

**WATER-QUALITY DATA FOR SELECTED SITES ON
REVERSED, RUSH, AND ALGER CREEKS AND
GULL AND SILVER LAKES, MONO COUNTY,
CALIFORNIA, APRIL 1994 TO MARCH 1995**



**U.S. GEOLOGICAL SURVEY
Open-File Report 95-394**



**Prepared in cooperation with the
MONO COUNTY ENERGY MANAGEMENT DEPARTMENT**

Water-Quality Data for Selected Sites on Reversed, Rush, and Alger Creeks and Gull and Silver Lakes, Mono County, California, April 1994 to March 1995

By Bronwen Wang, Gerald L. Rockwell, *and* James C. Blodgett

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CONVERSION FACTORS AND VERTICAL DATUM

Conversion Factors

Multiply	By	To obtain
acre	0.4047	hectare
acre-foot (acre-ft)	1,233	cubic meter
cubic foot (ft ³)	0.02832	cubic meter
cubic foot per second (ft ³ /s)	0.02832	cubic meter per second
foot (ft)	0.3048	meter
inch (in.)	25.4	millimeter

Temperature is given in degrees Celsius (°C), which can be converted to degrees Fahrenheit (°F) by the following equation:

$$^{\circ}\text{F}=1.8(^{\circ}\text{C})+32.$$

Vertical Datum

Sea level: In this report, "sea level" refers to the National Geodetic Vertical Datum of 1929—a geodetic datum derived from a general adjustment of the first-order level nets of the United States and Canada, formerly called Sea Level Datum of 1929.

Water-Quality Data for Selected Sites on Reversed, Rush, and Alger Creeks and Gull and Silver Lakes, Mono County, California, April 1994 to March 1995

By Bronwen Wang, Gerald L. Rockwell, *and* James C. Blodgett

Abstract

Water-quality data for selected sites on Reversed, Rush, and Alger Creeks and Gull and Silver Lakes, Mono County, California, were collected from April 1994 to March 1995. Water samples were analyzed for major ions and trace elements, nutrients, methylene blue active substances, and oil and grease. Field measurements were made for discharge, specific conductance, pH, water temperature, barometric pressure, dissolved oxygen, and alkalinity. Additional data collected include vertical water profiles of specific conductance, pH, water temperature, and dissolved oxygen collected at 3.3-foot intervals for Gull and Silver Lakes; chlorophyll-*a* and -*b* concentrations and Secchi depth for Gull and Silver Lakes; sediment interstitial-water nutrient concentrations in cores from Gull Lake; and lake surface and volume of Gull and Silver Lakes.

INTRODUCTION

Increased tourism and expanded development in the Gull and Silver Lakes vicinity in Mono County, California (fig. 1), have raised concerns about the effects of development on the water quality of these lakes. To aid in determining these effects, this study was done by the U.S. Geological Survey in cooperation with the Mono County Energy Management Department.

This report presents water-quality data collected from the Gull and Silver Lakes area between April 1994 and March 1995. Eight stream sites (four on Reversed Creek, three on Rush Creek, and one on Alger Creek) and six lake sites (three on Gull Lake and three on Silver Lake) were sampled. In addition, a small inlet (Gull Lake inlet) was sampled on the northeast end of Gull Lake. Sampling sites were selected to bracket developed areas that may adversely affect the water quality of these lakes and streams.

Additional expertise was provided by William Hardy, Ann Chalmers, and Scott Hamlin, all of the U.S. Geological Survey, Sacramento, California.

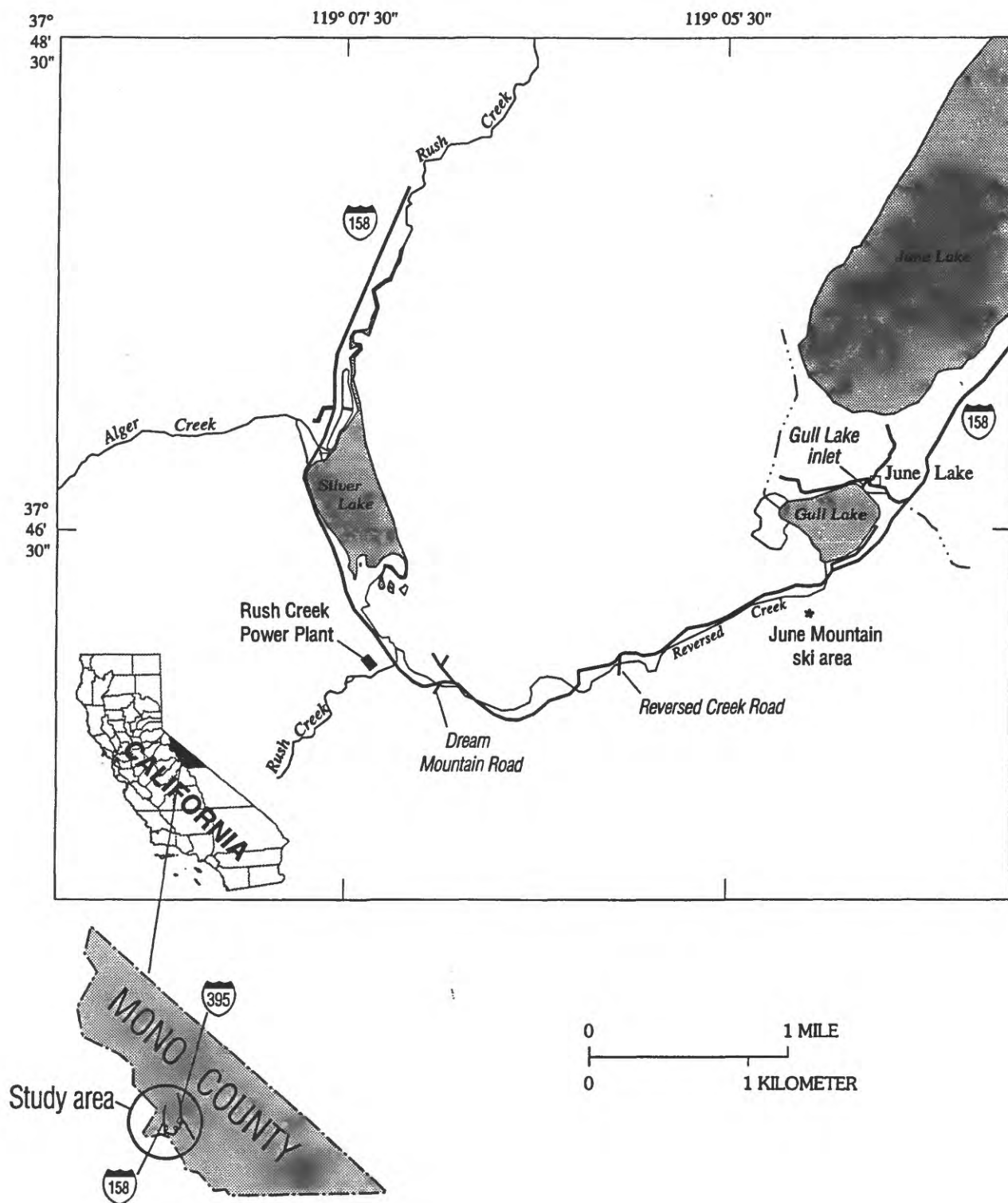


Figure 1. Location of study area, Mono County, California.

SAMPLE COLLECTION

Streams

Water samples were collected at eight stream sampling sites on Reversed, Rush, and Alger Creeks (fig. 2, at back of report). When flow was adequate, samples were collected using a depth-integrated sampler. During periods of low-flow, grab samples were collected. All samples were composited in a prerinsed churn splitter. Multiple samples from the same stream were collected in an upstream sequence to avoid the effects of increased turbidity on downstream water quality. Water samples collected from the churn were sent to the U.S. Geological Survey National Water-Quality Laboratory in Arvada, Colorado, for chemical analyses. Total nutrients were determined on an unfiltered sample; nitrate, ortho-phosphate, and major and trace ions were determined on a 0.45-micron filtered sample. A separate sample for oil and grease analysis was collected directly into a 1-liter baked amber glass bottle with a Teflon cap.

Instantaneous discharge and field measurements also were made at the eight stream sampling sites. Discharge was determined using methods and equipment described in a report by Rantz (1982). Field measurements were made for specific conductance, pH, water temperature, barometric pressure, dissolved oxygen, and alkalinity. Dissolved oxygen and water temperature were measured *in situ* using a dissolved-oxygen meter and a temperature thermistor, respectively. Discharge, field measurements, and water-quality data for the eight stream sampling sites and the one site on Gull Lake are given in tables 1 through 9 (at back of report).

Lakes

Water samples were collected at three sites on Gull Lake (fig. 3, at back of report) and at three sites on Silver Lake (fig. 4, at back of report). A Scout 2 Water Quality Data System Hydrolab unit was used to measure specific conductance, pH, water temperature, and dissolved oxygen at 3.3-ft depth intervals to determine the vertical water profiles of the lakes. The profiles were used to define the epilimnion, metalimnion, and hypolimnion layers of the lakes. Water samples then were collected at depths corresponding to each of these layers using a Van Dorn point sampler. Samples from the same depth were composited in a prerinsed churn splitter. Secchi measurements were made over the shaded side of a boat using the same observer throughout the study. Vertical water profiles and water-quality data for Gull and Silver Lakes are given in tables 10 through 15 and tables 16 through 21 (at back of report), respectively.

Bed-sediment samples were collected from Gull Lake (fig. 5, at back of report) using either a gravity corer or a Ponar grab sampler. Using methods described by Siever (1962) and Manheim (1966), which were modified slightly for this study, the sediment samples then were pressed hydraulically to obtain interstitial water. Nutrient data for the interstitial water are given in table 22 (at back of report).

LAKE VOLUME

The surface area and volume of Gull and Silver Lakes were surveyed on September 27-29, 1994. The lakebed geometry was mapped using a fathometer with an electronic distance measuring theodolite (EDM) to provide horizontal control. Contours of the lakebeds of Gull and Silver Lakes were mapped at 5- and 10-ft intervals, respectively (figs. 3 and 4). These data were used to calculate surface area and volume of Gull Lake (table 23 and fig. 6 at back of report) and of Silver Lake (table 24 and fig. 8 at back of report). The volumes of the lakes were calculated using the average surface areas between contours, which then were combined to indicate volume above the lowest point of the lakebed.

Changes in volume of Gull and Silver Lakes were measured during the spring and summer of 1994. A staff gage was placed at the marina on the east side of Gull Lake and at the public boat ramp at the north end of Silver Lake. The staff gages generally were read once or twice a week between March 30 and October 12, 1994. These readings were obtained at various depth intervals. The changes in lake elevations between March and October 1994 are shown on figures 7 and 9 (at back of report). Lake elevation is referenced to sea level using nearby bench marks established by the California Department of Transportation (Caltrans).

METHODS OF ANALYSES

All samples were analyzed using standard U.S. Geological Survey procedures and guidelines. These methods or procedures include colorimetric analysis to analyze ammonia, nitrite, nitrite plus nitrate, total ammonia plus organic nitrogen, total phosphorous, and ortho-phosphate; ion-exchange chromatography to analyze major ions; and atomic absorption or emission spectroscopy to analyze cations and metal [for detailed descriptions of these procedures, the reader is referred to Friedman and Erdmann (1982)]. Methylene blue active substances were analyzed spectrophotometrically, and oil and grease were analyzed gravimetrically (Goerlitz and Brown, 1984).

REFERENCES CITED

- Friedman, L.C., and Erdmann, D.E., 1982, Quality assurance practices for the chemical and biological analyses of water and fluvial sediments: U.S. Geological Survey Techniques of Water-Resources Investigations, book 5, chap. A6, 181 p.
- Goerlitz, D.F., and Brown, E., 1984, Methods for analysis of organic substances in water: U.S. Geological Survey Techniques of Water-Resources Investigations, book 5, chap. A3, 40 p.
- Manheim, F.T., 1966, A hydraulic squeezer for obtaining interstitial water from unconsolidated sediments: U.S. Geological Survey Professional Paper 550-C, p. C256-C261.
- Rantz, S.E., and others, 1982, Measurement and computation of streamflow: Volume 1. Measurement of stage and discharge: U.S. Geological Survey Water-Supply Paper 2175, p. 1-284.
- Siever, R., 1962, A squeezer for extracting interstitial waste: *Journal of Sedimentary Petrology*, v. 32, p. 329-331.

FIGURES

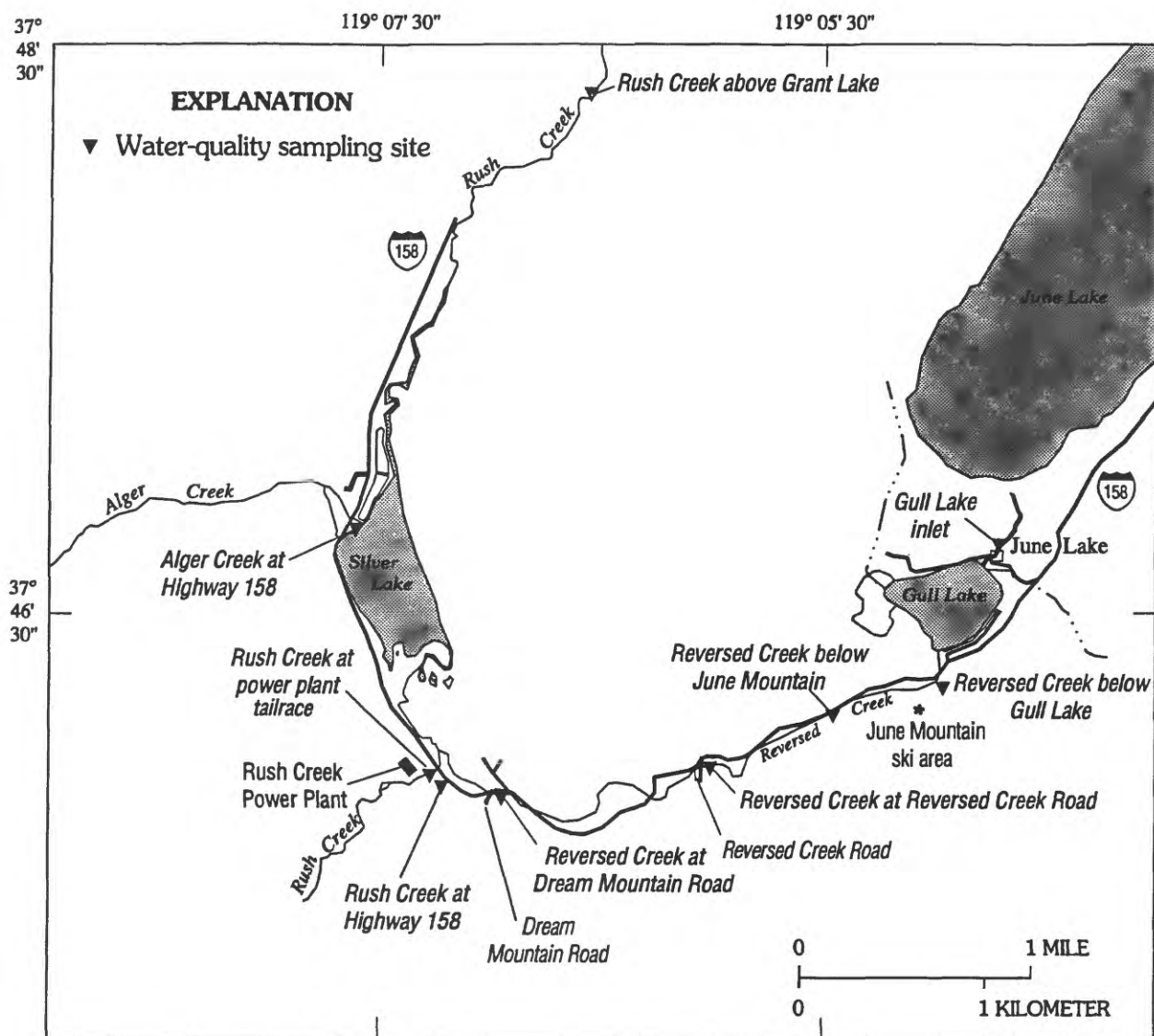


Figure 2. Locations of stream sampling sites on Reversed, Rush, and Alger Creeks, Mono County, California.

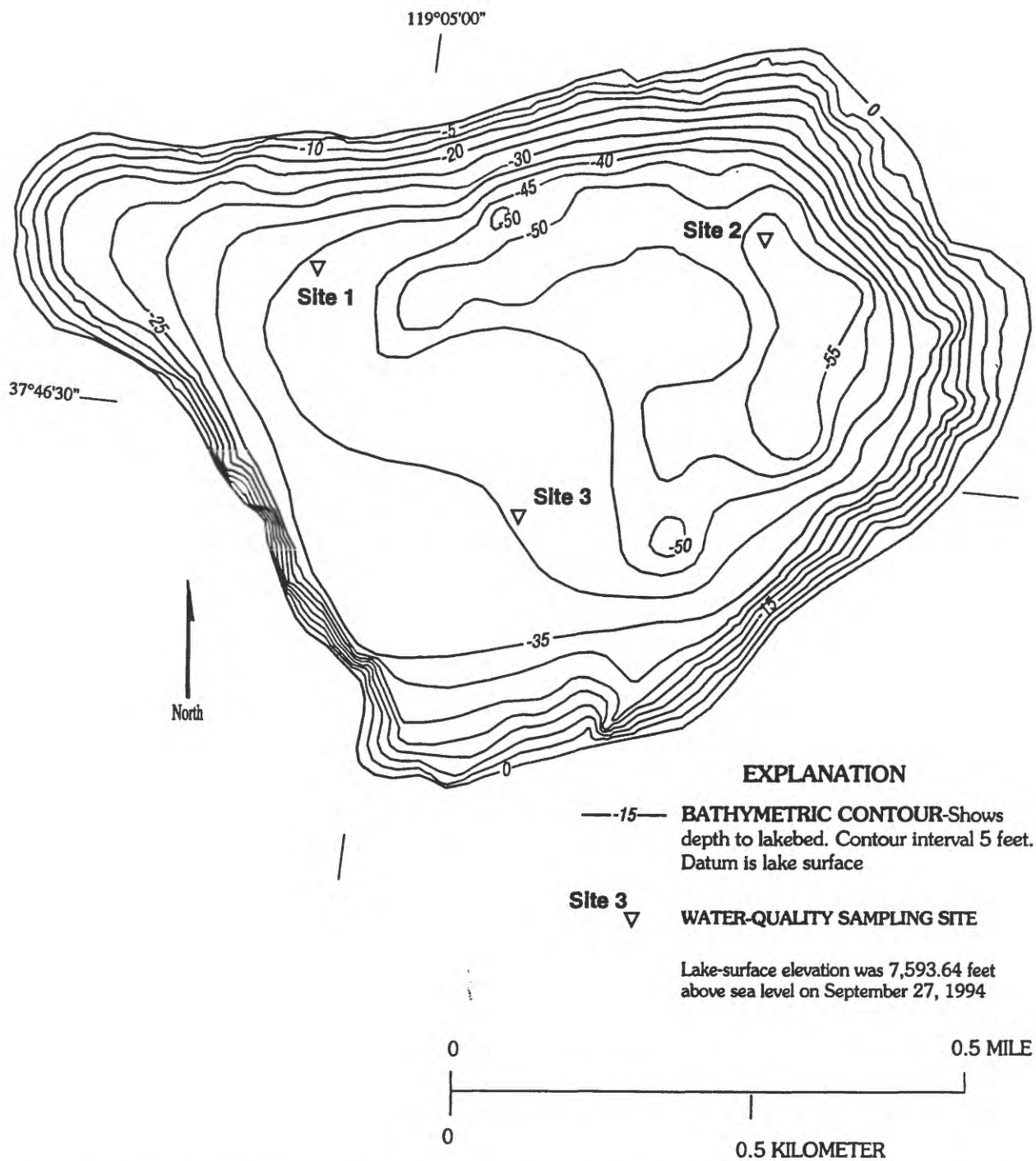


Figure 3. Bathymetric contours and water-quality sampling sites on Gull Lake, Mono County, California.

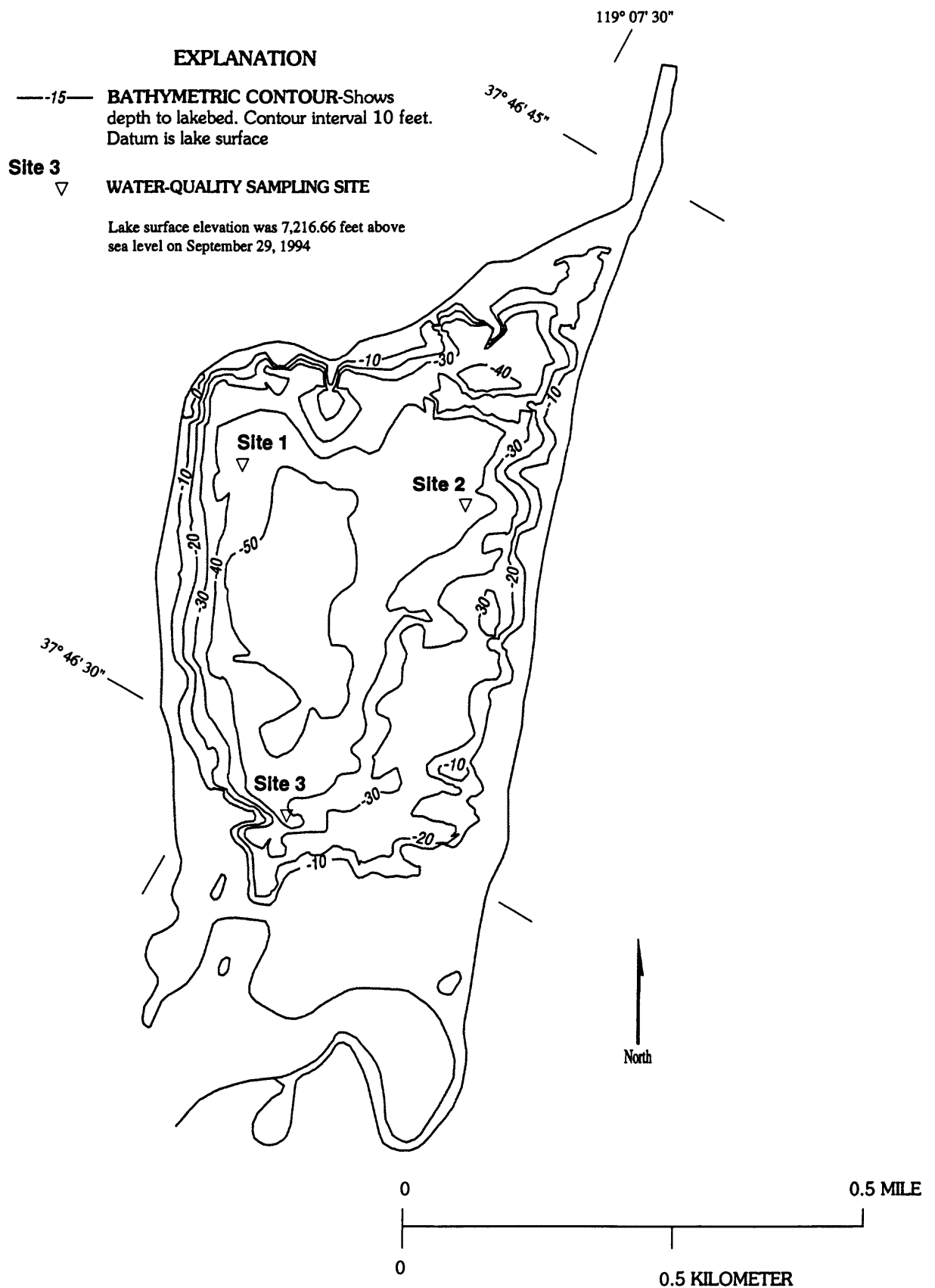


Figure 4. Bathymetric contours and water-quality sampling sites on Silver Lake, Mono County, California.

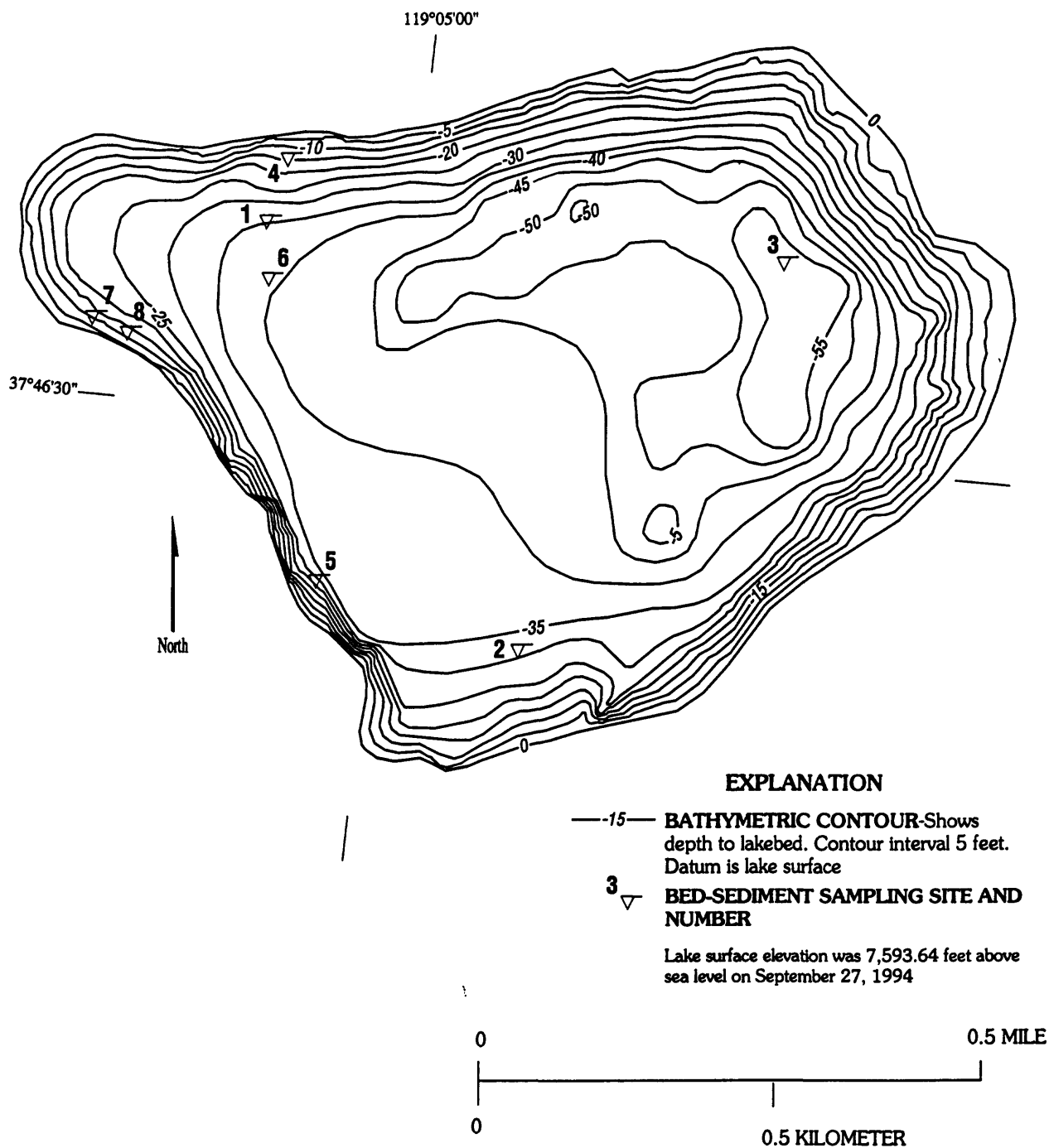


Figure 5. Location of bed-sediment sampling sites on Gull Lake, Mono County, California.

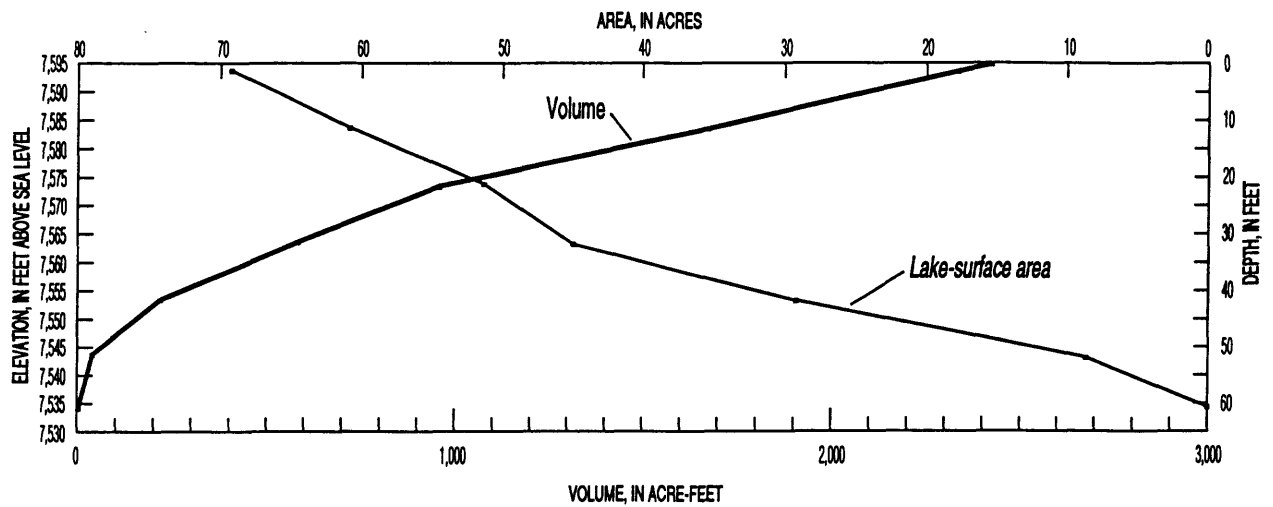


Figure 6. Surface area and volume of Gull Lake, Mono County, California.

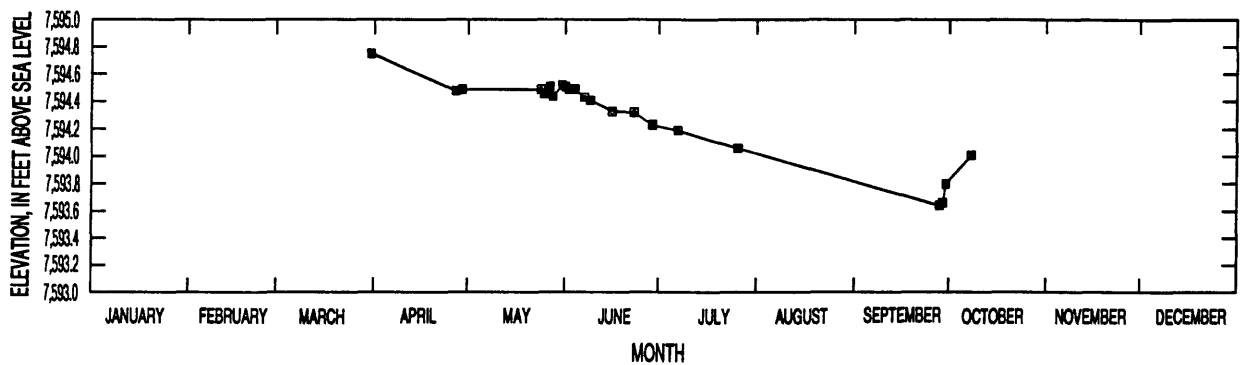


Figure 7. Stage of Gull Lake, Mono County, California, March through early October 1994.

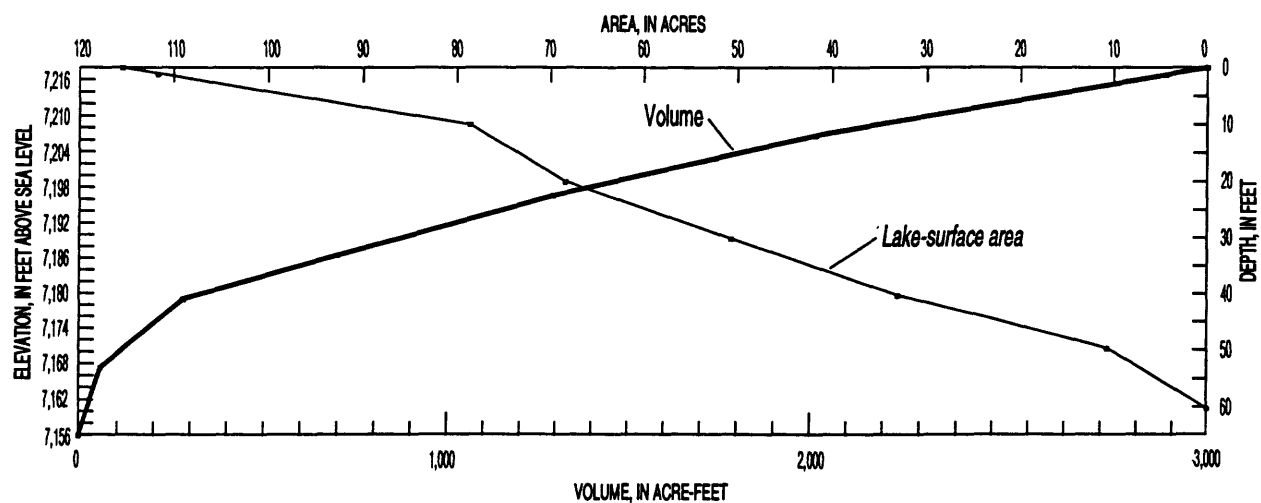


Figure 8. Surface area and volume of Silver Lake, Mono County, California.

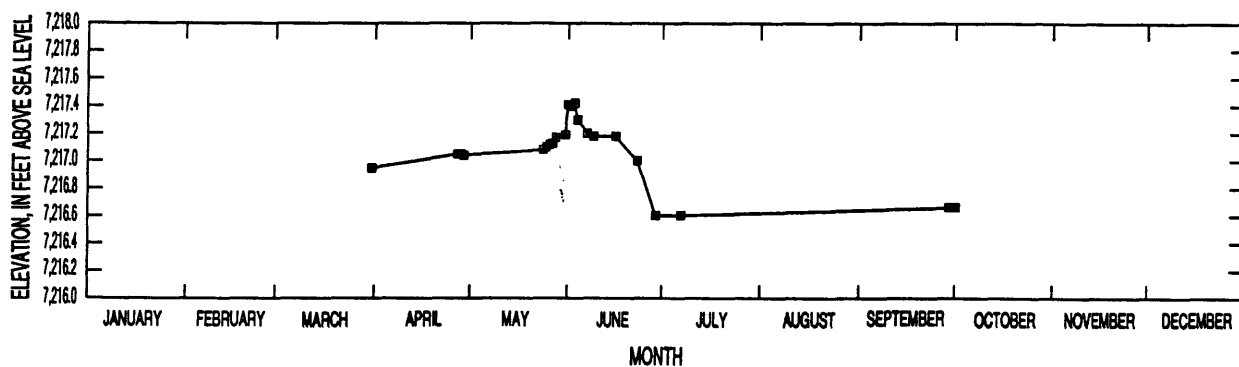


Figure 9. Stage of Silver Lake, Mono County, California, March through early October 1994.

TABLES

Table 1. Discharge, field-measurement, and water-quality data for Gull Lake inlet, Mono County, California

[ft³/s, cubic foot per second; μ S/cm, microsiemen per centimeter at 25°C; °C, degree Celsius; mm, millimeter; mg/L, milligram per liter; μ g/L; microgram per liter; wh, whole; it, incremental titration; recov., recoverable. <, actual value is less than value shown; —, no data]

Date (1994)	Dis- charge, instanta- neous (ft ³ /s)	Spe- cific con- duct- ance (μS/cm)	pH water, whole field (stand- ard units)	Temper- ature, water (°C)	Baro- metric pres- sure (mm of Hg)	Oxygen, dis- solved (mg/L)	Oxygen, dis- solved (percent satura- tion)	Hard- ness, total (mg/L as CaCO ₃)	Cal- cium, dis- solved (mg/L as Ca)
April 25	e0.10	114	7.1	5.0	566	8.3	88	39	13
June 6	e .05	114	7.9	14.0	572	9.0	117	41	14
July 27	e .01	126	7.3	13.5	580	6.4	81	51	17
October 12	e .05	109	7.6	7.0	—	—	—	39	13

Date (1994)	Magne- sium, dis- solved (mg/L as Mg)	Sodium, dis- solved (mg/L as Na)	Potas- sium, dis- solved (mg/L as K)	Bicar- bonate water, wh it field (mg/L as HCO ₃)	Car- bonate water, wh it field (mg/L as CO ₃)	Alka- linity, water wh total it field (mg/L as CaCO ₃)	Sulfate, dis- solved (mg/L as SO ₄)	Chlo- ride, dis- solved (mg/L as Cl)
April 25	1.5	6.1	2.3	60	0	49	3.7	2.1
June 6	1.5	6.0	2.2	59	0	49	3.1	2.8
July 27	2.0	6.0	3.7	78	0	64	.9	2.0
October 12	1.7	5.8	3.2	57	0	47	4.0	2.1

Date (1994)	Fluo- ride, dis- solved (mg/L as F)	Silica, dis- solved (mg/L as SiO ₂)	Solids, residue at 180°C, dis- solved (mg/L)	Solids, sum of consti- tuents, dis- solved (mg/L)	Nitro- gen, nitrite, dis- solved (mg/L as N)	Nitro- gen, NO ₂ + NO ₃ , total (mg/L as N)	Nitro- gen, NO ₂ + NO ₃ , dis- solved (mg/L as N)	Nitro- gen, ammonia, dis- solved (mg/L as N)	Nitro gen, ammonia + organic, total (mg/L as N)
April 25	<0.10	43	98	102	<0.010	0.076	0.076	0.030	0.70
June 6	<.10	42	98	101	<.010	—	<.050	.030	.20
July 27	.10	44	114	114	<.010	—	<.050	.030	1.0
October 12	<.10	43	92	101	<.010	—	<.050	.020	<.20

Date (1994)	Phos- phorus, total (mg/L as P)	Phos- phorus, dis- solved (mg/L as P)	Phos- phorus ortho, dis- solved (mg/L as P)	Boron, dis- solved (μg/L as B)	Iron, dis- solved (μg/L as Fe)	Manga- nese, dis- solved (μg/L as Mn)	Methy- lene blue active sub- stance (mg/L)	Oil and grease, total recov. gravi- metric (mg/L)
April 25	0.100	0.040	0.030	10	470	110	<0.02	<1
June 06	.070	.030	.040	<10	340	44	—	—
July 27	.370	.010	.020	20	150	25	.04	<1
October 12	.030	.040	.020	20	150	4	—	—

e Estimated

Table 2. Discharge, field-measurement, and water-quality data for Reversed Creek below Gull Lake at Highway 158, Mono County, California

[ft³/s, cubic foot per second; µS/cm, microsiemen per centimeter at 25°C; °C, degree Celsius; mm, millimeter; mg/L, milligram per liter; µg/L, microgram per liter; wh, whole; it, incremental titration; recov., recoverable. <, actual value is less than value shown; —, no data]

Date (1994)	Dis-charge, instanta- neous (ft ³ /s)	Spe- cific con- duct- ance (µS/cm)	pH water, whole field (stand- ard units)	Temper- ature, water (°C)	Baro- metric pres- sure (mm of Hg)	Oxygen, dis- solved (mg/L)	Oxygen, dis- solved (per- cent satura- tion)	Hard- ness, total (mg/L as CaCO ₃)	Cal- cium, dis- solved (mg/L as Ca)
April 25	0.72	136	7.5	9.0	566	7.8	91	47	17
June 6	.25	137	7.8	15.5	573	7.3	97	45	16
July 27	e .01	161	7.5	12.0	—	—	—	49	17
October 12	e .05	146	7.7	6.0	—	—	—	54	19

Date (1994)	Magne- sium, dis- solved (mg/L as Mg)	Sodium, dis- solved (mg/L as Na)	Potas- sium, dis- solved (mg/L as K)	Bicar- bonate water, wh it field (mg/L as HCO ₃)	Car- bonate water, wh it field (mg/L as CO ₃)	Alka- linity, water wh total it field (mg/L as CaCO ₃)	Sulfate, dis- solved (mg/L as SO ₄)	Chlo- ride, dis- solved (mg/L as Cl)
April 25	1.2	8.5	2.7	74	0	60	4.8	2.0
June 6	1.2	8.5	2.6	—	—	—	5.4	1.8
July 27	1.5	8.8	2.3	79	0	65	4.8	1.5
October 12	1.6	9.3	3.1	74	0	61	11	1.9

Date (1994)	Fluo- ride, dis- solved (mg/L as F)	Silica, dis- solved (mg/L as SiO ₂)	Solids, residue at 180°C, dis- solved (mg/L)	Solids, sum of consti- tuents, dis- solved (mg/L)	Nitro- gen, nitrite, dis- solved (mg/L as N)	Nitro- gen, NO ₂ + NO ₃ , total (mg/L as N)	Nitro- gen, NO ₂ + NO ₃ , dis- solved (mg/L as N)	Nitro- gen, ammonia, dis- solved (mg/L as N)	Nitro- gen, ammonia + organic, total (mg/L as N)
April 25	0.10	4.3	74	77	<0.010	—	<0.050	0.010	<0.20
June 6	.10	4.7	82	—	<.010	—	<.050	.040	.30
July 27	.10	7.6	82	83	<.010	0.087	.087	.040	.30
October 12	.10	5.8	68	88	<.010	—	<.050	.020	.30

Date (1994)	Phos- phorus, total (mg/L as P)	Phos- phorus, dis- solved (mg/L as P)	Phos- phorus ortho, dis- solved (mg/L as P)	Boron, dis- solved (µg/L as B)	Iron, dis- solved (µg/L as Fe)	Manga- nese, dis- solved (µg/L as Mn)	Methy- lene blue active sub- stance (mg/L)	Oil and grease, total recov. gravi- metric (mg/L)
April 25	0.020	<0.010	<0.010	30	63	18	0.02	<1
June 6	.020	<.010	<.010	20	34	18	<.02	—
July 27	.010	.010	<.010	30	16	49	<.02	—
October 12	.020	.020	<.010	30	6	4	—	—

e Estimated

Table 3. Discharge, field-measurement, and water-quality data for Reversed Creek below June Mountain ski area, Mono County, California

[ft³/s, cubic foot per second; μ S/cm, microsiemen per centimeter at 25°C; °C, degree Celsius; mm, millimeter; mg/L, milligram per liter; μ g/L, microgram per liter; wh, whole; it, incremental titration; recov., recoverable. <, actual value is less than value shown; —, no data]

Date (1994)	Dis-charge, instanta- neous (ft ³ /s)	Spe- cific con- duct- ance (μS/cm)	pH water, whole field (stand- ard units)	Temper- ature, water (°C)	Baro- metric pres- sure (mm of Hg)	Oxygen, dis- solved (mg/L)	Oxygen, dis- solved (per- cent satura- tion)	Hard- ness, total (mg/L as CaCO ₃)	Cal- cium, dis- solved (mg/L as Ca)
April 25	1.5	150	7.7	10.5	566	8.0	97	56	20
June 6	1.0	153	7.8	13.5	574	7.0	90	59	21

Date (1994)	Magne- sium, dis- solved (mg/L as Mg)	Sodium, dis- solved (mg/L as Na)	Potas- sium, dis- solved (mg/L as K)	Bicar- bonate water, wh it field (mg/L as HCO ₃)	Car- bonate water, wh it field (mg/L as CO ₃)	Alka- linity, water wh total it field (mg/L as CaCO ₃)	Sulfate, dis- solved (mg/L as SO ₄)	Chlo- ride, dis- solved (mg/L as Cl)
April 25	1.5	6.8	2.3	77	0	63	6.7	1.8
June 6	1.5	6.3	2.0	79	0	64	8.0	1.5

Date (1994)	Fluo- ride, dis- solved (mg/L as F)	Silica, dis- solved (mg/L as SiO ₂)	Solids, residue at 180°C, dis- solved (mg/L)	Solids, sum of consti- tuents, dis- solved (mg/L)	Nitro- gen, nitrite, dis- solved (mg/L as N)	Nitro- gen, NO ₂ + NO ₃ , total (mg/L as N)	Nitro- gen, NO ₂ + NO ₃ , dis- solved (mg/L as N)	Nitro- gen, ammonia, dis- solved (mg/L as N)	Nitro- gen, ammonia + organic, total (mg/L as N)
April 25	0.10	31	110	109	<0.010	0.110	0.110	0.020	0.60
June 6	.10	34	120	114	<.010	.140	.140	.030	<.20

Date (1994)	Phos- phorus, total (mg/L as P)	Phos- phorus, dis- solved (mg/L as P)	Phos- phorus ortho, dis- solved (mg/L as P)	Boron, dis- solved (μg/L as B)	Iron, dis- solved (μg/L as Fe)	Manga- nese, dis- solved (μg/L as Mn)	Methy- lene blue active sub- stance (mg/L)	Oil and grease, total recov. gravi- metric (mg/L)
April 25	0.050	<0.010	<0.010	20	78	38	0.05	<1
June 6	<.010	<.010	<.010	20	50	24	<.02	—

Table 4. Discharge, field-measurement, and water-quality data for Reversed Creek at Reversed Creek Road, Mono County, California

[ft³/s, cubic foot per second; μ S/cm, microsiemen per centimeter at 25°C; °C, degree Celsius; mm, millimeter; mg/L, milligram per liter; μ g/L; microgram per liter; wh, whole; it, incremental titration; recov., recoverable. <, actual value is less than value shown; —, no data]

Date (1994)	Dis-charge, instanta- neous (ft ³ /s)	Spe- cific con- duct- ance (μS/cm)	pH water, whole field (stand- ard units)	Temper- ature, water (°C)	Baro- metric pres- sure (mm of Hg)	Oxygen, dis- solved (mg/L)	Oxygen, dis- solved (per- cent satura- tion)	Hard- ness, total (mg/L as CaCO ₃)	Cal- cium, dis- solved (mg/L as Ca)
April 25	2.2	121	7.8	7.0	566	8.6	96	47	16
June 7	1.6	118	7.9	6.0	590	9.1	95	49	17
Date (1994)	Magne- sium, dis- solved (mg/L as Mg)	Sodium, dis- solved (mg/L as Na)	Potas- sium, dis- solved (mg/L as K)	Bicar- bonate water, wh it field (mg/L as HCO ₃)	Car- bonate water, wh it field (mg/L as CO ₃)	Alka- linity, water wh total it field (mg/L as CaCO ₃)	Sulfate, dis- solved (mg/L as SO ₄)	Chlo- ride, dis- solved (mg/L as Cl)	
April 25	1.6	6.0	2.3	64	0	53	4.6	1.6	
June 7	1.6	5.2	2.0	66	0	54	5.7	1.2	
Date (1994)	Fluo- ride, dis- solved (mg/L as F)	Silica, dis- solved (mg/L as SiO ₂)	Solids, residue at 180°C, dis- solved (mg/L)	Solids, sum of consti- tuents, dis- solved (mg/L)	Nitro- gen, nitrite, dis- solved (mg/L as N)	Nitro- gen, NO ₂ + NO ₃ , total (mg/L as N)	Nitro- gen, NO ₂ + NO ₃ , dis- solved (mg/L as N)	Nitro- gen, ammonia, dis- solved (mg/L as N)	Nitro- gen, ammonia + organic, total (mg/L as N)
April 25	0.10	36	96	100	<0.010	0.085	0.085	0.020	0.20
June 7	<.10	38	94	104	<.010	.130	.130	.020	<.20
Date (1994)	Phos- phorus, total (mg/L as P)	Phos- phorus, dis- solved (mg/L as P)	Phos- phorus ortho, dis- solved (mg/L as P)	Boron, dis- solved (μg/L as B)	Iron, dis- solved (μg/L as Fe)	Manga- nese, dis- solved (μg/L as Mn)	Methy- lene blue active sub- stance (mg/L)	Oil and grease, total recov. gravi- metric (mg/L)	
April 25	0.300	0.020	0.020	20	90	20	<0.02	<1	
June 7	.020	<.010	.020	<10	42	17	.03	—	

Table 5. Discharge, field-measurement, and water-quality data for Reversed Creek at Dream Mountain Road, Mono County, California

[ft³/s, cubic foot per second; μ S/cm, microsiemen per centimeter at 25°C; °C, degree Celsius; mm, millimeter; mg/L, milligram per liter; μ g/L, microgram per liter; wh, whole; it, incremental titration; recov., recoverable. <, actual value is less than value shown; —, no data]

Date (1994)	Dis-charge, instanta- neous (ft ³ /s)	Spe- cific con- duct- ance (μS/cm)	pH water, whole field (stand- ard units)	Temper- ature, water (°C)	Baro- metric pres- sure (mm of Hg)	Oxygen, dis- solved (mg/L)	Oxygen, dis- solved (per- cent satura- tion)	Hard- ness, total (mg/L as CaCO ₃)	Cal- cium, dis- solved (mg/L as Ca)
April 25	6.3	88	7.8	4.0	566	9.4	97	33	11
June 7	14	43	7.6	5.0	585	9.6	99	18	6.0
July 27	2.9	108	8.0	12.0	589	8.1	98	39	13
September 6	1.4	115	8.0	13.0	591	7.9	97	47	16
October 11	2.8	107	7.5	8.5	581	8.5	96	48	16
Date (1994)	Magne- sium, dis- solved (mg/L as Mg)	Sodium, dis- solved (mg/L as Na)	Potas- sium, dis- solved (mg/L as K)	Bicar- bonate water, wh it field (mg/L as HCO ₃)	Car- bonate water, wh it field (mg/L as CO ₃)	Alka- linity, water wh total it field (mg/L as CaCO ₃)	Sulfate, dis- solved (mg/L as SO ₄)	Chlo- ride, dis- solved (mg/L as Cl)	
April 25	1.3	3.7	1.6	47	0	39	4.6	1.4	
June 7	.71	1.8	.80	22	0	18	3.6	.30	
July 27	1.6	3.4	1.2	52	0	43	5.0	.50	
September 6	1.8	4.0	1.7	61	0	50	4.9	.70	
October 11	1.9	4.2	1.7	58	0	48	6.8	.70	
Date (1994)	Fluo- ride, dis- solved (mg/L as F)	Silica, dis- solved (mg/L as SiO ₂)	Solids, residue at 180°C, dis- solved (mg/L)	Solids, sum of consti- tuents, dis- solved (mg/L)	Nitro- gen, nitrite, dis- solved (mg/L as N)	Nitro- gen, NO ₂ + NO ₃ , total (mg/L as N)	Nitro- gen, NO ₂ + NO ₃ , dis- solved (mg/L as N)	Nitro- gen, ammonia, dis- solved (mg/L as N)	Nitro- gen, ammonia + organic, total (mg/L as N)
April 25	<0.10	27	70	74	<0.010	—	<0.050	0.010	0.20
June 7	<.10	17	26	41	<.010	—	<.050	.020	<.20
July 27	.10	31	72	82	<.010	0.056	.056	.020	<.20
September 6	.20	36	82	96	<.010	.055	.055	.020	<.20
October 11	<.10	35	80	95	<.010	—	<.050	<.015	<.20
Date (1994)	Phos- phorus, total (mg/L as P)	Phos- phorus, dis- solved (mg/L as P)	Phos- phorus ortho, dis- solved (mg/L as P)	Boron, dis- solved (μg/L as B)	Iron, dis- solved (μg/L as Fe)	Manga- nese, dis- solved (μg/L as Mn)	Methy- lene blue active sub- stance (mg/L)	Oil and grease, total recov. gravi- metric (mg/L)	
April 25	0.010	<0.010	<0.010	10	81	8	0.03	<1	
June 7	<.010	<.010	<.010	<10	23	4	<.02	—	
July 27	.010	<.010	<.010	<10	30	3	.03	<1	
September 6	.020	<.010	.020	<10	36	4	—	—	
October 11	.020	<.010	<.010	10	50	5	—	—	

Table 6. Discharge, field-measurement, and water-quality data for Rush Creek at Highway 158, Mono County, California

[ft³/s, cubic foot per second; μ S/cm, microsiemen per centimeter at 25°C; °C, degree Celsius; mm, millimeter; mg/L, milligram per liter; μ g/L, microgram per liter; wh, whole; it, incremental titration; recov., recoverable. <, actual value is less than value shown; —, no data]

Date (1994)	Dis-charge, instanta- neous (ft ³ /s)	Spe- cific con- duct- ance (μS/cm)	pH water, whole field (stand- ard units)	Temper- ature, water (°C)	Baro- metric pres- sure (mm of Hg)	Oxygen, dis- solved (mg/L)	Oxygen, dis- solved (per- cent satura- tion)	Hard- ness, total (mg/L as CaCO ₃)	Cal- cium, dis- solved (mg/L as Ca)
April 26	1.9	162	8.2	1.5	577	10.0	94	76	27
June 7	1.3	200	8.5	8.5	584	8.9	100	95	34
July 27	e .06	1273	8.2	20.0	589	6.8	97	120	42

Date (1994)	Magne- sium, dis- solved (mg/L as Mg)	Sodium, dis- solved (mg/L as Na)	Potas- sium, dis- solved (mg/L as K)	Bicar- bonate water, wh it field (mg/L as HCO ₃)	Car- bonate water, wh it field (mg/L as CO ₃)	Alka- linity, water wh total it field (mg/L as CaCO ₃)	Sulfate, dis- solved (mg/L as SO ₄)	Chlo- ride, dis- solved (mg/L as Cl)
April 26	2.0	3.0	1.3	92	0	75	7.2	2.1
June 7	2.4	3.7	1.5	112	2	95	7.5	3.6
July 27	3.1	8.5	1.8	144	0	118	4.7	12

Date (1994)	Fluo- ride, dis- solved (mg/L as F)	Silica, dis- solved (mg/L as SiO ₂)	Solids, residue at 180°C, dis- solved (mg/L)	Solids, sum of consti- tuents, dis- solved (mg/L)	Nitro- gen, nitrate, dis- solved (mg/L as N)	Nitro- gen, NO ₂ + NO ₃ , dis- solved (mg/L as N)	Nitro- gen, ammonia, dis- solved (mg/L as N)	Nitro- gen, ammonia + organic, total (mg/L as N)
April 26	0.10	15	100	103	<0.010	<0.050	0.010	<0.20
June 7	.10	17	132	127	<.010	<.050	.020	<.20
July 27	.20	17	146	160	<.010	<.050	.020	<.20

Date (1994)	Phos- phorus, total (mg/L as P)	Phos- phorus, dis- solved (mg/L as P)	Phos- phorus ortho, dis- solved (mg/L as P)	Boron, dis- solved (μg/L as B)	Iron, dis- solved (μg/L as Fe)	Manga- nese, dis- solved (μg/L as Mn)	Methy- lene blue active sub- stance (mg/L)	Oil and grease, total recov. gravi- metric (mg/L)
April 26	<0.010	<0.010	<0.010	50	7	2	0.04	<1
June 7	<.010	<.010	<.010	50	<3	2	<.02	—
July 27	<.010	<.010	<.010	—	<3	2	<.02	—

¹Specific conductance taken in laboratory.

e Estimated

Table 7. Discharge, field-measurement, and water-quality data for Rush Creek at power plant tailrace, Mono County, California

[ft³/s, cubic foot per second; μ S/cm, microsiemen per centimeter at 25°C; °C, degree Celsius; mm, millimeter; mg/L, milligram per liter; μ g/L; microgram per liter; wh, whole; it, incremental titration; recov., recoverable. <, actual value is less than value shown; —, no data]

Date (1994)	Dis-charge, instanta- neous (ft ³ /s)	Spe- cific con- duct- ance (μS/cm)	pH water, whole field (stand- ard units)	Temper- ature, water (°C)	Baro- metric pres- sure (mm of Hg)	Oxygen, dis- solved (mg/L)	Oxygen, dis- solved (per- cent satura- tion)	Hard- ness, total (mg/L as CaCO ₃)	Cal- cium, dis- solved (mg/L as Ca)
April 26	38	19	6.8	3.0	576	9.6	95	6	1.9
June 7	35	17	7.4	10.0	584	8.5	98	6	2.2
July 27	24	15	7.5	16.0	589	7.5	99	4	1.5
September 6	24	14	7.9	15.0	590	7.0	90	5	1.6
October 11	22	13	6.8	11.0	581	8.4	100	4	1.4

Date (1994)	Magne- sium, dis- solved (mg/L as Mg)	Sodium, dis- solved (mg/L as Na)	Potas- sium, dis- solved (mg/L as K)	Bicar- bonate water, wh it field (mg/L as HCO ₃)	Car- bonate water, wh it field (mg/L as CO ₃)	Alka- linity, water wh total it field (mg/L as CaCO ₃)	Sulfate, dis- solved (mg/L as SO ₄)	Chlo- ride, dis- solved (mg/L as Cl)
April 26	0.21	0.90	0.30	15	0	12	1.1	0.70
June 7	.22	.90	.30	8	0	7	1.1	.60
July 27	.16	.70	.20	7	0	5	.70	.30
September 6	.16	.70	.30	7	0	6	.60	.40
October 11	.14	.70	.20	5	0	4	.70	.30

Date (1994)	Fluo- ride, dis- solved (mg/L as F)	Silica, dis- solved (mg/L as SiO ²)	Solids, residue at 180°C, dis- solved (mg/L)	Solids, sum of consti- tuents, dis- solved (mg/L)	Nitro- gen, nitrate, dis- solved (mg/L as N)	Nitro- gen, NO ₂ + NO ₃ , dis- solved (mg/L as N)	Nitro- gen, ammonia, dis- solved (mg/L as N)	Nitro- gen, ammonia + organic, total (mg/L as N)
April 26	<0.10	3.7	—	16	<0.010	<0.050	<0.010	<0.20
June 7	<.10	5.0	<1	14	<.010	<.050	.020	<.20
July 27	<.10	3.1	<1	10	<.010	<.050	.030	<.20
September 6	.10	3.0	<1	10	<.010	<.050	.010	<.20
October 11	<.10	2.6	<1	9	<.010	<.050	.020	<.20

Date (1994)	Phos- phorus, total (mg/L as P)	Phos- phorus, dis- solved (mg/L as P)	Phos- phorus ortho, dis- solved (mg/L as P)	Boron, dis- solved (μg/L as B)	Iron, dis- solved (μg/L as Fe)	Manga- nese, dis- solved (μg/L as Mn)	Methy- lene blue active sub- stance (mg/L)	Oil and grease, total recov. gravi- metric (mg/L)
April 26	<0.010	<0.010	<0.010	10	13	9	<0.02	<1
June 7	<.010	<.010	<.010	<10	<3	9	<.02	—
July 27	<.010	<.010	<.010	<10	8	<1	<.02	—
September 6	.020	<.010	<.010	<10	8	1	—	—
October 11	.010	<.010	<.010	<10	4	<1	—	—

Table 8. Discharge, field-measurement, and water-quality data for Alger Creek at Highway 158, Mono County, California

[ft³/s, cubic foot per second; μ S/cm, microsiemen per centimeter at 25°C; °C, degree Celsius; mm, millimeter; mg/L, milligram per liter; μ g/L, microgram per liter; wh, whole; it, incremental titration; recov., recoverable. <, actual value is less than value shown; —, no data]

Date (1994)	Dis-charge, instanta- neous (ft ³ /s)	Spe- cific con- duct- ance (μS/cm)	pH water, whole field (stand- ard units)	Temper- ature, water (°C)	Baro- metric pres- sure (mm of Hg)	Oxygen, dis- solved (mg/L)	Oxygen, dis- solved (per- cent satura- tion)	Hard- ness, total (mg/L as CaCO ₃)	Cal- cium, dis- solved (mg/L as Ca)
April 26	3.8	65	7.6	2.0	578	9.8	94	27	10
June 7	13	45	7.9	8.5	584	9.1	102	19	7.1

Date (1994)	Magne- sium, dis- solved (mg/L as Mg)	Sodium, dis- solved (mg/L as Na)	Potas- sium, dis- solved (mg/L as K)	Bicar- bonate water, wh it field (mg/L as HCO ₃)	Car- bonate water, wh it field (mg/L as CO ₃)	Alka- linity, water wh total it field (mg/L as CaCO ₃)	Sulfate, dis- solved (mg/L as SO ₄)	Chlo- ride, dis- solved (mg/L as Cl)
April 26	0.46	0.80	0.70	31	0	25	7.4	0.50
June 7	.31	.70	.60	21	0	17	5.1	.20

Date (1994)	Fluo- ride, dis- solved (mg/L as F)	Silica, dis- solved (mg/L as SiO ₂)	Solids, residue at 180°C, dis- solved (mg/L)	Solids, sum of consti- tuents, dis- solved (mg/L)	Nitro- gen, nitrite, dis- solved (mg/L as N)	Nitro- gen, NO ₂ + NO ₃ , dis- solved (mg/L as N)	Nitro- gen, ammonia, dis- solved (mg/L as N)	Nitro- gen, ammonia + organic, total (mg/L as N)
April 26	<0.10	7.0	38	42	<0.010	<0.050	<0.010	<0.20
June 7	<.10	5.4	30	30	<.010	<.050	.010	<.20

Date (1994)	Phos- phorus, total (mg/L as P)	Phos- phorus, dis- solved (mg/L as P)	Phos- phorus ortho, dis- solved (mg/L as P)	Boron, dis- solved (μg/L as B)	Iron, dis- solved (μg/L as Fe)	Manga- nese, dis- solved (μg/L as Mn)	Methy- lene blue, active sub- stance (mg/L)	Oil and grease, total recov. gravi- metric (mg/L)
April 26	<0.010	<0.010	<0.010	<10	11	<1	<0.02	<1
June 7	<.010	<.010	<.010	10	5	1	<.02	—

Table 9. Discharge, field-measurement, and water-quality data for Rush Creek above Grant Lake, Mono County, California

[ft³/s, cubic foot per second; μ S/cm, microsiemen per centimeter at 25°C; °C, degree Celsius; mm, millimeter; mg/L, milligram per liter; μ g/L; microgram per liter; wh, whole; it, incremental titration; recov., recoverable. <, actual value is less than value shown; —, no data]

Date (1994)	Dis- charge, instanta- neous (ft ³ /s)	Spe- cific con- duct- ance (μ S/cm)	pH water, whole field (stand- ard units)	Temper- ature, water (°C)	Baro- metric pres- sure (mm of Hg)	Oxygen, dis- solved (mg/L)	Oxygen, dis- solved (per- cent satura- tion)	Hard- ness, total (mg/L as CaCO ₃)	Cal- cium, dis- solved (mg/L as Ca)
April 26	60	51	7.6	8.0	579	9.0	100	19	6.5
June 7	79	¹ 49	8.0	14.0	585	8.1	103	18	6.2
July 27	30	¹ 39	7.9	22.0	590	6.5	97	14	4.9
September 6	25	41	7.8	19.0	594	7.3	101	15	5.1
October 11	31	41	7.2	15.0	582	8.0	104	16	5.5

Date (1994)	Magne- sium, dis- solved (mg/L as Mg)	Sodium, dis- solved (mg/L as Na)	Potas- sium, dis- solved (mg/L as K)	Bicar- bonate water, wh it field (mg/L as HCO ₃)	Car- bonate water, wh it field (mg/L as CO ₃)	Alka- linity water, wh total it field (mg/L as CaCO ₃)	Sulfate, dis- solved (mg/L as SO ₄)	Chlo- ride, dis- solved (mg/L as Cl)
April 26	0.61	2.0	0.70	23	0	19	2.8	1.1
June 7	.51	1.5	.60	23	0	19	3.4	.90
July 27	.44	1.4	.50	18	0	15	2.3	.60
September 6	.46	1.4	.60	20	0	16	2.0	.60
October 11	.50	1.5	.50	19	0	15	2.6	.60

Date (1994)	Fluo- ride, dis- solved (mg/L as F)	Silica, dis- solved (mg/L as (SiO ₂))	Solids, residue at 180°C, dis- solved (mg/L)	Solids, sum of consti- tuents, dis- solved (mg/L)	Nitro- gen, nitrate, dis- solved (mg/L as N)	Nitro- gen, NO ₂ + NO ₃ , dis- solved (mg/L as N)	Nitro- gen, ammonia, dis- solved (mg/L as N)	Nitro- gen, ammonia + organic, total (mg/L as N)
April 26	<0.10	8.3	20	33	<0.010	<0.050	0.010	0.40
June 7	<.10	8.0	14	32	<.010	<.050	.020	<.20
July 27	<.10	6.8	24	26	<.010	<.050	.020	<.20
September 6	.10	6.7	—	27	<.010	<.050	.020	<.20
October 11	<.10	7.3	14	28	<.010	<.050	.020	<.20

Date (1994)	Phos- phorus, total (mg/L as P)	Phos- phorus, dis- solved (mg/L as P)	Phos- phorus ortho, dis- solved (mg/L as P)	Boron, dis- solved (μ g/L as B)	Iron, dis- solved (μ g/L as Fe)	Manga- nese, dis- solved (μ g/L as Mn)	Methy- lene blue active sub- stance (mg/L)	Oil and grease, total recov. gravi- metric (mg/L)
April 26	0.020	<0.010	<0.010	20	16	4	0.04	<1
June 7	.020	<.010	<.010	<10	12	5	<.02	—
July 27	<.010	<.010	<.010	20	15	3	<.02	—
September 6	<.010	<.010	<.010	10	15	5	—	—
October 11	.010	<.010	<.010	20	24	11	—	—

¹Specific conductance taken in laboratory.

Table 10. Water-quality data for Gull Lake (site 1), Mono County, California

[ft, feet; µg/L, microgram per liter; mg/L, milligram per liter; °C, degree Celsius; wh, whole; it, incremental titration; recov., recoverable.]

Date (1994)	Time	Sam- pling depth (ft)	Chlor- <i>a</i> phyto- plank- ton chromo fluorom (µg/L)	Chlor- <i>b</i> phyto- plank- ton chromo fluorom (µg/L)	Hard- ness, total (mg/L as CaCO ₃)	Calcium, dis- solved (mg/L as Ca)	Magne- sium, dis- solved (mg/L as Mg)
April 27	1013	0	—	—	—	—	—
	1015	3.3	0.300	<0.100	47	17	1.2
	1030	19.7	—	—	45	16	1.2
	1040	39.4	—	—	45	16	1.2
June 8	0930	3.3	<.100	<.100	50	18	1.3
	0935	19.7	.100	<.100	—	—	—
	0940	29.5	—	—	48	17	1.3
	0945	45.9	—	—	50	18	1.3
July 25	1520	0	—	—	—	—	—
	1524	3.3	.400	<.100	48	17	1.3
	1531	19.7	.400	<.100	—	—	—
	1536	32.8	—	—	48	17	1.3
	1543	42.7	—	—	50	18	1.3
September 7	0925	3.3	—	—	48	17	1.3
	0935	19.7	.300	.100	—	—	—
	0945	36.1	—	—	50	18	1.3
	0949	42.7	—	—	50	18	1.3
October 12	1137	3.3	1.70	.600	50	18	1.3
	1144	19.7	1.50	.500	—	—	—
	1147	29.5	2.00	.500	50	18	1.3
	1156	42.7	—	—	53	19	1.4

<, actual value is less than value shown; —, no data]

Sodium, dis- solved (mg/L as Na)	Potas- sium, dis- solved (mg/L as as K)	Bicar- bonate water, wh it field (mg/L as HCO ₃)	Car- bonate water, wh it field (mg/L as CO ₃)	Alka- linity water, wh total it field (mg/L CaCO ₃)	Sulfate, dis- solved (mg/L as SO ₄)	Chlo- ride, dis- solved (mg/L as Cl)	Fluo- ride, dis- solved (mg/L as F)
—	—	—	—	—	—	—	—
8.4	2.6	75	0	63	5.0	1.6	0.10
8.3	2.7	75	0	61	4.9	1.4	.10
8.3	2.7	76	0	62	4.9	3.0	.10
7.8	2.8	72	0	62	5.5	1.9	.10
—	—	—	—	—	—	—	—
7.5	2.8	76	1	63	5.4	1.9	.10
8.4	2.9	80	0	65	5.2	2.0	.10
—	—	—	—	—	—	—	—
8.8	2.6	73	0	60	5.2	1.9	.10
—	—	—	—	—	—	—	—
8.7	2.7	76	0	63	5.1	2.0	.10
8.7	4.0	75	0	61	4.8	2.1	.10
8.8	2.8	82	0	67	4.7	1.9	.20
—	—	—	—	—	—	—	—
8.6	2.7	78	0	64	4.6	1.8	.20
8.4	2.8	79	0	65	4.2	1.9	.20
8.9	2.8	77	0	63	5.5	1.8	.10
—	—	—	—	—	—	—	—
9.0	2.8	75	0	62	5.4	1.8	.10
9.2	2.9	78	0	64	5.4	1.8	.10

Table 10. Water-Quality Data for Gull Lake (Site 1) 25

Table 10. Water-quality data for Gull Lake (site 1), Mono County, California—*Continued*

Date (1994)	Time	Sam- pling depth (ft)	Silica, dis- solved (mg/L as SiO ₂)	Solids, residue at 180°C, dis- solved (mg/L)	Solids, sum of consti- tuents, dis- solved (mg/L)	Nitro- gen, nitrite dis- solved (mg/L as N)	Nitro- gen, NO ₂ + NO ₃ , dis- solved (mg/L as N)	Nitro- gen, ammonia, dis- solved (mg/L as N)
April 27	1013	0	—	—	—	—	—	—
	1015	3.3	3.6	76	76	<.010	<.050	.010
	1030	19.7	3.6	70	75	<.010	<.050	.010
	1040	39.4	3.6	72	77	<.010	<.050	.010
June 8	0930	3.3	3.3	68	76	<.010	<.050	.060
	0935	19.7	—	—	—	—	—	—
	0940	29.5	3.2	80	78	.010	<.050	.070
	0945	45.9	5.7	78	83	<.010	<.050	.060
July 25	1520	0	—	—	—	—	—	—
	1524	3.3	3.8	78	77	<.010	<.050	.020
	1531	19.7	—	—	—	—	—	—
	1536	32.8	3.0	76	77	<.010	<.050	.020
	1543	42.7	6.2	82	83	<.010	<.050	.180
September 7	0925	3.3	3.6	80	81	<.010	<.050	.010
	0935	19.7	—	—	—	—	—	—
	0945	36.1	3.6	98	79	<.010	<.050	.020
	0949	42.7	7.0	80	83	<.010	<.050	.020
October 12	1137	3.3	2.6	80	79	<.010	<.050	.020
	1144	19.7	—	—	—	—	—	—
	1147	29.5	2.5	68	78	<.010	<.050	.020
	1156	42.7	2.8	82	81	<.010	<.050	.020

Nitro- gen, ammonia + organic, total (mg/L as N)	Phos- phorus, total (mg/L as P)	Phos- phorus, dis- solved (mg/L as P)	Phos- phorus ortho, dis- solved (mg/L as P)	Boron, dis- solved (mg/L as B)	Iron, dis- solved (µg/L as Fe)	Manga- nese, dis- solved (µg/L as Mn)	Methy- lene blue active sub- stance (mg/L)	Oil and grease, total recov. gravi- metric (mg/L)
—	—	—	—	—	—	—	—	<1
0.20	<0.010	<0.010	<0.010	20	<3	<1	0.03	—
.20	<.010	<.010	<.010	20	3	<1	.03	—
.30	.020	<.010	<.010	20	<3	4	<.02	—
<.20	<.010	<.010	<.010	20	<3	2	<.02	—
—	—	—	—	—	—	—	—	—
.40	<.010	<.010	<.010	20	<3	4	<.02	—
.40	.040	.040	.020	20	11	230	<.02	—
—	—	—	—	—	—	—	—	<1
<.20	.010	.020	<.010	20	<3	<1	.03	—
—	—	—	—	—	—	—	—	—
<.20	.020	.020	<.010	20	<3	2	<.02	—
.80	.200	.140	.150	30	10	300	.05	—
.30	.020	<.010	<.010	20	<3	3	—	—
—	—	—	—	—	—	—	—	—
.40	.030	<.010	<.010	20	3	12	—	—
1.5	.180	.070	.060	20	6	310	—	—
.40	.030	<.010	<.010	20	<3	21	.03	—
—	—	—	—	—	—	—	—	—
.30	.020	.010	<.010	20	<3	21	.03	—
.40	.020	.010	.010	10	7	58	—	—

Table 10. Water-Quality Data for Gull Lake (Site 1) 27

Table 11. Field measurements for vertical water profiles of Gull Lake (site 1), Mono County, California[ft, feet; $\mu\text{S}/\text{cm}$, microsiemen per centimeter at 25°C; °C, degree Celsius; mm, millimeter; mg/L milligram per liter]

Date (1994)	Time	Depth to bottom from surface at sampling location (ft)	Sam- pling depth (ft)	Trans- par- ency (Secchi disk) (ft)	Spe- cific con- duct- ance ($\mu\text{S}/\text{cm}$)	pH water, whole field (stand- ard units)	Temper- ature, water (°C)	Baro- metric pres- sure (mm of Hg)	Oxygen, dis- solved (mg/L)	Oxygen, dis- solved (per- cent satura- tion)
April 27	1013	39.4	0	13.1	134	7.8	9.0	569	8.7	101
	1015		3.3		136	8.1	9.0	569	8.8	102
	1018		6.6		136	8.1	9.0	569	8.8	101
	1021		9.9		136	8.1	9.0	569	8.8	101
	1024		13.1		136	8.1	9.0	569	8.7	101
	1027		16.4		136	8.1	9.0	569	8.7	101
	1030		19.7		136	8.1	9.0	569	8.9	103
	1032		23.0		136	8.1	8.5	569	8.6	99
	1034		26.2		136	8.1	8.5	569	8.8	101
	1036		29.5		135	8.1	7.5	569	9.4	105
	1038		32.8		135	8.1	6.5	569	9.3	103
	1039		36.1		135	7.9	6.5	569	8.4	92
	1040		39.4		135	7.7	6.0	569	7.8	85
June 8	0929	47.6	0	21.0	137	7.4	14.0	580	8.1	104
	0930		3.3		138	7.8	14.0	580	8.1	104
	0931		6.6		138	8.1	14.0	580	8.1	104
	0932		9.9		137	8.2	14.0	580	8.1	104
	0933		13.1		137	8.3	14.0	580	8.0	103
	0934		16.4		137	8.3	14.0	580	8.1	104
	0935		19.7		137	8.4	14.0	580	8.1	103
	0936		23.0		137	8.4	13.5	580	8.0	102
	0938		26.2		136	8.4	13.0	580	8.3	104
	0940		29.5		136	8.2	11.5	580	8.6	104
	0941		32.8		136	8.2	10.0	580	7.4	87
	0942		36.1		136	8.1	9.5	580	6.8	79
	0943		39.4		137	7.9	8.5	580	4.6	52
	0944		42.7		139	7.7	7.5	580	.7	8
	0945		45.9		141	7.6	7.0	580	.2	2
	0946		46.9		140	7.5	7.0	580	.1	1
July 25	1520	44.6	0	23.0	135	7.6	20.5	584	7.0	102
	1524		3.3		135	7.9	20.5	584	6.9	101
	1526		6.6		136	8.0	20.5	584	6.9	100
	1528		9.9		136	8.0	20.0	584	6.8	99
	1529		13.1		136	8.0	20.0	584	6.8	99
	1530		16.4		136	8.0	20.0	584	6.8	99
	1531		19.7		156	8.0	20.0	584	6.8	98
	1532		23.0		136	8.0	20.0	584	6.8	98
	1533		26.2		134	8.0	18.5	584	6.7	94
	1534		29.5		134	8.0	16.5	584	7.1	96
	1536		32.8		132	7.8	12.5	584	5.5	68
	1538		36.1		133	7.5	11.0	584	3.4	40
	1542		39.4		134	7.3	9.5	584	.2	2
	1543		42.7		142	7.2	8.5	584	.1	1
	1545		44.3		135	7.1	8.5	584	.1	1

Table 11. Field measurements for vertical water profiles of Gull Lake (site 1), Mono County, California—*Continued*

Date (1994)	Time	Depth to bottom from surface at sampling location (ft)	Sam- pling depth (ft)	Trans- par- ency (Secchi disk) (ft)	Spe- cific con- duct- ance (μ S/cm)	pH water, whole field (stand- ard units)	Temper- ature, water (°C)	Baro- metric pres- sure (mm of Hg)	Oxygen, dis- solved (mg/L)	Oxygen, dis- solved (per- cent satura- tion)
September 7	0922	44.0	0	19.0	141	7.6	17.5	580	7.4	103
	0925		3.3		142	7.8	17.5	580	7.4	103
	0927		6.6		142	8.0	17.5	580	7.4	103
	0928		9.9		142	8.0	17.5	580	7.3	101
	0930		13.1		142	8.1	17.5	580	7.3	101
	0932		16.4		142	8.2	17.5	580	7.3	101
	0935		19.7		142	8.2	17.5	580	7.3	101
	0937		23.0		142	8.2	17.5	580	7.3	101
	0938		26.2		142	8.2	17.5	580	7.2	100
	0940		29.5		142	8.2	17.5	580	7.2	100
	0942		32.8		142	8.1	17.5	580	7.0	97
	0945		36.1		142	8.2	17.5	580	7.3	101
	0946		39.4		141	7.4	12.0	580	.2	2
	0949		42.7		144	7.2	9.5	580	.1	1
October 12	1130	43.0	0	11.2	148	8.3	13.0	572	7.0	89
	1137		3.3		145	8.0	13.0	572	7.0	89
	1140		6.6		145	7.9	13.0	572	7.0	89
	1141		9.9		145	7.9	13.0	572	6.9	87
	1142		13.1		145	7.9	13.0	572	6.9	87
	1143		16.4		145	7.8	13.0	572	6.9	87
	1144		19.7		145	7.8	13.0	572	6.9	87
	1145		23.0		145	7.8	13.0	572	6.9	87
	1146		26.2		145	7.8	13.0	572	6.8	86
	1147		29.5		145	7.8	12.5	572	6.8	86
	1148		32.8		145	7.8	12.5	572	6.6	83
	1149		36.1		146	7.8	12.5	572	6.3	79
	1156		42.7		146	7.6	12.5	572	3.8	48

Table 12. Water-quality data for Gull Lake (site 2), Mono County, California

[ft, feet; µg/L, microgram per liter; mg/L, milligram per liter; °C, degree Celsius; wh, whole; it, incremental titration; recov., recoverable.]

Date	Time	Sam- pling depth (ft)	Chlor- <i>a</i> phyto- plank- ton chromo fluorom (µg/L)	Chlor- <i>b</i> phyto- plank- ton chromo fluorom (µg/L)	Hard- ness, total (mg/L as CaCO ₃)	Calcium, dis- solved (mg/L as Ca)	Magne- sium, dis- solved (mg/L as Mg)	Sodium, dis- solved (mg/L as Na)
1994								
April 26	1625	3.3	0.200	<0.100	45	16	1.2	8.5
	1635	29.5	—	—	45	16	1.2	8.4
	1645	52.5	—	—	45	16	1.2	8.2
June 8	1342	3.3	<.100	<.100	50	18	1.3	8.6
	1350	19.7	<.100	<.100	—	—	—	—
	1355	36.1	—	—	50	18	1.3	7.8
	1400	49.2	—	—	50	18	1.3	9.3
July 26	0817	0	—	—	—	—	—	—
	0819	3.3	.400	<.100	48	17	1.3	8.9
	0825	19.7	.300	<.100	—	—	—	—
	0828	29.5	.100	<.100	48	17	1.3	8.8
	0841	49.2	—	—	50	18	1.3	8.7
September 7	1126	3.3	.300	<.100	48	17	1.3	8.5
	1132	19.7	.300	<.100	—	—	—	—
	1140	36.1	.200	<.100	48	17	1.3	8.5
	1144	42.7	—	—	50	18	1.3	8.4
October 12	1406	3.3	.500	.300	50	18	1.3	8.7
	1415	19.7	.400	.200	—	—	—	—
	1418	29.5	.700	.300	50	18	1.3	9.0
	1430	55.8	—	—	50	18	1.3	8.8
1995								
March 8	0940	3.3	.500	<.100	47	17	1.2	8.2
	0950	19.7	1.000	.200	—	—	—	—
	0959	39.4	—	—	50	18	1.2	8.5
	1006	52.5	—	—	50	18	1.3	8.5

<, actual value is less than value shown; —, no data]

Potas- sium, dis- solved (mg/L as K)	Bicar- bonate water, wh it field (mg/L as HCO ₃)	Car- bonate water, wh it field (mg/L as CO ₃)	Alka- linity water, wh total it field (mg/L CaCO ₃)	Sulfate, dis- solved (mg/L as SO ₄)	Chlo- ride, dis- solved (mg/L as Cl)	Fluo- ride, dis- solved (mg/L as F)	Silica, dis- solved (mg/L as SiO ₂)
2.7	77	0	63	5.0	1.9	0.10	3.6
2.6	76	0	62	5.0	1.9	.10	3.5
2.8	76	0	63	5.2	3.7	.10	4.7
2.7	73	1	61	5.4	2.0	.10	3.5
—	—	—	—	—	—	—	—
2.7	76	0	62	5.3	2.0	.10	3.9
2.9	77	0	63	5.0	2.1	.10	6.8
—	—	—	—	—	—	—	—
2.5	74	0	61	5.2	2.0	.10	3.8
—	—	—	—	—	—	—	—
2.6	74	0	61	5.1	2.1	.10	3.5
2.8	76	0	63	4.1	2.1	.10	8.5
2.7	78	0	64	4.7	1.8	.20	3.8
—	—	—	—	—	—	—	—
2.7	80	0	66	4.6	1.8	.20	3.7
2.9	80	0	65	4.2	1.9	.20	7.0
2.9	63	0	77	5.3	1.8	.10	2.4
—	—	—	—	—	—	—	—
2.9	76	0	63	5.4	1.8	.10	2.5
2.2	92	0	75	2.0	1.9	.10	13
2.9	71	0	58	4.7	2.0	.10	4.6
—	—	—	—	—	—	—	—
3.0	73	0	60	4.7	1.9	.10	4.6
3.1	82	0	67	4.6	1.9	.10	5.4

Table 12. Water-Quality Data for Gull Lake (Site 2) 31

Table 12. Water-quality data for Gull Lake (site 2), Mono County, California—*Continued*

Date	Time	Sam- pling depth (ft)	Solids, residue at 180°C, dis- solved (mg/L)	Solids, sum of consti- tuents, dis- solved (mg/L)	Nitro- gen, nitrite, dis- solved (mg/L as N)	Nitro- gen, NO ₂ + NO ₃ , dis- solved (mg/L as N)	Nitro- gen, ammonia dis- solved (mg/L as N)	Nitro- gen, ammonia + organic, total (mg/L as N)
1994								
April 26	1625	3.3	80	77	<.010	<.050	.020	.40
	1635	29.5	76	76	<.010	<.050	.020	.40
	1645	52.5	66	79	<.010	<.050	.020	.80
June 8	1342	3.3	88	79	<.010	<.050	.050	.30
	1350	19.7	—	—	—	—	—	—
	1355	36.1	68	79	<.010	<.050	.040	.60
	1400	49.2	84	84	<.010	<.050	.090	.40
July 26	0817	0	—	—	—	—	—	—
	0819	3.3	78	77	<.010	<.050	.030	.50
	0825	19.7	—	—	—	—	—	—
	0828	29.5	86	77	<.010	<.050	.020	<.40
	0841	49.2	82	84	<.010	<.050	.020	<.20
September 7	1126	3.3	78	78	<.010	<.050	.020	.30
	1132	19.7	—	—	—	—	—	—
	1140	36.1	78	79	<.010	<.050	.010	.30
	1144	42.7	84	84	<.010	<.050	.010	.30
October 12	1406	3.3	76	72	<.010	<.050	.020	.30
	1415	19.7	—	—	—	—	—	—
	1418	29.5	82	78	<.010	<.050	.020	.50
	1430	55.8	72	97	<.010	<.050	1.00	1.4
1995								
March 8	0940	3.3	92	76	<.010	.080	.130	.60
	0950	19.7	—	—	—	—	—	—
	0959	39.4	90	79	<.010	.080	.280	.50
	1006	52.5	88	85	<.010	.070	.540	.90

Phos-phorus, total (mg/L as P)	Phos-phorus, dis-solved (mg/L as P)	Phos-phorus ortho, dis-solved (mg/L as P)	Boron, dis-solved (mg/L as B)	Iron, dis-solved (µg/L as Fe)	Manga-nese, dis-solved (µg/L as Mn)	Methy-lene blue active sub-stance (mg/L)	Oil and grease, total recov. gravi-metric (mg/L)
0.010	<0.010	<0.010	20	5	1	<.02	—
.020	.010	<.010	20	<3	1	.04	—
.060	.010	<.010	20	13	120	.04	—
<.010	<.010	<.010	20	4	3	<.02	—
—	—	—	—	—	—	—	—
.070	<.010	<.010	10	5	27	<.02	—
.070	.070	.050	20	20	410	<.02	—
—	—	—	—	—	—	—	<1
<.010	.010	<.010	20	5	<1	.04	—
—	—	—	—	—	—	—	—
.020	.020	<.010	20	<3	<1	<.02	—
<.010	.020	<.010	30	40	550	.03	—
<.010	<.010	<.010	20	<3	2	—	—
—	—	—	—	—	—	—	—
<.010	<.010	<.010	30	<3	8	—	—
.070	.050	.060	20	6	280	—	—
.020	<.010	<.010	20	<3	20	.04	—
—	—	—	—	—	—	—	—
.050	.010	<.010	20	5	21	<.02	—
.360	.370	.390	30	380	1000	.03	—
.040	.020	.020	10	6	3	—	—
—	—	—	—	—	—	—	—
.050	.040	.040	20	3	67	—	—
.080	.070	.070	10	10	300	—	—

Table 12. Water-Quality Data for Gull Lake (Site 2) 33

Table 13. Field measurements for vertical water profiles of Gull Lake (site 2), Mono County, California[ft, feet; $\mu\text{S}/\text{cm}$, microsiemen per centimeter at 25°C; °C, degree Celsius; mm, millimeter; mg/L milligram per liter]

Date	Time	Depth to bottom from surface at sampling location (ft)	Sampling depth (ft)	Transparency (Secchi disk) (ft)	Specific conductance ($\mu\text{S}/\text{cm}$)	pH water, whole field (standard units)	Temperature, water (°C)	Barometric pressure (mm of Hg)	Oxygen, dissolved (mg/L)	Oxygen, dissolved (percent saturation)
1994										
April 26	1624	59.1	0	16.4	137	8.0	9.0	569	8.9	104
	1625		3.3		137	8.2	9.0	569	8.9	103
	1626		6.6		137	8.3	9.0	569	8.9	103
	1627		9.9		137	8.3	9.0	569	8.9	103
	1628		13.1		137	8.3	9.0	569	8.9	103
	1629		16.4		137	8.4	9.0	569	8.8	103
	1630		19.7		137	8.4	9.0	569	8.8	102
	1631		23.0		137	8.4	8.5	569	8.8	102
	1632		26.2		137	8.4	8.5	569	9.0	103
	1635		29.5		136	8.3	6.5	569	9.2	101
	1636		32.8		136	8.1	6.5	569	8.5	92
	1637		36.1		136	7.9	6.0	569	7.7	83
	1638		39.4		136	7.8	6.0	569	6.4	70
	1639		42.7		136	7.7	6.0	569	6.5	70
	1640		45.9		137	7.6	6.0	569	6.2	67
	1641		49.2		137	7.6	6.0	569	5.7	62
	1645		52.5		137	7.5	6.0	569	5.5	59
June 8	1646		55.8		137	7.5	6.0	569	5.2	56
	1647		59.1		138	7.4	6.0	569	4.1	44
	1341	56.1	0	19.0	134	8.4	15.0	581	8.2	107
	1342		3.3		134	8.4	14.5	581	8.2	106
	1343		6.6		134	8.4	14.5	581	8.3	107
	1344		9.9		134	8.3	14.0	581	8.3	107
	1345		13.1		134	8.3	14.0	581	8.3	107
	1348		16.4		134	8.3	14.0	581	8.3	106
	1350		19.7		135	8.3	14.0	581	8.2	104
	1351		23.0		135	8.3	14.0	581	8.2	104
	1352		26.2		135	8.3	13.0	581	8.6	108
	1353		29.5		136	8.3	12.0	581	8.7	106
	1354		32.8		135	8.1	10.0	581	7.4	86
	1355		36.1		136	8.0	9.5	581	6.5	75
	1357		39.4		137	7.8	8.5	581	4.2	47
	1358		42.7		137	7.7	8.0	581	1.4	15
	1359		45.9		138	7.6	7.5	581	.5	5
	1400		49.2		139	7.5	7.0	581	.2	2
July 26	1401		52.5		140	7.4	7.0	581	.1	1
	1402		54.8		141	7.3	7.0	581	.1	1
	0817	52.5	0	29.9	145	6.7	20.0	586	6.8	98
	0819		3.3		145	7.3	20.0	586	6.8	98
	0820		6.6		144	7.5	20.0	586	6.8	98
	0822		9.9		144	7.7	20.0	586	6.8	98
	0823		13.1		144	7.8	20.0	586	6.8	98
	0824		16.4		144	7.9	20.0	586	6.8	98
	0825		19.7		144	8.0	20.0	586	6.7	97
	0826		23.0		144	8.1	20.0	586	6.6	95
	0827		26.2		142	8.0	18.5	586	6.6	92
	0828		29.5		140	8.0	16.0	586	7.0	93
	0830		32.8		139	7.9	13.0	586	6.4	80
	0833		36.1		140	7.7	11.5	586	4.5	54
	0836		39.4		142	7.4	9.5	586	0.2	2
	0837		42.7		142	7.2	8.5	586	0.1	1
	0840		45.9		143	7.1	8.0	586	0.1	1
	0841		49.2		144	7.0	8.0	586	0.1	1
	0844		52.5		144	7.0	8.0	586	0.1	1

Table 13. Field measurements for vertical water profiles of Gull Lake (site 2), Mono County, California—*Continued*

Date	Time	Depth to bottom from surface at sampling location (ft)	Sam-pling depth (ft)	Trans-par-ency (Secchi disk) (ft)	Spe-cific con-duct-ance (μS/cm)	pH water, whole field (stand-ard units)	Temper-ature, water (°C)	Baro-metric pres-sure (mm of Hg)	Oxygen, dis-solved (mg/L)	Oxygen, dis-solved (per-cent saturation)
1994										
September 7	1125	56.1	0	18.0	144	8.2	18.0	580	7.5	104
	1126		3.3		144	8.2	18.0	580	7.4	103
	1127		6.6		144	8.2	18.0	580	7.4	103
	1128		9.9		143	8.2	18.0	580	7.4	103
	1129		13.1		143	8.2	18.0	580	7.4	103
	1130		16.4		143	8.2	17.5	580	7.4	103
	1132		19.7		143	8.2	17.5	580	7.4	103
	1133		23.0		143	8.2	17.5	580	7.4	103
	1135		26.2		143	8.2	17.5	580	7.4	103
	1136		29.5		142	8.2	17.5	580	7.3	101
	1138		32.8		142	8.2	17.5	580	7.1	98
	1140		36.1		141	7.7	15.0	580	3.0	39
	1142		39.4		142	7.4	11.5	580	0.2	2
	1144		42.7		142	7.3	10.0	580	0.1	1
	1146		45.9		144	7.0	9.0	580	0.1	1
	1148	49.2	147	6.9	8.5	580	0.1	1		
	1150	52.5	148	6.8	8.5	580	0.1	1		
October 12	1400	55.8	0	9.5	146	8.0	13.0	572	7.0	89
	1406		3.3		146	8.0	13.0	572	6.9	87
	1409		6.6		146	7.9	13.0	572	6.9	87
	1410		9.9		146	7.9	13.0	572	6.9	87
	1411		13.1		145	7.9	13.0	572	6.9	87
	1413		16.4		145	7.9	13.0	572	6.9	87
	1415		19.7		145	7.9	13.0	572	6.9	87
	1416		23.0		145	7.9	13.0	572	6.9	87
	1417		26.2		145	7.9	13.0	572	6.9	87
	1418		29.5		145	7.9	13.0	572	6.9	87
	1419		32.8		145	7.9	13.0	572	6.9	87
	1420		36.1		145	7.9	13.0	572	6.9	87
	1421		39.4		145	7.9	13.0	572	6.9	87
	1422		42.7		145	7.9	13.0	572	6.9	87
	1423		45.9		153	7.4	11.0	572	0.6	7
	1424		49.2		157	7.1	9.0	572	0.2	2
	1429		52.5		159	7.0	8.5	572	0.1	1
	1430		55.8		160	6.9	8.5	572	0.1	1
1995										
March 8 ¹	0938	54.1	0	(2)	110	7.4	.2	575	6.7	61
	0940		3.3		137	7.2	1.8	575	6.1	58
	0942		6.6		138	7.2	2.7	575	6.2	61
	0945		9.9		140	7.1	3.5	575	6.4	64
	0947		13.1		141	7.1	3.6	575	6.6	66
	0950		16.4		142	7.1	3.8	575	6.5	66
	0951		19.7		142	7.2	3.8	575	6.4	65
	0952		23.0		142	7.2	3.8	575	6.2	63
	0955		26.2		142	7.2	3.9	575	6.1	62
	0956		29.5		142	7.2	3.9	575	5.9	60
	0957		32.8		142	7.1	4.0	575	5.5	58
	0958		36.1		143	7.1	4.0	575	5.1	52
	0959		39.4		145	7.1	4.1	575	2.6	26
	1000		42.7		146	7.0	4.2	575	1.7	17
	1002		45.9		148	7.0	4.2	575	.7	7
	1005		49.2		148	7.0	4.2	575	.6	6
	1006		52.5		148	7.0	4.2	575	.5	5
	1007		54.1		148	7.0	4.3	575	.4	4

¹Approximately 2 feet of ice was on the lake when it was sampled.

²No data because of ice cover on lake.

Table 14. Water-quality data for Gull Lake (site 3), Mono County, California

[ft, feet; µg/L, microgram per liter; mg/L, milligram per liter; °C, degree Celsius; wh, whole; it, incremental titration; <, actual value is

Date	Time	Sam- pling depth (ft)	Chlor- <i>a</i> phyto- plank- ton chromo fluorom (µg/L)	Chlor- <i>b</i> phyto- plank- ton chromo fluorom (µg/L)	Hard- ness, total (mg/L as CaCO ₃)	Calcium, dis- solved (mg/L as Ca)	Magne- sium, dis- solved mg/L as Mg)	Sodium, dis- solved mg/L as Na)
1994								
April 27	0915	3.3	0.200	<0.100	45	16	1.2	8.4
	0920	19.7	—	—	45	16	1.2	8.4
	0925	36.1	—	—	47	17	1.2	8.4
June 8	1040	3.3	<.100	<.100	50	18	1.3	8.6
	1047	19.7	<.100	<.100	—	—	—	—
	1050	29.5	—	—	50	18	1.3	7.7
	1100	39.4	—	—	50	18	1.3	7.7
July 26	1038	3.3	.200	<.100	48	17	1.3	8.8
	1044	19.7	.200	<.100	—	—	—	—
	1048	31.2	.300	<.100	48	17	1.3	8.6
	1052	39.4	—	—	48	17	1.3	8.7
October 13	1046	3.3	1.70	.700	53	19	1.4	9.0
	1051	19.7	2.50	.800	50	18	1.3	8.9
	1057	39.4	—	—	50	18	1.3	9.0
1995								
March 8	1428	3.3	.600	<.100	44	16	1.1	7.8
	1433	19.7	<.100	<.100	50	18	1.2	8.5
	1436	29.5	—	—	44	16	1.1	7.8

less than value shown; —, no data]

Potas- sium, dis- solved (mg/L as K)	Bicar- bonate water, wh it field (mg/L as HCO ₃)	Car- bonate water, wh it field (mg/L as CO ₃)	Alka- linity water, wh total it field (mg/L CaCO ₃)	Sulfate, dis- solved (mg/L as SO ₄)	Chlo- ride, dis- solved (mg/L as Cl)	Fluo- ride, dis- solved (mg/L as F)	Silica, dis- solved (mg/L as SiO ₂)
2.6	76	0	63	5.1	1.9	0.10	3.6
2.7	76	0	63	4.9	1.5	.10	3.7
2.7	77	0	63	4.9	1.6	.10	3.7
2.7	73	0	61	5.4	2.0	.10	3.4
—	—	—	—	—	—	—	—
2.8	75	1	63	5.4	2.0	.20	3.3
2.8	76	0	62	5.3	1.9	.10	4.0
2.6	75	0	62	5.2	2.1	.20	3.8
—	—	—	—	—	—	—	—
2.5	75	0	62	5.0	2.0	.10	3.3
2.6	75	0	62	5.1	2.1	.10	4.4
2.7	78	0	64	5.5	1.8	.10	2.6
2.6	77	0	63	5.4	1.8	.10	2.5
2.7	77	0	63	5.4	1.8	.10	2.5
2.8	73	0	60	5.2	2.0	.10	10
3.0	78	0	64	4.8	1.8	.10	3.5
2.8	71	0	58	5.2	1.7	.10	10

Table 14. Water-Quality Data for Gull Lake (Site 3) 37

Table 14. Water-quality data for Gull Lake (site 3), Mono County, California—Continued

Date	Time	Sam- pling depth (ft)	Solids, residue at 180°C, dis- solved (mg/L)	Solids, sum of consti- tuents, dis- solved (mg/L)	Nitro- gen, nitrite, dis- solved (mg/L as N)	Nitro- gen, NO ₂ + NO ₃ , dis- solved (mg/L as N)	Nitro- gen, ammonia dis- solved (mg/L as N)	Nitro- gen, ammonia + organic, total (mg/L as N)
1994								
April 27	0915	3.3	78	76	<0.010	<0.050	0.010	0.60
	0920	19.7	80	76	<.010	<.050	.010	.20
	0925	36.1	56	78	<.010	<.050	.010	.20
June 8	1040	3.3	72	77	<.010	<.050	.060	.30
	1047	19.7	—	—	—	—	—	—
	1050	29.5	62	79	<.010	<.050	.060	.30
	1100	39.4	80	79	<.010	<.050	.050	.30
July 26	1038	3.3	80	78	<.010	<.050	.010	.30
	1044	19.7	—	—	—	—	—	—
	1048	31.2	82	77	<.010	<.050	.020	.30
	1052	39.4	84	78	<.010	<.050	.020	1.0
October 13	1046	3.3	84	81	<.010	<.050	.020	.40
	1051	19.7	78	79	<.010	<.050	.020	.40
	1057	39.4	68	79	<.010	<.050	.020	.40
1995								
March 8	1428	3.3	82	82	<.010	.070	.160	.60
	1433	19.7	86	80	<.010	.070	.130	.40
	1436	29.5	84	80	<.010	.070	.140	.60

Phos- phorus, total (mg/L as P)	Phos- phorus, dis- solved (mg/L as P)	Phos- phorus ortho, dis- solved (mg/L as P)	Boron, dis- solved (mg/L as B)	Iron, dis- solved (µg/L as Fe)	Manga- nese, dis- solved (µg/L as Mn)	Methy- lene blue active sub- stance (mg/L)
0.070	<0.010	<0.010	10	<3	2	<0.02
<.010	<.010	<.010	20	8	1	<.02
<.010	<.010	<.010	20	6	1	<.02
<.010	<.010	<.010	20	4	2	<.02
—	—	—	—	—	—	—
<.010	<.010	<.010	20	3	3	<.02
<.010	<.010	<.010	20	4	65	<.02
<.010	.010	<.010	20	<3	1	.02
—	—	—	—	—	—	—
.020	.020	<.010	20	<3	<1	<.02
.060	.020	<.010	10	5	97	.05
.020	<.010	<.010	30	<3	33	.05
.020	<.010	<.010	20	4	29	<.02
.040	<.010	.010	10	5	28	—
.030	.030	.020	20	<3	2	—
.030	.020	.020	20	<3	<1	—
.050	.030	.020	20	<3	2	—

Table 14. Water-Quality Data for Gull Lake (Site 3) 39

Table 15. Field measurements for vertical water profiles of Gull Lake (site 3), Mono County, California[ft, feet; $\mu\text{S}/\text{cm}$, microsiemen per centimeter at 25°C; °C, degree Celsius; mm, millimeter; mg/L milligram per liter]

Date	Time	Depth to bottom from surface at sampling location (ft)	Sampling depth (ft)	Transparency (Secchi disk) (ft)	Specific conductance ($\mu\text{S}/\text{cm}$)	pH water, whole field (standard units)	Temperature, water (°C)	Barometric pressure (mm of Hg)	Oxygen, dissolved (mg/L)	Oxygen, dissolved (percent saturation)
1994										
April 27	0914	36.1	0	4.60	133	7.6	8.5	569	8.7	100
	0915		3.3		134	7.8	8.5	569	8.7	100
	0916		6.6		134	8.0	8.5	569	8.7	100
	0917		9.9		134	8.1	8.5	569	8.7	100
	0918		13.1		134	8.1	8.5	569	8.7	100
	0919		16.4		134	8.2	8.5	569	8.7	100
	0920		19.7		135	8.2	8.5	569	8.7	100
	0921		23.0		135	8.2	8.5	569	8.7	100
	0922		26.2		135	8.2	8.5	569	8.9	102
	0923		29.5		134	8.1	6.5	569	9.3	102
	0924		32.8		134	7.8	6.0	569	7.4	80
	0925		36.1		135	7.7	6.0	569	6.8	74
June 8	1019	43.0	0	20.0	140	8.5	14.5	580	8.2	106
	1040		3.3		140	8.5	14.0	580	8.2	106
	1041		6.6		139	8.5	14.0	580	8.2	106
	1042		9.9		139	8.5	14.0	580	8.2	105
	1045		13.1		139	8.5	14.0	580	8.1	104
	1046		16.4		139	8.4	14.0	580	8.1	104
	1047		19.7		139	8.4	14.0	580	8.0	102
	1048		23.0		138	8.4	14.0	580	8.0	102
	1049		26.2		138	8.5	12.5	580	8.6	107
	1050		29.5		137	8.4	11.5	580	8.6	104
	1052		32.8		138	8.3	10.5	580	8.2	97
	1054		36.1		138	8.2	9.5	580	6.8	79
	1100		39.4		139	7.9	8.0	580	3.0	33
	1101		41.0		140	7.7	7.5	580	1.3	14
July 26	1037	39.4	0	9.10	141	8.2	20.5	583	6.9	101
	1038		3.3		141	8.2	20.5	583	6.9	101
	1039		6.6		142	8.2	20.0	583	6.8	99
	1040		9.9		142	8.2	20.0	583	6.8	99
	1042		13.1		142	8.2	20.0	583	6.8	99
	1043		16.4		142	8.1	20.0	583	6.7	97
	1044		19.7		142	8.1	20.0	583	6.7	97
	1045		23.0		141	8.1	19.5	583	6.6	95
	1046		26.2		140	8.1	18.5	583	6.6	93
	1048		31.2		140	8.0	16.0	583	6.7	89
	1049		32.8		138	7.9	13.5	583	3.4	43
	1050		36.1		138	7.8	11.0	583	3.4	41
	1052		39.4		140	7.5	10.0	583	.5	5

Table 15. Field measurements for vertical water profiles of Gull Lake (site 3), Mono County, California—*Continued*

Date	Time	Depth to bottom from surface at sampling location (ft)	Sam-pling depth (ft)	Trans-par-ency (Secchi disk) (ft)	Spe-cific con-duct-ance (μS/cm)	pH water, whole field (stand-ard units)	Temper-ature, water (°C)	Baro-metric pres-sure (mm of Hg)	Oxygen, dis-solved (mg/L)	Oxygen, dis-solved (per-cent satura-tion)
1994										
October 13	1045	41.0	0	8.85	144	7.3	12.5	572	6.8	85
	1046		3.3		144	7.4	12.5	572	6.8	85
	1047		6.6		144	7.4	12.5	572	6.8	85
	1048		9.9		144	7.5	12.5	572	6.8	85
	1049		13.1		145	7.5	12.5	572	6.8	85
	1050		16.4		145	7.6	12.5	572	6.8	85
	1051		19.7		145	7.6	12.5	572	6.8	85
	1052		23.0		145	7.7	12.5	572	6.7	84
	1053		26.2		145	7.7	12.5	572	6.7	84
	1054		29.5		145	7.7	12.5	572	6.7	84
	1055		32.8		145	7.7	12.5	572	6.7	84
	1056		36.1		145	7.7	12.5	572	6.7	84
1057	39.4	145	7.7	12.5	572	6.7	8			
1995										
March 8 ¹	1426	31.2	0	(2)	109	7.8	.1	575	9.1	83
	1428		3.3		122	7.6	1.6	575	7.0	66
	1429		6.6		133	7.5	2.8	575	6.6	65
	1430		9.9		138	7.5	3.2	575	6.4	64
	1431		13.1		140	7.5	3.6	575	6.6	66
	1432		16.4		141	7.4	3.8	575	6.6	67
	1433		19.7		141	7.4	3.8	575	6.5	66
	1434		23.0		141	7.4	3.8	575	6.3	64
	1435		26.2		142	7.4	3.9	575	6.1	62
	1436		29.5		142	7.4	3.9	575	5.9	60
	1437		31.2		142	7.4	3.9	575	5.8	59

¹Approximately 2 feet of ice was on the lake when it was sampled.

²No data because of ice cover on lake.

Table 16. Water-quality data for Silver Lake (site 1), Mono County, California

[ft, feet; µg/L, microgram per liter; mg/L, milligram per liter; °C, degree Celsius; wh, whole; it, incremental titration; recov., recoverable. <, actual value is less than value shown; — no data]

Date (1994)	Time	Sam- pling depth (ft)	Chlor- <i>a</i> phyto- plank- ton chromo fluorom (µg/L)	Chlor- <i>b</i> phyto- plank- ton chromo fluorom (µg/L)	Hard- ness, total (mg/L as CaCO ₃)	Calcium, dis- solved (mg/L as Ca)	Magne- sium, dis- solved (mg/L as Mg)	Sodium, dis- solved (mg/L as Na)	Potas- sium, dis- solved (mg/L as K)
April 27	1509	0	—	—	—	—	—	—	—
	1510	3.3	0.800	<0.100	17	5.8	0.57	1.9	0.60
	1520	32.8	—	—	17	5.7	.55	1.9	.60
June 9	0855	3.3	<.100	<.100	16	5.6	.48	1.3	.60
	0901	19.7	.800	.200	—	—	—	—	—
	0911	42.7	—	—	17	5.8	.51	1.4	.60
July 28	0939	3.3	.200	<.100	11	3.9	.36	1.2	.40
	0951	19.7	.500	<.100	—	—	—	—	—
	0955	29.5	.600	<.100	17	5.8	.50	1.7	.50
	1004	44.3	—	—	17	6.1	.52	1.7	.40
October 13	1459	3.3	.400	.100	13	4.6	.44	1.4	.40
	1504	19.7	.400	<.100	—	—	—	—	—
	1511	42.7	—	—	13	4.6	.44	1.4	.50
Date (1994)	Time	Bicar- bonate water, wh it field (mg/L as HCO ₃)	Car- bonate water, wh it field (mg/L as CO ₃)	Alka- linity water, wh total it field (mg/L as CaCO ₃)	Sulfate, dis- solved (mg/L as SO ₄)	Chlo- ride, dis- solved (mg/L as Cl)	Fluo- ride, dis- solved (mg/L as F)	Silica, dis- solved (mg/L as SiO ₂)	
April 27	1509	—	—	—	—	—	—	—	
	1510	22	0	18	2.5	1.1	<0.10	7.3	
	1520	21	0	17	2.5	1.5	<.10	7.3	
June 9	0855	21	0	17	3.1	.80	<.10	7.5	
	0901	—	—	—	—	—	—	—	
	0911	22	0	18	3.1	1.0	<.10	7.8	
July 28	0939	15	0	13	1.8	.50	<.10	5.6	
	0951	—	—	—	—	—	—	—	
	0955	20	0	17	2.6	.90	<.10	7.0	
	1004	22	0	18	2.7	.90	<.10	8.0	
October 13	1459	16	0	14	2.1	.60	<.10	6.1	
	1504	—	—	—	—	—	—	—	
	1511	17	0	14	2.1	.60	<.10	6.2	

Table 16. Water-quality data for Silver Lake (site 1), Mono County, California—Continued

Date (1994)	Time	Sam- pling depth (ft)	Solids, residue at 180°C, dis- solved (mg/L)	Solids, sum of consti- tuents, dis- solved (mg/L)	Nitro- gen, nitrite, dis- solved (mg/L as N)	Nitro- gen, NO ₂ + NO ₃ , dis- solved (mg/L as N)	Nitro- gen, ammonia, dis- solved (mg/L as N)	Nitro- gen, ammonia + organic, total (mg/L as N)	
July 27	1509	0	--	—	—	—	—	—	
	1510	3.3	16	31	<0.010	<0.050	0.020	0.70	
	1520	32.8	28	30	<.010	<.050	.020	.70	
June 9	0855	3.3	18	30	<.010	<.050	.030	<.20	
	0901	19.7	--	—	—	—	—	—	
	0911	42.7	18	31	<.010	<.050	.030	<.20	
July 28	0939	3.3	8	21	<.010	<.050	.030	.50	
	0951	19.7	—	—	—	—	—	—	
	0955	29.5	24	29	<.010	<.050	.020	.40	
	1004	44.3	26	31	<.010	<.050	.020	<.20	
October 13	1459	3.3	8	24	<.010	<.050	.020	<.20	
	1504	19.7	—	—	—	—	—	—	
	1511	42.7	72	24	<.010	<.050	.020	<.20	
Date (1994)	Time	Phos- phorus, total (mg/L as P)	Phos- phorus, dis- solved (mg/L as P)	Phos- phorus ortho, dis- solved (mg/L as P)	Boron, dis- solved (mg/L as B)	Iron, dis- solved (µg/L as Fe)	Manga- nese, dis- solved (µg/L as Mn)	Methy- lene blue active sub- stance (mg/L)	Oil and grease, total recov. gravi- metric (mg/L)
April 27	1509	—	—	—	—	—	—	—	<1
	1510	0.030	<0.010	<0.010	20	5	2	0.03	—
	1520	.030	<.010	<.010	20	17	1	.03	—
June 8	0855	<.010	.020	<.010	<10	11	3	<.02	—
	0901	—	—	—	—	—	—	—	—
	0911	<.010	<.010	<.010	<10	9	<1	<.02	—
July 28	0939	.090	.060	.050	10	6	<1	<.02	—
	0951	—	—	—	—	—	—	—	—
	0955	.030	.020	<.010	10	5	14	<.02	—
	1004	.010	.010	<.010	10	40	170	<.02	—
October 13	1459	<.010	<.010	<.010	<10	28	33	<.02	—
	1504	—	—	—	—	—	—	—	—
	1511	.040	<.010	<.010	20	55	44	<.02	—

Table 17. Field measurements for vertical water profiles of Silver Lake (site 1), Mono County, California[ft, feet; $\mu\text{S}/\text{cm}$, microsiemen per centimeter at 25°C; °C, degree Celsius; mm, millimeter; mg/L milligram per liter]

Date (1994)	Time	Depth to bottom from surface at sampling location (ft)	Sam- pling depth (ft)	Trans- par- ency (Secchi disk) (ft)	Spe- cific con- duct- ance ($\mu\text{S}/\text{cm}$)	pH water whole field (stand- ard units)	Temper- ature, water (°C)	Baro- metric pres- sure (mm of Hg)	Oxygen, dis- solved (mg/L)	Oxygen, dis- solved (per- cent satura- tion)
April 27	1509	33.1	0	13.1	42	6.9	6.5	580	9.6	103
	1510		3.3		42	6.9	6.5	580	9.6	103
	1512		6.6		42	6.9	6.5	580	9.6	103
	1513		9.9		42	7.0	6.5	580	9.7	104
	1514		13.1		42	7.0	6.5	580	9.7	104
	1515		16.4		42	7.0	6.5	580	9.7	104
	1516		19.7		42	7.0	6.5	580	9.6	102
	1517		23.0		42	7.0	6.5	580	9.6	102
	1518		26.2		42	7.0	6.0	580	9.5	101
	1519		29.5		42	7.0	6.0	580	9.4	100
	1520		32.8		43	7.0	6.0	580	9.4	100
June 9	0854	46.9	0	20.0	39	6.5	12.5	589	8.4	102
	0855		3.3		39	6.5	12.0	589	8.4	102
	0857		6.6		39	6.6	12.0	589	8.4	101
	0858		9.9		39	6.7	11.5	589	8.6	102
	0859		13.1		38	6.7	11.0	589	8.6	101
	0900		16.4		39	6.8	11.0	589	8.7	102
	0901		19.7		39	6.8	10.5	589	8.7	102
	0904		23.0		39	6.9	10.5	589	8.8	102
	0905		26.2		39	6.9	10.0	589	8.6	99
	0906		29.5		40	6.9	10.0	589	8.4	97
	0908		32.8		41	6.9	10.0	589	8.4	96
	0909		36.1		42	6.9	9.0	589	8.0	90
	0910		39.4		42	6.9	8.5	589	7.8	86
	0911		42.7		42	6.9	8.5	589	7.7	85
	0912		45.9		42	6.8	8.5	589	7.7	85
	0915		46.9		42	6.8	8.0	589	7.5	83
July 28	0936	44.9	0	30.8	29	6.5	19.0	590	6.9	96
	0939		3.3		29	6.4	18.5	590	6.9	96
	0945		6.6		29	6.6	18.5	590	7.0	97
	0947		9.9		29	6.6	18.5	590	7.0	97
	0948		13.1		30	6.6	18.0	590	7.0	96
	0950		16.4		29	6.7	17.5	590	7.0	95
	0951		19.7		31	6.7	17.0	590	7.2	97
	0953		23.0		42	6.6	16.0	590	7.4	97
	0954		26.2		45	6.6	15.0	590	7.3	94
	0955		29.5		45	6.6	14.5	590	7.9	100
	0958		32.8		43	6.6	13.0	590	5.5	68
	1000		36.1		43	6.5	12.0	590	3.9	47
	1001		39.4		43	6.5	11.5	590	3.2	38
	1002		42.7		44	6.4	11.0	590	2.8	33
	1004		44.3		44	6.4	11.0	590	2.3	27

Table 17. Field measurements for water profiles of Silver Lake (site 1), Mono County, California—*Continued*

Date (1994)	Time	Depth to bottom from surface at sampling location (ft)	Sam- pling depth (ft)	Trans- par- ency (Secchi disk) (ft)	Spe- cific con- duct- ance (μ S/cm)	pH water whole field (stand- ard units)	Temper- ature, water (°C)	Baro- metric pres- sure (mm of Hg)	Oxygen, dis- solved (mg/L)	Oxygen, dis- solved (per- cent satura- tion)
October 13	1458	45.9	0	19.0	32	8.0	11.0	580	7.6	90
	1459		3.3		32	7.7	11.0	580	7.6	91
	1500		6.6		32	7.7	11.0	580	7.6	91
	1501		9.9		32	7.6	11.0	580	7.6	91
	1502		13.1		32	7.6	11.0	580	7.6	91
	1503		16.4		32	7.6	11.0	580	7.6	91
	1504		19.7		32	7.5	11.0	580	7.6	91
	1505		23.0		32	7.5	11.0	580	7.6	91
	1506		26.2		32	7.5	11.0	580	7.6	91
	1507		29.5		32	7.4	11.0	580	7.6	91
	1508		32.8		32	7.4	11.0	580	7.6	91
	1509		36.1		32	7.6	11.0	580	7.4	88
	1510		39.4		32	7.4	11.0	580	7.6	90
	1511		42.4		32	7.4	11.0	580	7.6	91
	1512		45.9		32	7.4	11.0	580	7.5	89

Table 18. Water-quality data for Silver Lake (site 2), Mono County, California

[ft, feet; µg/L, microgram per liter; mg/L, milligram per liter; °C, degree Celsius; wh, whole; it, incremental titration; recov., recoverable. <, actual value is less than value shown; — no data]

Date (1994)	Time	Sam- pling depth (ft)	Chlor- <i>a</i> phyto- plank- ton chromo fluorom (µg/L)	Chlor- <i>b</i> phyto- plank- ton chromo fluorom (µg/L)	Hard- ness, total (mg/L as CaCO ₃)	Calcium, dis- solved (mg/L as Ca)	Magne- sium, dis- solved (mg/L as Mg)	Sodium, dis- solved (mg/L as Na)	Potas- sium, dis- solved (mg/L as K)
April 26	1604	0	—	—	—	—	—	—	—
	1605	3.3	1.70	<0.100	17	5.7	0.55	1.9	0.60
	1615	32.8	—	—	16	5.6	.55	1.9	.60
June 9	0959	3.3	<.100	<.100	16	5.5	.46	1.3	.60
	1004	19.7	.300	<.100	—	—	—	—	—
	1012	42.4	—	—	17	5.8	.52	1.5	.60
July 28	1212	3.3	.200	<.100	11	3.8	.35	1.2	.40
	1224	23.0	.800	<.100	13	4.4	.40	1.4	.40
	1232	36.1	—	—	17	5.8	.50	1.6	.80
October 13	1551	3.3	.400	.100	13	4.6	.44	1.4	.40
	1556	19.7	.300	<.100	—	—	—	—	—
	1600	32.8	—	—	13	4.5	.43	1.4	.40
Date (1994)	Time	Bicar- bonate water, wh it field (mg/L as HCO ₃)	Car- bonate water, wh it field (mg/L as CO ₃)	Alka- linity water, wh total it field (mg/L as CaCO ₃)	Sulfate, dis- solved (mg/L as SO ₄)	Chlo- ride, dis- solved (mg/L as Cl)	Fluo- ride, dis- solved (mg/L as F)	Silica, dis- solved (mg/L as SiO ₂)	
April 26	1604	—	—	—	—	—	—	—	
	1605	20	0	17	2.5	1.5	<0.10	7.3	
	1615	21	0	17	2.4	1.0	<.10	7.4	
June 9	0959	20	0	16	3.0	.80	<.10	7.5	
	1004	—	—	—	—	—	—	—	
	1012	21	0	17	3.0	1.0	<.10	7.9	
July 28	1212	15	0	12	1.7	.50	<.10	5.6	
	1224	17	0	14	1.9	.60	<.10	6.2	
	1232	20	0	16	2.7	.90	<.10	7.5	
October 13	1551	17	0	14	2.0	.60	<.10	6.2	
	1556	—	—	—	—	—	—	—	
	1600	16	0	13	2.1	.60	<.10	6.2	

Table 18. Water-quality data for Silver Lake (site 2), Mono County, California—*Continued*

Date (1994)	Time	Sam- pling depth (ft)	Solids, residue at 180°C, dis- solved (mg/L)	Solids, sum of consti- tuents, dis- solved (mg/L)	Nitro- gen, nitrite, dis- solved (mg/L as N)	Nitro- gen, NO ₂ + NO ₃ , dis- solved (mg/L as N)	Nitro- gen, ammonia, dis- solved (mg/L as N)	Nitro- gen, ammonia + organic, total (mg/L as N)	
April 26	1604	0	—	—	—	—	—	—	
	1605	3.3	<1	30	<0.010	<0.050	<0.010	<0.20	
	1615	32.8	28	30	<.010	<.050	<.010	.20	
June 9	0959	3.3	10	29	<.010	<.050	.020	<.20	
	1004	19.7	—	—	—	—	—	—	
	1012	42.4	8	31	<.010	<.050	.030	<.20	
July 28	1212	3.3	12	21	<.010	<.050	.010	<.20	
	1224	23.0	18	24	<.010	<.050	.020	<.20	
	1232	36.1	20	30	<.010	<.050	.020	<.20	
October 13	1551	3.3	4	24	<.010	<.050	.020	<.20	
	1556	19.7	—	—	—	—	—	—	
	1600	32.8	24	24	<.010	<.050	.020	<.20	
Date (1994)	Time	Phos- phorus, total (mg/L as P)	Phos- phorus, dis- solved (mg/L as P)	Phos- phorus ortho, dis- solved (mg/L as P)	Boron, dis- solved (mg/L as B)	Iron, dis- solved (µg/L as Fe)	Manga- nese, dis- solved (µg/L as Mn)	Methy- lene blue active sub- stance (mg/L)	Oil and grease, total recov. gravi- metric (mg/L)
April 26	1604	—	—	—	—	—	—	—	<1
	1605	<0.010	<0.010	<0.010	20	12	2	<0.02	—
	1615	<.010	<.010	<.010	20	18	3	<.02	—
June 9	0959	.010	<.010	<.010	10	10	3	<.02	—
	1004	—	—	—	—	—	—	—	—
	1012	<.010	<.010	<.010	10	9	<1	<.02	—
July 28	1212	<.010	.020	<.010	10	9	4	<.02	—
	1224	.020	<.010	<.010	<10	8	6	<.02	—
	1232	.030	<.010	<.010	10	9	62	<.02	—
October 13	1551	<.010	<.010	<.010	<10	23	34	<.02	—
	1556	—	—	—	—	—	—	—	—
	1600	.020	.010	<.010	10	26	33	<.02	—

Table 18. Water-Quality Data for Silver Lake (Site 2) 47

Table 19. Field measurements for vertical water profiles of Silver Lake (site 2), Mono County, California[ft, feet; $\mu\text{S}/\text{cm}$, microsiemen per centimeter at 25°C; °C, degree Celsius; mm, millimeter; mg/L, milligram per liter]

Date (1994)	Time	Depth to bottom from surface at sampling location (ft)	Sam- pling depth (ft)	Trans- par- ency (Secchi disk) (ft)	Spe- cific con- duct- ance ($\mu\text{S}/\text{cm}$)	pH water, whole field (stand- ard units)	Temper- ature, water (°C)	Baro- metric pres- sure (mm of Hg)	Oxygen, dis- solved (mg/L)	Oxygen, dis- solved (per- cent satura- tion)
April 26	1604	34.1	0	13.1	41	6.9	6.5	580	9.7	104
	1605		3.3		41	6.9	6.5	580	9.7	104
	1606		6.6		41	6.9	6.5	580	9.7	104
	1607		9.9		42	6.9	6.5	580	9.8	105
	1608		13.1		41	6.9	6.5	580	9.7	104
	1609		16.4		41	7.0	6.5	580	9.7	104
	1610		19.7		41	7.0	6.5	580	9.7	103
	1611		23.0		41	7.0	6.5	580	9.8	104
	1612		26.2		41	7.0	6.5	580	9.8	104
	1613		29.5		41	7.1	6.5	580	9.8	104
	1615		32.8		41	7.1	6.0	580	9.8	104
June 9	0958	44.9	0	20.0	38	7.3	12.5	589	8.5	104
	0959		3.3		38	7.3	12.0	589	8.4	102
	1000		6.6		38	7.3	12.0	589	8.4	101
	1001		9.9		37	7.3	11.5	589	8.4	100
	1002		13.1		38	7.3	11.0	589	8.5	101
	1003		16.4		38	7.3	11.0	589	8.5	100
	1004		19.7		38	7.3	11.0	589	8.6	101
	1005		23.0		38	7.3	10.5	589	8.7	101
	1006		26.2		39	7.3	10.0	589	8.4	97
	1008		29.5		39	7.2	10.0	589	8.4	96
	1009		32.8		41	7.2	9.0	589	8.1	91
	1010		36.1		41	7.2	9.0	589	8.0	90
	1011		39.4		42	7.1	8.5	589	8.0	89
	1012		42.4		42	7.1	8.0	589	7.7	85
June 28	1210	36.1	0	32.2	29	7.0	19.5	588	7.1	101
	1212		3.3		29	7.0	19.0	588	7.1	100
	1214		6.6		29	7.0	18.5	588	7.1	99
	1215		9.9		29	7.0	18.5	588	7.1	99
	1217		13.1		29	7.0	18.0	588	6.8	94
	1219		16.4		29	7.0	17.5	588	7.0	96
	1221		19.7		30	7.0	17.0	588	7.1	95
	1224		23.0		40	6.9	15.5	588	7.3	96
	1226		26.2		42	6.8	15.0	588	7.1	91
	1229		32.8		42	6.7	13.5	588	5.8	72
	1232		36.1		42	6.7	13.0	588	5.5	68

Table 19. Field measurements for vertical water profiles of Silver Lake (site 2), Mono County, California—*Continued*

Date (1994)	Time	Depth to bottom from surface at sampling location (ft)	Sam- pling depth (ft)	Trans- par- ency (Secchi disk) (ft)	Spe- cific con- duct- ance (μ S/cm)	pH water, whole field (stand- ard units)	Temper- ature, water (°C)	Baro- metric pres- sure (mm of Hg)	Oxygen, dis- solved (mg/L)	Oxygen, dis- solved (per- cent satura- tion)
October 13	1550	36.1	0	20.0	31	7.3	11.0	580	7.7	92
	1551		3.3		31	7.2	11.0	580	7.7	92
	1552		6.6		32	7.2	11.0	580	7.7	92
	1553		9.9		32	7.2	11.0	580	7.7	92
	1554		13.1		32	7.2	11.0	580	7.7	92
	1555		16.4		32	7.2	11.0	580	7.6	91
	1556		19.7		32	7.2	11.0	580	7.6	91
	1557		23.0		32	7.2	11.0	580	7.6	90
	1558		26.2		32	7.2	11.0	580	7.6	91
	1559		29.5		32	7.2	11.0	580	7.6	90
	1600		32.8		32	7.2	11.0	580	7.6	90
	1601		36.1		31	7.2	10.5	580	7.8	92

Table 20. Water-quality data for Silver Lake (site 3), Mono County, California

[ft, feet; µg/L, microgram per liter; mg/L, milligram per liter; °C, degree Celsius; wh, whole; it, incremental titration; recov., recoverable. <, actual value is less than value shown; — no data]

Date (1994)	Time	Sam- pling depth (ft)	Chlor- <i>a</i> phyto- plank- ton chromo fluorom (µg/L)	Chlor- <i>b</i> phyto- plank- ton chromo fluorom (µg/L)	Hard- ness, total (mg/L as CaCO ₃)	Calcium, dis- solved (mg/L as Ca)	Magne- sium, dis- solved (mg/L as Mg)	Sodium, dis- solved (mg/L as Na)	Potas- sium, dis- solved (mg/L as K)
April 27	1624	0	—	—	—	—	—	—	—
	1625	3.3	1.00	<0.100	18	6.2	0.61	2.1	0.60
	1633	27.9	—	—	17	5.8	.56	1.9	.60
June 9	1137	3.3	<.100	<.100	16	5.5	.47	1.3	.60
	1142	19.7	.500	.100	—	—	—	—	—
	1146	32.8	—	—	17	5.8	.51	1.5	.60
July 28	1532	0	—	—	—	—	—	—	—
	1536	3.3	.300	<.100	12	4.0	.37	1.3	.40
	1547	23.0	.600	<.100	14	4.9	.44	1.5	.50
	1552	31.2	.700	<.100	17	5.8	.50	1.6	.50
Date (1994)	Time	Bicar- bonate water, wh it field (mg/L as HCO ₃)	Car- bonate water, wh it field (mg/L as CO ₃)	Alka- linity water, wh total it field (mg/L as CaCO ₃)	Sulfate, dis- solved (mg/L as SO ₄)	Chlo- ride, dis- solved (mg/L as Cl)	Fluo- ride, dis- solved (mg/L as F)	Silica, dis- solved (mg/L as SiO ₂)	
April 27	1624	—	—	—	—	—	—	—	
	1625	26	0	21	2.3	1.6	<0.10	7.3	
	1633	22	0	18	2.4	1.1	<.10	7.2	
June 9	1137	20	0	16	3.0	.80	<.10	7.4	
	1142	—	—	—	—	—	—	—	
	1146	21	0	17	3.2	1.0	<.10	7.8	
July 28	1532	—	—	—	—	—	—	—	
	1536	15	0	12	1.7	.50	<.10	5.6	
	1547	16	0	13	2.2	.80	<.10	6.2	
	1552	21	0	17	2.7	.90	<.10	7.3	

Table 20. Water-quality data for Silver Lake (site 3), Mono County, California—*Continued*

Date (1994)	Time	Sam- pling depth (m)	Solids, residue at 180°C dis- solved (mg/L)	Solids, sum of consti- tuents, dis- solved (mg/L)	Nitro- gen, nitrite, dis- solved (mg/L as N)	Nitro- gen, NO ₂ + NO ₃ , dis- solved (mg/L as N)	Nitro- gen, ammonia, dis- solved (mg/L as N)	Nitro- gen, ammonia + organic, total (mg/L as N)
April 27	1624	0	—	—	—	—	—	—
	1625	3.3	18	34	<0.010	<0.050	<0.010	<0.20
	1633	27.9	8	30	<.010	<.050	<.010	<.20
June 9	1137	3.3	2	29	<.010	<.050	.020	<.20
	1142	19.7	—	—	—	—	—	—
	1146	32.8	16	31	<.010	<.050	.030	<.20
July 28	1532	0	—	—	—	—	—	—
	1536	3.3	16	21	<.010	<.050	.010	<.20
	1547	23.0	14	24	<.010	<.050	.020	.30
	1552	31.2	20	30	<.010	<.050	.010	.20

Date (1994)	Time	Phos- phorus, total (mg/L as P)	Phos- phorus, dis- solved (mg/L as P)	Phos- phorus ortho, dis- solved (mg/L as P)	Boron, dis- solved (mg/L as B)	Iron, dis- solved (µg/L as Fe)	Manga- nese, dis- solved (µg/L as Mn)	Methy- lene blue active sub- stance (mg/L)	Oil and grease, total recov. gravi- metric (mg/L)
April 27	1624	—	—	—	—	—	—	—	<1
	1625	<0.010	<0.010	<0.010	20	10	3	<0.02	—
	1633	<.010	<.010	<.010	20	12	3	<.02	—
June 9	1137	<.010	<.010	<.010	<10	10	2	<.02	—
	1142	—	—	—	—	—	—	—	—
	1146	.010	<.010	<.010	10	9	2	<.02	—
July 28	1532	—	—	—	—	—	—	—	<1
	1536	<.010	.010	<.010	<10	—	3	<.02	—
	1547	.020	.010	<.010	20	<3	9	<.02	—
	1552	.020	<.010	<.010	10	8	33	<.02	—

Table 21. Field measurements for vertical water profiles of Silver Lake (site 3), Mono County, California[ft, feet; $\mu\text{S}/\text{cm}$, microsiemen per centimeter at 25°C; °C, degree Celsius; mm, millimeter; mg/L, milligram per liter]

Date (1994)	Time	Depth to bottom from surface at sampling location (ft)	Sam- pling depth (ft)	Trans- par- ency (Secchi disk) (ft)	Spe- cific con- duct- ance ($\mu\text{S}/\text{cm}$)	pH water, whole field (stand- ard units)	Temper- ature, water (°C)	Baro- metric pres- sure (mm of Hg)	Oxygen, dis- solved (mg/L)	Oxygen, dis- solved (per- cent satura- tion)
April 27	1624	32.2	0	14.1	43	6.6	6.5	580	9.9	107
	1625		3.3		43	6.8	7.0	580	9.9	107
	1626		6.6		43	6.8	6.5	580	9.9	107
	1627		9.9		43	6.8	7.0	580	9.9	107
	1628		13.1		43	6.8	7.0	580	9.8	106
	1629		16.4		44	6.8	6.5	580	9.8	106
	1630		19.7		42	6.9	6.5	580	9.8	106
	1631		23.0		42	6.9	6.5	580	9.8	105
	1632		26.2		40	7.0	6.0	580	10.0	106
	1633		27.9		39	7.0	6.0	580	10.0	106
June 9	1136	45.9	0	17.1	38	7.7	13.5	590	8.5	105
	1137		3.3		38	7.6	12.5	590	8.4	103
	1138		6.6		39	7.5	12.0	590	8.5	102
	1139		9.9		38	7.5	11.5	590	8.6	102
	1140		13.1		38	7.5	11.5	590	8.6	102
	1141		16.4		39	7.5	11.0	590	8.8	103
	1142		19.7		38	7.5	10.5	590	8.8	102
	1143		23.0		40	7.5	10.5	590	8.9	103
	1144		26.2		40	7.5	10.5	590	8.8	102
	1145		29.5		40	7.4	10.5	590	8.7	101
	1146		32.8		42	7.3	10.0	590	8.4	97
	1147		36.1		43	7.3	9.5	590	8.2	93
	1148		39.4		46	7.2	8.5	590	7.6	84
	1149		40.4		45	7.1	8.5	590	7.6	84
July 28	1532	34.1	0	25.9	29	7.0	19.5	588	7.3	104
	1536		3.3		29	7.1	19.0	588	7.2	102
	1537		6.6		29	7.1	18.5	588	7.1	99
	1539		9.9		29	7.1	18.5	588	7.1	99
	1540		13.1		29	7.1	18.0	588	7.2	100
	1541		16.4		30	7.1	18.0	588	7.2	99
	1543		19.7		30	7.1	17.5	588	7.2	98
	1547		23.0		36	7.0	16.5	588	7.5	100
	1548		26.2		45	6.9	15.0	588	7.3	94
	1550		29.5		44	6.8	13.5	588	6.3	79
	1552		31.2		43	6.8	13.5	588	6.1	76

Table 22. Sediment interstitial-water nutrient analysis for Gull Lake, Mono County, California

[See figure 5 for locations of bed-sediment sampling sites. GC, gravity corer; PG, Ponar grab. ft, feet; in., inch; mg/L, milligram per liter. <, actual value is less than value shown]

Date (1994)	Core No.	Sam- pler	Depth to sedi- ment (ft)	Depth interval (in.)	Nitro- gen, nitrite dis- solved (mg/L as N)	Nitro- gen, NO ₂ + NO ₃ dis- solved (mg/L as N)	Nitro- gen, ammonia dis- solved (mg/L as N)	Nitro- gen, dis- solved (mg/L as N)	Nitro- gen total (mg/L as N)	Phos- phorus dis- solved (mg/L as P)	Phos- phorus total (mg/L as P)	Phos- phate dis- solved (mg/L as P)
June 8	1	GC	42.7	0-3.1	<0.01	<0.05	14.30	21.80	2.75	2.75	3.25	2.41
				5.1-7.9	<.01	<.05	14.05	20.55	22.35	2.16	2.55	2.11
				11.0-14.2	.04	<.05	10.85	17.00	20.44	1.17	2.25	1.06
	2	GC	52.5	0-3.1	.01	.05	8.60	13.98	14.58	1.53	1.71	.60
				5.1-7.9	<.01	<.05	11.08	18.10	18.10	2.22	2.21	.76
				11.0-14.2	<.01	<.05	10.95	16.62	16.76	2.51	2.51	.87
	3	PG	59.1		.03	.06	8.38	16.34	19.42	.69	1.39	.61
	4	GC	9.9	0-3.9	.01	.07	2.90	9.84	10.05	.13	.13	<.01
				3.9-7.8	.01	.06	2.14	9.18	9.44	.14	.15	<.01
	5	PG	9.9		.17	.07	1.29	12.12	14.49	.05	.18	<.01
July 25	6	PG	42.7		.04	<.05	8.92	11.44	13.48	.64	1.35	.59
	7	PG	32.8		.03	<.05	2.68	4.53	6.88	.26	.54	.24
	8	GC	19.7	0-3.9	.03	<.05	4.20	6.60	8.07	.30	.19	<.01
				3.9-7.1	.03	<.05	2.36	4.20	6.18	.05	.31	.03

Table 23. Surface area and volume of Gull Lake, Mono County, California

[Date of survey, September 27, 1994. All elevations based on California Department of Transportation bench mark CT#2, elevation 7,618.24 feet, centerline hole punch on bolt head of fire plug at intersection of Leonard and Bruce Streets, June Lake, California. ft, feet; acre-ft, acre-feet]

Elevation (ft)	Depth (ft)	Area (acre)	Cumulative volume (acre-ft)
7,595.0	0	70.2	2,412.6
7,593.7	1.3	69.0	2,322.1
7,583.7	11.3	61.6	1,669.1
7,573.7	21.3	54.5	1,088.6
7,563.7	31.3	45.2	590.1
7,543.7	51.3	8.2	38.1
7,534.4	60.6	0	0

Table 24. Surface area and volume of Silver Lake, Mono County, California

[Date of survey, September 29, 1994. All elevations based on California Department of Transportation bench mark PM 7.07, elevation 7,226.31 feet; aluminum cap on 1-inch IP, 0.3 foot below ground, 1 foot east of right edge of pavement, 14.4 feet right of centerline stripe of Highway 158, Mono County, across from entrance to Silver Lake Resort Trailer Park, 10.5 feet west of metal witness post. ft, feet; acre-ft, acre-feet]

Elevation (ft)	Depth (ft)	Area (acre)	Cumulative volume (acre-ft)
7,217.5	0	116.0	3,060.0
7,216.7	0.8	112.2	2,979.8
7,206.7	10.8	78.6	2,025.8
7,196.7	20.8	68.2	1,291.9
7,186.7	30.8	50.4	698.9
7,176.7	40.8	33.6	279.0
7,166.7	50.8	10.8	57.4
¹ 7,156.0	61.5	0	0

¹Maximum depth.