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GEOLOGICAL SURVEY

WATER-QUALITY DATA FOR THE AMERICAN RIVER BASIN, CALIFORNIA FEBRUARY-OCTOBER 1979

By Johnevan M. Shay

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GEOLOGICAL SURVEY

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CONVERSION FACTORS

Within this report, both metric (International System or SI) and inch-pound units are used. For stream sites, water-quality characteristics are reported in metric units, and physical characteristics, velocity, discharge, area, and altitude are reported in inch-pound units. Depth is reported in either metric or inch-pound units. Conversion factors for the terms used in this report are listed below.

Inch-pound Unit (A) (A=CxD)	(B)	(C)	Metric Unit (D) (D=AxB)
ft (feet)	0.3048	3.281	m (meters)
ft^2 (square feet)	0.0929	10.76	m^2 (square meters)
ft^3/s (cubic feet per second)	0.02832	35.31	m^3/s (cubic meters per second)
gal (gallons)	3.785	0.2642	L (liters)
in (inches)	0.02540	39.37	m (meters)
in (inches)	25.40	0.03937	mm (millimeters)
in (inches)	25400.	0.000039	µm (micrometers)
mi (miles)	1.609	0.621	km (kilometers)
mi^2 (square miles)	2.590	0.386	km^2 (square kilometers)
t/day (tons per day)	0.9072	1.1023	Mg/d (megagrams per day)
µmho (micromhos)	1.000	1.000	µS (microsiemens)

Degrees Fahrenheit are converted to degrees Celsius by using the formula:

Temp. °C = (temp. °F-32)/1.8

Degrees Celsius are converted to degrees Fahrenheit by using the formula:

Temp. °F = (1.8 temp. °C + 32)

Explanation of abbreviations:

µm-MF	Micrometer membrane filter
µg/g	Micrograms per gram
µg/kg	Micrograms per kilogram
µg/L	Micrograms per liter
mg/kg	Milligrams per kilogram
mg/L	Milligrams per liter
ML	Milliliters

The use of brand names in this report is for identification purposes only and does not imply endorsement by the Geological Survey.

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ABSTRACT

Data were collected in the American River basin from February to October 1979 for use in assessing the water quality in the basin. The basin covers 2,163 square miles of the western slope of the central Sierra Nevada. Basin headwaters are located primarily between Donner Summit and Carson Pass.

Water-quality data were collected at 14 stream sites and at 3 sites on Folsom Lake and include selected measurements and analyses for physical, chemical, and biological properties and constituents.

INTRODUCTION

In 1979 the U.S. Geological Survey began a water-quality study in the American River basin in cooperation with the California Department of Water Resources. The basin covers 2,163 mi^2 of the western slope of the central Sierra Nevada (see fig. 1). The headwaters are located primarily between Donner Summit and Carson Pass. The American River is an intricate system consisting of three major forks--North, Middle, and South--with several forks on each major fork. A series of reservoirs have been constructed along each of the major forks (fig. 1).

The purpose of the study was to assess the water quality in the basin and to analyze historical chemical data from the standpoint of determining time-trend changes in constituent concentrations. The study included collecting physical, chemical, and biological water-quality data during the 9-month period, February to October 1979. This report presents these data (tables 2-9).

Sampling locations (fig. 1 and table 1) were selected on the basis of accessibility for sampling, availability of historical data, proximity to recording streamflow sites, and representative land use. For this study five sites on the North Fork American River, three sites on the Middle Fork American River, three sites on the South Fork American River, three sites on Folsom Lake, and three sites on the American River downstream from Folsom Lake were selected.

METHODS

The analyses of organic and inorganic constituents were made from samples that were a composite of depth-integrated samples collected at estimated equal increments of flow in the cross section of the stream. Samples were collected by using standard sediment samplers, modified for water-quality sampling, as described by Guy and Norman (1970).

Water samples analyzed for dissolved constituents were filtered through a 0.45-μm membrane filter. Nutrient samples were preserved by chilling 0°C to 4°C. Trace-element samples were placed in acid-rinsed polyethylene bottles and acidified with nitric acid to a pH less than 2. Chemical determinations were made at the U.S. Geological Survey Central Laboratory in Arvada, Colo.

Onsite measurements of pH and specific conductance were made by using portable meters. Temperature was measured with a handheld thermometer. Dissolved-oxygen concentration was determined by the azide modification of the Winkler method, and alkalinity by electrometric titration method. These methods are described by Skougstad and others (1979).

Water discharge was determined by direct measurement, using the methods described by Buchanan and Somers (1969), or from records from nearby gaging sites.

Lake samples were taken at selected depths or composited for selected depth intervals with a 4-liter Van Dorn-type sampler. Vertical-profile measurements of temperature, dissolved oxygen, specific conductance, and pH were made with a Martek Mark VI Water Quality Analyzer during each visit to the lake site. Water transparency was measured by a Secchi disk (Reid, 1961, p. 100). In addition, light penetration was measured with a Montedoro-Whitney Model LMT-8B submarine photometer. Light transmission was measured with a Martek Model XMS IN SITU Transmissometer, with a ¼-m path-length sensor.

Suspended-sediment samples were collected at selected stream sites, using methods of Guy and Norman (1970), and analyzed at the U.S. Geological Survey Sediment Laboratory in Sacramento, Calif. Bed-material samples were taken at Folsom Lake with a U.S. BMH-60TM sampler, and analyzed for selected trace elements, nutrients, and herbicides at the U.S. Geological Survey Central Laboratory in Arvada, Colo.

Samples for algal growth potential were taken at the three lower American River sites and at the Folsom Lake near Folsom site (table 7). Stream samples were depth integrated and composited. Lake samples were taken near the middle of the euphotic zone. Samples were filtered through a 0.22-µm membrane filter (low water extractable), frozen, and sent to the U.S. Geological Survey Central Laboratory in Atlanta, Ga., for analysis. In the analysis for algal growth potential, Selenastrum capricornutum was used as the inoculum, as described by Greeson (1979). During each sampling visit, four samples were collected for the purpose of receiving different analytical treatments: (1) no nutrients added; (2) nitrogen added; (3) phosphorus added; and (4) nitrogen and phosphorus added.

Bacterial analyses for fecal coliform and fecal streptococcal bacteria were made at each stream site during each visit, using the membrane-filter method (Greeson and others, 1977). Dip samples were collected in sterilized glass bottles at the centroid of flow, chilled, and processed within 6 hours.

Benthic invertebrates (table 8) were collected at stream sites, using a Surber sampler with a 0.09 m^2 opening and a 0.21 mm mesh net (Greeson and others, 1977). Samples were collected at the farthest upstream sites and the sites immediately upstream from Folsom Lake. Preservation methods included fixing the samples in a 10-percent formalin solution and storing in a 70-percent ethanol solution. Benthic invertebrates were identified and enumerated by Hydrozoology, a contract laboratory in Newcastle, Calif.

Phytoplankton samples were collected at all stream and lake sites and preserved with Lugol's solution. They were identified to the species taxonomic level and counted by the inverted microscope method (Greeson and others, 1977) by Susswasser, a contract laboratory in Paso Robles, Calif. The phylogenetic order (table 9) is based on Morris (1977) and Smith (1950).

EXPLANATION

MAP NO.	U.S. GEOLOGICAL SURVEY STATION NO.	MAP NO.	U.S. GEOLOGICAL SURVEY STATION NO.
1	391515120225300	11	11445500
2	11426194	12	384730121061900
3	11426197	13	384449121044700
4	11427000	14	11446200
5	11427500	15	11446400
6	11433300	16	11447000
7	11433500	17	11447230
8	11433800		
9	11439500	▼15	SAMPLING STATION AND MAP NUMBER
10	11442500		DRAINAGE BASIN BOUNDARY
			COUNTY BOUNDARY
			TUNNEL

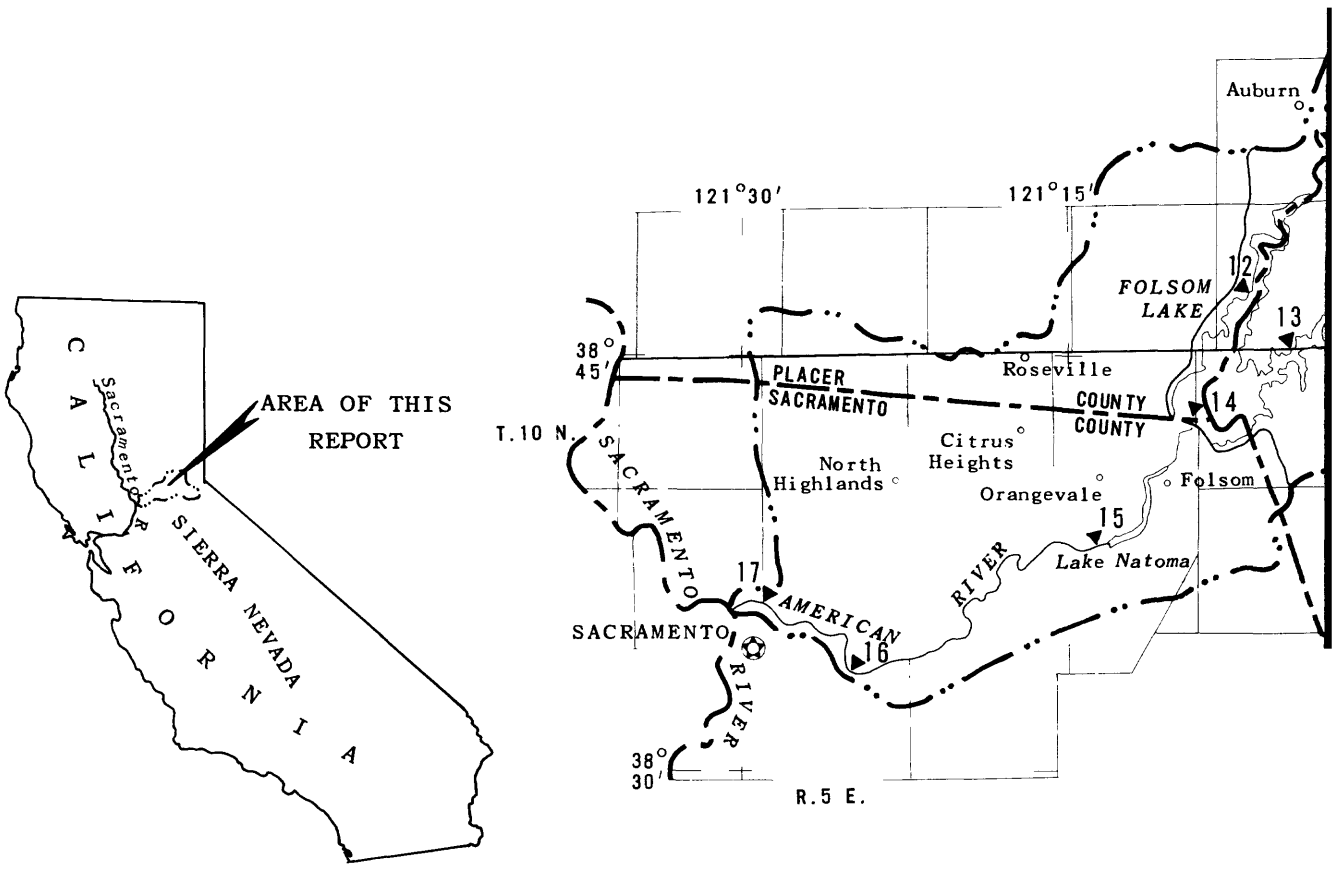
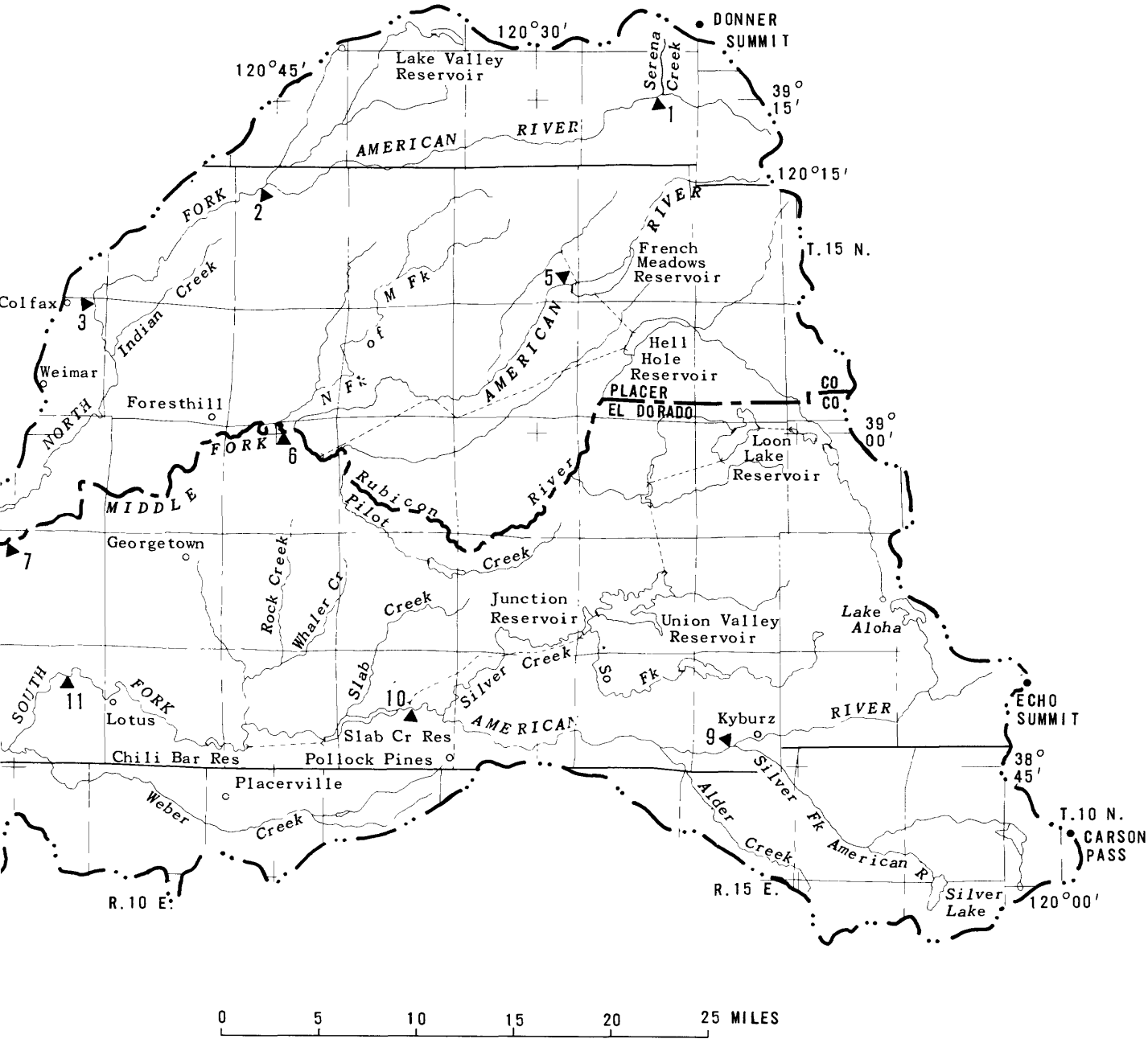


FIGURE 1. -- American



River drainage basin.

REFERENCES CITED

Buchanan, T. J., and Somers, W. P., 1969, Discharge measurements at gaging stations: U.S. Geological Survey Techniques of Water-Resources Investigations, book 3, chapter A8, 65 p.

Greeson, P. E., 1979, A supplement to methods for collection and analysis of aquatic biological and microbiological samples (U.S. Geological Survey Techniques of Water-Resources Investigations, book 5, chapter A4): U.S. Geological Survey Open-File Report 79-1279, 92 p.

Greeson, P. E., Ehlke, T. A., Irwin, G. A., Lium, B. W., and Slack, K. V., eds., 1977, Methods for collection and analysis of aquatic biological and microbiological samples: U.S. Geological Survey Techniques of Water-Resources Investigations, book 5, chapter A4, 332 p.

Guy, H. P., and Norman, V. W., 1970, Field methods for measurement of fluvial sediment: U.S. Geological Survey Techniques of Water-Resources Investigations, book 3, chapter C2, 59 p.

Morris, Ian, 1977, An introduction to the algae: London, Hutchinson and Co., 189 p.

Reid, G. K., 1961, Ecology of inland waters and estuaries: New York, D. Van Nostrand Co., 375 p.

Skougstad, M. W., Fishman, M. J., Friedman, L. C., Erdmann, D. E., and Duncan, S. S., eds., 1979, Methods for determination of inorganic substances in water and fluvial sediments: U.S. Geological Survey Techniques of Water-Resources Investigations, book 5, chapter A1, 626 p.

Smith, G. M., 1950, The fresh-water algae of the United States: New York, McGraw-Hill Book Co., 719 p.

TABLE 1.--Sampling sites

Map number (fig. 1)	U.S. Geological Survey station identification number	Name	Stream mile from mouth	Drainage area (mi^2)
1	391515120225300	North Fork American River below Serena Creek	105	28
2	11426194	North Fork American River near Dutch Flat	81	198
3	11426197	North Fork American River above Slaughter Ravine, near Colfax	68	236
4	11427000	North Fork American River at North Fork Dam	50	342
5	11427500	Middle Fork American River at French Meadows	103	48
6	11433300	Middle Fork American River near Foresthill	72	524
7	11433500	Middle Fork American River near Auburn	51	614
8	11433800	North Fork American River below Auburn damsite, near Auburn	46	973
9	11439500	South Fork American River near Kyburz	88	193
10	11442500	South Fork American River below Silver Creek, near Pollock Pines	71	449
11	11445500	South Fork American River near Lotus	43	673
12	384730121061900	Folsom Lake sample site No. 2 on North Fork Arm	37	--
13	384449121044700	South Fork Arm Folsom Lake near Folsom	36	--
14	11446200	Folsom Lake near Folsom	30	--
15	11446400	American River at Nimbus Dam	22	1,887
16	11447000	American River at Sacramento	7	1,936
17	11447230	American River at 16th Street Bridge, at Sacramento	1	1,972

TABLE 2.--Physical, biological, and chemical analyses

[<, actual value is known to be less than the value shown; >, actual value is known to be greater than the value shown; ND, material specifically analyzed for but not detected; K, results based on colony count outside the acceptable range (nonideal colony count)]

Stations upstream from Folsom Lake

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
391515120225300 - NORTH FORK AMERICAN R. BLW. SERENA CR. CA. (LAT 39 15 15 LONG 120 22 53)											
AUG , 1979											
02...	1200	--	224	7.5	16.0	8.7	49	--	81	2	27
11426194 - NORTH FORK AMERICAN RIVER NR DUTCH FLAT (LAT 39 11 06 LONG 120 45 40)											
JUN , 1979											
01...	1400	1000	45	7.5	13.0	10.2	<1	K3	20	3	6.4
AUG											
01...	1200	250	114	8.1	20.5	8.7	K8	ND	49	6	16
11426197 - N.F. AMERICAN R AB SLAUGHTER RAVINE NR COLFAX (LAT 39 06 02 LONG 120 55 27)											
MAR , 1979											
06...	1440	1000	102	7.6	9.0	11.2	<1	<1	48	12	14
MAY											
31...	1500	1000	48	7.7	14.0	10.0	<1	K1	20	0	6.3
JUL											
30...	1230	630	122	8.2	24.0	8.1	K9	K6	53	0	15
OCT											
24...	1145	80	125	7.7	12.0	10.6	K9	25	52	7	16
11427000 - NF AMERICAN R AT NORTH FORK DAM CALIF (LAT 38 56 10 LONG 121 01 22)											
MAR , 1979											
05...	1200	1080	99	7.3	9.5	11.8	K6	K13	46	10	11
MAY											
30...	1200	1180	41	7.6	16.0	10.1	K1	K4	22	4	6.8
JUL											
27...	1300	79	108	8.1	24.5	8.6	K2	>3	44	0	12
OCT											
22...	1200	142	100	7.9	17.0	9.6	26	58	56	10	15
11427500 - MF AMERICAN R AT FRENCH MEADOWS CALIF (LAT 39 06 35 LONG 120 28 49)											
JUN , 1979											
04...	1300	6.8	30	7.7	12.0	8.9	K1	K6	8	0	2.2
JUL											
31...	1047	7.1	32	7.2	9.0	9.6	K2	K1	11	0	3.1
OCT											
26...	1100	8.0	30	7.1	7.0	10.3	--	--	12	0	3.6
11433300 - MF AMERICAN RIVER NR FORESTHILL CALIF (LAT 39 00 23 LONG 120 45 40)											
MAR , 1979											
06...	1230	874	48	7.8	8.0	12.0	<1	>3	24	5	7.5
MAY											
31...	1630	1260	33	7.6	10.0	11.2	<1	>3	17	4	5.3
JUL											
30...	1000	1010	34	7.2	10.0	11.2	<1	K3	12	0	3.7
OCT											
24...	1020	90	48	7.2	12.0	10.2	47	70	19	1	5.2

TABLE 2.--Physical, biological, and chemical analyses--Continued

Stations upstream from Folsom Lake

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
391515120225300 - NORTH FORK AMERICAN R. BLW. SERENA CR. CA. (LAT 39 15 15 LONG 120 22 53)											
AUG , 1979											
02...	3.2	5.9	13	.3	1.6	79	5.5	4.1	.1	20	111
11426194 - NORTH FORK AMERICAN RIVER NR DUTCH FLAT (LAT 39 11 06 LONG 120 45 40)											
JUN , 1979											
01...	1.0	1.6	14	.2	.8	17	3.1	1.0	.1	9.7	37
AUG											
01...	2.3	2.8	11	.2	.7	43	8.1	2.4	.1	12	70
11426197 - N.F. AMERICAN R AB SLAUGHTER RAVINE NR COLFAX (LAT 39 06 02 LONG 120 55 27)											
MAR , 1979											
06...	3.1	3.0	12	.2	.4	36	16	2.9	.0	12	64
MAY											
31...	1.0	1.4	13	.1	.7	22	3.1	1.2	.1	9.9	40
JUL											
30...	3.7	3.1	11	.2	.9	54	2.8	2.4	.0	14	75
OCT											
24...	3.0	3.1	11	.2	.7	45	9.1	3.8	.0	11	76
11427000 - NF AMERICAN R AT NORTH FORK DAM CALIF (LAT 38 56 10 LONG 121 01 22)											
MAR , 1979											
05...	4.6	3.0	12	.2	.3	36	9.2	2.3	.1	14	64
MAY											
30...	1.2	1.3	11	.1	.8	18	3.3	.8	.1	9.4	37
JUL											
27...	3.5	2.9	12	.2	.7	45	2.4	1.9	.0	14	68
OCT											
22...	4.4	3.2	11	.2	.8	46	11	2.7	.0	12	78
11427500 - MF AMERICAN R AT FRENCH MEADOWS CALIF (LAT 39 06 35 LONG 120 28 49)											
JUN , 1979											
04...	.5	1.3	32	.2	.4	9	1.3	.4	.0	10	29
JUL											
31...	.7	1.2	19	.2	.6	12	4.2	.3	.1	12	25
OCT											
20...	.7	1.4	19	.2	.6	12	2.3	.4	.0	11	25
11433300 - MF AMERICAN RIVER NR FORESTHILL CALIF (LAT 39 00 23 LONG 120 45 40)											
MAR , 1979											
06...	1.3	2.3	17	.2	.5	19	4.9	1.3	.0	12	34
MAY											
31...	.8	2.0	20	.2	.8	13	2.9	1.1	.1	9.8	30
JUL											
30...	.7	1.6	21	.2	.8	15	.6	1.0	.0	11	30
OCT											
24...	1.4	2.2	19	.2	.9	18	2.9	1.6	.1	11	34

TABLE 2.--Physical, biological, and chemical analyses--Continued

Stations upstream from Folsom Lake

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)
391515120225300 - NORTH FORK AMERICAN R. BLW. SERENA CR. CA. (LAT 39 15 15 LONG 120 22 53)											
AUG , 1979											
02...	115	.15	--	--	--	.02	.00	.010	.09	.10	.12
11426194 - NORTH FORK AMERICAN RIVER NR DUTCH FLAT (LAT 39 11 06 LONG 120 45 40)											
JUN , 1979											
01...	34	.05	--	--	--	.02	.01	.030	.37	.40	.42
AUG											
01...	70	.10	--	--	--	.02	.00	.010	.02	.03	.05
11426197 - N.F. AMERICAN R AB SLAUGHTER RAVINE NR COLFAX (LAT 39 06 02 LONG 120 55 27)											
MAR , 1979											
06...	73	.09	--	--	--	.01	--	.010	.19	.20	.21
MAY											
31...	33	.05	--	--	--	.00	.00	.010	.08	.09	.09
JUL											
30...	69	.10	--	--	--	.02	.00	.000	.19	.19	.21
OCT											
24...	74	.10	--	.00	.020	.01	.00	.000	.50	.50	.51
11427000 - NF AMERICAN R AT NORTH FORK DAM CALIF (LAT 38 56 10 LONG 121 01 22)											
MAR , 1979											
05...	66	.09	--	--	--	.04	.05	.000	.12	.12	.16
MAY											
30...	33	.05	--	--	--	.01	.01	.010	.13	.14	.15
JUL											
27...	65	.09	--	--	--	.00	.00	.000	.04	.04	.04
OCT											
22...	77	.11	5	.00	.020	.01	.03	.010	.71	.72	.73
11427500 - MF AMERICAN R AT FRENCH MEADOWS CALIF (LAT 39 06 35 LONG 120 28 49)											
JUN , 1979											
04...	22	.04	--	--	--	.01	.02	.040	.00	.04	.05
JUL											
31...	30	.03	--	--	--	.03	.00	.000	.11	.11	.14
OCT											
26...	27	.03	--	.03	.020	.05	.04	.050	.32	.37	.42
11433300 - MF AMERICAN RIVER NR FORESTHILL CALIF (LAT 39 00 23 LONG 120 45 40)											
MAR , 1979											
06...	39	.05	--	--	--	.02	--	.000	.25	.25	.27
MAY											
31...	31	.04	--	--	--	.01	.03	.010	.10	.11	.12
JUL											
30...	28	.04	--	--	--	.02	.00	.000	.15	.15	.17
OCT											
24...	35	.05	--	.00	.020	.02	.01	.000	.51	.51	.53

TABLE 2.--Physical, biological, and chemical analyses--Continued

Stations upstream from Folsom Lake

DATE	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHOPH OSPHATE DISSOL. (MG/L AS P)	PHOS-PHORUS, ORTHOPH OSPHATE DISSOL. (MG/L AS PO4)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	BORON, DIS-SOLVED (UG/L AS B)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
391515120225300 - NORTH FORK AMERICAN R. BLW. SERENA CR. CA. (LAT 39 15 15 LONG 120 22 53)										
AUG , 1979										
02...	.030	.002	.002	.01	120	140	120	30	20	9
11426194 - NORTH FORK AMERICAN RIVER NR DUTCH FLAT (LAT 39 11 06 LONG 120 45 40)										
JUN , 1979										
01...	.000	.002	.002	.01	--	30	100	10	0	0
AUG										
01...	.020	--	.031	.10	30	20	70	0	10	4
11426197 - N.F. AMERICAN R AB SLAUGHTER RAVINE NR COLFAX (LAT 39 06 02 LONG 120 55 27)										
MAR , 1979										
06...	.000	--	--	--	190	40	220	10	0	0
MAY										
31...	.000	.005	.002	.01	--	30	70	10	10	0
JUL										
30...	.050	.000	.000	.00	20	10	50	10	10	4
OCT										
24...	.000	.004	.005	.02	40	10	240	20	10	3
11427000 - NF AMERICAN R AT NORTH FORK DAM CALIF (LAT 38 56 10 LONG 121 01 22)										
MAR , 1979										
05...	.010	.003	.001	.00	120	20	170	10	10	10
MAY										
30...	.010	.003	.002	.01	--	30	100	20	10	10
JUL										
27...	.050	.000	.000	.00	50	60	70	20	10	4
OCT										
22...	.000	.001	.003	.01	40	20	60	10	8	3
11427500 - MF AMERICAN R AT FRENCH MEADOWS CALIF (LAT 39 06 35 LONG 120 28 49)										
JUN , 1979										
04...	.000	.005	.001	.00	--	0	290	170	60	--
JUL										
31...	.090	.007	.002	.01	30	20	370	180	90	90
OCT										
26...	.000	--	.004	.01	40	0	650	80	140	90
11433300 - MF AMERICAN RIVER NR FORESTHILL CALIF (LAT 39 00 23 LONG 120 45 40)										
MAR , 1979										
06...	.000	--	--	--	140	40	80	10	0	0
MAY										
31...	.010	.005	.002	.01	--	30	100	10	10	0
JUL										
30...	.000	.000	.000	.00	40	30	90	10	20	10
OCT										
24...	.010	.008	.013	.04	50	7	90	70	10	20

TABLE 2.--Physical, biological, and chemical analyses--Continued

Stations upstream from Folsom Lake

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
11433500 - MIDDLE FORK AMERICAN RIVER NEAR AUBURN CALIF (LAT 38 55 05 LONG 121 00 51)											
MAR , 1979											
05...	1330	1650	60	7.8	9.5	12.2	<1	<1	28	2	7.5
MAY											
30...	1330	1370	39	7.4	13.0	10.5	K3	K3	16	0	4.6
JUL											
27...	1430	1040	38	7.7	14.0	10.2	K5	K9	13	0	3.8
OCT											
22...	1245	127	46	7.3	13.5	10.5	19	21	17	0	4.9
11433800 - NF AMERICAN R BL AUBURN DAMSITE NR AUBURN CALIF (LAT 38 52 20 LONG 121 03 18)											
MAR , 1979											
05...	0830	2650	72	7.5	8.0	12.3	K5	K12	41	13	11
MAY											
30...	0930	2540	41	7.7	14.0	10.6	K2	17	13	0	5.2
JUL											
27...	1100	1130	41	7.8	17.0	10.0	K8	K5	16	0	4.7
OCT											
22...	1030	287	81	7.4	15.0	9.6	24	K4	32	2	9.0
11439500 - SF AMERICAN R NR KYBURZ CALIF (RIVER ONLY) (LAT 38 45 49 LONG 120 19 39)											
MAY , 1979											
31...	1330	1280	23	5.7	9.0	10.5	K1	K3	7	3	1.9
JUL											
30...	1300	4.7	32	7.4	22.5	8.3	K5	K8	11	0	3.0
OCT											
23...	1400	9.2	38	6.8	8.5	10.7	K10	K1	9	2	2.9
11442500 - SF AMERICAN R BL SILVER C NR POLLOCK PINES CAL (LAT 38 48 37 LONG 120 37 02)											
MAR , 1979											
08...	1100	634	52	7.6	7.0	11.9	K1	K4	21	5	6.1
MAY											
31...	1100	1420	28	7.1	11.0	10.7	K3	K7	10	0	3.0
JUL											
30...	1100	30	50	7.2	20.0	8.2	<5	--	17	0	5.0
OCT											
23...	1200	55	57	7.1	8.5	10.7	49	65	17	0	5.0
11445500 - SF AMERICAN R NR LOTUS CALIF (LAT 38 49 07 LONG 120 56 45)											
MAR , 1979											
05...	1500	1850	55	7.2	8.5	12.1	K4	1	23	3	6.2
MAY											
30...	1530	3170	37	7.4	12.0	10.7	K6	K9	13	3	4.1
JUL											
27...	1600	1610	27	6.9	15.5	9.8	13	3	8	1	2.1
OCT											
23...	0930	1372	36	6.9	11.5	10.2	106	>200	11	0	3.1

TABLE 2.--Physical, biological, and chemical analyses--Continued

Stations upstream from Folsom Lake

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
11433500 - MIDDLE FORK AMERICAN RIVER NEAR AUBURN CALIF (LAT 38 55 05 LONG 121 00 51)											
MAR, 1979											
05...	2.2	2.3	15	.2	.5	26	6.8	2.7	.0	11	44
MAY											
30...	1.0	1.6	22	.2	.7	16	3.3	1.1	.1	9.9	27
JUL											
27...	.8	1.7	21	.2	.7	16	1.1	1.1	.0	11	28
OCT											
22...	1.2	2.0	19	.2	.7	19	5.1	1.6	.0	10	39
11433800 - NF AMERICAN R BL AUBURN DAMSITE NR AUBURN CALIF (LAT 38 52 20 LONG 121 03 18)											
MAR, 1979											
05...	3.3	2.6	12	.2	.5	28	6.8	2.0	.0	13	54
MAY											
30...	.1	1.6	20	.2	.5	13	2.9	.9	.1	9.7	34
JUL											
27...	1.1	1.9	18	.2	.8	19	.6	1.1	.0	11	28
OCT											
22...	2.3	2.6	14	.2	.7	30	10	2.3	.0	11	55
11439500 - SF AMERICAN R NR KYBURZ CALIF (RIVER ONLY) (LAT 38 45 49 LONG 120 19 39)											
MAY, 1979											
31...	.5	1.6	30	.3	.9	4	2.7	1.5	.1	8.9	18
JUL											
30...	.8	2.7	33	.4	.9	12	.5	3.3	.0	11	28
OCT											
23...	.5	2.4	34	.3	.7	7	2.4	3.0	.0	7.7	17
11442500 - SF AMERICAN R BL SILVER C NR POLLOCK PINES CAL (LAT 38 48 37 LONG 120 37 02)											
MAR, 1979											
08...	1.3	3.8	28	.4	.8	16	2.1	4.4	.0	16	--
MAY											
31...	.6	1.2	19	.2	.8	11	2.1	1.6	.1	9.2	18
JUL											
30...	1.2	3.4	29	.4	.7	18	.8	4.8	.0	13	39
OCT											
23...	1.0	3.5	30	.4	1.0	17	3.8	5.4	.0	11	40
11445500 - SF AMERICAN R NR LOTUS CALIF (LAT 38 49 07 LONG 120 56 45)											
MAR, 1979											
05...	1.8	2.6	19	.2	.4	20	6.1	3.2	.1	10	--
MAY											
30...	.6	1.3	20	.2	.7	10	1.9	.9	.1	8.0	24
JUL											
27...	.6	1.7	37	.3	.9	9	.5	1.4	.1	8.1	24
OCT											
23...	.8	1.8	25	.2	.6	11	3.5	1.4	.0	7.6	28

TABLE 2.--Physical, biological, and chemical analyses--Continued

Stations upstream from Folsom Lake

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)
11433500 - MIDDLE FORK AMERICAN RIVER NEAR AUBURN CALIF (LAT 38 55 05 LONG 121 00 51)											
MAR , 1979											
05...	42	.06	0	--	--	.01	.00	.000	.06	.06	.07
MAY											
30...	32	.04	--	--	--	.01	.00	.010	.07	.08	.09
JUL											
27...	27	.04	0	--	--	.00	.00	.010	.15	.16	.16
OCT											
22...	37	.05	0	.01	.020	.03	.03	.010	.54	.55	.58
11433800 - NF AMERICAN R BL AUBURN DAMSITE NR AUBURN CALIF (LAT 38 52 20 LONG 121 03 16)											
MAR , 1979											
05...	56	.07	0	--	--	.04	.04	.010	.10	.11	.15
MAY											
30...	29	.05	--	--	--	.02	.00	.090	.07	.16	.18
JUL											
27...	33	.04	0	--	--	.00	.00	.000	.06	.06	.06
OCT											
22...	56	.07	0	.00	.020	.02	.02	.030	.26	.29	.31
11439500 - SF AMERICAN R NR KYBURZ CALIF (RIVER ONLY) (LAT 38 45 49 LONG 120 19 39)											
MAY , 1979											
31...	21	.02	--	--	--	.02	.03	.020	.15	.17	.19
JUL											
30...	29	.04	--	--	--	.00	.00	.000	.28	.28	.28
OCT											
23...	24	.02	--	.04	.020	.06	.02	.010	.20	.21	.27
11442500 - SF AMERICAN R BL SILVER C NR POLLOCK PINES CAL (LAT 38 48 37 LONG 120 37 02)											
MAR , 1979											
08...	44	.04	--	--	--	.07	.07	.010	.21	.22	.29
MAY											
31...	25	.02	--	--	--	.02	.02	.020	.11	.13	.15
JUL											
30...	37	.05	--	--	--	.00	.00	.000	.30	.30	.30
OCT											
23...	41	.05	--	.04	.020	.06	.03	.010	1.5	1.5	1.6
11445500 - SF AMERICAN R NR LOTUS CALIF (LAT 38 49 07 LONG 120 56 45)											
MAR , 1979											
05...	39	.04	66	--	--	.08	.07	.000	.14	.14	.22
MAY											
30...	22	.03	--	--	--	.03	.01	.030	.08	.11	.14
JUL											
27...	21	.02	0	--	--	.00	.00	.000	.41	.41	.41
OCT											
23...	26	.04	0	.04	.020	.06	.02	.010	.43	.44	.50

TABLE 2.--Physical, biological, and chemical analyses--Continued

Stations upstream from Folsom Lake

DATE	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHOPHOSPHATE DISSOL. (MG/L AS P)	PHOSPHORUS, ORTHOPHOSPHATE DISSOL. (MG/L AS PO4)	BORON, TOTAL RECOVERABLE (UG/L AS B)	BORON, DISSOLVED (UG/L AS B)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)
11433500 - MIDDLE FORK AMERICAN RIVER NEAR AUBURN CALIF (LAT 38 55 05 LONG 121 00 51)										
MAR , 1979										
05...	.000	.000	.000	.00	70	8	70	10	0	0
MAY										
30...	.020	.005	.000	.00	--	8	70	10	10	0
JUL										
27...	.050	.000	.000	.00	30	10	90	10	10	--
OCT										
22...	.000	.018	.005	.02	40	10	60	20	8	4
11433800 - NF AMERICAN R BL AUBURN DAMSITE NR AUBURN CALIF (LAT 38 52 20 LONG 121 03 18)										
MAR , 1979										
05...	.000	.001	.001	.00	60	20	200	20	0	10
MAY										
30...	.010	.002	.001	.00	--	10	140	10	20	0
JUL										
27...	.060	.000	.000	.00	30	9	60	10	10	5
OCT										
22...	.010	.005	.005	.02	60	10	110	20	8	10
11439500 - SF AMERICAN R NR KYBURZ CALIF (RIVER ONLY) (LAT 38 45 49 LONG 120 19 39)										
MAY , 1979										
31...	.010	.008	.001	.00	--	40	160	10	10	0
JUL										
30...	.000	.010	.000	.00	30	10	60	30	0	5
OCT										
23...	.000	.002	.003	.01	50	10	70	50	8	7
11442500 - SF AMERICAN R BL SILVER C NR POLLOCK PINES CAL (LAT 38 48 37 LONG 120 37 02)										
MAR , 1979										
08...	.010	.001	.001	.00	80	40	570	30	20	0
MAY										
31...	.010	.003	.001	.00	--	40	170	10	10	0
JUL										
30...	.010	.000	.000	.00	40	9	70	20	20	6
OCT										
23...	.010	.003	.005	.02	40	10	180	50	8	3
11445500 - SF AMERICAN R NR LOTUS CALIF (LAT 38 49 07 LONG 120 56 45)										
MAR , 1979										
05...	.000	.002	.001	.00	40	6	140	20	0	0
MAY										
30...	.000	.002	.002	.01	--	10	120	20	20	0
JUL										
27...	.010	.000	.000	.00	20	10	180	80	20	7
OCT										
23...	.000	.000	.108	.33	40	10	170	40	20	6

TABLE 2.--Physical, biological, and chemical analyses--Continued

Folsom Lake stations

DATE	TIME	DEPTH TO BOTTOM OF SAMPLE INTERVAL (FT)	DEPTH TO TOP OF SAMPLE INTERVAL (FT)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	LIGHT DEPTH TO 1% OF SURFACE LIGHT (FEET)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)
384730121061900 - FOLSOM LAKE SAMPLE SITE NO 2 ON NORTH FORK ARM (LAT 38 47 30 LONG 121 06 19)												
MAR , 1979												
01...	1340	98	10	39	7.8	9.5	2.50	27.2	30	8	7.7	2.5
JUN												
13...	1530	13	13	--	--	--	5.0	--	24	6	6.0	2.2
13...	1535	39	34	--	--	--	--	--	20	4	6.6	.9
13...	1540	134	94	--	7.0	--	--	--	24	3	6.2	2.0
JUL												
25...	1305	19	9.8	58	--	--	--	--	22	2	5.6	2.0
25...	1310	39	29	--	--	--	--	--	21	0	5.7	1.6
25...	1315	131	66	48	--	--	--	--	22	1	5.8	1.9
OCT												
17...	1450	20	20	--	--	--	5.1	37.4	25	5	6.9	2.0
17...	1455	49	49	--	--	--	--	--	22	5	6.4	1.5
17...	1500	131	131	--	--	--	--	--	26	3	7.8	1.7
384449121044700 - SF ARM FOLSOM LAKE NR FOLSOM CA (LAT 38 44 49 LONG 121 04 47)												
MAR , 1979												
01...	1000	72	10	64	--	--	--	--	32	6	7.2	3.4
JUN												
13...	1300	10	10	--	--	--	4.0	36.1	--	--	--	--
13...	1305	39	23	45	--	--	--	--	17	0	4.2	1.5
13...	1310	150	49	--	--	--	--	--	12	0	3.0	1.0
JUL												
25...	1630	20	10	--	--	--	--	--	23	2	5.8	2.1
25...	1635	30	30	--	--	--	--	--	22	0	5.7	2.0
25...	1640	118	66	--	--	--	--	--	13	0	3.7	1.0
OCT												
17...	1100	16	16	--	--	--	4.8	30.5	23	2	6.3	1.7
17...	1105	75	43	--	--	--	--	--	19	3	5.4	1.4
11446200 - FOLSOM LAKE NEAR FOLSOM CALIF (LAT 38 42 29 LONG 121 09 22)												
MAR , 1979												
01...	1650	131	10	--	--	9.2	--	--	18	0	6.5	2.3
JUN												
14...	1500	26	13	--	--	21.4	4.5	45.9	26	2	6.6	2.4
14...	1505	42	36	--	--	--	--	--	21	0	5.6	1.7
14...	1510	89	66	--	--	--	--	--	19	0	4.9	1.6
JUL												
25...	1105	10	10	56	8.1	--	--	--	23	2	5.7	2.1
25...	1110	49	49	42	6.8	--	--	--	22	2	5.5	2.0
25...	1115	115	82	--	--	--	--	--	17	2	4.4	1.4
OCT												
16...	1140	23	23	52	8.3	21.2	6.6	40.7	24	2	6.6	1.8
16...	1145	48	48	48	7.0	20.4	--	--	20	4	5.7	1.5
16...	1150	115	82	--	--	--	--	--	10	0	2.0	1.1

TABLE 2.--Physical, biological, and chemical analyses--Continued

Folsom Lake stations

DATE	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	SODIUM+POTASSIUM DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
384730121061900 - FOLSOM LAKE SAMPLE SITE NO 2 ON NORTH FORK ARM (LAT 38 47 30 LONG 121 06 19)											
MAR, 1979											
01...	2.2	14	.2	--	.5	22	7.1	1.9	.0	10	48
JUN											
13...	2.6	18	.2	3.5	.9	18	3.3	2.6	.0	7.8	25
13...	2.3	19	.2	2.9	.6	16	2.8	1.5	.0	9.0	--
13...	2.4	18	.2	3.1	.7	21	3.3	1.7	.0	9.7	44
JUL											
25...	2.2	17	.2	2.8	.6	20	5.4	1.8	.0	9.1	43
25...	2.1	17	.2	2.8	.7	21	5.1	1.7	.0	10	33
25...	2.0	16	.2	2.7	.7	21	5.7	1.6	.0	11	32
OCT											
17...	2.5	17	.2	3.1	.6	20	4.8	1.5	.0	9.7	40
17...	2.1	17	.2	2.6	.5	17	5.0	2.8	.0	9.8	--
17...	2.2	15	.2	2.8	.6	23	4.8	1.5	.0	12	34
384449121044700 - SF ARM FOLSOM LAKE NR FOLSOM CA (LAT 38 44 49 LONG 121 04 47)											
MAR, 1979											
01...	2.7	15	.2	--	.6	26	7.1	2.8	.0	11	53
JUN											
13...	3.4	--	--	4.6	1.2	17	4.5	2.8	.0	8.0	--
13...	2.2	21	.2	3.0	.8	17	2.0	1.5	.0	5.9	34
13...	2.0	26	.3	2.6	.6	14	2.2	1.7	.0	8.2	--
JUL											
25...	2.4	18	.2	2.7	.3	21	2.7	1.7	.0	9.8	39
25...	2.3	18	.2	2.9	.6	25	4.1	2.0	.0	9.8	41
25...	2.1	24	.3	2.7	.6	15	3.1	1.3	.1	8.9	26
OCT											
17...	2.2	16	.2	2.8	.6	21	4.6	1.7	.0	9.5	25
17...	2.0	18	.2	2.5	.5	16	4.0	1.5	.0	8.7	19
11446200 - FOLSOM LAKE NEAR FOLSOM CALIF (LAT 38 42 29 LONG 121 09 22)											
MAR, 1979											
01...	2.5	23	.3	--	.5	24	4.3	1.7	.0	9.3	43
JUN											
14...	2.8	18	.2	3.5	.7	24	2.8	1.8	.0	8.2	43
14...	2.2	18	.2	2.8	.6	23	2.5	1.4	.0	9.0	38
14...	2.3	20	.2	2.8	.5	19	2.3	3.3	.0	13	44
JUL											
25...	2.4	18	.2	3.0	.6	21	5.1	3.2	.0	9.3	--
25...	2.1	17	.2	2.3	.2	20	5.1	1.9	.0	8.8	30
25...	1.9	19	.2	2.4	.5	15	3.8	1.5	.0	10	34
OCT											
16...	2.2	16	.2	2.8	.6	22	4.4	1.6	.0	9.6	34
16...	2.0	23	.2	2.5	.5	16	1.8	1.3	.0	10	29
16...	1.9	42	.3	2.4	.5	11	1.4	1.1	.0	9.0	--

TABLE 2.--Physical, biological, and chemical analyses--Continued

Folsom Lake stations

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)
384730121061900 - FOLSOM LAKE SAMPLE SITE NO 2 ON NORTH FORK ARM (LAT 38 47 30 LONG 121 06 19)											
MAR , 1979											
01...	45	.07	--	--	.05	.010	.09	.10	.15	.020	.007
JUN											
13...	36	.03	--	--	.02	.050	.39	.44	.46	.010	.003
13...	33	--	--	--	.01	.050	.45	.50	.51	.000	.005
13...	39	.06	--	--	.06	.080	.07	.15	.21	.000	.004
JUL											
25...	39	.06	--	--	.02	.010	.15	.16	.18	.010	.000
25...	40	.04	.00	.020	.01	.010	.07	.08	.09	.020	.000
25...	41	.04	.03	.020	.05	.010	.07	.08	.13	.020	.000
OCT											
17...	40	.05	.03	.020	.05	.010	.58	.59	.64	.010	.001
17...	38	.01	.00	.020	.02	.040	.49	.53	.55	.000	.000
17...	43	.05	.09	.020	.11	.010	.63	.64	.75	.020	.000
384449121044700 - SF ARM FOLSOM LAKE NR FOLSOM CA (LAT 38 44 49 LONG 121 04 47)											
MAR , 1979											
01...	49	.07	--	--	.17	.030	.18	.21	.38	.030	.010
JUN											
13...	--	--	--	--	.02	.040	.42	.46	.48	.020	.002
13...	29	.04	--	--	.01	.030	.79	.82	.83	.000	.005
13...	25	--	--	--	.03	.030	.41	.44	.47	.010	.003
JUL											
25...	37	.05	--	--	.11	.000	.08	.08	.19	--	.000
25...	42	.06	--	.100	5.1	.010	.15	.16	--	--	.000
25...	30	.04	.05	.000	.05	.060	.54	.60	.65	.040	.001
OCT											
17...	39	.03	.00	.020	.02	.060	.40	.46	.48	.010	.000
17...	33	.03	.00	.020	.02	.010	.51	.52	.54	.010	.000
11446200 - FOLSOM LAKE NEAR FOLSOM CALIF (LAT 38 42 29 LONG 121 09 22)											
MAR , 1979											
01...	37	.06	--	--	.06	.020	.11	.13	.19	.020	.015
JUN											
14...	4	.01	--	--	.01	.080	.07	.15	.16	.000	.009
14...	37	.05	--	--	.01	.030	.42	.45	.46	.000	.004
14...	38	.06	--	--	.02	.020	.34	.36	.38	.000	.006
JUL											
25...	41	.03	.01	.020	.03	.010	.08	.09	.12	.020	.010
25...	38	.04	.03	.000	.03	.010	.15	.16	.19	.020	.000
25...	33	.05	.16	.020	.18	.010	.12	.13	.31	.020	.000
OCT											
16...	40	.05	.03	.020	.05	.010	.51	.52	.57	.010	.000
16...	32	.04	.01	.020	.03	.000	.60	.60	.63	.000	.000
16...	24	.05	.08	.020	.10	.010	.54	.55	.65	.000	.000

TABLE 2.--Physical, biological, and chemical analyses--Continued

Folsom Lake stations

DATE	PHOSPHORUS, ORTHOPHOSPHATE DISSOL. (MG/L AS P)	PHOSPHORUS, ORTHOPHOSPHATE DISSOL. (MG/L AS PO4)	BORON, TOTAL RECOVERABLE (UG/L AS B)	BORON, SUSPENDED RECOVERABLE (UG/L AS B)	BORON, DISSOLVED (UG/L AS B)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)
384730121061900 - FOLSOM LAKE SAMPLE SITE NO 2 ON NORTH FORK ARM (LAT 38 47 30 LONG 121 06 19)											
MAR , 1979											
01...	.001	.00	80	--	40	160	--	10	20	--	0
JUN											
13...	.002	.01	70	70	2	80	60	20	0	0	10
13...	.002	.01	40	40	2	100	80	20	0	0	0
13...	.001	.00	60	50	6	190	180	10	10	10	0
JUL											
25...	.000	.00	30	30	0	20	20	<0	0	0	<1
25...	.000	.00	80	80	0	60	60	<0	10	9	<1
25...	.000	.00	60	50	6	120	110	10	20	20	<1
OCT											
17...	.000	.00	40	30	10	60	--	10	0	0	3
17...	.000	.00	50	40	6	60	--	10	8	7	1
17...	.000	.00	10	0	10	480	--	20	430	60	370
384449121044700 - SF ARM FOLSOM LAKE NR FOLSOM CA (LAT 38 44 49 LONG 121 04 47)											
MAR , 1979											
01...	.000	.00	130	--	40	390	--	50	30	--	0
JUN											
13...	.002	.01	100	80	20	90	70	20	0	0	0
13...	.002	.01	50	50	0	130	100	30	10	0	10
13...	.002	.01	90	90	2	190	150	40	30	30	0
JUL											
25...	.000	.00	40	10	30	70	60	10	0	0	<1
25...	.000	.00	40	10	30	70	60	10	0	0	<1
25...	.000	.00	40	30	10	310	300	10	40	0	40
OCT											
17...	.000	.00	--	--	20	70	--	10	4	0	5
17...	.000	.00	30	20	9	120	--	10	20	20	5
11446200 - FOLSOM LAKE NEAR FOLSOM CALIF (LAT 38 42 29 LONG 121 09 22)											
MAR , 1979											
01...	.001	.00	80	--	40	170	--	40	2	--	2
JUN											
14...	.001	.00	30	30	4	80	70	10	0	0	0
14...	.001	.00	0	0	2	80	70	10	10	10	0
14...	.001	.00	0	0	2	70	60	10	0	0	0
JUL											
25...	.000	.00	40	20	20	30	30	<0	10	9	<1
25...	.000	.00	40	10	30	20	20	<0	10	9	<1
25...	.000	.00	30	10	20	50	50	<0	0	0	<1
OCT											
16...	.000	.00	30	20	9	20	--	10	4	1	3
16...	.000	.00	30	20	9	20	--	0	0	0	2
16...	.000	.00	30	30	4	80	--	10	20	10	10

TABLE 2.--Physical, biological, and chemical analyses--Continued

Stations downstream from Folsom Lake

DATE	TIME	STREAM-FLOW (FT³/S)	STREAM-FLOW, INSTANTANEOUS (FT³/S)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, CHEMICAL (LOW LEVEL) (MG/L)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
11446400 - AMERICAN RIVER AT NIMBUS DAM CALIF (LAT 38 38 10 LONG 121 13 15)											
FEB , 1979											
22...	1245	--	7560	57	7.9	8.0	12.9	--	11	88	K56
MAY											
23...	0930	--	8550	60	7.4	11.5	--	--	5	--	--
JUL											
23...	1030	--	2960	56	7.3	15.0	9.2	--	5	K66	28
OCT											
11...	1030	--	2530	50	7.3	16.5	7.4	--	12	K34	K12
11447000 - AMERICAN R AT SACRAMENTO CALIF (LAT 38 34 05 LONG 121 25 20)											
FEB , 1979											
22...	1300	7900	--	57	7.5	8.5	11.8	--	11	880	370
MAY											
22...	1400	8430	--	68	7.8	13.0	11.6	--	8	--	--
JUL											
23...	1230	2960	--	51	7.3	17.0	10.1	--	5	200	500
OCT											
10...	1230	2540	--	50	7.5	19.5	9.1	--	12	64	K7
11447230 - AMERICAN RIVER AT 16TH ST BRIDGE AT SACRAMENTO (LAT 38 35 46 LONG 121 28 30)											
FEB , 1979											
21...	1300	7710	--	47	7.2	8.5	11.4	20	--	4000	1800
MAY											
22...	1100	8430	--	55	7.5	13.0	10.4	--	6	K192	85
JUL											
23...	1000	2960	--	58	7.5	17.0	8.2	--	8	K8000	K140
OCT											
10...	1000	2540	--	60	7.4	18.5	7.8	--	10	3200	103

TABLE 2.--Physical, biological, and chemical analyses--Continued

Stations downstream from Folsom Lake

DATE	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
11446400 - AMERICAN RIVER AT NIMBUS DAM CALIF (LAT 38 38 10 LONG 121 13 15)											
FEB , 1979											
22...	21	3	5.0	2.1	2.2	18	.2	.6	18	6.2	1.9
MAY											
23...	24	5	5.8	2.4	2.4	17	.2	.8	19	5.2	2.0
JUL											
23...	18	0	4.5	1.7	2.1	19	.2	.7	21	7.6	2.1
OCT											
11...	18	0	5.0	1.3	2.0	25	.2	.6	18	2.0	1.2
11447000 - AMERICAN R AT SACRAMENTO CALIF (LAT 38 34 05 LONG 121 25 20)											
FEB , 1979											
22...	30	9	8.7	2.1	2.1	13	.2	.6	21	8.3	2.1
MAY											
22...	24	4	7.1	1.4	2.6	19	.2	.8	20	7.1	1.8
JUL											
23...	18	3	4.4	1.7	2.6	32	.3	.8	15	.9	2.0
OCT											
10...	18	0	4.5	1.7	2.4	30	.2	.6	19	2.4	1.6
11447230 - AMERICAN RIVER AT 16TH ST BRIDGE AT SACRAMENTO (LAT 38 35 46 LONG 121 28 30)											
FEB , 1979											
21...	24	6	6.3	2.1	1.8	13	.2	.8	18	6.8	2.1
MAY											
22...	23	4	7.2	1.2	2.5	22	.2	.9	19	2.5	2.5
JUL											
23...	20	0	4.8	1.9	3.2	25	.3	.8	21	1.3	2.7
OCT											
10...	19	2	4.8	1.6	2.9	33	.3	.8	17	7.0	2.3

TABLE 2.--Physical, biological, and chemical analyses--Continued

Stations downstream from Folsom Lake

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	SOLIDS, NONVOLATILE, SUSPENDED (MG/L)	SOLIDS, VOLATILE, SUSPENDED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)
11446400 - AMERICAN RIVER AT NIMBUS DAM CALIF (LAT 38 38 10 LONG 121 13 15)											
FEB , 1979											
22...	.0	9.4	34	--	.05	14	--	15	.04	--	.020
MAY											
23...	.1	9.8	42	40	.06	0	0	0	--	--	--
JUL											
23...	.1	11	33		.02	--	--	--	--	--	--
OCT											
11...	.0	9.5	36	30	.05	0	0	19	.02	--	.000
11447000 - AMERICAN R AT SACRAMENTO CALIF (LAT 38 34 05 LONG 121 25 20)											
FEB , 1979											
22...	.0	9.4	37	--	.05	9	--	22	.06	--	.020
MAY											
22...	.1	9.8	41	43	.06	0	0	0	--	--	--
JUL											
23...	.0	11	39	38	.05	--	--	--	--	--	--
OCT											
10...	.1	9.5	35	33	.05	20	12	8	.02	--	.020
11447230 - AMERICAN RIVER AT 16TH ST BRIDGE AT SACRAMENTO (LAT 38 35 46 LONG 121 28 30)											
FEB , 1979											
21...	.0	8.9	37	40	.05	30	--	10	--	--	--
MAY											
22...	.1	9.5	46	41	.06	5	5	0	--	--	--
JUL											
23...	.0	--	--	--	--	--	--	--	--	.03	--
OCT											
10...	--	9.9	36	41	.05	18	12	6	.02	--	.060

TABLE 2.--Physical, biological, and chemical analyses--Continued

Stations downstream from Folsom Lake

DATE	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHOPHOSPHATE DISSOL. (MG/L AS P)	CADMIUM DISSOLVED (UG/L AS CD)
11446400 - AMERICAN RIVER AT NIMBUS DAM CALIF (LAT 38 38 10 LONG 121 13 15)											
FEB , 1979											
22...	--	.06	.07	.010	.06	.07	.13	.010	.005	.003	0
MAY											
23...	--	.06		.030	.06	.09	.15	.010	.007	.003	0
JUL											
23...	--	.02	.00	.000	.08	.08	.10	.010	.000	.000	--
OCT											
11...	--	.02	.03	.010	.33	.34	.36	.000	.000	.001	<1
11447000 - AMERICAN R AT SACRAMENTO CALIF (LAT 38 34 05 LONG 121 25 20)											
FEB , 1979											
22...	--	.08	.14	.070	.11	.18	.26	.040	.030	.020	0
MAY											
22...	--	.05	.05	.070	.08	.15	.20	.030	.032	.030	0
JUL											
23...	--	.05	.00	.040	.27	.31	.36	.060	.030	.067	<1
OCT											
10...	--	.04	.04	.120	.88	1.0	1.0	.040		.057	<1
11447230 - AMERICAN RIVER AT 16TH ST BRIDGE AT SACRAMENTO (LAT 38 35 46 LONG 121 28 30)											
FEB , 1979											
21...	--	.11	.12	.090	.17	.26	.37	.060	.060	.030	1
MAY											
22...	--	.38		.060	.17	.23	.61	.030	.030	.028	0
JUL											
23...	.000	--	.03	.23	.19	.38	.48	.12	.105	.000	1
OCT											
10...	--	.08	.09	.290	.24	.53	.61	.090	.097	.093	<1

TABLE 2.--Physical, biological, and chemical analyses--Continued

Stations downstream from Folsom Lake

DATE	BORON, SUS-PENDED RECOV-ERABLE (UG/L AS B)	BORON, DIS-SOLVED (UG/L AS B)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)
11446400 - AMERICAN RIVER AT NIMBUS DAM CALIF (LAT 38 38 10 LONG 121 13 15)										
FEB , 1979										
22...	--	20	160	140	20	20	20	0	2.1	2.2
MAY										
23...	--	40	70	60	10	10	10	0	1.8	--
JUL										
23...	10	10	70	--	10	10	--	5	1.3	--
OCT										
11...	10	9	70	--	<10	20	20	4	1.1	--
11447000 - AMERICAN R AT SACRAMENTO CALIF (LAT 38 34 05 LONG 121 25 20)										
FEB , 1979										
22...	30	40	520	490	30	30	30	0	2.1	2.2
MAY										
22...	--	20	140	130	10	10	0	10	2.1	--
JUL										
23...	--	40	110	--	20	20	--	7	1.9	--
OCT										
10...	20	20	110	--	10	8	1	7	1.3	--
11447230 - AMERICAN RIVER AT 16TH ST BRIDGE AT SACRAMENTO (LAT 38 35 46 LONG 121 28 30)										
FEB , 1979										
21...	0	40	1100	1100	50	40	40	0	--	3.3
MAY										
22...	--	40	250	220	30	10	10	0	2.3	--
JUL										
23...	--	30	130	--	20	10	--	10	1.9	--
OCT										
10...	0	20	180	--	10	10	1	9	2.2	--

TABLE 3.--Additional chemical analyses (metals) at selected stream stations

[<, ACTUAL VALUE IS KNOWN TO BE LESS THAN THE VALUE SHOWN]

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM, TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)
11433500 - MIDDLE FORK AMERICAN RIVER NEAR AUBURN CALIF (LAT 38 55 05 LONG 121 00 51)											
MAR, 1979											
05...	1330	0	0	0	0	1	1	0	0	7	2
MAY											
30...	1330	0	0	0	0	0	1	0	0	8	0
11433800 - NF AMERICAN R BL AUBURN DAMSITE NR AUBURN CALIF (LAT 38 52 20 LONG 121 03 18)											
MAR, 1979											
05...	0830	1	.1	0	0	1	1	0	0	12	4
MAY											
30...	0930	0	0	0	0	0	1	10	0	13	0
11445500 - SF AMERICAN R NR LOTUS CALIF (LAT 38 49 07 LONG 120 56 45)											
MAR, 1979											
05...	1500	0	0	0	0	1	0	0	0	5	4
MAY											
30...	1530	0	0	0	0	0	1	0	0	8	3
11446400 - AMERICAN RIVER AT NIMBUS DAM CALIF (LAT 38 38 10 LONG 121 13 15)											
FEB, 1979											
22...	1245	0	0	0	0	0	0	0	10	2	0
MAY											
23...	0930	1	0	0	0	0	0	0	0	6	0
JUL											
23...	1030	0	0	0	<1	1		0	0	3	1
OCT											
11...	1030	1	1	0	<1	0	<1	20	10	2	1
11447000 - AMERICAN R AT SACRAMENTO CALIF (LAT 38 34 05 LONG 121 25 20)											
FEB, 1979											
22...	1300	1	0	0	0	1	0	10	10	8	2
MAY											
22...	1400	1	1	0	0	0	0	0	0	9	1
JUL											
23...	1230	0	0	0	<1	1	<1	0	0	4	2
OCT											
10...	1230	1	1	0	<1	0	<1	20	10	4	1
11447230 - AMERICAN RIVER AT 16TH ST BRIDGE AT SACRAMENTO (LAT 38 35 46 LONG 121 28 30)											
FEB, 1979											
21...	1300	1	1	0	0	1	1	10	0	11	2
MAY											
22...	1100	0	0	0	0	2	0	0	0	10	1
JUL											
23...	1000	0	0	0	<1	1	1	0	0	4	2
OCT											
10...	1000	1	1	0	<1	0	<1	10	10	4	1

TABLE 3.--Additional chemical analyses (metals) at selected stream stations--Continued

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
11433500 - MIDDLE FORK AMERICAN RIVER NEAR AUBURN CALIF (LAT 38 55 05 LONG 121 00 51)										
MAR, 1979										
05...	7	0	.0	.0	3	0	0	0	10	10
MAY										
30...	16	0	.3	.2	4	0	0	0	20	0
11433800 - NF AMERICAN R BL AUBURN DAMSITE NR AUBURN CALIF (LAT 38 52 20 LONG 121 03 18)										
MAR, 1979										
05...	13	2	.0	.0	4	2	0	0	30	20
MAY										
30...	42	0	.1	.0	4	0	0	0	30	0
11445500 - SF AMERICAN R NR LOTUS CALIF (LAT 38 49 07 LONG 120 56 45)										
MAR, 1979										
05...	4	0	.0	.0	1	0	0	0	10	0
MAY										
30...	5	0	.2	.0	0	0	0	0	20	10
11446400 - AMERICAN RIVER AT NIMBUS DAM CALIF (LAT 38 38 10 LONG 121 13 15)										
FEB, 1979										
22...	2	0	.9	.8	1	0	0	0	0	0
MAY										
23...	25	0	.7	.1	0	0	0	1	10	10
JUL										
23...	8	0	.0	.0	5	3	0	0	10	<3
OCT										
11...	0	1	.2	.0	0	1	0	0	10	8
11447000 - AMERICAN R AT SACRAMENTO CALIF (LAT 38 34 05 LONG 121 25 20)										
FEB, 1979										
22...	7	0	1.3	1.1	1	0	0	0	20	10
MAY										
22...	76	0	.9	.4	4	0	1	1	20	0
JUL										
23...	5	0	.1	.1	5	2	0	0	10	4
OCT										
10...	2	0	.0	.0	2	0	0	0	20	5
11447230 - AMERICAN RIVER AT 16TH ST BRIDGE AT SACRAMENTO (LAT 38 35 46 LONG 121 28 30)										
FEB, 1979										
21...	13	1	1.5	1.3	2	0	0	0	30	30
MAY										
22...	23	0	.8	.2	2	3	1	1	10	10
JUL										
23...	6	0	.0	.1	4	3	0	0	20	20
OCT										
10...	10	0	.0	.0	3	0	0	0	10	5

TABLE 4.--Chemical analyses of bottom sediment of Folsom Lake

11446200 - FOLSOM LAKE NEAR FOLSOM CALIF (LAT 38 42 29 LONG 121 09 22)

DATE	TIME	NITROGEN, TOT IN BOTTOM MATERIAL (MG/KG AS N)	PHOSPHORUS, TOTAL IN BOT. MAT. (MG/KG AS P)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)
APR , 1979 20...	1200	1300	900	57	0	17	20	60	39000

DATE	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	SILVER, RECOV. FM BOTTOM MATERIAL (UG/G AS AG)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	2,4-D, TOTAL IN BOTTOM MATERIAL (UG/KG)	2,4,5-T TOTAL IN BOTTOM MATERIAL (UG/KG)	SILVEX, TOTAL IN BOTTOM MATERIAL (UG/KG)
APR , 1979 20...	30	1200	.13	0	0	88	0	0	.0

TABLE 5.--Suspended sediment at selected stream stations

DATE	TIME	STREAM-FLOW (FT^3/S)	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	TEMPER-ATURE, WATER (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
11426197 - N.F. AMERICAN R AB SLAUGHTER RAVINE NR COLFAX (LAT 39 06 02 LONG 120 55 27)							
JUL • 1979							
30...	1230		--	630	24.0	2	3.4	32
11427000 - NF AMERICAN R AT NORTH FORK DAM CALIF (LAT 38 56 10 LONG 121 01 22)							
JUL • 1979							
27...	1300		--	79	24.5	4	.85	47
11433500 - MIDDLE FORK AMERICAN RIVER NEAR AUBURN CALIF (LAT 38 55 05 LONG 121 00 51)							
JUL • 1979							
27...	1430		--	1040	14.0	3	8.4	55
11433800 - NF AMERICAN R BL AUBURN DAMSITE NR AUBURN CALIF (LAT 38 52 20 LONG 121 03 18)							
JUL • 1979							
27...	1100		--	1130	17.0	2	6.1	61
11442500 - SF AMERICAN R BL SILVER C NR POLLOCK PINES CAL (LAT 38 48 37 LONG 120 37 02)							
JUL • 1979							
30...	1100		--	30	20.0	2	.16	60
11445500 - SF AMERICAN R NR LOTUS CALIF (LAT 38 49 07 LONG 120 56 45)							
JUL • 1979							
27...	1600		--	1610	15.5	4	17	78
11447000 - AMERICAN R AT SACRAMENTO CALIF (LAT 38 34 05 LONG 121 25 20)							
JUL • 1979							
23...	1230	2960		--	17.0	5	40	71
11447230 - AMERICAN RIVER AT 16TH ST BRIDGE AT SACRAMENTO (LAT 38 35 46 LONG 121 28 30)							
JUL • 1979							
23...	1000	2960		--	17.0	5	40	71

TABLE 6.--Vertical profiles of Folsom Lake

DATE	TIME	SAMPLING DEPTH (M)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
384730121061900 - FOLSOM LAKE SAMPLE SITE NO 2 ON NORTH FORK ARM (LAT 38 47 30 LONG 121 06 19)							
MAR, 1979							
01...	1345	.50	54	7.7	9.9	11.6	105
01...	1346	1.0	54	7.6	9.8	11.8	106
01...	1347	2.0	54	7.7	9.7	12.1	109
01...	1348	3.0	54	7.6	9.6	12.2	109
01...	1349	4.0	54	7.7	9.6	12.3	110
01...	1350	5.0	54	7.6	9.5	12.3	110
01...	1351	6.0	54	7.6	9.4	12.3	110
01...	1352	7.0	54	7.6	9.4	12.4	111
01...	1353	8.0	54	7.6	9.3	12.3	109
01...	1354	9.0	56	7.5	9.3	12.2	109
01...	1355	10.0	56	7.6	9.3	12.1	108
01...	1356	11.0	57	7.6	9.2	12.0	106
01...	1357	12.0	57	7.5	9.2	11.9	106
01...	1358	13.0	58	7.6	9.1	11.8	104
01...	1359	14.0	58	7.5	9.1	11.7	104
01...	1400	15.0	59	7.4	9.0	11.7	103
01...	1401	16.0	61	7.5	8.8	11.6	102
01...	1402	17.0	65	7.5	8.5	11.6	101
01...	1403	18.0	66	7.5	8.3	11.6	101
01...	1404	19.0	70	7.5	8.1	11.4	99
01...	1405	20.0	70	7.5	8.2	11.3	98
01...	1406	21.0	70	7.5	8.1	11.2	97
01...	1407	22.0	70	7.5	8.1	11.3	98
01...	1408	23.0	70	7.5	8.0	11.3	97
01...	1409	24.0	72	7.5	8.0	11.2	97
01...	1410	25.0	72	7.5	7.9	11.2	96
01...	1411	26.0	72	7.5	7.9	11.2	96
01...	1412	27.0	72	7.5	7.9	11.1	95
01...	1413	28.0	72	7.5	7.9	11.1	95
01...	1414	29.0	72	7.5	7.9	11.1	95
01...	1415	30.0	72	7.5	7.9	11.1	95
01...	1416	31.0	72	7.5	7.8	11.1	95
01...	1417	32.0	72	7.5	7.8	11.1	95
01...	1418	33.0	72	7.5	7.8	11.1	95
01...	1419	34.0	72	7.5	7.8	11.0	94
01...	1420	35.0	72	7.5	7.8	11.0	94
01...	1421	36.0	72	7.5	7.8	11.0	94
01...	1422	37.0	72	7.5	7.8	11.0	94
01...	1423	38.0	72	7.5	7.8	11.0	94
01...	1424	39.0	72	7.5	7.8	11.0	94
01...	1425	40.0	72	7.5	7.8	11.0	94
01...	1426	41.0	72	7.5	7.8	11.0	94
01...	1427	42.0	72	7.5	7.8	11.0	94
01...	1428	43.0	72	7.5	7.8	11.0	94
01...	1429	44.0	72	7.6	7.8	11.0	94
01...	1430	45.0	72	7.6	7.8	11.0	94
01...	1431	46.0	72	7.6	7.8	11.0	94
01...	1432	47.0	72	7.6	7.8	11.0	94
01...	1433	48.0	72	7.4	7.8	11.0	94
JUNE, 1979							
13...	1545	.50	59	7.7	23.8	8.1	98
13...	1546	1.0	59	7.7	23.8	8.1	98
13...	1547	2.0	59	7.7	23.8	8.2	99
13...	1548	3.0	59	7.7	23.7	8.2	99
13...	1549	4.0	59	7.7	23.6	8.2	99
13...	1550	5.0	59	7.7	23.5	8.2	99
13...	1551	6.0	59	7.6	23.0	8.3	99
13...	1552	7.0	58	7.6	22.7	8.4	100
13...	1553	8.0	57	7.6	21.6	8.6	100
13...	1554	9.0	54	7.5	21.1	8.6	99
13...	1555	10.0	52	7.4	19.7	8.8	98
13...	1556	11.0	47	7.4	18.1	9.0	97
13...	1557	12.0	46	7.3	17.6	9.0	96
13...	1558	13.0	46	7.3	17.2	8.9	95
13...	1559	14.0	46	7.3	16.5	9.0	94
13...	1600	15.0	46	7.2	16.2	9.0	94
13...	1601	16.0	46	7.2	15.9	8.9	92
13...	1602	17.0	46	7.1	15.4	8.8	90

TABLE 6.--Vertical profiles of Folsom Lake--Continued

DATE	TIME	SAMPLING DEPTH (M)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
384730121061900 - FOLSOM LAKE SAMPLE SITE NO 2 ON NORTH FORK ARM (LAT 38 47 30 LONG 121 06 19)							
JUNE, 1979--CONTINUED							
13...	1603	18.0	47	7.1	14.1	8.8	87
13...	1604	19.0	46	7.1	14.0	8.8	87
13...	1605	20.0	46	7.1	13.6	8.8	87
13...	1606	21.0	46	7.0	13.5	8.8	86
13...	1607	22.0	47	7.0	13.2	8.8	86
13...	1608	23.0	48	7.0	12.9	8.8	85
13...	1609	24.0	49	7.0	12.6	8.8	85
13...	1610	25.0	50	7.0	12.6	8.8	85
13...	1611	26.0	51	7.0	12.2	8.7	83
13...	1612	27.0	51	7.0	12.0	8.7	83
13...	1613	28.0	51	6.9	11.8	8.6	81
13...	1614	29.0	53	6.9	11.7	8.6	81
13...	1615	30.0	53	7.0	11.7	8.6	81
13...	1616	31.0	53	6.9	11.4	8.5	80
13...	1617	32.0	53	6.9	11.3	8.5	79
13...	1618	33.0	53	6.9	11.2	8.5	79
13...	1619	34.0	55	6.9	11.1	8.4	78
13...	1620	35.0	55	6.9	11.0	8.4	78
13...	1621	36.0	55	6.9	10.9	8.4	78
13...	1622	37.0	55	6.9	10.9	8.4	78
13...	1623	38.0	55	6.9	10.8	8.4	78
13...	1624	39.0	57	6.9	10.7	8.4	77
13...	1625	40.0	57	6.9	10.6	8.3	76
13...	1626	41.0	57	6.9	10.5	8.3	76
13...	1627	42.0	58	6.9	10.3	8.2	75
13...	1628	43.0	58	6.9	10.3	8.2	75
13...	1629	44.0	59	6.9	10.2	8.1	74
13...	1630	45.0	59	6.9	10.2	8.1	74
13...	1631	46.0	59	6.9	10.1	8.1	74
13...	1632	47.0	59	6.9	10.1	8.0	73
13...	1633	48.0	59	6.9	10.0	8.0	73
13...	1634	49.0	59	6.9	10.0	8.0	73
13...	1635	50.0	59	6.9	9.9	7.9	71
13...	1636	51.0	59	6.9	9.9	7.9	71
13...	1637	52.0	59	6.8	9.8	7.9	71
13...	1638	53.0	59	6.8	9.8	7.9	71
JUL , 1979							
25...	1230	.50	58	8.0	27.2	7.9	102
25...	1231	1.0	58	8.0	27.2	8.0	103
25...	1232	2.0	58	8.0	27.1	8.2	105
25...	1233	3.0	57	8.2	26.3	8.4	106
25...	1234	4.0	57	8.2	25.7	8.6	108
25...	1235	5.0	56	8.2	25.6	8.6	108
25...	1236	6.0	56	8.2	25.4	8.8	110
25...	1237	7.0	57	8.2	25.1	8.8	109
25...	1238	8.0	56	8.2	24.9	8.8	109
25...	1239	9.0	57	7.8	23.7	8.7	105
25...	1240	10.0	57	7.7	22.7	8.6	102
25...	1241	11.0	58	7.4	22.1	8.2	96
25...	1242	12.0	57	7.4	20.5	8.3	94
25...	1243	13.0	49	7.4	19.4	8.6	96
25...	1244	14.0	47	7.3	18.8	8.7	95
25...	1245	15.0	49	7.2	17.7	8.3	89
25...	1246	16.0	46	7.3	17.6	8.4	90
25...	1247	17.0	47	7.2	17.0	8.1	86
25...	1248	18.0	48	7.1	16.6	7.9	83
25...	1249	19.0	48	6.9	15.6	7.1	73
25...	1250	20.0	47	6.8	15.0	6.9	70
25...	1251	22.0	48	6.8	14.6	6.8	68
25...	1252	24.0	48	6.8	14.1	6.6	66
25...	1253	25.0	49	6.8	13.6	6.7	66
25...	1254	30.0	49	6.8	12.7	6.8	66
25...	1255	35.0	52	6.8	12.0	6.6	63
25...	1256	40.0	54	6.7	11.4	6.3	59
25...	1257	45.0	55	6.7	11.1	6.1	57
25...	1258	50.0	57	6.7	10.6	5.9	54

TABLE 6.--Vertical profiles of Folsom Lake--Continued

DATE	TIME	SAMPLING DEPTH (M)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	LIGHT, ATTENUATION COEFFICIENT (ALPHA/METER)
384730121061900 - FOLSOM LAKE SAMPLE SITE NO 2 ON NORTH FORK ARM (LAT 38 47 30 LONG 121 06 19)								
SEP , 1979								
12...	1300	.50	61	8.0	25.9	8.0	101	1.54
12...	1301	1.0	61	8.0	25.3	8.0	100	1.54
12...	1302	2.0	62	8.0	24.6	8.1	100	1.48
12...	1303	3.0	61	8.0	24.6	8.1	100	1.43
12...	1304	4.0	61	8.0	24.4	8.1	99	1.43
12...	1305	5.0	60	8.0	24.2	8.1	99	1.37
12...	1306	6.0	60	8.0	24.2	8.0	98	1.31
12...	1307	7.0	60	7.8	23.6	7.9	95	1.31
12...	1308	8.0	58	7.7	23.4	7.8	94	1.26
12...	1309	9.0	58	7.7	23.1	7.7	92	1.15
12...	1310	10.0	57	7.6	22.8	7.6	90	1.15
12...	1311	11.0	57	7.5	22.7	7.5	89	1.15
12...	1312	12.0	55	7.5	22.0	7.6	89	1.15
12...	1313	13.0	52	7.4	21.4	7.7	89	1.15
12...	1314	14.0	51	7.4	20.9	7.8	89	1.37
12...	1315	15.0	51	7.4	20.0	8.0	90	1.54
12...	1316	16.0	50	7.4	19.3	8.1	90	1.72
12...	1317	17.0	50	7.4	18.8	8.1	89	2.04
12...	1318	18.0	50	7.4	18.4	8.1	88	2.69
12...	1319	19.0	51	7.4	18.2	8.2	89	3.11
12...	1320	20.0	49	7.4	18.0	7.8	84	3.28
12...	1321	21.0	50	7.3	17.7	7.3	78	3.47
12...	1322	22.0	51	7.2	17.6	7.2	77	3.47
12...	1323	23.0	51	7.1	17.6	6.9	74	3.67
12...	1324	24.0	51	7.1	17.3	6.7	71	3.37
12...	1325	25.0	52	7.0	16.9	6.4	68	4.09
12...	1326	30.0	56	6.9	15.0	5.3	54	4.95
12...	1327	35.0	57	6.8	14.0	5.1	51	6.86
12...	1328	40.0	58	6.8	13.0	4.6	45	9.63
12...	1329	42.0	60	6.8	12.8	4.4	43	11.25
OCT , 1979								
17...	1400	.50	53	7.6	22.0	8.5	99	1.43
17...	1401	1.0	53	7.6	22.0	8.5	99	1.48
17...	1402	2.0	53	7.6	22.0	8.6	101	1.54
17...	1403	3.0	53	7.6	21.8	8.6	100	1.60
17...	1404	4.0	52	7.5	21.5	8.3	96	1.66
17...	1405	5.0	52	7.5	21.5	8.4	97	1.85
17...	1406	6.0	52	7.5	21.4	8.3	96	2.04
17...	1407	7.0	52	7.5	21.3	8.2	95	2.18
17...	1408	8.0	52	7.4	21.2	7.8	90	2.11
17...	1409	9.0	52	7.3	20.9	7.6	87	2.11
17...	1410	10.0	50	7.3	20.9	7.6	87	2.11
17...	1411	11.0	50	7.2	20.8	7.6	87	2.18
17...	1412	12.0	49	7.2	20.6	7.7	88	2.32
17...	1413	13.0	50	7.2	20.2	7.8	88	2.46
17...	1414	14.0	49	7.2	20.0	7.9	89	2.62
17...	1415	15.0	48	7.2	19.6	8.1	90	2.69
17...	1416	16.0	47	7.2	19.2	8.2	91	2.62
17...	1417	17.0	47	7.2	19.1	8.3	92	2.62
17...	1418	18.0	48	7.2	18.7	8.3	91	2.62
17...	1419	19.0	48	7.2	18.5	8.3	91	2.62
17...	1420	20.0	48	7.2	18.3	8.4	91	2.62
17...	1421	21.0	48	7.2	18.1	8.3	90	2.77
17...	1422	22.0	47	7.1	18.0	8.3	90	3.11
17...	1423	23.0	48	7.1	17.7	8.0	86	3.77
17...	1424	24.0	48	7.1	17.6	7.9	85	4.09
17...	1425	25.0	48	7.0	17.4	7.2	77	3.87
17...	1426	26.0	48	6.9	17.4	6.5	69	3.66
17...	1427	27.0	48	6.9	17.0	5.4	57	3.66
17...	1428	28.0	47	6.7	16.8	5.2	55	3.98
17...	1429	29.0	49	6.7	16.6	4.9	52	4.32
17...	1430	30.0	49	6.7	16.5	4.8	50	1.61
17...	1431	31.0	49	6.6	16.4	4.7	49	4.95
17...	1432	32.0	50	6.6	16.2	4.4	46	5.24
17...	1433	33.0	50	6.6	16.1	4.4	46	5.71
17...	1434	34.0	50	6.6	15.9	4.2	44	6.24
17...	1435	35.0	50	6.6	15.8	4.1	43	6.43
17...	1436	36.0	50	6.6	15.7	4.0	41	7.33
17...	1440	40.0	52	6.5	14.8	2.8	29	12.88
17...	1441	41.0	55	6.5	14.4	2.6	26	14.76
17...	1442	42.0	57	6.5	14.2	2.5	25	15.65
17...	1443	43.0	57	6.4	14.0	2.4	24	17.07
17...	1444	44.0	57	6.4	13.8	2.2	22	16.54
17...	1445	45.0	59	6.4	13.5	2.0	20	--

TABLE 6.--Vertical profiles of Folsom Lake--Continued

DATE	TIME	SAMPLING DEPTH (M)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
384449121044700 - SF ARM FOLSOM LAKE NR FOLSOM CA (LAT 38 44 49 LONG 121 04 47)							
MAR , 1979							
01...	1100	.50	59	7.6	9.4	11.4	102
01...	1101	1.0	59	7.6	9.4	11.4	102
01...	1102	2.0	59	7.6	9.4	11.4	102
01...	1103	3.0	59	7.6	9.3	11.4	101
01...	1104	4.0	59	7.6	9.2	11.4	101
01...	1105	5.0	59	7.6	9.2	11.4	101
01...	1106	6.0	61	7.6	9.2	11.4	101
01...	1107	7.0	61	7.6	9.2	11.3	100
01...	1108	8.0	61	7.6	9.1	11.4	101
01...	1109	9.0	61	7.5	9.1	11.3	100
01...	1110	10.0	62	7.5	8.9	11.3	100
01...	1111	11.0	63	7.5	8.7	11.1	97
01...	1112	12.0	62	7.4	8.6	11.1	97
01...	1113	13.0	63	7.5	8.5	11.2	98
01...	1114	14.0	68	7.4	8.2	11.2	97
01...	1115	15.0	68	7.5	8.2	11.2	97
01...	1116	16.0	68	7.4	8.1	11.2	97
01...	1117	17.0	68	7.4	8.0	11.3	97
01...	1118	18.0	68	7.4	7.9	11.3	97
01...	1119	19.0	68	7.4	7.9	11.3	97
01...	1120	20.0	68	7.4	7.9	11.4	98
01...	1121	21.0	67	7.5	7.9	11.3	97
01...	1122	22.0	68	7.5	7.9	11.3	97
01...	1123	23.0	67	7.5	7.9	11.3	97
01...	1124	24.0	67	7.5	7.9	11.3	97
01...	1125	25.0	68	7.5	7.9	11.3	97
01...	1126	26.0	68	7.5	7.5	11.5	98
01...	1127	27.0	67	7.5	7.3	11.5	97
01...	1128	28.0	68	7.5	7.2	11.6	98
01...	1129	29.0	69	7.5	7.1	11.6	98
01...	1130	30.0	68	7.5	7.1	11.6	98
01...	1131	31.0	68	7.5	7.1	11.5	97
01...	1132	32.0	69	7.4	7.1	11.6	98
JUN , 1979							
13...	1314	.50	60	7.6	23.7	8.1	98
13...	1315	1.0	60	7.6	23.6	8.2	99
13...	1316	2.0	60	7.7	23.4	8.2	99
13...	1317	3.0	60	7.7	23.4	8.2	99
13...	1318	4.0	60	7.6	23.3	8.2	98
13...	1319	5.0	60	7.6	23.2	8.2	98
13...	1320	6.0	59	7.6	23.0	8.2	98
13...	1321	7.0	59	7.5	22.0	8.2	96
13...	1322	8.0	49	7.2	20.1	8.6	97
13...	1323	9.0	42	7.1	19.0	8.7	96
13...	1324	10.0	34	6.9	17.3	8.8	94
13...	1325	11.0	32	6.9	16.3	8.7	91
13...	1326	12.0	31	6.8	15.4	8.7	89
13...	1327	13.0	29	6.8	14.8	8.8	89
13...	1328	14.0	29	6.8	14.5	8.7	87
13...	1329	15.0	28	6.7	14.1	8.8	87
13...	1330	16.0	28	6.7	14.0	8.7	86
13...	1331	17.0	28	6.7	13.9	8.7	86
13...	1332	18.0	28	6.7	13.7	8.6	85
13...	1333	19.0	28	6.7	13.5	8.6	84
13...	1334	20.0	28	6.7	13.4	8.7	85
13...	1335	21.0	29	6.7	13.0	8.7	84
13...	1336	22.0	30	6.7	12.9	8.6	83
13...	1337	23.0	31	6.7	12.8	8.6	83
13...	1338	24.0	32	6.7	12.6	8.7	84
13...	1339	25.0	32	6.7	12.3	8.6	82
13...	1340	26.0	32	6.7	12.2	8.6	82
13...	1341	27.0	33	6.7	12.1	8.6	82
13...	1342	28.0	33	6.7	12.1	8.6	82
13...	1343	29.0	33	6.6	12.1	8.5	81
13...	1344	30.0	33	6.6	12.1	8.5	81
13...	1345	31.0	33	6.6	11.8	8.4	79
13...	1346	32.0	36	6.6	11.5	8.3	78
13...	1347	33.0	36	6.6	11.5	8.3	78
13...	1348	34.0	38	6.6	11.2	8.3	77
13...	1349	35.0	40	6.6	10.9	8.2	76
13...	1350	36.0	41	6.6	10.8	8.0	74
13...	1351	37.0	43	6.6	10.7	7.9	73
13...	1352	38.0	44	6.6	10.7	7.9	73

TABLE 6.--Vertical profiles of Folsom Lake--Continued

DATE	TIME	SAMPLING DEPTH (M)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	LIGHT, ATTENUATION COEFFICIENT (ALPHA/METER)
384449121044700 - SF ARM FOLSOM LAKE NR FOLSOM CA (LAT 38 44 49 LONG 121 04 47)								
JUL , 1979								
25...	1600	.50	55	8.0	27.4	7.9	102	
25...	1601	1.0	56	8.0	27.1	8.0	103	
25...	1602	2.0	56	8.1	26.9	8.2	105	
25...	1603	3.0	56	8.1	26.6	8.4	107	
25...	1604	4.0	55	8.2	25.8	8.5	107	
25...	1605	5.0	55	8.2	25.4	8.6	107	
25...	1606	6.0	55	8.2	25.3	8.6	107	
25...	1607	7.0	55	8.1	25.0	8.6	106	
25...	1608	8.0	56	8.0	24.3	8.5	104	
25...	1609	9.0	55	7.7	23.3	8.4	101	
25...	1610	10.0	43	7.1	22.1	7.5	88	
25...	1611	11.0	43	7.0	20.8	7.6	87	
25...	1612	12.0	38	6.9	20.4	7.8	88	
25...	1613	13.0	36	6.9	19.9	8.0	90	
25...	1614	14.0	34	6.9	19.3	8.2	91	
25...	1615	15.0	31	6.9	18.6	8.5	93	
25...	1616	16.0	29	6.9	18.0	8.4	91	
25...	1617	17.0	29	6.8	17.5	8.1	87	
25...	1618	18.0	29	6.8	17.4	8.0	85	
25...	1619	19.0	29	6.7	17.4	8.1	86	
25...	1620	20.0	30	6.6	16.6	7.7	81	
25...	1621	22.0	32	6.5	15.5	6.8	70	
25...	1622	24.0	34	6.5	14.5	6.7	67	
25...	1623	25.0	36	6.5	14.0	6.4	64	
25...	1624	30.0	38	6.4	12.6	6.0	58	
25...	1625	35.0	41	6.4	12.1	5.9	56	
25...	1626	36.0	41	6.4	12.0	5.9	56	
SEP , 1979								
12...	1500	.50	59	8.2	25.2	8.4	104	--
12...	1501	1.0	59	8.2	25.2	8.4	104	1.66
12...	1502	2.0	59	8.2	25.1	8.5	105	1.66
12...	1503	3.0	59	8.1	24.4	8.4	103	1.66
12...	1504	4.0	59	8.0	24.1	8.4	102	1.72
12...	1505	5.0	59	7.9	23.9	8.3	101	1.72
12...	1506	6.0	58	7.9	23.9	8.3	101	1.66
12...	1507	7.0	59	7.9	23.7	8.2	99	1.72
12...	1508	8.0	58	7.8	23.6	8.1	98	1.66
12...	1509	9.0	58	7.7	23.4	7.9	95	1.48
12...	1510	10.0	56	7.6	22.8	7.4	88	1.26
12...	1511	11.0	54	7.4	22.2	7.1	83	1.26
12...	1512	12.0	51	7.4	21.7	7.2	84	1.37
12...	1513	13.0	48	7.3	21.4	7.4	86	1.54
12...	1514	14.0	45	7.3	20.8	7.5	86	1.60
12...	1515	15.0	44	7.3	19.5	7.5	84	1.98
12...	1516	16.0	40	7.3	19.1	7.6	84	2.39
12...	1517	17.0	38	7.2	18.8	7.9	87	2.69
12...	1518	18.0	36	7.2	18.6	8.1	89	3.28
12...	1519	19.0	35	7.2	18.3	8.2	89	3.66
12...	1520	20.0	34	7.3	17.9	8.4	91	4.09
12...	1521	21.0	34	7.3	17.6	8.5	91	4.56
12...	1522	22.0	32	7.2	17.3	8.5	90	4.95
12...	1523	23.0	32	7.2	17.0	8.6	91	5.09
12...	1524	24.0	31	7.3	16.9	8.8	93	5.09
12...	1525	25.0	30	7.3	16.7	9.0	95	6.24
12...	1526	29.0	29	7.3	15.9	9.3	96	11.25

TABLE 6.--Vertical profiles of Folsom Lake--Continued

DATE	TIME	SAMPLING DEPTH (M)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	LIGHT, ATTENUATION COEFFICIENT (ALPHA/METER)
384449121044700 - SF ARM FOLSOM LAKE NR FOLSOM CA (LAT 38 44 49 LONG 121 04 47)								
OCT , 1979								
17...	1030	.50	53	7.3	21.2	8.2	94	1.37
17...	1031	1.0	53	7.3	21.2	8.2	94	1.43
17...	1032	2.0	52	7.3	21.2	8.2	94	1.54
17...	1033	3.0	52	7.3	21.1	8.2	94	1.98
17...	1034	4.0	52	7.3	21.1	8.2	94	2.11
17...	1035	5.0	52	7.2	21.1	8.2	94	2.25
17...	1036	6.0	52	7.2	21.1	8.2	94	2.32
17...	1037	7.0	52	7.2	21.1	8.2	94	2.39
17...	1038	8.0	52	7.2	21.1	8.2	94	2.46
17...	1039	9.0	52	7.2	21.0	8.1	93	2.54
17...	1040	10.0	52	7.2	21.0	8.0	92	2.54
17...	1041	11.0	52	7.2	20.8	7.8	89	2.62
17...	1042	12.0	50	6.9	20.0	6.9	78	2.77
17...	1043	13.0	46	6.9	19.5	6.9	77	2.54
17...	1044	14.0	45	6.9	19.2	6.7	74	2.46
17...	1045	15.0	43	6.8	18.8	6.9	76	2.62
17...	1046	16.0	42	6.8	18.5	7.1	78	2.62
17...	1047	17.0	42	6.8	18.3	7.2	78	2.77
17...	1048	18.0	40	6.8	18.1	7.3	79	2.94
17...	1049	19.0	40	6.8	18.0	7.5	81	2.94
17...	1050	20.0	39	6.8	17.8	7.6	82	3.20
17...	1051	21.0	39	6.8	17.7	7.6	82	3.47
17...	1052	22.0	38	6.8	17.5	7.7	82	3.38
17...	1053	23.0	38	6.8	17.3	7.8	83	4.32
17...	1054	24.0	38	6.8	17.0	7.9	84	6.06
17...	1055	25.0	37	6.8	16.6	7.9	83	5.24
17...	1056	26.5	34	6.4	16.3	7.9	82	6.64
11446200 - FOLSOM LAKE NEAR FOLSOM CALIF (LAT 38 42 29 LONG 121 09 22)								
MAR , 1979								
01...	1700	.50	54	7.7	9.2	11.7	104	
01...	1701	1.0	54	7.7	9.2	11.7	104	
01...	1702	2.0	54	7.7	8.9	11.7	103	
01...	1703	3.0	54	7.7	8.8	11.7	103	
01...	1704	4.0	54	7.6	8.7	11.6	102	
01...	1705	5.0	54	7.6	8.6	11.6	101	
01...	1706	6.0	54	7.6	8.6	11.5	101	
01...	1707	7.0	54	7.6	8.6	11.5	101	
01...	1708	8.0	53	7.6	8.6	11.4	100	
01...	1709	9.0	53	7.5	8.6	11.4	100	
01...	1710	10.0	53	7.5	8.6	11.4	100	
01...	1711	11.0	53	7.5	8.6	11.4	100	
01...	1712	12.0	53	7.5	8.5	11.4	99	
01...	1713	13.0	53	7.5	8.5	11.4	99	
01...	1714	14.0	54	7.5	8.5	11.4	99	
01...	1715	15.0	54	7.5	8.5	11.3	99	
01...	1716	16.0	54	7.5	8.5	11.3	99	
01...	1717	17.0	54	7.4	8.4	11.3	98	
01...	1718	18.0	54	7.4	8.4	11.3	98	
01...	1719	19.0	56	7.4	8.2	11.2	97	
01...	1720	20.0	59	7.4	8.1	11.2	97	
01...	1721	21.0	62	7.4	7.9	11.2	97	
01...	1722	22.0	61	7.4	7.9	11.2	96	
01...	1723	23.0	62	7.4	7.8	11.2	96	
01...	1724	24.0	62	7.4	7.8	11.2	96	
01...	1725	25.0	63	7.4	7.7	11.2	96	
01...	1727	27.0	63	7.4	7.7	11.1	95	
01...	1728	28.0	64	7.4	7.7	11.1	95	
01...	1729	29.0	65	7.4	7.6	11.1	95	
01...	1730	30.0	67	7.4	7.6	11.2	96	
01...	1731	31.0	67	7.4	7.6	11.2	96	
01...	1732	32.0	67	7.4	7.5	11.2	95	
01...	1733	33.0	67	7.4	7.5	11.2	95	
01...	1734	34.0	68	7.4	7.5	11.2	95	
01...	1735	35.0	68	7.4	7.5	11.2	95	
01...	1736	36.0	68	7.4	7.5	11.2	95	
01...	1737	37.0	68	7.4	7.4	11.2	95	

TABLE 6.--Vertical profiles of Folsom Lake--Continued

DATE	TIME	SAMPLING DEPTH (M)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
11446200 - FOLSOM LAKE NEAR FOLSOM CALIF (LAT 38 42 29 LONG 121 09 22)							
MAR, 1979--CONTINUED							
01...	1738	38.0	68	7.4	7.4	11.2	95
01...	1739	39.0	67	7.4	7.4	11.2	95
01...	1740	40.0	66	7.4	7.3	11.1	94
01...	1741	41.0	64	7.4	7.2	11.0	93
01...	1742	42.0	64	7.4	7.2	11.0	93
01...	1743	43.0	62	7.3	7.1	10.9	92
01...	1744	44.0	60	7.3	7.0	10.9	92
01...	1745	45.0	60	7.3	7.0	10.8	91
01...	1746	46.0	58	7.3	7.0	10.8	91
01...	1747	47.0	58	7.3	6.9	10.7	90
01...	1748	48.0	58	7.2	6.9	10.7	90
01...	1749	49.0	56	7.2	6.8	10.7	90
01...	1750	50.0	56	7.2	6.8	10.7	90
01...	1751	51.0	56	7.0	6.8	10.6	89
01...	1752	52.0	56	7.0	6.8	10.6	89
01...	1753	53.0	56	7.0	6.8	10.6	89
APR , 1979							
20...	1300	.50	62	8.0	16.5	10.2	107
20...	1301	1.0	62	7.9	16.5	10.2	107
20...	1302	2.0	62	7.9	16.4	10.3	108
20...	1303	3.0	63	7.9	15.9	10.4	107
20...	1304	4.0	62	8.0	15.6	10.5	108
20...	1305	5.0	64	7.9	14.5	10.6	106
20...	1306	6.0	63	7.9	14.3	10.6	106
20...	1307	7.0	62	7.9	14.2	10.6	106
20...	1308	8.0	62	7.9	14.2	10.6	106
20...	1309	9.0	62	7.9	14.1	10.5	104
20...	1310	10.0	63	7.7	13.6	10.4	102
20...	1311	11.0	62	7.7	12.9	10.3	100
20...	1312	12.0	63	7.5	12.0	10.2	97
20...	1313	13.0	63	7.5	11.8	10.2	96
20...	1314	14.0	59	7.4	11.1	10.2	95
20...	1315	15.0	58	7.4	10.5	10.2	93
20...	1316	16.0	58	7.4	10.1	10.0	91
20...	1317	17.0	56	7.4	10.0	10.0	91
20...	1318	18.0	55	7.3	9.8	10.0	90
20...	1319	19.0	59	7.3	9.6	10.0	90
20...	1320	20.0	60	7.3	9.5	10.0	89
20...	1321	21.0	61	7.3	9.5	10.0	89
20...	1322	22.0	61	7.3	9.4	10.0	89
20...	1323	23.0	62	7.3	9.3	10.0	89
20...	1324	24.0	62	7.3	9.2	9.9	88
20...	1325	25.0	64	7.3	9.2	9.9	88
20...	1330	30.0	62	7.3	8.8	9.9	87
20...	1335	35.0	63	7.3	8.7	9.8	86
20...	1340	40.0	63	7.3	8.6	9.8	86
20...	1345	45.0	63	7.3	8.4	9.7	85
20...	1350	50.0	64	7.3	8.2	9.6	83

TABLE 6.--Vertical profiles of Folsom Lake--Continued

DATE	TIME	SAMPLING DEPTH (M)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
11446200 - FOLSOM LAKE NEAR FOLSOM CALIF (LAT 38 42 29 LONG 121 09 22)							
JUN , 1979							
14...	1315	.50	59	7.8	23.0	8.5	101
14...	1316	1.0	60	7.8	22.5	8.6	102
14...	1317	2.0	59	7.8	22.1	8.6	101
14...	1318	3.0	58	7.8	21.9	8.6	100
14...	1319	4.0	59	7.8	21.7	8.7	101
14...	1320	5.0	58	7.8	21.5	8.7	101
14...	1321	6.0	58	7.8	21.4	8.7	101
14...	1322	7.0	58	7.8	21.3	8.7	100
14...	1323	8.0	57	7.7	21.1	8.7	100
14...	1324	9.0	57	7.6	20.7	8.8	100
14...	1325	10.0	56	7.6	20.1	8.9	100
14...	1326	11.0	48	7.2	17.1	9.2	98
14...	1327	12.0	44	7.2	16.6	9.2	97
14...	1328	13.0	45	7.1	15.5	9.2	94
14...	1329	14.0	46	7.1	15.0	9.2	93
14...	1330	15.0	46	7.1	14.9	9.2	93
14...	1331	16.0	47	7.1	14.6	9.2	92
14...	1332	17.0	47	7.1	14.4	9.0	90
14...	1333	18.0	47	7.0	14.0	9.0	89
14...	1334	19.0	46	7.0	13.7	9.0	89
14...	1335	20.0	42	7.0	13.5	9.0	88
14...	1336	21.0	42	7.0	13.3	9.0	88
14...	1337	22.0	40	6.9	13.2	9.0	88
14...	1338	23.0	39	6.9	13.0	9.0	87
14...	1339	24.0	39	6.9	12.8	9.0	87
14...	1340	25.0	41	6.9	12.6	9.1	87
14...	1341	26.0	42	6.9	12.5	9.0	86
14...	1342	27.0	44	6.9	12.4	9.0	86
14...	1343	28.0	44	6.9	12.2	8.9	85
14...	1344	29.0	40	6.9	12.0	8.9	84
14...	1345	30.0	45	6.9	12.0	8.9	84
14...	1346	31.0	48	6.8	11.9	8.8	83
14...	1347	32.0	47	6.8	11.8	8.8	83
14...	1348	33.0	49	6.5	11.6	8.9	84
14...	1500	--	--	--	21.4	--	43
JUL , 1979							
25...	1030	.50	57	8.2	26.1	7.7	97
25...	1031	1.0	57	8.2	26.1	7.8	99
25...	1032	2.0	57	8.2	26.1	7.8	99
25...	1033	3.0	57	8.1	26.0	7.8	98
25...	1034	4.0	57	8.2	25.7	8.0	100
25...	1035	5.0	56	8.2	25.5	8.0	100
25...	1036	6.0	56	8.2	25.2	8.0	99
25...	1037	7.0	55	8.1	24.0	8.2	100
25...	1038	8.0	53	8.1	23.6	8.4	101
25...	1039	9.0	55	7.6	22.2	8.2	96
25...	1040	10.0	48	7.3	21.7	8.0	93
25...	1041	11.0	45	7.2	20.6	7.8	89
25...	1042	12.0	43	7.0	20.4	7.6	86
25...	1043	13.0	41	6.9	19.7	7.5	84
25...	1044	14.0	40	6.8	19.0	7.4	82
25...	1045	15.0	37	6.8	18.4	7.3	80
25...	1046	16.0	38	6.8	17.7	7.2	77
25...	1047	17.0	36	6.7	16.9	7.3	77
25...	1048	18.0	34	6.7	16.2	7.3	76
25...	1049	19.0	35	6.7	15.8	7.3	75
25...	1050	20.0	34	6.7	15.2	7.2	73
25...	1051	22.0	34	6.7	14.4	7.2	72
25...	1052	24.0	33	6.7	13.9	7.4	73
25...	1053	26.0	32	6.6	13.3	7.3	71
25...	1054	28.0	32	6.6	13.0	7.4	72
25...	1055	30.0	32	6.7	12.5	7.5	72
25...	1056	32.0	33	6.7	12.2	7.7	73
25...	1057	34.0	33	6.7	12.0	7.7	73
25...	1058	36.0	33	6.7	11.8	7.7	73
25...	1059	38.0	33	6.6	11.6	7.6	71
25...	1100	40.0	35	6.7	11.6	7.2	68

TABLE 6.--Vertical profiles of Folsom Lake--Continued

DATE	TIME	SAMPLING DEPTH (M)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	LIGHT, ATTENUATION COEFFICIENT (ALPHA/METER)
11446200 - FOLSOM LAKE NEAR FOLSOM CALIF (LAT 38 42 29 LONG 121 09 22)								
SEP , 1979								
12...	1030	.50	60	8.2	24.9	8.5	105	.84
12...	1031	1.0	59	8.2	24.6	8.5	104	.84
12...	1032	2.0	59	8.2	24.6	8.5	104	.89
12...	1033	3.0	59	8.2	24.5	8.6	105	.94
12...	1034	4.0	59	8.2	24.5	8.6	105	.94
12...	1035	5.0	59	8.2	24.5	8.6	105	.89
12...	1036	6.0	59	8.2	24.4	8.6	105	.89
12...	1037	7.0	59	8.2	24.4	8.7	106	.89
12...	1038	8.0	59	8.2	24.4	8.7	106	.89
12...	1039	9.0	59	8.2	24.4	8.7	106	.84
12...	1040	10.0	59	8.1	24.3	8.6	105	.84
12...	1041	11.0	59	7.9	23.8	8.4	102	.94
12...	1042	12.0	58	7.2	21.7	7.0	81	.94
12...	1043	13.0	50	7.0	20.7	7.0	80	.89
12...	1044	14.0	48	7.0	20.4	6.9	78	.89
12...	1045	15.0	49	7.0	20.0	6.9	78	.84
12...	1046	16.0	48	6.9	19.6	6.9	77	.79
12 ..	1047	17.0	47	6.9	19.1	6.9	76	.79
12...	1048	18.0	46	6.8	18.8	6.6	73	.79
12...	1049	19.0	46	6.8	18.5	6.4	70	.74
12...	1050	20.0	45	6.8	18.2	6.4	70	.74
12...	1051	21.0	44	6.8	17.7	6.4	69	.84
12...	1052	22.0	43	6.7	17.6	6.2	67	.89
12...	1053	23.0	43	6.7	17.4	6.0	64	.99
12...	1054	24.0	44	6.7	17.2	5.9	63	1.10
12...	1055	25.0	42	6.7	16.9	5.8	61	.99
12...	1056	26.0	42	6.7	16.6	5.8	61	.89
12...	1057	27.0	41	6.6	16.2	5.7	59	.84
12...	1058	28.0	41	6.6	16.0	5.7	59	.99
12...	1059	29.0	44	6.6	15.5	5.7	59	.94
12...	1100	30.0	47	6.6	14.8	5.8	59	.94
12...	1101	34.0	45	6.6	13.7	6.2	61	1.43
OCT , 1979								
16...	1100	.50	52	7.5	21.5	8.2	95	1.14
16...	1101	1.0	51	7.4	21.4	8.2	95	1.20
16...	1102	2.0	51	7.4	21.3	8.3	96	1.31
16...	1103	3.0	51	7.4	21.3	8.3	96	1.37
16...	1104	4.0	51	7.4	21.3	8.3	96	1.37
16...	1105	5.0	51	7.4	21.3	8.3	96	1.31
16...	1106	6.0	51	7.5	21.3	8.3	96	1.31
16...	1107	7.0	52	7.5	21.2	8.3	96	1.31
16...	1108	8.0	52	7.5	21.2	8.3	96	1.31
16...	1109	9.0	52	7.5	21.2	8.3	96	1.31
16...	1110	10.0	52	7.5	21.2	8.3	96	1.31
16...	1111	11.0	52	7.5	21.2	8.2	94	1.26
16...	1112	12.0	52	7.5	21.2	8.3	96	1.26
16...	1113	13.0	52	7.5	21.2	8.3	96	1.26
16...	1114	14.0	47	7.0	20.4	5.7	65	1.47
16...	1115	15.0	46	6.9	19.4	5.8	65	1.15
16...	1116	16.0	45	6.9	19.1	5.3	59	1.20
16...	1117	17.0	43	6.8	18.9	5.3	58	1.10
16...	1118	18.0	43	6.8	18.6	5.4	59	1.10
16...	1119	19.0	43	6.7	18.3	5.2	57	1.15
16...	1120	20.0	42	6.7	18.1	5.2	56	1.15
16...	1121	21.0	42	6.7	17.9	5.3	57	1.26
16...	1122	22.0	42	6.7	17.6	5.2	56	1.37
16...	1123	23.0	38	6.7	17.4	5.3	57	1.43
16...	1124	24.0	35	6.7	17.1	5.8	62	1.31
16...	1125	25.0	34	6.6	17.0	5.8	61	1.31
16...	1126	26.0	32	6.6	16.8	6.4	68	1.37
16...	1127	27.0	32	6.6	16.7	6.3	66	1.37
16...	1128	28.0	32	6.6	16.6	6.1	64	1.48
16...	1129	29.0	33	6.6	16.5	5.8	61	1.48
16...	1130	30.0	33	6.6	16.4	6.0	63	1.91
16...	1131	35.0	33	6.6	15.6	5.9	61	4.82
16...	1132	37.0	42	6.5	14.7	4.6	47	5.24
16...	1133	40.0	42	6.5	14.0	4.6	46	5.24
16...	1134	41.0	45	6.4	13.6	4.5	44	4.82

TABLE 7.--Average algal growth potential at selected stations

[AGP (algal growth potential) value is determined by the average of two or three replicates of sample. A value in percentage difference column indicates two replicates were run; -- indicates three replicates were run. Values for percent difference are plus or minus (±) that shown]

Nutrient spike	Station 11446200 AGP (mg/L)	Station 11446200 Percent difference	Station 11446200 Incubation (days)	Station 11446400 AGP (mg/L)	Station 11446400 Percent difference	Station 11446400 Incubation (days)	Station 11447000 AGP (mg/L)	Station 11447000 Percent difference	Station 11447000 Incubation (days)	Station 11447230 AGP (mg/L)	Station 11447230 Percent difference	Station 11447230 Incubation (days)
	March 1			Feb. 22			Feb. 22			Feb. 22		
None	1.00	--		1.00	--		13.00	--		15.00	--	
	June 14			May 23			May 22			May 22		
None	.63	--	4	1.56	10	6	12.73	--	6	4.50	--	6
Nitrogen-1.00 mg/L	.67	0	5	1.36	5	6	18.95	5	5	27.24	0	6
Phosphorus-0.05 mg/L	2.50	15	5	4.08	11	6	9.31	44	5	4.76	0	7
Nitrogen+phosphorus	21.35	8	6	25.36	0	6	48.73	5	6	35.54	0	6
	July 25			July 23			July 23			July 23		
None	.60	--	7	1.60	0	5	4.40	0	6	12.00	4	10
Nitrogen-1.00 mg/L	.60	2	7	1.40	3	5	27.00	1	10	41.00	12	10
Phosphorus-0.05 mg/L	1.00	7	7	2.40	1	5	4.60	5	6	11.00	4	10
Nitrogen+phosphorus	49.00	12	12	24.00	2	10	31.00	3	10	42.00	5	10
	Oct. 16			Oct. 11			Oct. 10			Oct. 10		
None	1.20	9	4	4.10	--	8	8.20	--	8	12.00	2	4
Nitrogen-1.00 mg/L	1.00	4	4	3.30	0	8	7.50	1	8	12.00	3	4
Phosphorus-0.05 mg/L	1.00	.5	4	3.40	0	8	7.50	3	8	12.00	1	4
Nitrogen+phosphorus	1.30	13	4	3.50	2	8	6.90	1	8	11.00	2	4

TABLE 8.--Taxa and abundance of benthic invertebrates

[u, uncommon (<5); c, common (5-50); a, extremely abundant (>50). A, adult; L, larva; P, pupa; UID, unidentified. Number of organisms is the average in two Surber samples]

	Station 3915120225300 August 2	Station 11427500 July 31	Station 11433500 July 27	Station 11427000 July 27	Station 11433800 July 27	Station 11439500 July 30	Station 11445500 July 27
INSECTA							
EPHEMEROPTERA							
SIPHLONURIDAE							
Ameletus sp.	u	-	-	-	-	c	-
Isonychia sp.	-	-	-	u	-	-	-
HEPTAGENIIDAE							
Cinygma sp.	-	c	-	-	-	-	-
Epeorus longimanus	c	-	u	u	c	-	-
Heptagenia sp.	-	-	c	-	u	c	-
Rhithrogena sp.	a	-	-	-	-	-	c
BAETIDAE							
Baetis sp. A	a	u	c	c	c	c	c
Baetis sp. B	-	-	-	-	u	-	-
Centroptilum sp.	u	c	u	-	u	u	u
Pseudocloeori sp.	-	-	a	c	a	-	-
LEPTOPHLEBIIDAE							
Paraleptophlebia sp.	a	c	-	-	-	c	u
EPHEMERELLIDAE							
Ephemerella doddsi	c	-	-	-	-	u	-
E. flavilinea	c	u	-	-	-	-	-
Ephemerella (Serratella sp. A)	-	-	u	-	-	c	-
Ephemerella (Serratella sp. B)	c	-	-	-	-	-	-
Ephemerella spinifera	-	-	-	-	-	u	-
Ephemerella (Attenella sp. A)	-	-	-	-	-	u	-
TRICORYTHIDAE							
Tricorythodes minutus	-	-	u	-	u	u	-
ODONATA							
COENAGRIONIDAE							
Argia emma	-	-	u	u	-	-	-
PLECOPTERA							
NEMOURIDAE							
Aphinemura sp.	c	a	u	-	u	u	-
CAPNIIDAE, UID SPECIES	u	-	-	-	-	u	-
PTERONARCYIDAE							
Pteronarcys californica	u	-	-	-	-	-	-
PERLODIDAE							
Skwala sp.	c	-	c	-	-	-	-
UID SPECIES	-	-	-	-	-	u	-
PERLIDAE							
Calineuria californica	c	u	-	-	-	u	-
CHLOROPERLIDAE, UID SPECIES	c	c	-	-	-	c	u
COLEOPTERA							
HYDROPHILIDAE							
Helophorus sp. (L)	-	-	-	-	-	-	u
ELMIDAE							
Apumixis dispar (L)	u	-	-	-	-	-	-
Optioservus seriatus (A)	-	u	-	-	-	-	-
O. quadrimaculatus (L/A)	c	-	-	-	-	c	-
Ordobrevia nubifera (L)	-	-	-	u	u	-	-
Zaitzevia parvula (L/A)	a	-	-	u	-	c	u
MEGALOPTERA							
SIALIDAE							
Sialis sp.	-	c	-	-	-	-	-
CORYDALIDAE							
Dysmicohermes crepusculus	u	u	-	-	-	-	-

TABLE 8.--Taxa and abundance of benthic invertebrates--Continued

	Station 3915120225300 August 2	Station 11427500 July 31	Station 11433500 July 27	Station 11427000 July 27	Station 11433800 July 27	Station 11439500 July 30	Station 11445500 July 27
INSECTA (continued)							
LEPIDOPTERA							
PYRALIDAE							
Paragyractis sp. (L)	-	-	u	u	u	-	-
TRICHOPTERA							
RHYACOPHILIDAE							
Rhyacophila acuminata (P)	u	-	-	-	-	-	-
Rhyacophila (agelita?) (L)	c	-	-	u	-	u	-
GLOSSOSOMATIDAE							
Glossosoma sp. (L)	u	-	-	-	u	-	-
Agapetus sp. (L)	u	-	-	-	-	-	-
PHILOPOTAMIDAE							
Dolophilodes sp. (L)	c	-	-	-	u	-	-
Chimarra sp. (L)	-	-	-	-	c	-	-
POLYCENTROPODIDAE							
Polycentropus variegatus (L/P)	-	u	-	-	u	-	-
HYDROPSYCHIDAE							
Cheumatopsyche sp. (L)	-	-	-	u	u	-	-
Symphitopsyche sp. A (L)	-	-	c	a	c	-	c
Symphitopsyche sp. B (L)	a	-	-	-	-	u	-
Arctopsyche sp. (L)	c	-	-	-	-	-	-
HYDROPTILIDAE							
Hydroptila sp. (L/P)	-	-	u	u	u	-	u
Neotrichia sp. (L)	-	-	-	-	-	u	-
Oxyethira sp. (L)	-	-	-	u	-	-	-
BRACHYCENTRIDAE							
Amiocentrus aspilus (L)	u	-	-	-	-	u	-
Brachycentrus americanus (L)	-	-	-	u	-	-	-
LEPIDOSTOMATIDAE							
Lepidostoma sp. (L)	-	-	-	-	-	u	-
LEPTOCERIDAE							
Mystacides sp. (L)	-	-	u	-	-	-	-
LIMNEPHILIDAE							
Apatania sp.	u	-	-	-	-	u	-
Dicosmoecus atripes (L)	-	-	-	-	-	c	-
HELICOPSYCHIDAE							
Helicopsycho borealis (L)	-	-	-	-	-	u	-
DIPTERA							
TIPULIDAE							
Antocha sp. (L/P)	u	-	-	c	-	-	u
Dicranota sp. (L)	-	u	-	-	-	u	-
Hexatoma sp. (L)	u	u	-	-	-	-	-
BLEPHARICERIDAE							
Blepharicera sp. (L)	-	-	-	u	-	-	-
SIMULIIDAE							
Simulium sp. A (L)	-	u	-	u	c	-	-
Simulium sp. B (L)	u	-	u	-	-	-	-
CHIRONOMIDAE							
Abalabesmyia sp. (L)	-	-	u	-	u	-	-
Pentaneura sp. (L)	u	-	u	-	-	u	u
Nilotanypus sp. (L/P)	-	-	u	-	-	-	-
Zavrelimyia sp. (L/P)	u	c	-	-	-	-	-
THIENEMANNIMYIA GROUP (L/P)	u	a	c	-	u	u	-
Psectrotanypus sp. (L/P)	-	u	-	-	-	-	-
Micropsectra sp. (L/P)	c	c	c	u	u	c	c
Rheotanytarsus sp. A (L/P)	u	-	c	c	c	u	c
Rheotanytarsus sp. B (L)	-	u	-	-	-	-	-
Rheotanytarsus sp. C (L)	-	-	-	-	-	-	u

TABLE 8.--Taxa and abundance of benthic invertebrates--Continued

	Station 3915120225300 August 2	Station 11427500 July 31	Station 11433500 July 27	Station 11427000 July 27	Station 11433800 July 27	Station 11439500 July 30	Station 11445500 July 27
INSECTA (continued)							
DIPTERA (continued)							
CHIRONOMIDAE (continued)							
TANYTARSINE-UID SPECIES (P)	-	-	-	-	-	-	u
Stempellinella sp. (L)	-	u	u	u	-	-	-
Acalcarella? sp. (L)	-	-	u	-	-	-	-
Microtendipes sp. (L)	-	u	-	-	-	c	u
Polypedilum sp. (L/P)	u	-	u	u	u	-	u
UID CHIRONOMINE SPECIES (P)	-	-	u	-	-	-	-
Coryoneura sp. (L)	u	-	u	u	u	u	u
Cricotopus sp. A (L)	u	u	-	u	-	u	-
Cricotopus sp. B (L)	-	-	-	u	-	-	-
Eukiefferiella sp. A (L/P)	u	u	c	c	c	u	u
Eukiefferiella sp. B (L/P)	u	-	-	-	-	u	u
Heterotrissocladius hirtapex (L)	-	u	-	-	-	-	-
Heterotrissocladius sp. A (L)	-	c	u	-	-	-	-
Heterotrissocladius sp. (P)	u	-	-	-	-	-	u
Nanocladius rectinervis (L/P)	-	-	u	u	-	-	u
Orthocladius mallochi (L)	-	-	-	u	-	-	-
O. obumbratus (L/P)	c	c	a	c	c	-	u
Orthocladius sp. (Evorthocladius) (L)	u	-	-	-	-	u	-
Paraphaenocladius sp. (L)	-	u	-	-	-	-	-
Psectrocladius sp. (L/P)	-	c	u	u	-	-	u
Thienemanniella sp. (L)	u	-	u	u	u	u	u
Trichocladius sp. (L)	c	u	u	u	u	u	u
Potthastia sp. (L/P)	a	-	a	c	u	u	u
Pseudodiamesa sp. (L)	u	u	u	-	-	-	-
CERATOPOGNIDAE							
Bezzia or Probezzia sp. (L)	u	u	u	-	-	-	-
STRATIOMYIDAE, UID SPECIES (L)	-	-	-	-	u	-	-
EMPIDIDAE							
Chelifera sp. (L)	-	-	-	-	-	u	u
Hemerodromia sp. (L)	-	-	-	-	u	-	-
Wiedemannia sp. (L)	-	u	-	-	-	-	-
RHAGIONIDAE							
Atherix variegata (L)	u	-	-	-	-	c	u
MUSCIDAE							
Limnophora (?) sp. (L)	-	u	-	-	-	-	-
INVERTEBRATES OTHER THAN INSECTS							
HYDROZOA							
HYDROIDA							
HYDRIDAE							
Hydra sp.	-	u	-	-	-	-	-
TURBELLARIA							
TRICLADIDA							
PLANARIIDAE							
Polycelis coronata	c	u	-	u	-	-	-
ENOPLA							
HOPLONEMERTEA							
Prostoma graecense	-	-	-	u	-	-	-
(NEMATODA)							
DORYLAIMIDA							
DORYLAIMIDAE							
Oionchus sp.	-	u	u	-	-	u	u
UID SPECIES	u	-	u	-	u	-	u

TABLE 8.--Taxa and abundance of benthic invertebrates--Continued

	Station 3915120225300 August 2	Station 11427500 July 31	Station 11433500 July 27	Station 11427000 July 27	Station 11433800 July 27	Station 11439500 July 30	Station 11445500 July 27
OLIGOCHAETA							
HAPLOTAXIDA							
NAIDIDAE							
Chaetogaster langi	-	u	u	-	u	-	-
Nais variabilis	u	c	c	a	c	c	c
Ophidonais serpentina	-	-	-	-	u	-	-
Pristina sp.	-	-	-	-	-	u	-
Slavina appendiculata	-	u	u	a	u	-	u
ENCHYTRAEIDAE, UID SPECIES	-	u	u	-	-	u	u
MEGASCOLECIDAE, UID SPECIES	-	-	-	u	u	-	-
ARACHNIDA							
ACARI							
HYGROBATIDAE							
Atractides (megabates) sp.	u	-	c	c	c	-	-
HYDRYPHANTIDAE							
Neocalonyx sp.	u	-	-	-	-	-	u
LEBERTIIDAE							
Extelloxus sp.	-	u	-	-	-	-	-
Lebertia (pseudolebertia) sp.	u	u	u	u	u	u	-
SPERCHONTIDAE							
Sperchon (sperchon) sp.	-	-	-	-	-	u	-
Sperchon (Hispidosperchon) sp.	-	u	-	-	-	-	-
UID SPERCHONTID (Nymph)	u	-	-	u	-	-	u
TORRENTICOLIDAE							
Torrenticola sp.	c	u	u	c	c	c	u
CRUSTACEA							
CLADOCERA							
DAPHNIDAE							
Daphnia sp.	-	-	-	-	-	-	a
CHYDORIDAE							
Alona sp.	-	-	-	-	-	-	u
Camptocercus rectirostris	-	-	-	-	u	-	-
PODOCOPODA (OSTRACOD)							
CYPRIDAE							
Eucypris sp.	u	c	u	-	-	-	-
AMPHIPODA							
TALITRIDAE							
Hyalella azteca	-	-	-	u	-	-	-
ISOPODA							
ASELLIDAE							
Asellus sp.	u	-	-	-	-	-	-
GASTROPODA							
BASOMMATOPHORA							
PHYSIDAE							
Physa sp.	-	-	-	u	-	-	-
PLANORBIDAE							
Gyraculus sp.	-	-	u	u	-	-	-
PELECYPODA							
HETERODONTA							
SPHAERIIDAE, UID SPECIES	-	u	-	-	-	-	-
CORBICULIDAE							
Corbicula manilensis	-	-	-	u	-	-	-

TABLE 9.--Taxa and number of phytoplankton

[*, organism observed, but may not have been counted; <, actual value is known to be less than value shown]

	Cells per milliliter						
	Station 39151520225300	Station 11426194		Station 11426197			
	August 2	January 1	August 1	March 6	May 31	July 30	October 24
CHLOROPHYTA							
Chlorophyceae (green algae)							
Actinastrum gracillum	-	<1	-	-	-	-	-
Ankistrodesmus falcatus	-	-	-	-	-	<1	-
Carteria sp.	<1	38	2	12	-	-	<1
Cosmarium sp.	-	-	-	-	-	<1	-
Crucigenia tetrapedia	-	-	-	-	-	-	2
Kirchneriella lunaris	2	-	-	-	-	-	-
Mougeotia sp.	-	-	-	-	-	-	<1
Oocystis sp.	<1	-	-	<1	-	-	-
Pediastrum tetras	-	-	-	-	-	-	*
Scenedesmus spp.	<1	-	-	-	*	<1	<1
Schroederia setigera	-	-	-	-	-	<1	-
Selenastrum minutum	<1	-	<1	-	-	6	-
Tetraedron minimum	-	-	<1	-	-	<1	<1
Ulothrix tenuissima	-	-	-	<1	-	-	-
BACILLARIOPHYTA (yellow-green algae)							
Bacillariophyceae (diatoms)							
Achnanthes lanceolata	<1	<1	-	-	-	-	-
Achnanthes minutissima	5	14	3	2	5	12	4
Amphipleura sp.	-	-	-	-	-	-	<1
Cocconeis placentula	5	<1	5	<1	1	22	12
Cymbella cistula	2	-	3	-	-	-	*
Cymbella minuta	<1	1	2	<1	1	2	<1
Cymbella sinuata	<1	<1	-	-	<1	<1	<1
Diatoma hiemale	-	<1	<1	<1	1	-	-
Epithemia sorex	-	-	<1	-	-	*	-
Epithemia zebra	-	-	-	-	-	-	*
Epithemia spp.	-	-	-	-	<1	-	-
Eunotia tenella	1	-	-	-	-	-	-
Eunotia spp.	-	-	-	-	-	-	<1
Fragilaria vaucheriae	<1	-	-	-	-	-	-
Gomphoneis herculeana	1	1	*	*	2	-	-
Gomphonema dichtomum	-	2	-	<1	4	-	-
Gomphonema sp.	1	-	<1	-	-	2	-
Hannea arcus	-	1	*	<1	<1	-	-
Melosira italica	*	-	-	-	-	-	-
Meridion circulare	-	*	-	-	-	-	-
Navicula cryptocephala	-	-	-	-	-	-	<1
Navicula decussis	-	-	*	-	-	*	-
Navicula heufleri	*	-	<1	-	<1	<1	<1
Navicula pupula	-	-	-	-	-	*	-
Navicula salinarum	<1	-	<1	-	<1	-	-
Navicula tripunctata	<1	<1	<1	-	-	-	-
Navicula sp. 1	-	-	-	<1	-	-	1
Navicula spp.	-	-	-	-	-	-	<1
Neidium sp.	-	-	-	<1	-	-	-
Nitzschia acicularis	<1	-	-	-	-	<1	2
Nitzschia amphibia	-	-	*	-	-	-	-
Nitzschia dissipata	*	-	-	-	-	1	2
Nitzschia palea	-	-	*	-	-	-	1
Nitzschia sp. 1	-	-	-	<1	-	<1	1
Rhoicosphenia curvata	<1	<1	-	<1	*	-	-
Synedra mazamaensis	-	1	<1	-	<1	*	*
Synedra minuscula	-	-	-	<1	<1	-	-
Synedra rumpens	-	-	-	<1	-	-	3
Synedra ulna	<1	2	1	<1	<1	-	1
Tabellaria fenestrata	-	-	-	-	<1	-	-

TABLE 9.--Taxa and number of phytoplankton--Continued

	Cells per milliliter						
	Station 39151520225300	Station 11426194		Station 11426197			
	August 2	January 1	August 1	March 6	May 31	July 30	October 24
CHRYSOPHYTA							
Chrysophyceae							
Dinobryon sp.	-	<1	-	-	-	-	-
Flagellate	-	-	-	2	<1	-	-
Mallomonas sp. 1	-	-	<1	-	-	-	<1
PYRROPHYTA (yellow-brown algae)							
Dinophyceae							
Peridinium sp.	-	-	-	-	*	-	-
EUGLENOPHYTA (euglenoids)							
Euglenophyceae							
Euglena sp.	*	-	-	-	-	<1	-
CYANOPHYTA (blue-green algae)							
Cyanophyceae							
Anabaena sp.	<1	-	-	-	-	-	-
Dactylococcopsis Smithii	-	<1	-	<1	-	-	<1
Merismopedia tenuissima	<1	-	-	-	-	*	-
Oscillatoria sp.	<1	<1	-	-	-	-	-
CRYPTOPHYTA							
Cryptophyceae							
Chroomonas sp.	<1	-	-	-	-	-	-
Miscellaneous							
Flagellates	29	-	-	-	-	-	-
Unidentified unicells	3	-	-	-	-	-	-

	Cells per milliliter						
	Station 11427000				Station 11427500		
	Mar. 5	May 30	July 27	Oct. 22	June 4	July 31	Oct. 26
CHLOROPHYTA							
Chlorophyceae (green algae)							
Carteria sp.	-	-	-	-	*	-	-
Closterium sp.	-	-	-	-	1	4	-
Cosmarium reuiforme	-	-	-	-	-	-	<1
Cosmarium sp.	-	-	<1	-	<1	-	*
Crucigenia tetrapedia	-	<1	<1	4	-	-	2
Eudorina elegans	-	-	-	-	-	<1	-
Golenkinia radiata	-	-	<1	-	-	-	-
Kirchneriella lunaris	-	-	-	-	-	4	-
Mougeotia sp.	-	-	<1	-	-	-	-
Oocystis sp.	-	-	-	-	*	2	-
Pandorina morum	-	-	-	-	-	<1	*
Pediastrum Boryanum	-	-	<1	-	-	-	-
Pediastrum tetras	-	-	<1	<1	-	-	-
Scenedesmus spp.	-	-	1	4	-	<1	-
Schroederia setigera	-	-	<1	-	-	-	-
Tetraedron minimum	-	-	<1	-	-	2	*
Ulothrix sp.	-	*	-	-	-	-	-
BACILLARIOPHYTA							
Bacillariophyceae (diatoms)							
Achnanthes lanceolata	-	*	-	-	*	-	-
Achnanthes minutissima	3	3	5	6	43	7	24
Asterionella formosa	<1	-	-	-	230	9	*
Cocconeis placentula	<1	*	2	<1	-	*	-
Cyclotella stelligera	-	-	*	8	-	-	-
Cymbella cistula	-	<1	<1	1	-	<1	-
Cymbella minuta	1	<1	<1	<1	-	1	6
Cymbella sinuata	-	<1	-	-	*	<1	-

TABLE 9.--Taxa and number of phytoplankton--Continued

	Cells per milliliter						
	Station 11427000				Station 11427500		
	Mar. 5	May 30	July 27	Oct. 22	June 4	July 31	Oct. 26
BACILLARIOPHYTA (continued)							
Bacillariophyceae (continued)							
Diatoma hiemale	*	<1	-	-	*	<1	-
Diploneis pseudoralis	-	<1	-	-	-	-	-
Epithemia spp.	-	<1	-	-	-	-	-
Eunotia tenella	-	-	-	-	-	1	-
Eunotia spp.	-	-	-	-	-	-	5
Fragilaria contraens	-	-	<1	-	-	-	-
Fragilaria vaucheriae	<1	<1	-	-	7	-	-
Gomphoneis herculeana	*	-	-	-	-	-	-
Gomphonema dichtomum	<1	<1	-	-	-	-	-
Gomphonema sp.	-	-	<1	-	-	*	*
Hannea arcus	<1	<1	-	*	*	2	*
Melosira distans sp. 1	-	-	-	-	<1	<1	<1
Melosira italica	-	-	-	-	<1	<1	*
Melosira varians	-	-	*	-	-	-	-
Navicula decussis	*	*	*	-	-	-	-
Navicula heufleri	-	*	<1	-	-	-	-
Navicula notha	-	-	<1	-	-	<1	-
Navicula salinarum	<1	<1	-	-	-	<1	-
Navicula tripunctata	<1	-	-	-	-	-	-
Navicula sp. 1	-	<1	-	-	-	-	-
Navicula spp.	-	-	-	1	-	-	-
Neidium sp.	*	-	<1	*	-	-	-
Nitzschia amphibia	<1	-	-	-	-	-	-
Nitzschia dissipata	<1	<1	<1	-	-	-	-
Nitzschia filiformis	<1	<1	-	-	-	-	-
Nitzschia gracilis	-	*	-	-	-	-	-
Nitzschia palea	<1	<1	<1	-	-	-	-
Nitzschia sinuata	-	-	*	-	-	-	-
Rhoicosphenia curvata	<1	<1	<1	*	*	-	-
Synedra filiformis	<1	*	-	-	-	-	-
Synedra minuscula	-	-	1	-	-	2	-
Synedra radians	-	-	1	3	10	7	3
Synedra rumpens	*	<1	-	<1	-	2	13
Synedra ulna	<1	1	3	*	3	1	7
Tabellaria fenestrata	<1	<1	-	-	<1	7	*
Tabellaria flocculosa	-	-	-	-	-	-	<1
CHRYSOPHYTA							
Chrysophyceae							
Dinobryon bavaricum	-	-	*	4	-	<1	-
Dinobryon sp.	-	-	-	-	<1	-	-
Flagellate	-	-	-	-	2	-	-
Mallomonas sp. 1	-	-	-	1	-	-	-
Mallomonas sp. 2	-	-	-	<1	-	-	-
PYRROPHYTA							
Dinophyceae							
Peridinium sp.	-	<1	1	-	-	-	-
EUGLENOPHYTA							
Euglenophyceae							
Phacus sp.	-	-	-	-	-	<1	-
CYANOPHYTA							
Cyanophyceae (blue-green algae)							
Dactylococcopsis Smithii	<1	-	-	-	-	-	-
Oscillatoria sp.	-	-	<1	<1	-	-	-
CRYPTOPHYTA							
Cryptophyceae							
Chroomonas sp.	-	-	<1	48	1	1	31
Cryptomonas sp.	-	-	1	27	1	1	2
Flagellate	-	*	-	-	-	-	-
Miscellaneous							
Ciliate	-	-	<1	4	*	1	1
Flagellates	1	11	7	96	3	56	88

TABLE 9.--Taxa and number of phytoplankton--Continued .

	Cells per milliliter											
	Station 11433300				Station 11433500				Station 11433800			
	Mar. 6	May 31	July 30	Oct. 24	Mar. 5	May 30	July 27	Oct. 22	Mar. 5	May 30	July 27	Oct. 22
CHLOROPHYTA												
Chlorophyceae (green algae)												
Ankistrodesmus falcatus	-	-	-	-	-	-	1	-	-	-	-	*
Carteria sp.	-	6	13	31	-	<1	3	9	-	-	1	1
Chlorogonium sp.	-	-	-	-	-	*	-	-	-	-	-	-
Closterium sp.	-	-	-	-	-	*	-	-	-	-	-	-
Cosmarium reuiforme	-	-	-	-	-	-	-	<1	-	-	-	-
Cosmarium sp.	-	<1	-	-	-	-	<1	<1	-	<1	1	<1
Crucigenia tetrapedia	-	-	-	2	-	-	2	-	-	-	-	2
Elakatothrix gelatinosa	-	-	-	-	-	-	*	-	-	-	-	-
Eudorina elegans	-	-	-	-	-	-	-	<1	-	-	-	-
Mougeotia sp.	-	-	-	3	-	<1	-	-	-	-	-	<1
Oocystis sp.	<1	-	-	-	-	-	6	-	-	-	-	-
Scenedesmus spp.	-	-	-	-	-	-	-	-	-	-	1	<1
Selenastrum minutum	-	-	-	-	-	-	<1	-	-	-	-	-
Spondylosium planum	-	-	-	-	-	-	<1	-	-	-	-	-
Staurastrum dilatatum	-	-	-	-	-	-	*	-	-	-	-	-
Staurodesmus sp.	-	-	-	-	-	-	*	-	-	-	-	-
Tetraedron minimum	<1	-	2	1	<1	-	1	1	-	-	4	2
Ulothrix tenuissima	-	-	<1	-	<1	-	-	-	-	-	-	-
Ulothrix sp.	-	*	-	<1	-	-	-	-	<1	<1	-	-
BACILLARIOPHYTA												
Bacillariophyceae (diatoms)												
Achnanthes lanceolata	-	-	-	-	*	-	-	-	-	2	-	-
Achnanthes minutissima	10	3	4	7	12	2	39	47	-	3	15	1
Amphipleura pellucida	-	-	-	-	*	-	-	-	-	-	-	-
Amphora ovalis	*	-	-	-	-	-	-	-	-	-	-	-
Asterionella formosa	<1	65	<1	*	35	20	*	-	15	9	*	-
Cocconeis placentula	<1	<1	<1	1	<1	<1	*	2	*	1	2	2
Cyclotella bodanica	2	<1	*	8	*	<1	-	1	<1	<1	*	<1
Cyclotella meneghinana	-	-	-	*	-	-	-	-	-	-	-	-
Cyclotella stelligera	-	-	-	<1	-	-	-	-	-	-	-	-
Cymbella cistula	<1	1	4	*	1	3	<1	-	1	2	4	<1
Cymbella cuspidata	-	-	*	-	-	-	-	-	-	-	-	-
Cymbella mexicana	-	-	-	-	-	*	-	<1	-	-	-	-
Cymbella minuta	2	1	3	<1	3	2	3	1	2	2	11	2
Cymbella sinuata	-	-	-	-	-	<1	-	<1	<1	*	-	-
Diatoma hiemale	-	<1	-	-	-	*	-	-	<1	*	*	*
Diploneis pseudoralis	-	-	-	-	<1	-	-	-	-	<1	-	-
Diploneis sp.	-	-	-	-	-	-	1	<1	-	-	*	-
Epithemia argus	-	<1	-	-	-	-	-	-	-	-	-	-
Epithemia sorex	-	-	-	-	-	1	-	-	*	<1	-	-
Epithemia zebra	-	-	-	*	-	-	-	-	-	-	-	-
Eunotia spp.	-	-	-	<1	-	-	-	*	-	-	-	<1
Fragilaria contraens	-	-	-	<1	-	-	-	-	-	-	-	<1
Fragilaria crotonensis	<1	<1	*	-	-	<1	-	-	-	<1	-	-
Fragilaria vaucheriae	<1	<1	-	-	<1	<1	<1	-	<1	<1	3	-
Gomphoneis herculeana	-	-	-	-	<1	<1	*	<1	<1	<1	-	1
Gomphonema dichtomum	-	1	-	-	<1	-	-	-	-	*	-	-
Gomphonema sp.	-	-	-	-	-	-	-	2	-	-	-	<1
Hannea arcus	<1	1	1	*	<1	<1	-	*	1	<1	1	-
Melosira distans sp. 1	<1	<1	<1	<1	-	<1	<1	*	<1	<1	<1	*
Melosira distans sp. 2	-	-	-	-	-	-	<1	-	-	-	-	-
Melosira granulata	-	-	-	-	-	-	-	-	<1	-	*	-
Melosira italica	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	*
Melosira varians	<1	*	*	<1	*	<1	*	*	*	*	*	-
Meridion circulare	*	-	-	-	-	-	*	-	-	*	-	-

TABLE 9.--Taxa and number of phytoplankton--Continued

	Cells per milliliter											
	Station 11433300				Station 11433500				Station 11433800			
	Mar. 6	May 31	July 30	Oct. 24	Mar. 5	May 30	July 27	Oct. 22	Mar. 5	May 30	July 27	Oct. 22
BACILLARIOPHYTA (continued)												
Bacillariophyceae (continued)												
Navicula decussis	-	-	-	*	-	*	*	*	*	<1	<1	*
Navicula heufleri	-	<1	<1	1	<1	-	-	1	-	*	*	1
Navicula notha	-	-	-	1	-	-	3	4	-	-	2	2
Navicula pupula	-	-	-	-	-	*	-	-	-	<1	*	-
Navicula salinarum	-	-	-	-	-	-	-	-	<1	-	-	-
Navicula tripunctata	-	-	-	-	-	<1	-	*	-	<1	-	-
Navicula sp. 1	-	-	<1	-	-	*	-	-	-	*	1	-
Neidium sp.	-	-	-	-	-	-	*	-	-	-	-	-
Nitzschia acicularis	-	<1	1	1	-	-	-	-	<1	-	<1	-
Nitzschia acuta	-	-	*	-	-	-	-	-	-	-	-	-
Nitzschia amphibia	-	<1	-	-	-	-	<1	-	-	-	-	-
Nitzschia communis	-	<1	-	-	-	-	-	-	-	-	-	-
Nitzschia dissipata	-	-	-	-	-	1	*	-	*	<1	*	-
Nitzschia gracilis	-	-	-	-	<1	<1	-	-	<1	-	-	-
Nitzschia palea	-	-	<1	3	1	-	-	1	<1	<1	<1	2
Nitzschia paleacea	-	<1	-	-	-	-	-	-	-	-	-	-
Nitzschia sinuata	-	-	-	-	-	-	-	-	-	-	-	*
Nitzschia vermicularis	-	-	-	-	-	-	-	-	<1	-	-	-
Nitzschia sp. 1	1	-	-	-	-	-	-	-	-	-	-	-
Rhizosolenia longiseta	-	-	-	-	-	-	-	-	<1	<1	-	-
Rhoicosphenia curvata	<1	*	*	*	<1	<1	-	-	-	-	-	-
Rhopalodia gibba	*	-	-	-	*	-	-	-	-	-	-	-
Synedra filiformis	-	-	-	-	1	-	-	-	-	-	-	-
Synedra mazamaensis	-	-	-	*	-	<1	-	-	<1	<1	*	*
Synedra minuscula	2	-	12	-	-	-	2	-	<1	-	16	-
Synedra radians	-	-	-	-	-	<1	8	-	-	<1	1	-
Synedra rumpens	1	3	-	3	<1	*	-	4	<1	<1	13	-
Synedra ulna	3	5	6	1	2	11	2	13	2	6	47	8
Tabellaria fenestrata	<1	48	<1	<1	<1	22	<1	*	<1	<1	<1	*
CHRYSOPHYTA												
Chrysophyceae												
Dinobryon bavaricum	-	-	*	-	-	-	*	-	-	-	*	-
Dinobryon sp.	-	*	-	-	*	*	-	-	<1	*	-	-
Flagellate	*	-	-	-	-	-	-	-	<1	-	-	-
Mallomonas sp. 1	-	-	<1	-	-	-	<1	<1	-	-	<1	<1
PYRROPHYTA												
Dinophyceae												
Peridinium sp.	-	-	*	1	-	-	-	<1	-	<1	<1	-
EUGLENOPHYTA												
Euglenophyceae												
Euglena sp.	-	-	-	<1	-	-	-	-	-	-	1	-
CYANOPHYTA												
Cyanophyceae (blue-green algae)												
Anabaena sp.	-	-	*	-	-	-	<1	-	-	-	<1	-
Dactylococcopsis Smithii	-	*	*	-	-	-	-	<1	<1	<1	-	-
Oscillatoria sp.	-	-	-	*	-	-	-	<1	-	-	-	-
CRYPTOPHYTA												
Cryptophyceae												
Chroomonas sp.	-	-	-	-	-	-	5	12	-	-	1	41
Cryptomonas sp.	-	-	-	-	-	-	6	3	-	<1	<1	10
Miscellaneous												
Ciliate	-	<1	<1	1	-	<1	-	1	-	<1	1	1
Flagellates	17	6	32	68	12	1	88	39	-	1	36	77

TABLE 9.--Taxa and number of phytoplankton--Continued

	Cells per milliliter										
	Station 11439500			Station 11442500				Station 11445500			
	May 31	July 30	Oct. 23	Mar. 8	May 31	July 30	Oct. 23	Mar. 5	May 30	July 27	Oct. 23
CHLOROPHYTA											
Chlorophyceae (green algae)											
Ankistrodesmus falcatus	-	-	1	-	-	-	1	-	-	-	-
Carteria sp.	-	1	2	-	*	-	<1	-	6	-	107
Closterium sp.	-	-	-	-	-	-	1	-	-	-	-
Cosmarium botrytis	-	-	-	-	<1	6	-	-	-	-	-
Cosmarium sp.	<1	<1	-	-	-	-	<1	-	<1	5	2
Crucigenia tetrapedia	-	<1	9	-	-	-	1	-	*	-	6
Dictyosphaerium pulchellum	-	-	-	-	-	-	-	-	-	1	-
Elakatothrix gelatinosa	-	-	<1	-	-	-	-	-	-	-	1
Eudorina elegans	<1	-	<1	-	-	-	-	-	-	-	-
Oocystis sp.	-	<1	4	-	-	-	-	-	-	*	-
Pediastrum Boryanum	-	-	-	-	-	-	<1	-	-	-	-
Pediastrum tetras	-	-	-	-	-	*	-	-	-	-	-
Scenedesmus abundans	-	-	-	-	-	<1	-	-	-	-	-
Scenedesmus dimorphus	-	-	-	-	-	<1	-	-	-	-	-
Scenedesmus spp.	-	-	-	-	-	<1	<1	-	-	<1	1
Spirogyra sp.	*	-	-	-	-	-	-	-	-	-	-
Staurodesmus extensus	-	-	-	-	-	-	-	<1	-	-	-
Tetraedron minimum	<1	-	2	-	-	-	<1	-	<1	4	2
BACILLARIOPHYTA											
Bacillariophyceae (diatoms)											
Achnanthes lanceolata	*	*	*	<1	*	<1	-	-	*	1	-
Achnanthes minutissima	5	1	6	3	3	12	3	5	4	23	36
Asterionella formosa	-	-	-	<1	<1	-	-	<1	-	1	2
Cocconeis placentula	-	2	*	<1	<1	3	1	*	<1	2	2
Cyclotella bodanica	-	-	-	-	-	-	-	*	-	<1	-
Cyclotella stelligera	-	-	-	-	-	-	-	-	-	-	1
Cymbella cistula	<1	-	*	2	<1	2	1	<1	-	2	-
Cymbella mexicana	-	-	-	-	-	-	-	<1	*	-	-
Cymbella minuta	1	<1	*	7	2	4	1	1	3	19	2
Cymbella sinuata	-	-	-	-	*	-	*	*	*	<1	*
Diatoma hiemale	<1	-	-	3	<1	-	-	*	<1	-	-
Diploneis sp.	-	-	*	-	-	-	-	-	-	-	*
Epithemia sorex	-	-	-	-	-	2	*	-	-	-	-
Epithemia zebra	-	-	-	-	*	-	-	-	-	-	-
Eunotia tenella	-	<1	-	-	-	1	-	-	*	3	-
Eunotia spp.	-	-	-	-	<1	-	<1	-	-	-	-
Fragilaria contraens	-	-	-	-	-	-	<1	<1	-	-	<1
Fragilaria crotonensis	-	-	-	<1	-	-	-	<1	-	-	-
Fragilaria vaucheriae	3	-	-	<1	<1	-	-	1	<1	-	-
Gomphoneis herculeana	-	-	-	<1	-	<1	*	<1	-	-	-
Gomphonema dichtomum	-	-	-	-	-	-	-	<1	-	-	-
Gomphonema sp.	-	1	11	-	-	2	1	-	-	1	-
Hannea arcus	1	*	<1	28	<1	*	-	2	<1	<1	-
Melosira distans sp. 1	<1	<1	<1	<1	<1	-	<1	<1	<1	<1	5
Melosira distans sp. 2	-	-	-	-	-	<1	<1	25	12		<1
Melosira italica	<1	-	-	-	<1	<1	-	-	<1	<1	-
Melosira varians	<1	-	-	<1	<1	*	<1	*	<1	-	-
Meridion circulare	<1	-	*	4	<1	-	-	<1	*	-	-
Navicula auroa	-	-	-	-	-	-	<1	-	-	-	-
Navicula decussis	-	<1	<1	-	-	<1	<1	-	-	<1	-
Navicula heufleri	<1	<1	-	1	-	*	-	<1	-	2	*
Navicula mutica	-	-	-	-	<1	-	-	-	-	-	-
Navicula notha	-	<1	-	-	-	<1	-	-	-	*	2
Navicula pupula	-	-	-	-	-	<1	-	-	-	*	-
Navicula salinarum	-	-	-	1	-	-	-	*	<1	-	-
Navicula tripunctata	-	-	-	-	-	*	-	*	-	*	-
Navicula spp.	-	-	-	-	-	-	1	-	-	-	-
Neidium sp.	-	<1	-	-	-	*	-	-	-	*	-

TABLE 9.--Taxa and number of phytoplankton--Continued

	Cells per milliliter										
	Station 11439500			Station 11442500				Station 11445500			
	May 31	July 30	Oct. 23	Mar. 8	May 31	July 30	Oct. 23	Mar. 5	May 30	July 27	Oct. 23
BACILLARIOPHYTA (continued)											
Bacillariophyceae (continued)											
Nitzschia acicularis	-	<1	-	-	-	-	<1	<1	-	1	-
Nitzschia amphibia	-	-	-	28	*	-	-	-	-	-	-
Nitzschia communis	-	-	-	-	*	-	-	-	-	-	-
Nitzschia dissipata	-	*	-	24	<1	<1	-	<1	-	-	-
Nitzschia gracilis	-	-	-	-	*	-	-	<1	*	-	-
Nitzschia palea	-	1	-	-	*	-	-	1	<1	-	-
Nitzschia paleacea	-	-	-	-	-	-	3	-	-	-	-
Nitzschia sinuata	-	-	-	-	-	<1	-	-	-	*	-
Rhizosolenia longiseta	-	-	-	-	-	-	-	-	<1	-	-
Rhoicosphenia curvata	-	<1	-	*	*	-	<1	-	*	-	*
Synedra mazamaensis	-	-	-	4	-	-	-	<1	-	-	-
Synedra minuscula	-	1	-	-	-	2	-	-	-	59	-
Synedra rumpens	-	-	1	4	-	-	-	<1	<1	23	3
Synedra ulna	*	3	*	7	<1	4	2	<1	<1	55	*
Tabellaria fenestrata	<1	-	-	-	<1	*	-	1	<1	5	<1
CHRYSOPHYTA											
Chrysophyceae											
Dinobryon bavaricum	-	*	<1	-	-	-	<1	-	-	*	*
Dinobryon sertularia	<1	-	-	<1	-	-	-	-	-	-	-
Dinobryon sp.	-	-	-	-	-	-	-	*	*	-	-
Flagellate	-	-	-	1	<1	-	-	<1	-	-	-
Mallomonas sp.	1	-	1	-	-	-	<1	-	-	-	1
PYRROPHYTA											
Dinophyceae											
Gymnodinium sp.	-	-	-	-	-	<1	-	-	-	-	-
Peridinium sp.	1	<1	-	-	1	-	-	<1	*	-	-
CYANOPHYTA											
Cyanophyceae (blue-green algae)											
Dactylococcopsis Smithii	<1	1	-	<1	-	-	-	<1	-	-	-
Oscillatoria sp.	<1	-	-	-	-	1	-	-	<1	<1	-
CRYPTOPHYTA											
Cryptophyceae											
Chroomonas sp.	7	1	21	-	1	2	<1	-	1	-	32
Cryptomonas sp.	2	<1	2	-	<1	4	<1	-	1	1	2
Flagellate	-	-	-	-	-	-	-	*	-	-	-
Miscellaneous											
Ciliate	1	-	1	-	<1	-	<1	-	<1	-	5
Flagellates	36	12	51	-	9	20	24	1	12	21	99
Unidentified unicells	-	<1	48	-	-	<1	-	-	-	-	-

TABLE 9.--Taxa and number of phytoplankton--Continued

	Cells per milliliter		
	Station 384730121061900 March 1	Station 384449121044700 March 1	Station 11446200 March 1
CHLOROPHYTA			
Chlorophyceae			
Dictyosphaerium pulchellum	-	-	*
Oocystis sp.	*	-	-
Schroederia setigera	-	-	*
BACILLARIOPHYTA			
Bacillariophyceae			
Achnanthes lanceolata	-	1	-
Achnanthes minutissima	*	1	*
Asterionella formosa	<1	<1	-
Cocconeis placentula	-	*	-
Cyclotella bodanica	2	*	1
Cyclotella stelligera	-	-	1
Cyclotella sp.	*	2	-
Cymbella sinuata	-	*	*
Diploneis pseudovalis	-	*	-
Epithemia sorex	-	*	-
Fragilaria crotonensis	<1	<1	<1
Fragilaria sp.	4	-	-
Gomphonema dichotomum	-	*	-
Gomphonema parvulum	-	1	-
Hannea arcus	-	*	-
Melosira distans sp. 1	*	2	2
Melosira granulata	<1	<1	<1
Melosira italica	<1	<1	<1
Meridion circulare	-	*	-
Navicula descussis	1	1	*
Navicula salinarum	-	2	-
Nitzschia Heufleriana	-	*	-
Nitzschia palea	-	1	-
Nitzschia thermalis	-	1	-
Nitzschia sp. 2	*	-	-
Nitzschia sp. 3	-	*	-
Stephanodiscus astraea	1	5	7
Synedra minuscula	-	*	*
Tabellaria fenestrata	<1	<1	<1
CHRYSOPHYTA			
Chrysophyceae			
Dinobryon divergens	<1	-	-
CRYPTOPHYTA			
Cryptophyceae			
Cryptomonas sp.	-	-	*
Cryptophyta flagellates	31	4	22
Miscellaneous			
Flagellates	63	5	34

	Cells per milliliter								
	Station 384730121061900 June 13			Station 384449121044700 June 13			Station 1146200 June 14		
	Top	Middle	Bottom	Top	Middle	Bottom	Top	Middle	Bottom
CHLOROPHYTA									
Chlorophyceae									
Cosmarium sp.	<1	1	-	2	<1	-	2	1	<1
Crucigenia quadrata	*	*	-	-	-	-	<1	1	<1
Elakatothrix gelatinosa	-	-	-	-	*	-	-	<1	-
Eudorina elegans	-	-	-	-	*	-	*	*	-
Mougeotia sp.	-	-	*	-	-	-	-	-	*
Oocystis sp.	2	1	-	-	<1	<1	-	1	*
Scenedesmus sp.	<1	-	-	-	-	-	-	-	-
Schroederia setigera	-	1	-	*	*	-	<1	<1	-
Sphaerocystis schroeteri	-	-	-	<1	1	-	-	*	-
Staurastrum sp.	-	<1	<1	<1	*	*	*	1	<1
Tetraspora lamellosa	-	-	-	-	-	-	*	-	-

TABLE 9.--Taxa and number of phytoplankton--Continued

	Cells per milliliter								
	Station 384730121061900 June 13			Station 384449121044700 June 13			Station 1146200 June 14		
	Top	Middle	Bottom	Top	Middle	Bottom	Top	Middle	Bottom
BACILLARIOPHYTA									
Bacillariophyceae									
Achnanthes lanceolata	-	-	-	-	*	*	-	-	-
Achnanthes minutissima	*	3	<1	<1	3	4	2	*	-
Asterionella formosa	<1	<1	1	<1	<1	1	<1	<1	<1
Cocconeis placentula	-	-	-	-	*	<1	-	-	-
Cyclotella bodanica	1	4	1	1	2	2	3	6	4
Cyclotella ocellata	-	4	-	-	<1	-	-	-	-
Cyclotella stelligera	-	-	-	1	-	<1	-	-	-
Cyclotella sp.	-	-	-	-	2	5	-	-	<1
Cymbella minuta	*	*	<1	*	1	1	-	-	-
Cymbella sinuata	*	*	-	-	<1	*	-	-	-
Diatoma hiemale	-	-	*	-	-	<1	-	-	-
Diploneis pseudovalis	-	-	*	-	-	-	-	-	-
Fragilaria crotonensis	<1	<1	<1	<1	-	-	*	<1	<1
Fragilaria vaucheriae	-	*	-	-	-	-	-	-	-
Hannea arcus	-	*	<1	-	*	<1	-	-	-
Melosira distans sp. 1	-	-	-	-	-	<1	-	-	<1
Melosira granulata	-	*	<1	-	*	<1	*	-	-
Melosira italica	-	-	<1	<1	-	<1	-	-	-
Melosira varians	-	-	<1	-	-	<1	-	-	-
Meridion circulare	-	-	<1	-	*	-	-	-	-
Navicula descussis	*	*	<1	-	-	-	-	*	*
Navicula radiosa	-	-	-	-	*	-	-	-	-
Navicula salinarum	*	-	-	-	-	-	-	-	-
Nitzschia amphibia	-	-	-	-	*	-	-	-	-
Nitzschia communis	-	<1	-	-	-	-	-	-	-
Nitzschia dissipata	-	<1	-	-	-	-	-	-	<1
Nitzschia filiformis	-	-	-	-	*	-	-	-	-
Nitzschia gracilis	-	-	<1	-	-	-	-	-	-
Nitzschia sublinearis	-	-	-	-	<1	-	-	-	-
Nitzschia sp. 1	-	-	-	-	<1	<1	-	-	-
Rhoicosphenia curvata	-	-	*	-	*	<1	-	-	-
Stephanodiscus astraea	-	-	-	-	-	-	-	*	<1
Synedra minuscula	<1	3	<1	<1	1	<1	-	3	<1
Synedra ulna	-	-	<1	*	-	-	-	-	-
Tabellaria fenestrata	<1	<1	<1	<1	<1	1	<1	<1	<1
Tabellaria flocculosa	-	*	-	-	-	-	-	-	-
CHRYSOPHYTA									
Chrysophyceae									
Dinobryon divergens	3	*	*	-	-	<1	*	*	<1
Mallomonas sp. (1)	*	<1	*	-	<1	-	*	-	-
Mallomonas sp. (2)	-	1	-	-	-	-	1	<1	-
PYRROPHYTA									
Dinophyceae									
Ceratium hirundinella	*	*	-	*	*	-	*	-	-
Peridinium sp.	-	-	-	-	-	<1	-	1	-
EUGLENOPHYTA									
Euglenophyceae									
Phacus sp.	-	-	-	<1	1	<1	1	<1	1
CYANOPHYTA									
Cyanophyceae									
Anabaena sp.	-	-	-	*	-	-	-	-	-
Dactylococcopsis sp.	-	1	-	<1	-	-	-	<1	-
Microcystis elachista	2	<1	-	-	-	-	1	<1	-
CRYPTOPHYTA									
Cryptophyceae									
Chroomonas sp.	30	30	-	29	29	3	36	30	<1
Cryptomonas sp.	10	10	<1	13	20	2	13	8	1
Miscellaneous									
Ciliates	5	3	-	6	2	3	6	2	2
Flagellates	122	105	7	95	92	50	82	63	34

TABLE 9.--Taxa and number of phytoplankton--Continued

	Cells per milliliter								
	Station 384730121061900 July 25			Station 384449121044700 July 25			Station 1146200 July 25		
	Top	Middle	Bottom	Top	Middle	Bottom	Top	Middle	Bottom
CHLOROPHYTA									
Chlorophyceae									
Cosmarium sp.	-	*	-	-	-	-	-	1	-
Crucigenia quadrata	-	-	-	-	-	-	1	-	-
Crucigenia tetrapedia	1	-	-	-	-	-	-	-	-
Dictyosphaerium pulchellum	-	2	<1	-	1	-	-	-	-
Elakatothrix gelatinosa	-	1	-	-	-	-	2	-	-
Eudorina elegans	-	-	<1	-	-	-	*	-	<1
Mougeotia sp.	5	*	-	-	-	-	9	2	-
Pediastrum Boryanum	-	-	<1	-	-	-	-	-	-
Pediastrum tetras	-	-	-	-	-	-	1	-	-
Scenedesmus bijuga	2	3	2	-	1	-	2	1	<1
Scenedesmus sp.	-	<1	<1	-	-	<1	-	1	-
Schroederia setigera	3	<1	-	2	6	-	2	2	-
Selenastrum minutum	-	2	-	-	-	-	-	2	3
BACILLARIOPHYTA									
Bacillariophyceae									
Achnanthes lanceolata	-	-	-	-	-	*	-	-	-
Achnanthes minutissima	-	2	2	-	-	3	-	-	-
Asterionella formosa	*	<1	<1	*	*	<1	<1	<1	*
Cocconeis placentula	-	-	*	-	-	*	-	-	*
Cyclotella bodanica	-	<1	<1	-	*	*	-	-	1
Diploneis pseudovalis	-	-	-	*	*	*	*	*	-
Fragilaria crotonensis	<1	17	11	<1	<1	<1	<1	<1	<1
Fragilaria vaucheriae	-	-	-	-	-	<1	-	-	-
Hannea arcus	-	-	*	-	-	*	-	-	-
Melosira distans sp. 1	-	-	*	-	-	<1	-	-	*
Melosira distans sp. 2	-	-	-	-	3	8	-	-	<1
Melosira granulata	*	<1	<1	*		<1	*	<1	*
Melosira italica	-	<1	<1	-	*	<1	-	<1	<1
Melosira varians	-	-	-	-	-	*	-	-	-
Meridion circulare	-	-	-	-	-	<1	-	-	-
Navicula capitata	-	-	*	-	-	-	-	-	-
Navicula descussis	-	*	*	-	-	*	*	-	-
Navicula pupula	-	*	-	*	-	-	-	-	-
Navicula radiosa	-	*	-	-	*	-	*	-	-
Navicula salinarum	*	-	*	-	*	<1	*	-	-
Nitzschia acicularis	-	1	<1	-	-	-	-	-	-
Nitzschia communis	-	-	*	-	-	-	-	-	-
Nitzschia dissipata	-	<1	<1	-	-	<1	-	-	-
Nitzschia palea	-	*	*	-	-	-	-	-	-
Rhoicosphenia curvata	-	-	-	-	-	<1	-	-	-
Rhopalodia gibba	1	-	<1	-	*	-	-	*	-
Stephanodiscus astraea	-	<1	*	-	-	-	-	*	-
Synedra delicatissima	-	2	<1	-	-	-	-	-	-
Synedra rumpens	14	37	17	2	2	2	6	2	-
Tabellaria fenestrata	<1	<1	1	*	2	1	*	<1	<1
CHRYSOPHYTA									
Chrysophyceae									
Dinobryon bavaricum	-	-	-	4	1	<1	22	*	-
Hyalobryon mucicola	-	<1	-	-	3	-	-	-	-
Mallomonas sp. (1)	-	-	<1	4	*	-	1	-	-
Mallomonas sp. (2)	-	-	<1	-	5	-	-	-	-
PYRROPHYTA									
Dinophyceae									
Ceratium hirundinella	*	-	*	-	*	-	*	1	-
Peridinium sp.	4	2	*	10	26	*	2	*	<1
EUGLENOPHYTA									
Euglenophyceae									
Euglena sp.	1	-	-	-	-	-	-	-	-
Phacus sp.	-	-	-	-	-	-	-	-	*
CYANOPHYTA									
Cyanophyceae									
Anabaena sp.	1	<1	-	*	-	-	*	-	-
Dactylococcopsis sp.	-	-	-	-	-	-	1	-	-
Merismopedia tenuissima	-	-	-	-	1	<1	-	-	-
Microcystis elachista	6	6	<1	3	9	1	4	15	10

TABLE 9.--Taxa and number of phytoplankton--Continued

	Cells per milliliter								
	Station 384730121061900 October 17			Station 384449121044700 October 17			Station 1146200 October 16		
	Top	Middle	Bottom	Top	Middle	Bottom	Top	Middle	Bottom
CHLOROPHYTA									
Chlorophyceae									
Crucigenia tetrapedia	5	-	-	3	2	-	11	10	1
Dictyosphaerium pulchellum	5	-	-	2	-	-	2	1	-
Elakatothrix gelatinosa	3	-	-	2	-	-	-	-	-
Pediastrum tetras	2	-	-	1	-	-	2	1	<1
Scenedesmus sp.	6	-	-	-	4	-	5	2	1
Selenastrum minutum	2	-	-	2	-	-	3	-	-
Tetraedron minimum	8	-	-	2	*	-	9	10	1
BACILLARIOPHYTA									
Bacillariophyceae									
Achnanthes lanceolata	-	-	-	-	*	-	-	-	-
Achnanthes minutissima	121	26	-	15	16	-	78	17	27
Asterionella formosa	*	<1	-	*	*	-	<1	-	1
Cyclotella bodanica	-	-	-	*	*	-	-	*	-
Cyclotella stelligera	2	-	-	-	2	-	-	-	*
Diploneis elliptica	*	-	-	-	-	-	-	-	-
Fragilaria crotonensis	-	-	-	*	*	-	*	*	-
Melosira distans sp. 1	-	-	-	-	<1	-	-	-	<1
Melosira distans sp. 2	-	-	-	-	<1	-	-	-	<1
Melosira granulata	<1	-	-	6	<1	-	<1	<1	<1
Melosira italica	-	<1	-	*	<1	-	-	<1	<1
Melosira varians	-	-	-	-	-	-	-	*	<1
Navicula descussis	-	*	-	-	*	-	-	-	*
Navicula sp. 1	-	-	-	-	*	-	-	-	-
Navicula sp. 2	-	-	-	-	*	-	-	-	-
Nitzschia acicularis	-	2	-	-	-	-	-	-	<1
Nitzschia dissipata	-	-	-	-	*	-	-	-	-
Nitzschia sp. 1	-	2	-	-	-	-	-	-	-
Rhizosolenia longiseta	-	1	-	2	1	-	2	-	<1
Synedra radians	17	8	-	8	2	-	19	3	6
Synedra rumpens	11	2	-	4	2	-	8	2	1
Synedra ulna	-	*	-	-	-	-	-	-	-
Tabellaria fenestrata	*	8	-	*	*	-	-	*	<1
CHRYSOPHYTA									
Chrysophyceae									
Chrysophyta flagellate	-	-	3	6	-	-	9	6	3
Dinobryon bavaricum	5	-	-	36	-	-	80	-	-
Mallomonas sp. (1)	3	-	-	1	1	-	6	2	-
Mallomonas sp. (2)	*	-	-	1	-	-	-	-	-
PYRROPHYTA									
Dinophyceae									
Ceratium hirundinella	*	*	-	-	-	-	-	-	-
Peridinium sp.	21	-	-	2	2	-	2	*	-
CYANOPHYTA									
Cyanophyceae									
Anabaena sp.	-	-	-	-	-	-	-	1	-
Microcystis elachista	-	-	-	-	-	-	2	-	-
CRYPTOPHYTA									
Cryptophyceae									
Chroomonas sp.	168	70	-	92	70	-	137	155	15
Cryptomonas sp.	44	23	-	11	16	-	22	17	4
Miscellaneous									
Ciliates	11	10	-	12	12	-	36	6	4
Flagellates	268	143	-	222	157	-	405	184	39

TABLE 9.--Taxa and number of phytoplankton--Continued

	Cells per milliliter							
	Station 11446400				Station 11447000			
	Feb. 22	May 23	July 23	Oct. 11	Feb. 22	May 22	July 23	Oct. 10
CHLOROPHYTA								
Chlorophyceae (green algae)								
Carteria sp.	-	-	<1	-	-	2	-	2
Chlorogonium sp.	-	-	3	-	-	-	6	-
Crucigenia tetrapedia	-	-	-	1	-	*	-	1
Dictyosphaerium pulchellum	-	-	-	1	-	-	-	<1
Elakatothrix gelatinosa	-	-	<1	-	-	-	-	*
Eudorina elegans	-	-	*	-	-	-	-	-
Mougeotia sp.	-	<1	-	-	-	<1	-	-
Oocystis sp.	-	-	*	-	-	1	-	-
Pediastrum tetras	-	-	<1	2	-	-	-	1
Scenedesmus abundans	-	-	-	-	-	<1	-	-
Scenedesmus dimorphus	-	-	-	1	-	-	-	-
Scenedesmus opoliensis	-	-	-	-	-	-	-	<1
Scenedesmus spp.	-	-	-	3	-	-	2	4
Schroederia setiger	-	-	2	-	-	-	2	-
Selenastrum minutum	-	-	2	-	-	-	-	-
Staurastrum dilatatum	-	-	-	3	-	-	-	-
BACILLARIOPHYTA								
Bacillariophyceae (diatoms)								
Achnanthes cleri	-	<1	*	-	<1	1	-	*
Achnanthes lanceolata	*	*	2	*	*	*	1	*
Achnanthes minutissima	4	3	4	39	1	10	9	23
Asterionella formosa	6	<1	<1	1	<1	<1	1	-
Cocconeis placentula	*	<1	2	-	3	2	36	16
Cyclotella bodanica	<1	9	2	*	*	4	2	*
Cyclotella stelligera	-	-	-	-	-	-	-	*
Cymbella cistula	<1	2	<1	-	2	5	*	2
Cymbella mexicana	-	*	-	-	-	-	*	-
Cymbella minuta	-	-	2	*	1	12	20	3
Cymbella sinuata	-	-	-	-	-	*	-	<1
Diatoma hiemale	-	1	-	-	-	26	-	-
Diploneis sp.	-	-	*	-	-	-	-	-
Eunotia tenella	-	-	-	-	-	-	9	-
Eunotia spp.	-	-	-	-	-	-	-	4
Fragilaria contraens	-	<1	<1	<1	<1	<1	<1	<1
Fragilaria crotonensis	<1	<1	<1	*	<1	<1	<1	1
Fragilaria vaucheriae	<1	<1	-	-	<1	<1	1	-
Gomphoneis herculeana	-	-	-	-	*	<1	1	*
Gomphoneis sp.	-	-	*	-	-	-	1	-
Hannea arcus	-	-	-	-	-	*	-	-
Melosira distans sp. 1	*	-	-	-	-	*	-	<1
Melosira distans sp. 2	-	-	-	*	-	-	-	<1
Melosira granulata	<1	<1	<1	<1	<1	-	-	<1
Melosira italica	<1	<1	<1	*	<1	<1	<1	<1
Melosira varians	-	-	<1	*	*	<1	<1	<1
Meridion circulare	-	-	-	-	-	*	-	-
Navicula decussis	-	-	*	*	*	*	1	4
Navicula heufleri	-	-	*	-	-	<1	*	*
Navicula mutica	-	-	-	-	*	-	*	-
Navicula salinarum	-	-	-	-	-	*	-	-
Navicula tripuncta	*	-	-	-	<1	-	-	*
Navicula spp.	-	-	-	1	-	-	-	*
Nitzschia acicularis	-	-	-	-	-	<1	-	<1
Nitzschia amphibia	-	*	*	-	-	2	*	2
Nitzschia dissipata	-	-	-	-	-	2	*	*
Nitzschia gracilis	-	-	*	-	*	1	-	-
Nitzschia Kutzingiana	-	-	-	-	*	14	-	-
Nitzschia palea	-	-	<1	-	-	2	1	<1
Nitzschia sp. 1	-	-	-	-	-	-	13	-
Nitzschia sp. 2	-	-	-	-	-	-	-	8
Rhizosolenia longiseta	-	-	-	-	-	-	-	<1
Rhoicosphenia curvata	-	-	-	-	*	-	2	-
Stephanodiscus astraea	6	<1	-	-	5	1	-	-
Stephanodiscus Hantzschii	-	<1	-	-	-	-	-	-
Synedra minuscula	-	-	2	-	-	-	-	-

TABLE 9.--Taxa and number of phytoplankton--Continued

	Cells per milliliter							
	Station 11446400				Station 11447000			
	Feb. 22	May 23	July 23	Oct. 11	Feb. 22	May 22	July 23	Oct. 10
BACILLARIOPHYTA (continued)								
Bacillariophyceae (continued)								
Synedra radians	-	-	-	6	-	-	-	-
Synedra rumpens	-	-	-	10	-	-	-	*
Synedra ulna	-	<1	1	1	2	5	1	*
Tabellaria fenestrata	74	<1	<1	*	<1	9	2	*
CHRYSOPHYTA								
Chrysophyceae								
Dinobryon bavaricum	-	-	2	<1	-	-	1	<1
Dinobryon sp.	-	*	-	-	-	-	-	-
Mallomonas sp. 1	-	-	-	1	-	-	1	1
Mallomonas sp. 2	-	-	-	-	-	-	1	-
PYRROPHYTA								
Dinophyceae								
Peridinium sp.	-	<1	<1	*	-	-	-	-
EUGLENOPHYTA								
Euglenophyceae								
Phacus sp.	<1	-	-	-	-	-	*	-
CYANOPHYTA								
Cyanophyceae (blue-green algae)								
Dactylococcopsis Smithii	-	*	-	-	-	-	-	-
Microcystis elachista	-	-	3	-	-	-	3	-
Oscillatoria sp.	-	-	-	-	-	2	2	<1
CRYPTOPHYTA								
Cryptophyceae								
Chroomonas sp.	-	2	22	99	<1	2	23	61
Cryptomonas sp.	-	6	16	28	-	2	13	20
Miscellaneous								
Ciliate	-	1	-	6	-	1	-	4
Flagellates	-	4	56	174	*	5	69	95

	Cells per milliliter, Station 11447230			
	February 21	May 22	July 23	October 10
CHLOROPHYTA				
Chlorophyceae (green algae)				
Carteria sp.	-	10	-	1
Cosmarium veunustum	-	-	*	-
Crucigenia tetrapedia	-	-	-	3
Golenkinia radiata	-	1	-	-
Mougeotia sp.	-	*	-	-
Pediastrum Boryanum	-	-	1	-
Scenedesmus spp.	-	-	1	1
Tetraedron minimum	-	-	-	2
BACILLARIOPHYTA				
Bacillariophyceae (diatoms)				
Achnanthes cleri	-	-	*	*
Achnanthes lanceolata	1	*	*	*
Achnanthes minutissima	19	*	4	11
Asterionella formosa	2	<1	*	-
Cocconeis placentula	<1	2	8	5
Cyclotella bodanica	-	1	1	-
Cyclotella meneghinana	-	-	-	2
Cymbella cistula	<1	2	1	1
Cymbella minuta	<1	14	9	2
Cymbella sinuata	-	*	-	-
Diatoma hiemale	-	18	*	*
Diploneis pseudoralis	-	*	-	-
Epithemia sorex	-	*	-	-

TABLE 9.--Taxa and number of phytoplankton--Continued

	Cells per milliliter, Station 11447230			
	February 21	May 22	July 23	October 10
BACILLARIOPHYTA (continued)				
Bacillariophyceae (continued)				
Fragilaria contraens	-	<1	<1	<1
Fragilaria crotonensis	<1	-	<1	-
Fragilaria vaucheriae	<1	<1	-	-
Gomphoneis herculeana	-	-	1	*
Gomphonema dichtomum	*	-	-	-
Hannea arcus	-	*	-	-
Melosira distans sp. 1	<1	-	-	-
Melosira granulata	-	-	<1	-
Melosira italica	<1	*	*	<1
Melosira varians	<1	<1	<1	*
Meridion circulare	-	-	<1	-
Navicula decussis	1	-	2	1
Navicula heufleri	-	2	1	-
Navicula mutica	-	-	-	1
Navicula notha	-	-	*	-
Navicula pupula	<1	-	-	-
Navicula salinarum	-	-	-	1
Navicula tripunctata	-	1	-	-
Navicula sp. 1	<1	-	-	-
Neidium sp.	-	-	*	-
Nitzschia acicularis	-	2	-	-
Nitzschia amphibia	-	5	*	1
Nitzschia communis	-	1	-	*
Nitzschia dissipata	-	2	1	1
Nitzschia Kutzingiana	-	42	-	-
Nitzschia palea	-	-	2	1
Nitzschia sublinearis	-	2	-	-
Nitzschia sp. 1	-	-	4	-
Rhoicosphenia curvata	-	*	-	-
Stephanodiscus astraea	<1	1	-	-
Surirella ovalis	<1	-	-	-
Synedra ulna	*	5	*	*
Tabellaria fenestrata	<1	11	*	*
CHRYSOPHYTA				
Chrysophyceae				
Dinobryon bavaricum	-	-	<1	-
Dinobryon serularia	*	-	-	-
Mallomonas sp. 1	-	-	1	-
PYRROPHYTA				
Dinophyceae				
Peridinium sp.	-	-	-	1
CYANOPHYTA				
Cyanophyceae (blue-green algae)				
Anabaena sp.	-	-	1	-
Dactylococcopsis Smithii	<1	-	-	-
Microcystis elaschista	-	-	2	-
Oscillatoria sp.	-	*	-	-
CRYPTOPHYTA				
Cryptophyceae				
Chroomonas sp.	-	11	42	40
Cryptomonas sp.	-	2	11	5
Miscellaneous				
Ciliate	-	1	-	1
Flagellates	<1	18	111	98