7	129	115	50	110	33	12	6.6	4.0	2.0	1.6
12	2.4	3.9	45	93	e47	105	32	12	6.4	3.8	2.0	1.7
13	2.3	3.6	46	82	e44	98	31	12	6.0	3.6	1.9	1.6
14	2.4	3.7	298	82	e40	92	31	11	5.8	3.5	1.8	1.6
15	2.4	3.9	89	86	e95	86	30	11	5.5	3.6	1.9	1.6
16	2.5	3.9	39	72	e810	80	30	10	5.2	3.4	2.0	1.5
17	2.5	3.7	27	66	e3650	77	30	10	5.2	3.3	2.1	1.6
18	2.5	3.6	22	62	831	74	35	9.9	5.3	3.2	2.0	1.7
19	2.6	3.5	22	58	352	70	34	9.9	5.3	2.9	2.0	1.9
20	2.6	3.5	193	55	232	68	37	9.9	5.2	2.8	1.9	2.7
21	2.5	3.6	318	50	191	66	36	10	5.1	3.0	1.8	2.5
22	2.5	3.5	73	46	232	64	32	12	4.9	3.1	1.7	2.1
23	2.5	3.4	91	46	194	62	28	10	4.9	3.0	1.9	2.0
24	2.4	3.4	897	50	175	59	28	9.6	4.8	3.1	2.0	2.1
25	2.4	3.5	218	45	1530	63	27	9.0	4.6	3.0	2.0	2.1
26	2.3	3.6	100	42	750	77	25	8.5	4.4	2.7	1.8	2.0
27	2.3	3.5	64	53	380	67	23	8.0	4.6	2.7	1.7	2.0
28	2.4	3.6	51	64	273	60	21	7.6	4.8	2.5	1.5	2.0
29	2.5	4.3	1800	48	223	55	20	7.3	4.7	2.4	1.6	2.1
30	2.6	6.1	563	44	---	55	19	7.2	4.5	2.5	1.7	2.3
31	3.4	---	203	41	---	54	---	7.0	---	2.6	1.6	---
TOTAL	76.6	121.7	5796.7	3164	11332	4025	991	342.9	166.9	107.1	63.2	54.2
MEAN	2.47	4.06	187	102	391	130	33.0	11.1	5.56	3.45	2.04	1.81
MAX	3.4	10	1800	531	3650	649	50	16	7.1	4.9	2.7	2.7
MIN	2.3	2.9	9.3	41	40	54	19	7.0	4.4	2.4	1.5	1.4
AC-FT	152	241	11500	6280	22480	7980	1970	680	331	212	125	108

e Estimated.

11451715 BEAR CREEK ABOVE HOLSTEN CHIMNEY CANYON, NEAR RUMSEY, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2.74	9.00	103	104	287	101	44.9	31.2	12.7	4.24	2.43	2.26
MAX	5.48	26.1	259	252	1029	180	126	124	56.6	14.2	5.97	5.34
(WY)	1999	2002	2003	1998	1998	1998	1998	1998	1998	1998	1998	1998
MIN	1.35	2.73	3.33	13.6	35.1	20.9	10.1	4.93	2.64	1.01	0.75	1.03
(WY)	2003	2003	2001	1999	2002	2002	2002	2001	2002	2002	2002	2002

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1998 - 2004	
ANNUAL TOTAL	16403.8		26241.3			
ANNUAL MEAN	44.9		71.7		42.5	
HIGHEST ANNUAL MEAN					71.7	2004
LOWEST ANNUAL MEAN					19.1	2001
HIGHEST DAILY MEAN	1800	Dec 29	3650	Feb 17	3650	Feb 17 2004
LOWEST DAILY MEAN	1.9	Aug 19	1.4	Sep 4	0.56	Aug 15 2002
ANNUAL SEVEN-DAY MINIMUM	2.0	Aug 15	1.5	Aug 31	0.60	Aug 11 2002
MAXIMUM PEAK FLOW			7760	Feb 17	8510	Feb 2 1998
MAXIMUM PEAK STAGE			13.25	Feb 17	13.57	Feb 2 1998
ANNUAL RUNOFF (AC-FT)	32540		52050		30820	
10 PERCENT EXCEEDS	90		150		82	
50 PERCENT EXCEEDS	12		7.2		5.7	
90 PERCENT EXCEEDS	2.3		2.0		1.6	

11452500 CACHE CREEK AT YOLO, CA

LOCATION.—Lat 38°43'38", long 121°48'22", in Rio Jesus Maria Grant, Yolo County, Hydrologic Unit 18020110, on left bank, 35 ft upstream from Interstate Highway 5 bridge, 0.5 mi south of Yolo, and 7.3 mi downstream from Moore Dam.

DRAINAGE AREA.—1,139 mi^2.

PERIOD OF RECORD.—January 1903 to current year. Records for water year 1903 incomplete; yearly estimate published in WSP 1315-A.
WATER TEMPERATURE: Water years 1959–65, 1967.
SEDIMENT DATA: Water years 1959–65, 1967 (daily record), 1986 (periodic record).

REVISED RECORDS.—WSP 1315-A: 1914(M). WSP 1345: 1906. WSP 1445: 1955. WSP 1931: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is NGVD of 1929. See WSP 2131 for history of changes prior to Apr. 25, 1969. Apr. 25, 1969, to July 1976, at site 765 ft upstream at same datum.

REMARKS.—Records fair except for estimated daily discharges, which are poor. Some regulation by Clear Lake (station 11450000) beginning in 1915 and Indian Valley Reservoir beginning in 1974, capacity, 300,000 acre-ft. Diversions for irrigation of about 30,000 acres between Capay and Yolo, from data furnished by Clear Lake Water Co. See schematic diagram of lower Sacramento River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 41,400 ft^3/s, Feb. 25, 1958, gage height, 85.35 ft, present datum, maximum stage observed, 86.4 ft, present datum, Mar. 10, 1904; no flow at times in most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.5	25	15	e2180	131	5690	77	21	18	14	13	0.00
2	0.00	47	41	e4070	185	6980	64	20	15	20	14	4.7
3	0.00	50	74	e3690	1490	5740	52	19	9.3	27	2.1	2.8
4	0.00	48	63	e3430	664	5400	45	19	14	36	0.00	6.5
5	0.00	37	50	e3200	426	5210	46	22	3.6	41	0.00	14
6	0.00	86	41	e2970	317	5050	48	25	2.1	43	1.8	18
7	0.00	72	40	e2570	277	4910	43	33	1.7	45	6.4	13
8	0.00	51	82	e2360	254	4790	54	44	4.5	27	8.5	3.4
9	0.00	54	72	2360	214	4670	34	47	6.3	19	9.4	1.0
10	0.00	49	138	2790	188	4590	37	39	6.6	22	13	3.9
11	0.00	45	417	2500	167	e4100	78	22	11	27	9.0	4.2
12	0.79	33	196	2360	153	e3500	93	9.1	5.3	19	0.06	3.6
13	7.6	23	121	2140	140	2810	43	9.4	0.00	17	0.00	6.1
14	6.8	18	289	1700	132	1520	34	7.5	3.7	12	0.00	1.2
15	17	17	640	1050	128	1150	49	4.5	8.9	0.96	0.00	0.00
16	13	e14	207	e850	419	972	36	11	7.0	1.4	0.00	0.00
17	13	e10	136	e700	7650	887	41	7.5	3.7	8.0	0.00	0.00
18	11	11	106	e550	11600	827	46	8.8	1.9	8.1	0.00	0.00
19	10	6.8	92	e425	6330	892	41	13	8.2	15	0.00	0.00
20	4.5	5.9	95	e280	5050	1020	39	20	4.5	12	0.00	1.1
21	2.6	5.7	583	199	4630	1150	75	18	17	4.1	0.00	0.00
22	3.8	6.0	346	180	4450	962	50	7.6	16	5.7	0.32	0.00
23	2.0	6.8	197	165	4350	684	45	16	20	9.2	3.0	0.00
24	0.03	7.6	1400	161	4140	456	37	26	19	14	5.2	0.00
25	0.83	6.3	2800	158	6890	376	25	13	9.0	13	2.7	0.00
26	0.00	5.3	647	142	10700	367	24	11	6.7	16	0.23	0.00
27	0.61	5.0	373	132	7250	537	19	8.4	12	13	1.2	0.00
28	0.75	5.8	272	146	6340	228	28	2.7	14	4.3	1.7	0.00
29	0.33	7.0	1130	182	5920	132	23	15	2.8	0.00	5.0	0.00
30	0.00	7.8	e8100	156	---	93	20	13	0.00	5.2	7.2	0.00
31	2.4	---	e2140	142	---	64	---	24	---	15	4.3	---
TOTAL	104.54	766.0	20903	43938	90585	75757	1346	556.5	251.80	513.96	108.11	83.50
MEAN	3.37	25.5	674	1417	3124	2444	44.9	18.0	8.39	16.6	3.49	2.78
MAX	17	86	8100	4070	11600	6980	93	47	20	45	14	18
MIN	0.00	5.0	15	132	128	64	19	2.7	0.00	0.00	0.00	0.00
AC-FT	207	1520	41460	87150	179700	150300	2670	1100	499	1020	214	166

e Estimated.

11452500 CACHE CREEK AT YOLO, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1903 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	13.4	59.9	442	1392	1986	1516	852	199	61.8	26.5	12.8	7.92
MAX	335	1593	5644	7446	12750	10930	6353	1655	784	421	189	105
(WY)	1963	1984	1984	1914	1998	1983	1958	1904	1906	1907	1907	1998
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
(WY)	1904	1906	1906	1920	1920	1920	1924	1919	1913	1912	1910	1903

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1903 - 2004	
ANNUAL TOTAL	179689.03		234913.41			
ANNUAL MEAN	492		642		539	
HIGHEST ANNUAL MEAN					2449	1983
LOWEST ANNUAL MEAN					0.00	1977
HIGHEST DAILY MEAN	8100	Dec 30	11600	Feb 18	29300	Feb 25 1958
LOWEST DAILY MEAN	0.00	Jul 13	0.00	Oct 2	0.00	Aug 7 1903
ANNUAL SEVEN-DAY MINIMUM	0.00	Oct 2	0.00	Oct 2	0.00	Aug 7 1903
MAXIMUM PEAK FLOW			14900	Feb 26	41400	Feb 25 1958
MAXIMUM PEAK STAGE			76.19	Feb 26	86.40	Mar 10 1904
ANNUAL RUNOFF (AC-FT)	356400		466000		390500	
10 PERCENT EXCEEDS	2230		2400		1410	
50 PERCENT EXCEEDS	51		20		4.1	
90 PERCENT EXCEEDS	0.37		0.00		0.00	

11453000 YOLO BYPASS NEAR WOODLAND, CA

LOCATION.—Lat 38°40'40", long 121°38'35", unsurveyed, Yolo County, Hydrologic Unit 18020109, on left bank, 300 ft upstream from Sacramento and Woodland Railroad Bridge, 6 mi upstream from Sacramento Bypass, 6 mi downstream from Fremont Weir, and 7 mi east of Woodland.

PERIOD OF RECORD.—October 1939 to current year (since October 1977, high-flow records only). Monthly discharge only for some periods, published in WSP 1315-A.
WATER TEMPERATURE: Water year 1980.
SEDIMENT DATA: Water years 1957–61, 1980.

REVISED RECORDS.—WDR CA-96-4: 1995(M).

GAGE.—Water-stage recorder. Datum of gage is 3.41 ft below NGVD of 1929. Prior to Dec. 17, 1941, nonrecording gage, and Dec. 18–31, 1941, water-stage recorder, at datum 0.73 ft higher. Prior to Sept. 30, 1977, a supplementary water-stage recorder 6 mi downstream at different datum recorded low flow.

REMARKS.—Flow is from Cache Creek and Knights Landing Ridge Cut plus floodwater passing over Fremont Weir. Beginning October 1977, only flows above 1,000 ft^3/s are computed. See schematic diagram of lower Sacramento River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 374,000 ft^3/s, Feb. 20, 1986, gage height, 34.87 ft; no flow at times in several years.

EXTREMES FOR CURRENT YEAR.—Maximum discharge, 107,000 ft^3/s, Feb. 28, gage height, 27.81 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	5750	---	86900	---	---	---	---	---	---
2	---	---	---	6070	---	79700	---	---	---	---	---	---
3	---	---	---	6860	---	69200	---	---	---	---	---	---
4	---	---	---	7100	1930	63200	---	---	---	---	---	---
5	---	---	---	6540	2590	51600	---	---	---	---	---	---
6	---	---	---	6220	2740	41300	---	---	---	---	---	---
7	---	---	---	6220	2710	31600	---	---	---	---	---	---
8	---	---	---	6090	2340	23500	---	---	---	---	---	---
9	---	---	---	6040	1930	16500	---	---	---	---	---	---
10	---	---	---	6090	1460	9740	---	---	---	---	---	---
11	---	---	---	6140	1010	6600	---	---	---	---	---	---
12	---	---	---	5940	---	6040	---	---	---	---	---	---
13	---	---	---	5700	---	5410	---	---	---	---	---	---
14	---	---	---	5410	---	4510	---	---	---	---	---	---
15	---	---	1040	4850	---	3470	---	---	---	---	---	---
16	---	---	1450	4020	---	2750	---	---	---	---	---	---
17	---	---	1690	3360	1340	2380	---	---	---	---	---	---
18	---	---	1490	2790	6430	2130	---	---	---	---	---	---
19	---	---	1110	2320	9010	1920	---	---	---	---	---	---
20	---	---	---	1820	41400	1800	---	---	---	---	---	---
21	---	---	---	1370	81300	1780	---	---	---	---	---	---
22	---	---	1190	1060	79300	1770	---	---	---	---	---	---
23	---	---	1890	---	66100	1500	---	---	---	---	---	---
24	---	---	1950	---	54000	1210	---	---	---	---	---	---
25	---	---	2420	---	51400	1060	---	---	---	---	---	---
26	---	---	3270	---	95200	1010	---	---	---	---	---	---
27	---	---	3290	---	99300	---	---	---	---	---	---	---
28	---	---	3310	---	105000	---	---	---	---	---	---	---
29	---	---	3460	---	97300	---	---	---	---	---	---	---
30	---	---	5560	---	---	---	---	---	---	---	---	---
31	---	---	7090	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---
MEAN	---	---	---	---	---	---	---	---	---	---	---	---
MAX	---	---	---	---	---	---	---	---	---	---	---	---
MIN	---	---	---	---	---	---	---	---	---	---	---	---
AC-FT	---	---	---	---	---	---	---	---	---	---	---	---

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 1977, BY WATER YEAR (WY)

MEAN	441	738	5638	13230	11240	3398	3849	430	144	20.7	26.1	51.0
MAX	13420	10890	48790	86470	92890	27910	37310	4546	1420	107	84.9	155
(WY)	1963	1951	1956	1970	1958	1958	1958	1952	1967	1958	1958	1954
MIN	1.01	2.19	0.92	2.43	0.88	3.55	0.08	0.55	0.53	0.00	0.00	0.63
(WY)	1977	1960	1977	1977	1977	1977	1976	1977	1977	1966	1966	1977

SUMMARY STATISTICS	WATER YEARS 1946 - 1977	
ANNUAL MEAN	3230	
HIGHEST ANNUAL MEAN	13020	1958
LOWEST ANNUAL MEAN	1.53	1977
HIGHEST DAILY MEAN	259000	Dec 25 1964
LOWEST DAILY MEAN	0.00	Jul 11 1963
ANNUAL SEVEN-DAY MINIMUM	0.00	Jul 19 1963
MAXIMUM PEAK FLOW	265000	Dec 25 1964
MAXIMUM PEAK STAGE	32.48	Dec 25 1964
ANNUAL RUNOFF (AC-FT)	2340000	
10 PERCENT EXCEEDS	3080	
50 PERCENT EXCEEDS	35	
90 PERCENT EXCEEDS	1.9	

11453500 PUTAH CREEK NEAR GUENOC, CA

LOCATION.—Lat 38°46'44", long 122°30'59", in Guenoc Grant, Lake County, Hydrologic Unit 18020117, on right bank just upstream from Coyote Valley dam site, 2.8 mi upstream from Soda Creek, and 3.2 mi downstream from highway bridge at Guenoc.

DRAINAGE AREA.—113 mi^2.

PERIOD OF RECORD.—February 1904 to September 1906, July 1930 to September 1976, and April 1998 to current year. Monthly discharge only for some periods, published in WSP 1315-A.
CHEMICAL DATA.—Water year 1978.
WATER TEMPERATURE.—Water years 1960–1973.
SEDIMENT DATA.—Water years 1962–1973.

REVISED RECORDS.—WSP 1285: 1937(M), 1938, 1940, 1943(M), 1951(M).

GAGE.—Water-stage recorder. Datum of gage is 911.18 ft above NGVD of 1929. February 1904 to September 1906, nonrecording gage 0.2 mi upstream at different datum. July 1930 to September 1976, at datum 3.00 ft higher.

REMARKS.—Records good except for estimated daily discharges, which are fair. Some regulation by Hartmann Dam on Coyote Creek since 1969, capacity, 3,000 acre-ft; diversions and ground-water withdrawals for domestic use and irrigation of about 1,600 acres above station. See schematic diagram of lower Sacramento River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 32,000 ft^3/s, Dec. 11, 1937, gage height, 22.7 ft, from rating curve extended above 13,000 ft^3/s; no flow many days in 1964, 1970, 1974–76.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 5,000 ft^3/s, or maximum:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 24	0930	8,290	15.22	Feb. 17	1745	16,900	19.90
Dec. 29	1315	14,900	18.98	Feb. 25	1100	9,410	15.98
Jan. 1	1130	8,960	15.66				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.75	0.73	262	3340	148	773	99	42	18	6.7	1.1	0.02
2	0.72	0.74	431	1490	1110	693	96	40	17	6.1	1.1	0.02
3	0.81	0.70	129	927	882	551	93	38	17	5.6	1.3	0.01
4	0.93	0.66	76	664	534	472	91	36	16	5.1	0.94	0.01
5	0.75	0.68	94	525	388	410	88	34	15	4.2	1.4	0.00
6	0.18	0.68	897	e440	312	360	84	34	14	3.7	1.3	0.00
7	0.06	0.72	558	e445	287	321	81	34	14	3.4	1.2	0.00
8	0.02	6.8	171	e590	239	288	78	34	14	3.3	1.7	0.00
9	0.05	42	140	e1100	215	261	76	33	16	3.3	2.1	0.00
10	0.02	34	1470	945	190	236	73	32	15	3.3	2.0	0.00
11	0.26	15	620	637	176	218	70	31	14	3.3	1.4	0.00
12	0.57	8.8	268	493	164	204	68	31	13	3.1	1.4	0.00
13	0.78	6.1	421	399	157	190	67	30	11	2.9	1.3	0.00
14	0.90	5.7	2070	353	151	178	66	29	10	2.7	1.2	0.00
15	0.96	6.2	556	316	143	167	67	28	9.0	4.1	1.1	0.00
16	0.92	8.3	300	270	2730	157	64	27	9.1	4.1	1.00	0.00
17	0.89	8.2	208	236	9660	149	61	27	8.5	4.7	0.91	0.00
18	0.90	6.9	167	213	4410	144	61	26	7.9	4.4	0.88	0.00
19	0.89	6.4	166	195	1620	136	63	26	8.1	3.5	0.84	0.03
20	0.87	6.2	895	181	1060	130	99	25	7.6	3.5	0.78	0.08
21	1.1	5.8	1050	166	811	126	90	26	6.9	3.0	0.73	0.02
22	1.1	5.6	444	154	755	121	86	27	6.9	2.8	0.62	0.00
23	1.1	5.6	787	146	628	116	72	25	6.2	2.6	0.16	0.00
24	1.0	5.7	3740	151	658	112	65	25	6.0	2.4	0.04	0.00
25	0.88	6.0	1140	139	4230	139	58	24	5.6	2.2	0.03	0.00
26	0.80	6.2	639	130	2560	165	54	23	4.6	2.4	0.06	0.00
27	0.80	7.1	431	205	1490	154	50	22	4.5	2.1	0.06	0.00
28	0.80	6.5	326	232	1040	134	47	21	4.8	1.6	0.04	0.00
29	0.76	8.0	6060	173	813	118	44	20	4.9	2.0	0.04	0.00
30	0.74	14	2200	160	---	112	44	20	5.6	1.5	0.03	0.00
31	0.75	---	1020	149	---	106	---	19	---	1.2	0.03	---
TOTAL	22.06	236.01	27736	15564	37561	7441	2155	889	310.2	104.8	26.79	0.19
MEAN	0.71	7.87	895	502	1295	240	71.8	28.7	10.3	3.38	0.86	0.01
MAX	1.1	42	6060	3340	9660	773	99	42	18	6.7	2.1	0.08
MIN	0.02	0.66	76	130	143	106	44	19	4.5	1.2	0.03	0.00
AC-FT	44	468	55010	30870	74500	14760	4270	1760	615	208	53	0.4

e Estimated.

11453500 PUTAH CREEK NEAR GUENOC, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1905 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	15.0	86.8	410	619	667	395	216	70.4	26.7	7.72	3.60	2.54
MAX	329	1005	1684	2288	2107	1326	906	264	165	36.8	12.0	10.0
(WY)	1963	1974	1956	1970	1958	1938	1958	1998	1906	1998	1906	1905
MIN	0.00	1.35	2.34	15.2	36.7	55.9	26.6	9.48	1.57	0.47	0.00	0.00
(WY)	2003	1932	1937	1976	1976	1976	1931	1976	1976	1976	1976	1976

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1905 - 2004	
ANNUAL TOTAL	81014.70		92046.05			
ANNUAL MEAN	222		251		207	
HIGHEST ANNUAL MEAN					467	1938
LOWEST ANNUAL MEAN					21.8	1976
HIGHEST DAILY MEAN	6060	Dec 29	9660	Feb 17	16500	Dec 10 1937
LOWEST DAILY MEAN	0.01	Sep 18	0.00	Sep 5	0.00	Aug 20 1964
ANNUAL SEVEN-DAY MINIMUM	0.11	Sep 16	0.00	Sep 5	0.00	Jul 26 1976
MAXIMUM PEAK FLOW			16900	Feb 17	32000	Dec 11 1937
MAXIMUM PEAK STAGE			19.90	Feb 17	22.70	Dec 11 1937
ANNUAL RUNOFF (AC-FT)	160700		182600		150200	
10 PERCENT EXCEEDS	589		631		455	
50 PERCENT EXCEEDS	69		20		25	
90 PERCENT EXCEEDS	0.73		0.04		1.3	

11453900 LAKE BERRYESSA NEAR WINTERS, CA

LOCATION.—Lat 38°30'48", long 122°06'13", in SE 1/4 NW 1/4 sec.29, T.8 N., R.2 W., Napa County, Hydrologic Unit 18020117, near center of Monticello Dam on Putah Creek, and 7.4 mi west of Winters.

DRAINAGE AREA.—566 mi^2.

PERIOD OF RECORD.—January 1957 to current year.

REVISED RECORDS.—WSP 1735: 1958–60. WSP 1931: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is NGVD of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.—Reservoir is formed by concrete arch-gravity dam completed November 1956. Usable capacity, 1,592,000 acre-ft, between elevations 253.25 ft, invert of outlet valves, and 440 ft, crest of glory-hole spillway. Dead storage, 10,340 acre-ft. Water is released down Putah Creek and is diverted into Putah South Canal (station 11454210) for irrigation of about 46,000 acres in the lower Sacramento Valley. Total diverted during current year was 207,700 acre-ft. Releases for irrigation began in May 1959. Records, including extremes, show total contents at 2400 hours. See schematic diagram of lower Sacramento River Basin.

COOPERATION.—Records provided by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 1,733,500 acre-ft, Mar. 2, 1983, elevation, 446.67 ft; minimum since irrigation pool first filled, 422,130 acre-ft, Dec. 1, 1992, elevation, 361.73 ft.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 1,675,500 acre-ft, Feb. 18, elevation, 443.76 ft; minimum, 1,369,600 acre-ft, Sept. 30, elevation, 427.55 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey by U.S. Bureau of Reclamation in 1956)

360	404,550	390	765,730	410	1,068,100	430	1,414,200
370	511,760	400	911,200	420	1,236,000	450	1,799,900
380	632,360						

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1429800	1409400	1406300	1544300	1586900	1645500	1600000	1576700	1539100	1492200	1442000	1400100
2	1429200	1409200	1407600	1551100	1592800	1642400	1598400	1575900	1537600	1490900	1440100	1398600
3	1428100	1408900	1407800	1554500	1596700	1638100	1597700	1575200	1536300	1489200	1439000	1396400
4	1427400	1408300	1408000	1557000	1599000	1634100	1597500	1574000	1535000	1487500	1437500	1395300
5	1426700	1408000	1408100	1558900	1600700	1630400	1597300	1572900	1533600	1486200	1436100	1394400
6	1425900	1407800	1411100	1560500	1601700	1627400	1597100	1571900	1532300	1484700	1434800	1395200
7	1425400	1407600	1412900	1562200	1602900	1624700	1596700	1570800	1530400	1482800	1433100	1392100
8	1424600	1408700	1413100	1564300	1603400	1622800	1596300	1569200	1528700	1481000	1431800	1391000
9	1423900	1409400	1415300	1566900	1604000	1621000	1595700	1568500	1527600	1479100	1430500	1390100
10	1422600	1409200	1420400	1570400	1603800	1618900	1595200	1567300	1526100	1477600	1429100	1388800
11	1422400	1409100	1421500	1571900	1603800	1617800	1594400	1565800	1524700	1476300	1427600	1387700
12	1421300	1408900	1422600	1573700	1604000	1616400	1593400	1564600	1523600	1474200	1426300	1386400
13	1420800	1408500	1422800	1574800	1604000	1614300	1592700	1563700	1522100	1472800	1424600	1385400
14	1420000	1408700	1430200	1576100	1603800	1614300	1591500	1562600	1520600	1471100	1423200	1383900
15	1418900	1408300	1431600	1576900	1603600	1613100	1590700	1561200	1519100	1469600	1421900	1382800
16	1418400	1408000	1432200	1577900	1622000	1612100	1589800	1559900	1517800	1468100	1420800	1381900
17	1417800	1408000	1432500	1578200	1663500	1611200	1589400	1558700	1516100	1466600	1419300	1381200
18	1417300	1407800	1432900	1579400	1675500	1610400	1588200	1557400	1514000	1464900	1418200	1379700
19	1416700	1407800	1434400	1579600	1669400	1609200	1587500	1556100	1512500	1463500	1416700	1378600
20	1416400	1407600	1438100	1580400	1662200	1608700	1587300	1554700	1511000	1456400	1415300	1377500
21	1415800	1407000	1442900	1580900	1655100	1607500	1586300	1553600	1509300	1460500	1414000	1376600
22	1415500	1406100	1444400	1581300	1649600	1606700	1585300	1552300	1507800	1458800	1412300	1375700
23	1414900	1405900	1449400	1581900	1644000	1606000	1584400	1550700	1505900	1457100	1411200	1375000
24	1414400	1405800	1465900	1582700	1639300	1605000	1583600	1549600	1504200	1455300	1409800	1374500
25	1413800	1405400	1470900	1582800	1660200	1605400	1582800	1548100	1502500	1453800	1408900	1373400
26	1413600	1405200	1472600	1582800	1663300	1604600	1582100	1546700	1500300	1452100	1407200	1372800
27	1412900	1405200	1473700	1584000	1659800	1603800	1581100	1545400	1498900	1450500	1405800	1372800
28	1412300	1404800	1474400	1585000	1654300	1603100	1579800	1544100	1497300	1448800	1404800	1371200
29	1412000	1404800	1510200	1585300	1649100	1602300	1578400	1542400	1495800	1446800	1403800	1370300
30	1410700	1405400	1520200	1586100	---	1601500	1577700	1541600	1493900	1445500	1402300	1369600
31	1410700	---	1524000	1586300	---	1600700	---	1540100	---	1443400	1401000	---
MAX	1429800	1409400	1524000	1586300	1675500	1645500	1600000	1576700	1539100	1492200	1442000	1400100
MIN	1410700	1404800	1406300	1544300	1586900	1600700	1577700	1540100	1493900	1443400	1401000	1369600
a	429.81	429.52	435.90	439.17	442.41	439.92	438.72	436.75	434.30	431.59	429.28	427.55
b	-20200	-5300	+118600	+62300	+62800	-48400	-23000	-37600	-46200	-50500	-42400	-31400
c	4936	1216	407	835	1162	4530	5639	7980	9225	9513	8747	7143

CAL YR 2003 b +29200
WTR YR 2004 b -61300

a Elevation, in feet, at end of month.
b Change in contents, in acre-feet.
c Total evaporation, in acre-feet, provided by U.S. Bureau of Reclamation, not reviewed by U.S. Geological Survey.

11454000 PUTAH CREEK NEAR WINTERS, CA

LOCATION.—Lat 38°30'55", long 122°04'51", in NE 1/4 NE 1/4 sec.28, T.8 N., R.2 W., Yolo County, Hydrologic Unit 18020109, on left bank, 1 mi downstream from Cold Canyon, 1.3 mi downstream from Monticello Dam, and 6 mi west of Winters.

DRAINAGE AREA.—574 mi^2.

PERIOD OF RECORD.—June 1930 to current year.
CHEMICAL DATA: Water years 1951–66, 1973–81.
WATER TEMPERATURE: Water years 1966–81.

REVISED RECORDS.—WSP 901: 1937–38(M). WSP 1285: 1932(M), 1935–36(M), 1940(M), 1942–43(M), 1951, 1952(M). WSP 1565: 1957. WSP 1931: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is 160.75 ft above NGVD of 1929 (river-profile survey). June 28, 1930, to Feb. 29, 1940, at datum about 1 ft higher.

REMARKS.—Records good. Flow completely regulated by Lake Berryessa (station 11453900) beginning January 1957. See schematic diagram of lower Sacramento River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 81,000 ft^3/s, Feb. 27, 1940, gage height, 30.5 ft, present datum, from rating curve extended above 30,000 ft^3/s; no flow Sept. 6–15, 1950, July 26 to Sept. 1, Sept. 6–9, 1955. Since completion of Monticello Dam in 1957: Maximum discharge, 18,700 ft^3/s, Mar. 2, 1983, gage height, 19.55 ft; minimum daily, 6.1 ft^3/s, Dec. 19, 1967.

EXTREMES OUTSIDE PERIOD OF RECORD.—Maximum stage known since at least 1905, Feb. 27, 1940, on basis of records for station at Winters.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	315	149	82	145	79	4900	663	507	587	678	622	519
2	292	141	64	65	85	4660	613	483	594	680	632	506
3	272	141	105	54	86	4220	500	488	599	667	619	503
4	265	140	109	51	82	3840	408	502	609	649	599	487
5	243	100	76	50	72	3480	343	533	610	638	571	450
6	256	79	63	51	60	2920	319	553	603	660	535	449
7	231	73	63	51	66	2430	331	553	587	676	569	459
8	251	73	56	57	74	2120	379	553	580	684	589	451
9	231	71	49	69	179	1850	434	544	590	707	595	437
10	213	59	59	74	277	1660	478	525	593	704	610	445
11	228	59	68	75	277	1400	514	531	564	672	619	461
12	235	58	68	76	278	1190	530	544	572	666	606	447
13	235	58	69	79	321	1130	538	544	596	661	595	458
14	240	65	66	81	366	1070	497	544	619	678	545	456
15	246	65	54	81	327	1020	468	563	645	667	505	419
16	212	57	54	81	390	968	490	573	668	625	494	419
17	201	57	55	99	e2580	927	491	550	686	618	498	397
18	199	57	55	126	8060	889	543	534	705	612	546	351
19	172	56	56	99	7890	850	573	556	707	637	558	314
20	159	68	55	79	6910	814	586	595	713	653	532	308
21	152	103	50	79	6090	787	545	594	708	679	513	286
22	145	100	50	79	5440	763	516	574	710	696	494	268
23	103	75	50	79	4910	739	516	588	732	711	494	267
24	101	71	60	79	4400	721	520	615	737	700	476	282
25	137	57	50	79	5420	706	531	644	730	671	487	289
26	164	44	48	79	6770	709	542	649	691	664	488	289
27	188	48	48	79	6570	691	556	635	684	685	448	300
28	200	48	48	79	6000	678	564	629	690	676	452	299
29	188	54	124	79	5400	671	541	574	705	662	452	274
30	178	96	68	79	---	668	521	556	697	646	477	265
31	170	---	52	79	---	662	---	576	---	628	508	---
TOTAL	6422	2322	1974	2412	79459	50133	15050	17409	19511	20650	16728	11555
MEAN	207	77.4	63.7	77.8	2740	1617	502	562	650	666	540	385
MAX	315	149	124	145	8060	4900	663	649	737	711	632	519
MIN	101	44	48	50	60	662	319	483	564	612	448	265
AC-FT	12740	4610	3920	4780	157600	99440	29850	34530	38700	40960	33180	22920

e Estimated.

11454000 PUTAH CREEK NEAR WINTERS, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1956, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	8.62	96.0	993	1284	1716	976	514	137	42.1	12.5	6.94	5.84
MAX	45.4	807	5110	3957	6468	3506	2729	452	156	63.7	31.7	20.8
(WY)	1951	1951	1956	1952	1938	1938	1941	1941	1942	1941	1941	1941
MIN	.89	3.17	7.16	44.6	66.7	118	40.8	12.3	6.72	2.39	.000	1.47
(WY)	1956	1956	1931	1947	1948	1932	1931	1931	1931	1955	1955	1931

SUMMARY STATISTICS	WATER YEARS 1931 - 1956	
ANNUAL MEAN	477	
HIGHEST ANNUAL MEAN	1387	1941
LOWEST ANNUAL MEAN	48.1	1931
HIGHEST DAILY MEAN	54500	Feb 27 1940
LOWEST DAILY MEAN	.00	Sep 6 1950
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 6 1950
MAXIMUM PEAK FLOW	81000	Feb 27 1940
MAXIMUM PEAK STAGE	30.5	Feb 27 1940
ANNUAL RUNOFF (AC-FT)	345500	
10 PERCENT EXCEEDS	924	
50 PERCENT EXCEEDS	38	
90 PERCENT EXCEEDS	3.0	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	223	88.6	106	458	706	753	626	550	601	629	546	400
MAX	476	263	1625	4406	6271	7791	5023	1018	773	802	681	610
(WY)	1972	1987	1984	1970	1998	1983	1982	1983	1981	1984	1975	1968
MIN	13.3	14.9	11.6	11.6	21.6	40.9	110	155	328	338	298	175
(WY)	1960	1963	1961	1960	1960	1962	1960	1960	1960	1960	1960	1960

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1960 - 2004	
ANNUAL TOTAL	135319		243625			
ANNUAL MEAN	371		666		473	
HIGHEST ANNUAL MEAN					1580	1983
LOWEST ANNUAL MEAN					132	1960
HIGHEST DAILY MEAN	1320	May 4	8060	Feb 18	17700	Mar 2 1983
LOWEST DAILY MEAN	44	Nov 26	44	Nov 26	6.1	Dec 19 1967
ANNUAL SEVEN-DAY MINIMUM	51	Dec 22	51	Dec 22	8.3	Nov 7 1963
MAXIMUM PEAK FLOW			8800	Feb 18	18700	Mar 2 1983
MAXIMUM PEAK STAGE			16.18	Feb 18	19.55	Mar 2 1983
ANNUAL RUNOFF (AC-FT)	268400		483200		342400	
10 PERCENT EXCEEDS	662		738		714	
50 PERCENT EXCEEDS	389		489		355	
90 PERCENT EXCEEDS	62		60		54	

11454210 PUTAH SOUTH CANAL NEAR WINTERS, CA

LOCATION.—Lat 38°29'34", long 122°00'07", in Rio de Los Putos Grant, T.8 N., R.1 W., Solano County, Hydrologic Unit 18020109, on left bank, 500 ft downstream from diversion headgate structure on Lake Solano, and 2.7 mi southwest of Winters.

PERIOD OF RECORD.—October 1994 to September 1997, October 1998 to current year. Monthly and yearly totals were published during water years 1972–93.

GAGE.—Water-stage recorder. Elevation of gage is 160 ft above NGVD of 1929, from topographic map.

REMARKS.—Water from canal is diverted for irrigation, municipal, and industrial use. See schematic diagram of lower Sacramento River Basin.

COOPERATION.—Records provided by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 784 ft^3/s, June 21, 2000; no flow on some days during most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	295	121	21	27	61	62	234	458	526	615	542	474
2	267	107	22	21	62	62	229	430	529	618	559	465
3	261	104	22	27	54	54	246	437	533	602	543	461
4	243	104	21	37	51	51	260	448	545	586	549	444
5	223	83	21	41	44	59	260	473	546	570	510	414
6	227	65	21	41	49	63	281	489	540	593	486	405
7	237	52	21	41	51	62	299	503	531	617	501	420
8	240	52	24	48	51	62	333	500	528	618	503	406
9	211	52	30	51	52	62	371	482	535	652	533	400
10	200	1.8	38	51	56	62	421	474	544	642	545	410
11	214	0.0	41	52	62	69	460	486	501	601	547	424
12	217	0.0	40	52	62	80	468	488	513	598	537	403
13	216	37	40	59	62	88	472	482	533	597	528	420
14	218	69	27	62	66	88	449	489	560	615	487	412
15	224	35	13	62	67	88	419	516	578	595	445	395
16	193	16	7.7	62	63	88	440	513	604	567	431	387
17	187	0.0	20	62	57	114	467	483	619	543	442	358
18	174	0.0	20	62	36	148	480	486	638	540	487	326
19	143	7.8	27	55	51	157	507	506	642	568	485	293
20	136	77	30	52	72	165	519	534	648	581	472	260
21	124	77	30	59	65	180	481	528	640	605	454	245
22	111	60	25	61	62	191	456	513	644	618	435	233
23	103	45	21	62	62	219	458	530	662	644	430	245
24	79	42	31	61	62	233	467	555	668	624	426	257
25	76	28	35	61	48	239	472	576	653	591	431	262
26	132	21	25	61	41	230	486	582	639	599	408	261
27	154	21	21	62	52	228	506	579	633	625	397	268
28	156	21	22	61	62	226	508	561	628	595	392	261
29	154	21	21	62	62	225	470	514	639	592	391	241
30	144	22	28	62	---	233	465	499	618	604	414	226
31	138	---	31	62	---	242	---	513	---	568	452	---
TOTAL	5697	1341.6	796.7	1639	1645	4130	12384	15627	17617	18583	14762	10476
MEAN	184	44.7	25.7	52.9	56.7	133	413	504	587	599	476	349
MAX	295	121	41	62	72	242	519	582	668	652	559	474
MIN	76	0.00	7.7	21	36	51	229	430	501	540	391	226
AC-FT	11300	2660	1580	3250	3260	8190	24560	31000	34940	36860	29280	20780

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2004, BY WATER YEAR (WY)

MEAN	189	53.3	45.0	47.8	49.8	86.9	270	444	583	599	516	373
MAX	219	79.0	55.5	62.0	57.6	182	450	573	666	640	575	410
(WY)	1996	1996	1999	2003	2003	1997	1997	1999	2000	1999	1995	1995
MIN	134	42.0	25.7	34.5	42.2	37.8	163	281	518	532	475	325
(WY)	2001	2002	2004	1995	1999	1996	2003	1995	1995	2001	2003	2000

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1995 - 2004	
ANNUAL TOTAL	89855.37		104698.3			
ANNUAL MEAN	246		286		272	
HIGHEST ANNUAL MEAN					299	1997
LOWEST ANNUAL MEAN					246	1995
HIGHEST DAILY MEAN	645	Jul 23	668	Jun 24	784	Jun 21 2000
LOWEST DAILY MEAN	0.00	Nov 11	0.00	Nov 11	0.00	Nov 23 1994
ANNUAL SEVEN-DAY MINIMUM	21	Dec 14	21	Dec 14	12	Nov 24 2000
ANNUAL RUNOFF (AC-FT)	178200		207700		197400	
10 PERCENT EXCEEDS	576		592		595	
50 PERCENT EXCEEDS	142		242		210	
90 PERCENT EXCEEDS	28		28		40	

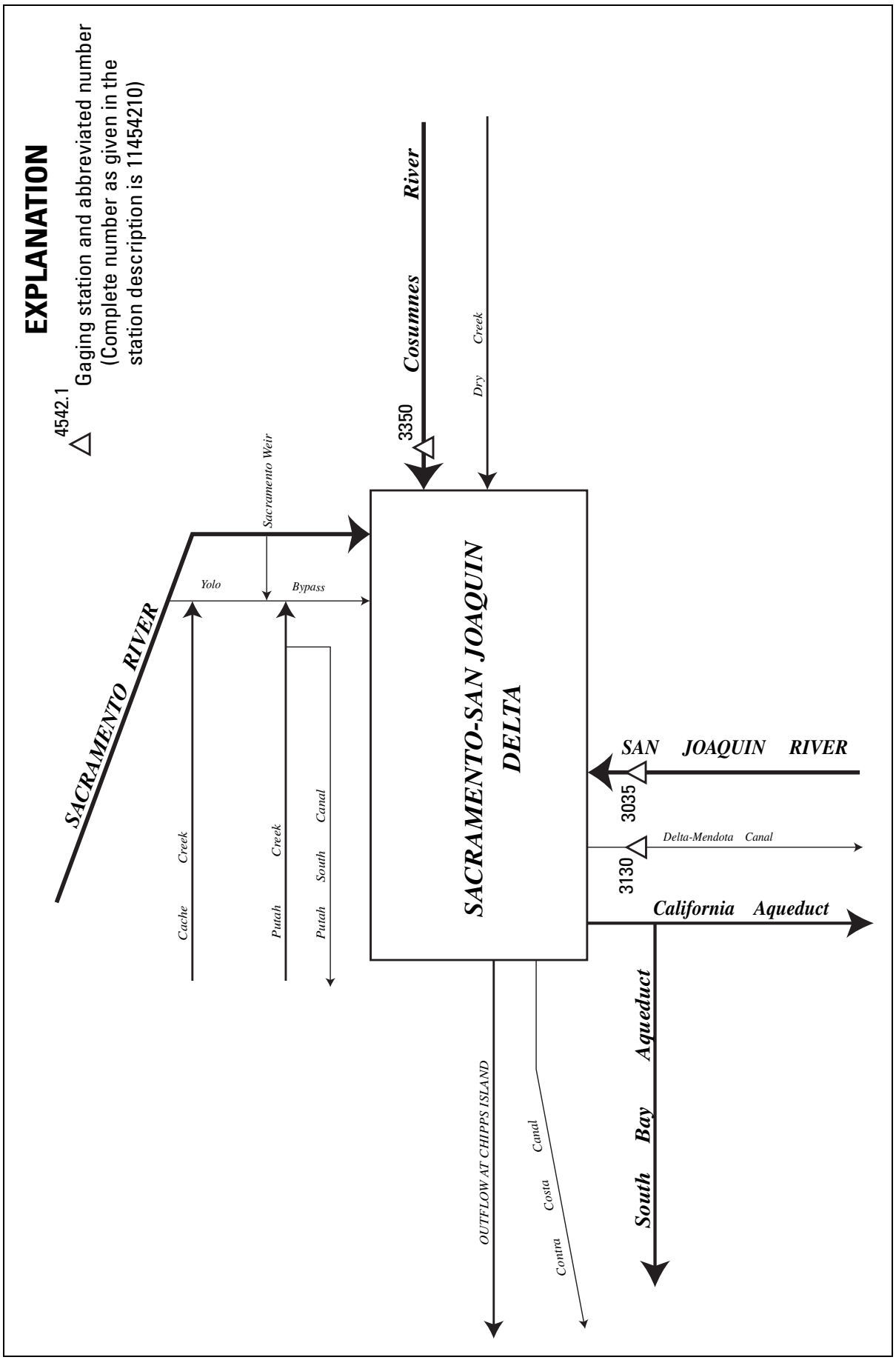


Figure 36. Principal inflows and diversions, Sacramento–San Joaquin Delta.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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.

In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites. Discharge measurements made at miscellaneous sites are given in separate tables.

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 2004

Station no.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		SACRAMENTO RIVER BASIN				
11341900	Dog Creek at Delta, CA	Lat 40°56'17", long 122°25'13", in SE 1/4 NE 1/4 sec.34, T.36 N., R.5 W., Shasta County, Hydrologic Unit 18020005, 0.1 mi upstream from mouth, 0.5 mi southwest of Delta, and 25 mi north of Redding.	17.3	a1975, 1976–84, 1986–2004	02-21-04	275
					02-26-04	813
					03-08-04	212
					04-02-04	45.3
					06-14-04	13.3
					08-06-04	b5.02

Station No.	Station name	Location	Drainage area (mi^2)	Measured previously (water year)	Measurements		
					Date	Gage Height	Discharge (ft^3/s)
		SACRAMENTO RIVER BASIN					
38360112146 1601	Dry Slough near Davis, CA	Lat 38°36'01", long 121°46'16", in SE 1/4 NE 1/4 sec.29, T.9 N., R.2 E., Yolo County, Hydrologic Unit 18020109, 0.3 mi upstream of confluence of Willow and Dry Sloughs, and 3.4 mi north of Davis	—	2002–04	10-01-03	—	.74
					10-10-03	—	1.6
					10-15-03	—	2.5
					10-24-03	—	4.0
					10-29-03	—	3.4
					11-05-03	—	26
					05-05-04	—	6.9
					05-14-04	—	2.4
					05-19-04	—	.17
					05-26-04	—	5.0
					06-02-04	—	28
					06-09-04	—	19
					06-16-04	—	11
					06-23-04	—	3.9
					06-29-04	—	6.7
					07-07-04	—	8.0
					07-13-04	—	20
					07-21-04	—	18
					07-28-04	—	6.9
					08-10-04	—	22
					08-14-04	—	19
					08-19-03	—	20
					08-25-04	—	19
					09-01-04	—	35
					09-09-04	—	5.8
					09-13-04	—	16
					09-23-04	—	14
					09-29-04	—	3.8

a Operated as a continuous-record station.
b Base flow.

Station No.	Station name	Location	Drainage area (mi^2)	Measured previously (water year)	Measurements		
					Date	Gage Height	Discharge (ft^3/s)
383749121433701	Willow Slough near Woodland, CA	Lat 38°37'49", long 121°43'37", in NW 1/4 NW 1/4 sec.14, T.9 N., R.2 E., Yolo County, Hydrologic Unit 18020109, 1,000 ft downstream of County Road 102, and 3.8 miles southeast of Woodland.	—	1999–2004	10-01-03	4.92	12
					10-10-04	5.16	11
					10-15-03	5.30	13
					10-24-03	5.46	3.7
					10-29-03	4.78	5.9
					11-05-03	5.36	26
					01-14-04	—	1.1
					02-20-04	4.38	7.5
					02-27-04	—	43
					03-31-04	4.11	.47
					04-07-04	—	51
					04-14-04	—	25
					04-21-04	6.36	18
					04-28-04	—	14
					05-05-04	5.48	13
					05-14-04	—	27
					05-19-04	—	28
					06-09-04	—	15
					06-16-04	—	9.4
					06-26-04	5.65	4.1
					06-29-04	4.50	8.8
					07-07-04	—	14
					07-13-04	6.20	28
					07-21-04	5.40	25
					07-28-04	—	26
					08-04-04	—	17
					08-10-04	—	16
					08-19-04	5.39	18
					08-25-04	6.70	39
					09-01-04	6.22	31
					09-09-04	6.07	33
					09-13-04	5.78	23
					09-23-04	5.04	20
					09-29-04	5.50	23

Station No.	Station name	Location	Drainage area (mi^2)	Measured previously (water year)	Measurements		
					Date	Gage Height	Discharge (ft^3/s)
38352512143 4601	Willow Slough Bypass near Davis, CA	Lat 38°35'25", long 121°43'46", in SE 1/4 SE 1/4 sec.27, T.9 N., R.2 E., Yolo County, Hydrologic Unit 18020109, at County Road 102, and 3.5 mi northeast of Davis.	—	1999–2004	10-01-03	4.16	6.3
					10-10-03	3.90	2.0
					10-15-03	3.47	2.6
					10-22-03	3.95	1.3
					10-29-03	3.94	4.1
					11-05-03	4.15	4.3
					11-12-03	3.65	.16
					11-19-03	—	.27
					11-28-03	—	.40
					12-03-03	—	.47
					01-07-04	4.25	14
					01-14 04	4.07	10
					02-11-04	3.99	7.0
					02-20-04	4.98	40
					02-27-04	9.06	583
					03-26-04	4.17	9.3
					03-31-04	4.57	10
					04-07-04	4.17	11
					04-14-04	3.63	9.0
					04-21-04	3.93	2.3
					04-28-04	3.46	6.6
					05-05-04	3.73	6.5
					05-14-04	3.91	5.8
					05-19-04	—	3.2
					05-26-04	4.21	3.7
					06-02-04	4.35	33
					06-09-04	4.45	41
					06-16-04	4.20	23
					06-23-04	3.98	9.3
					06-29-04	3.86	4.2
					07-07-04	3.93	7.1
					07-13-04	3.78	6.3
					07-21-04	4.40	37
					07-28-04	—	10
					08-04-04	4.13	14
					08-10-04	4.38	18
					08-19-04	4.98	8.6
					08-25-04	4.20	21
					09-01-04	5.98	64
					09-09-04	6.85	16
					09-13-04	5.92	17
					09-23-04	5.26	18
					09-29-04	5.08	10

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.

MIDDLE ALKALI LAKE BASIN

413220120102101 CEDAR CREEK NEAR CEDARVILLE, CA

LOCATION.—Lat 41°32'20", long 120°10'21", in SE 1/4 NW 1/4 sec.5, T.42 N., R.16 E., Modoc County, Hydrologic Unit 18080001, 50 ft west of County Road 1, and 0.63 mi north of Cedarville.

PERIOD OF RECORD.—May 2003 to current year.
CHEMICAL DATA.—May 2003 to current year.
SEDIMENT DATA.—May 2003 to current year..

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Turbidity, wat unf lab, Hach 2100AN NTU (99872)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)
DEC									
17...	1415	1.6	<2.0	--	--	--	8.3	244	3.0
MAR									
24...	1325	23	9.7	635	10.0	103	7.9	149	8.5
JUN									
30...	0740	2.4	2.4	638	9.2	101	8.2	204	11.5

Date	Chloride, water, fltrd, mg/L (00940)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Fecal coliform, M-FC 0.7u MF col/ 100 mL (31625)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)
DEC									
17...	8.13	162	.12	.063	--	.039	<1	14	.06
MAR									
24...	6.48	125	.19	.105	.034	.085	<1	80	5.0
JUN									
30...	5.15	148	.15	.003	--	.056	K28	7	.05

CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Depth at sample location, feet (81903)	Sampling depth, feet (00003)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Location in X-sect. looking dwnstrm ft from l bank (00009)
MAR										
24...*	1330	.40	.20	635	9.9	102	7.9	149	8.5	8.50
24...*	1331	1.14	.50	635	9.9	102	7.8	149	8.5	6.50
24...*	1332	1.26	.50	635	9.9	102	7.8	149	8.5	4.50
24...*	1333	1.30	.50	635	9.9	102	7.8	149	8.5	2.50
24...*	1334	.72	.50	635	9.9	102	7.8	149	8.5	.50

< Actual value is known to be less than the value shown.
K Results based on colony count outside the acceptance range (non-ideal colony count).
* Instantaneous discharge at the time of cross-sectional measurement: Mar. 24, 23 ft^3/s.

INDEX

Page

A

ACCESS TO USGS WATER DATA 14
Accuracy of Field Data and Computed Results 8
Accuracy of the Records 10
Almanor–Butt Creek Tunnel at Outlet 166
Alpine County, location of discharge and water-quality stations in 16
Alta Powerplant 246
Amador County, location of discharge stations in 17
AMERICAN RIVER AT FAIR OAKS 389
AMERICAN RIVER AT WILLIAM B. POND PARK, AT CARMICHAEL 393
American River Basin, Middle Fork, diversions and storage in 323
American River Basin, South Fork, diversions and storage in 355
AMERICAN RIVER BELOW FOLSOM DAM, NEAR FOLSOM 387
AMERICAN RIVER BELOW WATT AVENUE BRIDGE, NEAR CARMICHAEL 395
ANDERSON–COTTONWOOD IRRIGATION DISTRICT CANAL AT SHARON STREET, AT REDDING 84
Arbuckle Mountain Powerplant 95
ARCADE CREEK NEAR DEL PASO HEIGHTS 398
Arrangement of Records 10

B

BAILEY CREEK BELOW DIVERSION TO PONDEROSA–BAILEY CREEK POWERPLANT, NEAR MANTON 102
BANGOR CANAL BELOW MINERS RANCH RESERVOIR, NEAR OROVILLE 160
Battle Creek and Cow Creek Basins, diversions and storage in 90
BATTLE CREEK BELOW COLEMAN FISH HATCHERY, NEAR COTTONWOOD 109
BEAR CREEK ABOVE HOLSTEN CHIMNEY CANYON, NEAR RUMSEY 435
Bear River Basin, diversions and storage in 244
BEAR RIVER BELOW DRUM AFTERBAY, NEAR BLUE CANYON 302
BEAR RIVER BELOW DUTCH FLAT AFTERBAY, NEAR DUTCH FLAT 303
BEAR RIVER BELOW ROLLINS DAM, NEAR COLFAX 308
BEAR RIVER CANAL INTAKE NEAR COLFAX 306
BEAR RIVER FISH RELEASE BELOW CAMP FAR WEST RESERVOIR, NEAR WHEATLAND 310
BEAR RIVER NEAR EMIGRANT GAP 301
BEAR RIVER NEAR WHEATLAND 311
Belden Powerplant 169
BIDWELL CREEK BELOW MILL CREEK, NEAR FORT BIDWELL . 42
Blank Samples 13
BLUE LAKE NEAR EMIGRANT GAP 251
BOWMAN LAKE NEAR GRANITEVILLE 267
Bowman–Spaulding Canal 269
BOWMAN–SPAULDING CANAL AT JORDAN CREEK SIPHON VENTURI, NEAR EMIGRANT GAP 268
Brophy South Canal 290
Browns Valley Irrigation Ditch 290
BRUSH CREEK BELOW BRUSH CREEK DAM, NEAR POLLOCK PINES 377
BRUSH CREEK RESERVOIR NEAR POLLOCK PINES 376
BUCK–LOON TUNNEL NEAR MEEKS BAY 334
BUCKS CREEK BELOW DIVERSION DAM, NEAR BUCKS LODGE 179
Bucks Creek Powerplant 182
BUCKS LAKE NEAR BUCKS LODGE 177
BURNEY CREEK AT BURNEY FALLS, NEAR BURNEY 59
BUTT CREEK BELOW ALMANOR–BUTT CREEK TUNNEL, NEAR PRATTVILLE 166
Butt Valley Powerplant 164
BUTT VALLEY RESERVOIR NEAR CARIBOU 168

Page

Butte County, location of discharge and water-quality stations 18
BUTTE CREEK BELOW CENTERVILLE DIVERSION DAM, NEAR PARADISE 131
BUTTE CREEK BELOW DIVERSION DAM, NEAR STIRLING CITY 129
BUTTE CREEK BELOW FORKS OF BUTTE DIVERSION DAM, NEAR DE SABLA 130
BUTTE CREEK NEAR CHICO 133

C

CACHE CREEK AT YOLO 437
CACHE CREEK NEAR LOWER LAKE 422
Camino Powerplant 374
CAMINO RESERVOIR NEAR POLLOCK PINES 373
CAMPTONVILLE TUNNEL AT INTAKE, NEAR CAMPTONVILLE 214
CANYON CREEK BELOW BOWMAN LAKE 269
CANYON CREEK BELOW FAUCHERIE LAKE, NEAR CISCO 262
CANYON CREEK BELOW FRENCH LAKE, NEAR CISCO 260
CANYON CREEK BELOW SAWMILL LAKE, NEAR GRANITEVILLE 264
CANYON CREEK BELOW TOWLE DIVERSION DAM, NEAR BLUE CANYON 320
CANYON CREEK NEAR BLUE CANYON 319
CAPLES CREEK RELEASE BELOW CAPLES DAM, NEAR KIRKWOOD 362
CAPLES LAKE NEAR KIRKWOOD 361
Caribou Powerplants 168
CARR LAKE NEAR GRANITEVILLE 257
CEDAR CREEK NEAR CEDARVILLE 450
Centerville Powerplant 131
Chicago Park Flume 303
Classification of Records 10
CLEAR CREEK NEAR IGO 88
CLEAR LAKE AT LAKEPORT 421
COLEMAN POWERPLANT NEAR COTTONWOOD 100
Collection and Examination of Data 9
COLLETT RESERVOIR NEAR LITTLE VALLEY 50
Colusa County, location of discharge and water-quality stations 19
COOPERATION 2
COTTONWOOD CREEK NEAR COTTONWOOD 96
Cow Creek and Battle Creek Basins, diversions and storge in 90
COW CREEK NEAR MILLVILLE 93
Cresta Powerplant 184
CULBERTSON LAKE NEAR GRANITEVILLE 275

D

Data Collection and Computation
  Precipitation Records 9
  Stage- and Water-Discharge Records 4
Data Precision 38
Data Presentation
  Precipitation Records 9
  Stage- and Water-Discharge Records 5
  Surface-Water-Quality Records 12
Data Table of Daily Mean Values 6
DAVIS CREEK AT DAM, NEAR KNOXVILLE 432
De Sabla Powerplant 132
DEADWOOD CREEK NEAR STRAWBERRY VALLEY 229
Deadwood Creek Powerplant 229
DEER CREEK NEAR SMARTVILLE 297
DEER CREEK NEAR VINA 119
Deer Creek Powerplant 248
Discharge at partial-record stations and miscellaneous sites 447
Discharge measurements made at special study and miscellaneous sites .447
DISCONTINUED CONTINUOUS WATER-QUALITY STATIONS xx
DISCONTINUED LAKES AND RESERVOIRS xx
Dissolved Trace-Element Concentrations 38

Page

Diversions and storage
American River Basin, Middle Fork ... 323
American River Basin, South Fork ... 355
Battle Creek and Cow Creek Basins ... 90
Bear River Basin ... 244
Cow Creek and Battle Creek Basins ... 90
Feather River at Lake Oroville ... 191
Feather River Basin, North Fork ... 162
Feather River Basin, South Fork ... 146
Lower Sacramento River Basin ... 124
Middle and North Yuba River Basins ... 205
Middle Fork American and Rubicon River Basins ... 323
North and Middle Yuba River Basins ... 205
North Fork Feather River Basin ... 162
Pit and McCloud River Basins ... 43
Rubicon River Basin ... 323
Sacramento River Basin, lower ... 124
Sacramento River Basin, upper ... 81
South Fork American River Basin ... 355
South Fork Feather River Basin ... 146
South Yuba River Basin ... 238
Upper Sacramento River Basin ... 81
Yuba River Basin, south ... 238
Yuba River Basins, north and middle ... 205
Dog Creek at Delta ... 447
DOWNSTREAM ORDER AND STATION NUMBER ... 2
DRUM CANAL AT TUNNEL OUTLET, NEAR EMIGRANT GAP ... 246
Drum No. 1 and 2 Powerplants ... 246
DRY CREEK AT VERNON STREET BRIDGE, AT ROSEVILLE ... 397
Dry Slough near Davis ... 447
DUNCAN CANYON CREEK BELOW DIVERSION DAM, NEAR FRENCH MEADOWS ... 329
DUNCAN CANYON CREEK NEAR FRENCH MEADOWS ... 327
Dutch Flat No. 1 Powerplant ... 302
Dutch Flat No. 2 Flume ... 302

E

EAST FORK NELSON CREEK BELOW DIVERSION TO NELSON CREEK, NEAR BIG BEND ... 65
EAST PARK RESERVOIR NEAR STONYFORD ... 125
Edward Hyatt Powerplant ... 192
EL DORADO CANAL AND SOUTH FORK AMERICAN RIVER NEAR KYBURZ (combined) ... 366
ELDER CREEK NEAR PASKENTA ... 113
EXPLANATION OF PRECIPITATION RECORDS ... 9
EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS ... 4
EXPLANATION OF WATER-QUALITY RECORDS ... 9

F

FAUCHERIE LAKE NEAR CISCO ... 261
Feather River at Lake Oroville, diversions and storage from ... 191
FEATHER RIVER AT OROVILLE ... 202
Feather River Basin, North Fork, diversions and storage in ... 162
Feather River Basin, South Fork, diversions and storage in ... 146
Feather River Fish Hatchery ... 202
FEELEY LAKE NEAR GRANITEVILLE ... 255
FOLSOM LAKE NEAR FOLSOM ... 386
Forbestown Powerplant ... 157
FORDYCE CREEK BELOW FORDYCE DAM, NEAR CISCO ... 243
FORDYCE LAKE NEAR CISCO ... 242
Forks of Butte Powerplant ... 130
FRENCH LAKE NEAR CISCO ... 259
French Meadows Powerplant ... 325
FRENCH MEADOWS RESERVOIR NEAR FORESTHILL ... 324

Page

G

GAGING STATIONS, DISCONTINUED ... xv
GERLE CREEK BELOW LOON LAKE DAM, NEAR MEEKS BAY ... 340
GERLE RESERVOIR NEAR MEEKS BAY ... 342
Glenn County, location of discharge stations in ... 21
GRIZZLY CREEK BELOW DIVERSION DAM, NEAR STORRIE ... 182
GRIZZLY FOREBAY NEAR STORRIE ... 181
Grizzly Powerplant ... 179

H

Hallwood–Cordua Irrigation Ditch ... 290
HARLEY GULCH NEAR WILBUR SPRINGS ... 430
HARRY L. ENGLEBRIGHT LAKE NEAR SMARTVILLE ... 289
HAT CREEK BELOW HAT NO. 1 DIVERSION DAM, NEAR BURNEY ... 56
HAT CREEK NO. 1 POWERPLANT NEAR BURNEY ... 57
Hat Creek No. 2 Powerplant ... 57
HAT NO. 2 POWER CANAL DIVERSION TO HAT CREEK, NEAR BURNEY ... 58
HELL HOLE RESERVOIR NEAR MEEKS BAY ... 336
Hydrologic Benchmark Network ... 3

I

ICE HOUSE RESERVOIR NEAR KYBURZ ... 368
Identifying Estimated Daily Discharge ... 8
INDIAN VALLEY RESERVOIR NEAR CLEARLAKE OAKS ... 426
INSKIP POWERPLANT NEAR MANTON ... 100
INTRODUCTION ... 1
IRON CANYON CREEK BELOW IRON CANYON DAM, NEAR BIG BEND ... 69
IRON CANYON RESERVOIR NEAR BIG BEND ... 60

J

JACKSON CREEK BELOW JACKSON LAKE, NEAR SIERRA CITY ... 266
JACKSON LAKE NEAR SIERRA CITY ... 265
JACKSON MEADOWS RESERVOIR NEAR SIERRA CITY ... 206
JAMES B. BLACK POWERPLANT NEAR BIG BEND ... 68
Jaybird Powerplant ... 372
Jones Fork Powerplant ... 369
JUDGE FRANCIS CARR POWERPLANT NEAR FRENCH GULCH ... 85
JUNCTION RESERVOIR NEAR POLLOCK PINES ... 371

K

KELLY LAKE NEAR CISCO ... 318
Kelly Ridge Powerplant ... 159
KELSEY CREEK NEAR KELSEYVILLE ... 419
KIDD LAKE NEAR SODA SPRINGS ... 235
KILARC CANAL DIVERSION TO OLD COW CREEK, NEAR WHITMORE ... 92

L

Laboratory Measurements ... 11
LAKE ALMANOR AT PRATTVILLE ... 163
LAKE ALOHA NEAR PHILLIPS ... 356
LAKE BERRYESSA NEAR WINTERS ... 442
LAKE BRITTON NEAR BURNEY ... 60
Lake County, location of discharge and water-quality stations ... 22
LAKE CREEK BELOW CARR LAKE, NEAR GRANITEVILLE ... 258
LAKE CREEK BELOW FEELEY LAKE, NEAR GRANITEVILLE ... 256
LAKE McCLOUD NEAR McCLOUD ... 60
LAKE OROVILLE NEAR OROVILLE ... 192
LAKE SPAULDING NEAR EMIGRANT GAP ... 245

Page

LAKE STERLING NEAR CISCO 241
Lake Valley Canal 317
LAKE VALLEY RESERVOIR NEAR CISCO 317
Lakes and reservoirs
BLUE LAKE NEAR EMIGRANT GAP 251
BOWMAN LAKE NEAR GRANITEVILLE 267
BRUSH CREEK RESERVOIR NEAR POLLOCK PINES 376
BUCKS LAKE NEAR BUCKS LODGE 177
BUTT VALLEY RESERVOIR NEAR CARIBOU 168
CAMINO RESERVOIR NEAR POLLOCK PINES 373
CAPLES LAKE NEAR KIRKWOOD 361
CARR LAKE NEAR GRANITEVILLE 257
CLEAR LAKE AT LAKEPORT 421
COLLETT RESERVOIR NEAR LITTLE VALLEY 50
CULBERTSON LAKE NEAR GRANITEVILLE 275
EAST PARK RESERVOIR NEAR STONYFORD 125
FAUCHERIE LAKE NEAR CISCO 261
FEELEY LAKE NEAR GRANITEVILLE 255
FOLSOM LAKE NEAR FOLSOM 386
FORDYCE LAKE NEAR CISCO 242
FRENCH LAKE NEAR CISCO 259
FRENCH MEADOWS RESERVOIR NEAR FORESTHILL 324
GERLE RESERVOIR NEAR MEEKS BAY 342
GRIZZLY FOREBAY NEAR STORRIE 181
Harry L. Englebright Lake 289
HELL HOLE RESERVOIR NEAR MEEKS BAY 336
ICE HOUSE RESERVOIR NEAR KYBURZ 368
INDIAN VALLEY RESERVOIR NEAR CLEARLAKE OAKS 426
JACKSON LAKE NEAR SIERRA CITY 265
JACKSON MEADOWS RESERVOIR NEAR SIERRA CITY 206
JUNCTION RESERVOIR NEAR POLLOCK PINES 371
KELLY LAKE NEAR CISCO 318
KIDD LAKE NEAR SODA SPRINGS 235
LAKE ALMANOR AT PRATTVILLE 163
LAKE ALOHA NEAR PHILLIPS 356
LAKE BERRYESSA NEAR WINTERS 442
LAKE OROVILLE NEAR OROVILLE 192
LAKE SPAULDING NEAR EMIGRANT GAP 245
LAKE STERLING NEAR CISCO 241
LAKE VALLEY RESERVOIR NEAR CISCO 317
LITTLE GRASS VALLEY RESERVOIR NEAR LA PORTE 147
LOON LAKE NEAR MEEKS BAY 339
LOWER BUCKS LAKE NEAR BUCKS LODGE 178
LOWER CASCADE LAKE NEAR SODA SPRINGS 237
LOWER LINDSEY LAKE NEAR GRANITEVILLE 279
LOWER ROCK LAKE NEAR GRANITEVILLE 273
MEADOW LAKE NEAR CISCO 240
MIDDLE LINDSEY LAKE NEAR GRANITEVILLE 277
NEW BULLARDS BAR RESERVOIR NEAR NORTH SAN JUAN 232
ROCK LAKE NEAR GRANITEVILLE 271
ROLLINS RESERVOIR NEAR COLFAX 305
RUCKER LAKE NEAR EMIGRANT GAP 253
SAWMILL LAKE NEAR GRANITEVILLE 263
SHASTA LAKE NEAR REDDING 80
SILVER LAKE NEAR KIRKWOOD 358
SLAB CREEK RESERVOIR NEAR CAMINO 378
SLY CREEK RESERVOIR NEAR STRAWBERRY VALLEY 153
STONY GORGE RESERVOIR NEAR ELK CREEK 126
THERMALITO AFTERBAY NEAR OROVILLE 195
UNION VALLEY RESERVOIR NEAR RIVERTON 367
UPPER CASCADE LAKE NEAR SODA SPRINGS 236
WHISKEYTOWN LAKE NEAR IGO 87
WHITE ROCK LAKE NEAR SODA SPRINGS 239
Lassen County, location of discharge and water-quality stations 23

Page

LINDSEY CREEK BELOW LOWER LINDSEY LAKE, NEAR GRANITEVILLE 280
LINDSEY CREEK BELOW MIDDLE LINDSEY LAKE 278
LITTLE GRASS VALLEY RESERVOIR NEAR LA PORTE 147
LITTLE RUBICON RIVER BELOW BUCK ISLAND DAM, NEAR MEEKS BAY 335
LOHMAN RIDGE TUNNEL AT INTAKE, NEAR CAMPTONVILLE 212
LOON LAKE NEAR MEEKS BAY 339
Loon Lake Powerplant 340
LOST CREEK BELOW DIVERSION TO LOST CREEK POWERPLANT NO. 1, NEAR OLD STATION 55
LOST CREEK NEAR CLIPPER MILLS 155
Lost Creek Powerplant No. 1 55
LOWER BUCKS LAKE NEAR BUCKS LODGE 178
LOWER CASCADE LAKE NEAR SODA SPRINGS 237
LOWER LINDSEY LAKE NEAR GRANITEVILLE 279
LOWER ROCK LAKE NEAR GRANITEVILLE 273
Lower Sacramento River Basin, diversions and storage in 124

M

McCLOUD RIVER ABOVE SHASTA LAKE 78
McCloud River and Pit Basins, diversions and storage in 43
McCLOUD RIVER AT AH-DI-NA, NEAR McCLOUD 76
McCLOUD RIVER BELOW McCLOUD DAM, NEAR McCLOUD 75
McCLOUD RIVER NEAR McCLOUD 72
McCLOUD–IRON CANYON DIVERSION TUNNEL NEAR McCLOUD 74
McCumber Dam 99
MEADOW LAKE NEAR CISCO 240
Middle and North Yuba River Basins, diversions and storage in 205
Middle Fork American and Rubicon River Basins, diversions and storage in 323
MIDDLE FORK AMERICAN RIVER ABOVE MIDDLE FORK POWERPLANT, NEAR FORESTHILL 330
MIDDLE FORK AMERICAN RIVER AT FRENCH MEADOWS 325
MIDDLE FORK AMERICAN RIVER BELOW INTERBAY DAM, NEAR FORESTHILL 331
MIDDLE FORK AMERICAN RIVER NEAR FORESTHILL 351
MIDDLE FORK COTTONWOOD CREEK BELOW DIVERSION TO ARBUCKLE MOUNTAIN POWERPLANT, NEAR PLATINA 95
Middle Fork Powerplant 337
MIDDLE LINDSEY LAKE NEAR GRANITEVILLE 277
MIDDLE YUBA RIVER BELOW MILTON DAM, NEAR SIERRA CITY 210
MIDDLE YUBA RIVER BELOW OUR HOUSE DAM, NEAR CAMPTONVILLE 213
MIDDLE YUBA RIVER CONTROLLED RELEASE AT JACKSON MEADOWS DAM, NEAR SIERRA CITY 207
MIDDLE YUBA RIVER NEAR NORTH SAN JUAN 217
MILK RANCH CONDUIT AT OUTLET, NEAR BUCKS LODGE 176
MILL CREEK AT UPPER LAKE, NEAR LAKE CITY 41
MILL CREEK NEAR LOS MOLINOS 115
MILTON–BOWMAN TUNNEL OUTLET NEAR GRANITEVILLE 208
MINERS RANCH CANAL BELOW PONDEROSA DAM, NEAR FORBESTOWN 159
Miscellaneous and special study sites 447
Miscellaneous Sites 447
Miscellaneous sites and partial-record stations, discharge at 447
Modoc County, location of discharge and water-quality stations 24
MORMON RAVINE NEAR NEWCASTLE 313
Muck Valley Powerplant 50

Page

N

Napa County, location of discharge and water-quality stations 25
National Atmospheric Deposition Program/National Trends Network 3
National Streamflow Information Program 4
National Stream-Quality Accounting Network 3
National Water-Quality Assessment (NAWQA) Program 4
NELSON CREEK BELOW DIVERSION
TO NELSON CREEK POWERPLANT, NEAR BIG BEND 64
Nelson Creek Powerplant 64
Nevada County, location of discharge and water-quality stations 26
NEW BULLARDS BAR RESERVOIR NEAR NORTH SAN JUAN 232
NEW COLGATE POWERPLANT NEAR FRENCH CORRAL 231
Newcastle Powerplant 313
North and Middle Yuba River Basins, diversions and storage in 205
NORTH FORK AMERICAN RIVER AT AUBURN DAM SITE,
NEAR AUBURN 353
NORTH FORK AMERICAN RIVER AT NORTH FORK DAM 321
NORTH FORK BATTLE CREEK BELOW DIVERSION
TO CROSS COUNTRY CANAL, NEAR MANTON 103
NORTH FORK BATTLE CREEK BELOW DIVERSION
TO EAGLE CANYON CANAL, NEAR MANTON 104
NORTH FORK BATTLE CREEK BELOW DIVERSION
TO KESWICK CANAL, NEAR MANTON 101
NORTH FORK BATTLE CREEK BELOW DIVERSION
TO WILDCAT CANAL, NEAR MANTON 105
NORTH FORK BATTLE CREEK BELOW McCUMBER DAM,
NEAR MANZANITA LAKE 99
NORTH FORK BATTLE CREEK BELOW NORTH BATTLE CREEK
DAM, NEAR MANZANITA LAKE 98
North Fork Battle Creek Reservoir 98
NORTH FORK CACHE CREEK AT HOUGH SPRINGS,
NEAR CLEARLAKE OAKS 424
NORTH FORK CACHE CREEK NEAR CLEARLAKE OAKS 428
NORTH FORK FEATHER RIVER AT PULGA 187
North Fork Feather River Basin, diversions and storage in 162
NORTH FORK FEATHER RIVER BELOW BELDEN DAM 169
NORTH FORK FEATHER RIVER BELOW GRIZZLY CREEK 184
NORTH FORK FEATHER RIVER BELOW POE DAM 186
NORTH FORK FEATHER RIVER
BELOW ROCK CREEK DIVERSION DAM 174
NORTH FORK FEATHER RIVER NEAR PRATTVILLE 164
NORTH FORK LONG CANYON CREEK BELOW DIVERSION DAM,
NEAR VOLCANOVILLE 350
NORTH FORK LONG CANYON CREEK DIVERSION TUNNEL
NEAR VOLCANOVILLE 349
NORTH YUBA RIVER BELOW GOODYEARS BAR 225
NORTH YUBA RIVER BELOW NEW BULLARDS BAR DAM,
NEAR NORTH SAN JUAN 233
NUMBERING SYSTEM FOR MISCELLANEOUS SITES AND WELLS 2
NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES 2

O

On-Site Measurements and Sample Collection 11
OREGON CREEK BELOW LOG CABIN DAM,
NEAR CAMPTONVILLE 215
OROVILLE–WYANDOTTE CANAL NEAR CLIPPER MILLS 154
Other Data Records Available 8
OWL GULCH NEAR STRAWBERRY VALLEY 230
Oxbow Powerplant 351

P

PACIFIC GAS & ELECTRIC CO. LATERAL AT INTAKE,
NEAR OROVILLE 199
PALERMO CANAL NEAR OROVILLE 194
Partial-record stations and miscellaneous sites, discharge at 447
Peak Discharge Greater than Base Discharge 6

Page

PHILBROOK CREEK BELOW PHILBROOK DAM,
NEAR BUTTE MEADOWS 189
PILOT CREEK ABOVE STUMPY MEADOWS LAKE 345
PILOT CREEK BELOW MUTTON CANYON,
NEAR GEORGETOWN 346
Pit and McCloud River Basins, diversions and storage in 43
PIT NO. 1 POWERPLANT NEAR FALL RIVER MILLS 52
Pit No. 3 Powerplant 62
Pit No. 4 Powerplant 62
Pit No. 5 Powerplant 68
Pit No. 6 Powerplant 70
Pit No. 6 Reservoir 70
Pit No. 7 Reservoir 70
PIT RIVER AT BIG BEND 66
PIT RIVER BELOW DIVERSION
TO MUCK VALLEY POWERPLANT, NEAR BIEBER 51
PIT RIVER BELOW PIT NO. 1 POWERPLANT,
NEAR FALL RIVER MILLS 53
PIT RIVER BELOW PIT NO. 4 DAM 62
PIT RIVER NEAR CANBY 48
PIT RIVER NEAR MONTGOMERY CREEK 70
Pit River Tunnel Flow 50
Placer County, location of discharge and water-quality stations 27
Plumas County, location of discharge stations 28
Poe Powerplant 187
PONDEROSA–BAILEY CREEK POWERPLANT 102
POWERPLANTS IN BATTLE CREEK AND COW CREEK BASINS 100
Principal inflows and diversions, Sacramento–San Joaquin Delta 446
PUTAH CREEK NEAR GUENOC 440
PUTAH CREEK NEAR WINTERS 443
PUTAH SOUTH CANAL NEAR WINTERS 445
PYRAMID CREEK AT TWIN BRIDGES 357

R

Ralston Powerplant 331
Reference Samples 14
Remarks Codes 12, 38
Replicate Samples 14
RESERVOIRS IN PIT AND McCLOUD RIVER BASINS 60
RICHVALE CANAL AT INTAKE, NEAR OROVILLE 198
Robbs Peak Powerplant 343
ROCK CREEK NEAR PLACERVILLE 381
Rock Creek Powerplant 174, 381
ROCK LAKE NEAR GRANITEVILLE 271
Rollins Powerplant 305
ROLLINS RESERVOIR NEAR COLFAX 305
Rubicon River Basin, diversions and storage in 323
RUBICON RIVER BELOW HELL HOLE DAM, NEAR MEEKS BAY 337
RUBICON RIVER BELOW RUBICON DAM, NEAR MEEKS BAY 333
RUBICON–ROCKBOUND TUNNEL NEAR MEEKS BAY 332
RUCKER CREEK BELOW BLUE LAKE, NEAR EMIGRANT GAP 252
RUCKER CREEK BELOW RUCKER LAKE,
NEAR EMIGRANT GAP 254
RUCKER LAKE NEAR EMIGRANT GAP 253

S

Sacramento County, location of discharge and water-quality stations 29
SACRAMENTO RIVER ABOVE BEND BRIDGE,
NEAR RED BLUFF 111
SACRAMENTO RIVER AT COLUSA 127
SACRAMENTO RIVER AT DELTA 44
SACRAMENTO RIVER AT FREEPORT 407
SACRAMENTO RIVER AT KESWICK 82
SACRAMENTO RIVER AT SACRAMENTO 405
SACRAMENTO RIVER AT VERONA 314
Sacramento River Basin, lower, diversions and storage in 124
Sacramento River Basin, upper, diversions and storage in 81

Page

SACRAMENTO RIVER BELOW WILKINS SLOUGH, NEAR GRIMES 138
SACRAMENTO SLOUGH NEAR KNIGHTS LANDING 141
SACRAMENTO WEIR SPILL TO YOLO BYPASS, NEAR SACRAMENTO 316
Sacramento–San Joaquin Delta, principal inflows and diversions 446
SAWMILL LAKE NEAR GRANITEVILLE 263
Sediment 11
Shasta County, location of discharge and water-quality stations 30
SHASTA LAKE NEAR REDDING 80
Sierra County, location of discharge stations 31
SILVER CREEK BELOW CAMINO DIVERSION DAM 374
SILVER CREEK BELOW JUNCTION DAM, NEAR POLLOCK PINES 372
Silver Lake Leakage 359
SILVER LAKE NEAR KIRKWOOD 358
SILVER LAKE OUTLET NEAR KIRKWOOD 359
Siskiyou County, loction of discharge and water-quality stations 32
SLAB CREEK RESERVOIR NEAR CAMINO 378
SLATE CREEK BELOW DIVERSION DAM, NEAR STRAWBERRY VALLEY 228
SLATE CREEK TUNNEL NEAR STRAWBERRY VALLEY 227
SLY CREEK RESERVOIR NEAR STRAWBERRY VALLEY 153
Solano County, location of discharge and water-quality stations in 33
SOUTH BRANCH WARD CREEK BELOW DIVERSION DAM, NEAR GENESEE 171
SOUTH COW CREEK CANAL DIVERSION TO SOUTH COW CREEK, NEAR WHITMORE 91
SOUTH FORK AMERICAN RIVER AND EL DORADO CANAL NEAR KYBURZ (combined) 366
South Fork American River Basin, diversions and storage in 355
SOUTH FORK AMERICAN RIVER NEAR CAMINO 379
SOUTH FORK AMERICAN RIVER NEAR KYBURZ 364
SOUTH FORK AMERICAN RIVER NEAR PILOT HILL 384
SOUTH FORK AMERICAN RIVER NEAR PLACERVILLE 383
SOUTH FORK BATTLE CREEK BELOW DIVERSION TO COLEMAN CANAL, NEAR MANTON 108
SOUTH FORK BATTLE CREEK BELOW DIVERSION TO INSKIP CANAL, NEAR MANTON 107
SOUTH FORK BATTLE CREEK BELOW DIVERSION TO SOUTH BATTLE CREEK CANAL, NEAR MANTON 106
South Fork Feather River Basin, diversions and storage in 146
SOUTH FORK FEATHER RIVER BELOW DIVERSION DAM, NEAR STRAWBERRY VALLEY 151
SOUTH FORK FEATHER RIVER BELOW FORBESTOWN DAM 157
SOUTH FORK FEATHER RIVER BELOW LITTLE GRASS VALLEY DAM 148
SOUTH FORK LONG CANYON CREEK BELOW DIVERSION DAM, NEAR VOLCANOVILLE 348
SOUTH FORK LONG CANYON CREEK DIVERSION TUNNEL NEAR VOLCANOVILLE 347
SOUTH FORK PIT RIVER NEAR LIKELY 46
SOUTH FORK RUBICON RIVER BELOW GERLE CREEK, NEAR GEORGETOWN 343
SOUTH FORK SILVER CREEK NEAR ICE HOUSE 369
SOUTH FORK TUNNEL NEAR STRAWBERRY VALLEY 150
SOUTH POWERPLANT NEAR MANTON 100
SOUTH YUBA CANAL NEAR EMIGRANT GAP 248
SOUTH YUBA RIVER AT JONES BAR, NEAR GRASS VALLEY 281
SOUTH YUBA RIVER AT LANGS CROSSING, NEAR EMIGRANT GAP 250
South Yuba River Basin, diversions and storage in 238
SOUTH YUBA RIVER CONTROLLED RELEASE AT LAKE SPAULDING, NEAR EMIGRANT GAP 249
SPANISH CREEK ABOVE BLACKHAWK CREEK, AT KEDDIE 172
Spaulding No. 3 Powerplant 268
Spaulding Powerplants Nos. 1 and 2 245
SPECIAL NETWORKS AND PROGRAMS 3

Page

Special study and miscellaneous sites 447
Spike Samples 14
SPRING CREEK POWERPLANT AT KESWICK 86
Station Manuscript 5
Statistics of Monthly Mean Data 6
STONY GORGE RESERVOIR NEAR ELK CREEK 126
SUCKER RUN AT KANAKA DIVERSION, NEAR FEATHER FALLS 161
SULPHUR CREEK AT WILBUR SPRINGS 433
Summary Statistics 7
SURFACE-WATER-QUALITY RECORDS 10
SUSAN RIVER ABOVE WILLARD CREEK, NEAR SUSANVILLE 39
SUSAN RIVER NEAR LITCHFIELD 40
Sutter County, location of discharge and water -quality stations 34
SUTTER–BUTTE CANAL AT INTAKE, NEAR OROVILLE 200

T

Tehama County, location of discharge and water-quality stations 35
TEXAS CREEK BELOW LOWER ROCK LAKE, NEAR GRANITEVILLE 274
TEXAS CREEK BELOW ROCK LAKE 272
TEXAS CREEK TRIBUTARY BELOW CULBERTSON LAKE, NEAR GRANITEVILLE 276
THERMALITO AFTERBAY NEAR OROVILLE 195
THERMALITO AFTERBAY RELEASE TO FEATHER RIVER, NEAR OROVILLE 201
Thermalito Powerplant 195
TOADTOWN CANAL ABOVE BUTTE CANAL, NEAR STIRLING CITY 132

U

Union Valley Powerplant 367
UNION VALLEY RESERVOIR NEAR RIVERTON 367
UPPER CASCADE LAKE NEAR SODA SPRINGS 236
Upper Sacramento River Basin, diversions and storage in 81

V

VOLTA NO. 1 POWERPLANT NEAR MANTON 100
VOLTA NO. 2 POWERPLANT NEAR MANTON 100

W

Water Analysis 9
Water Temperature 11
Water-Quality Control Data 13
WEST BRANCH FEATHER RIVER BELOW HENDRICKS DIVERSION DAM, NEAR STIRLING CITY 190
WESTERN CANAL AT INTAKE, NEAR OROVILLE 197
WHISKEYTOWN LAKE NEAR IGO 87
WHITE ROCK LAKE NEAR SODA SPRINGS 239
White Rock Powerplant 379
Willow Slough Bypass near Davis 449
Willow Slough near Woodland 448
Woodleaf Powerhouse 155

Y

YOLO BYPASS NEAR WOODLAND 439
Yolo County, location of discharge and water-quality stations 36
Yuba County, location of discharge stations 37
Yuba River Basin, South, diversions and storage in 238
Yuba River Basins, North and Middle, diversions and storage in 205
YUBA RIVER BELOW ENGLEBRIGHT DAM, NEAR SMARTVILLE 290
YUBA RIVER NEAR MARYSVILLE 299

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Conversion Factors

Multiply	By	To obtain
	Length	
inch (in.)	2.54×10^{1}	millimeter (mm)
	2.54×10^{-2}	meter
foot (ft)	3.048×10^{-1}	meter (m)
mile (mi)	1.609×10^{0}	kilometer (km)
	Area	
acre	4.047×10^{3}	square meter (m^2)
	4.047×10^{-1}	square hectometer (hm^2)
	4.047×10^{-3}	square kilometer (km^2)
square mile (mi^2)	2.590×10^{0}	square kilometer (km^2)
	Volume	
gallon (gal)	3.785×10^{0}	liter (L)
	3.785×10^{-3}	cubic meter (m^3)
	3.785×10^{0}	cubic decimeter (dm^3)
million gallons (Mgal)	3.785×10^{3}	cubic meter (m^3)
	3.785×10^{-3}	cubic hectometer (hm^3)
cubic foot (ft^3)	2.832×10^{-2}	cubic meter (m^3)
	2.832×10^{1}	cubic decimeter (dm^3)
cubic-foot-per-second-per-day [(ft^3/s/d]	2.447×10^{3}	cubic meter (m^3)
	2.447×10^{-3}	cubic hectometer (hm^3)
acre-foot (acre-ft)	1.223×10^{3}	cubic meter (m^3)
	1.223×10^{-3}	cubic hectometer (hm^3)
	1.223×10^{-6}	cubic kilometer (km^3)
	Flow rate	
cubic foot per second (ft^3/s)	2.832×10^{1}	liter (L/s)
	2.832×10^{-2}	cubic meter per second (m^3/s)
	2.832×10^{1}	cubic decimeter per second (dm^3/s)
gallon per minute (gal/min)	6.309×10^{-2}	liter per second (L/s)
	6.309×10^{-5}	cubic meter per second (m^3/s)
	6.309×10^{-2}	cubic decimeter per second (dm^3/s)
million gallons per day (Mgal/d)	4.381×10^{-2}	cubic meter per second
	4.381×10^{1}	cubic decimeter per second (dm^3/s)
	Mass	
ton, short (2,000 lb)	9.072×10^{-1}	megagram (Mg) or metric ton

Temperature in degrees Celsius (°C) may be converted to degrees Fahrenheit (°F) as follows:

$$°F = (1.8 \times °C) + 32$$

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