

Prepared in cooperation with the California Regional Water Quality Control Board, Lahontan Region

Water-Quality Data for Selected Stream Sites in Bridgeport Valley, Mono County, California, April 2000 to June 2003



Data Series 89

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

Cover. Water-quality sampling in Virginia Creek near Bridgeport, California. Photo by Gerald Rockwell, March 12, 2001.

By Gerald L. Rockwell and Paul D. Honeywell

Prepared in cooperation with the California Regional Water Quality Control Board, Lahontan Region

Data Series 89

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

U.S. Department of the Interior

Gale A. Norton, Secretary

U.S. Geological Survey

Charles G. Groat, Director

U.S. Geological Survey, Reston, Virginia: 2004

For sale by U.S. Geological Survey, Information Services Box 25286, Denver Federal Center Denver, CO 80225

For more information about the USGS and its products: Telephone: 1-888-ASK-USGS World Wide Web: *http://www.usgs.gov/*

Any use of trade, product, or firm names in this publication is for descriptive purposes only and does not imply endorsement by the U.S. Government.

Although this report is in the public domain, permission must be secured from the individual copyright owners to reproduce any copyrighted materials contained within this report.

Suggested citation:

Rockwell, G.L., and Honeywell, P.D., 2004, Water-quality data for selected stream sites in Bridgeport Valley, Mono County, California, April 2000 to June 2003: U.S. Geological Survey Data Series 89, 35 p.

Contents

Abstract 1	1
Introduction 1	1
Purpose and Scope 1	1
Methods of Study	3
Sampling Procedures	3
Quality Assurance Procedures	3
Review of Data	3
Summary	1
References Cited 4	1

Figure

Figure 1.	Maps showing location of the study area and sites in and near Bridgeport Valley,	
	California, where water samples were collected, April 2000 to June 2003, study	
	area and water-sample collection sites	2

Tables

Table 1.	Location of sites in and near Bridgeport Valley, California, where water-quality samples were collected, April 2000 to June 2003	8
Table 2.	Site 1: Discharge, field measurements, and water-quality data for Buckeye Creek above Campground, near Bridgeport, California	8
Table 3.	Site 2: Discharge, field measurements, and water-quality data for Buckeye Creek near Bridgeport, California	9
Table 4.	Site 3: Discharge, field measurements, and water-quality data for Buckeye Creek at Highway 395, near Bridgeport, California	11
Table 5.	Site 4: Discharge, field measurements, and water-quality data for Buckeye Creek at Bridgeport Reservoir, near Bridgeport, California	13
Table 6.	Site 5: Discharge, field measurements, and water-quality data for Swauger Creek near Bridgeport, California	15
Table 7.	Site 6: Discharge, field measurements, and water-quality data for Robinson Creek below Barney Lake, near Bridgeport, California	17
Table 8.	Site 7: Discharge, field measurements, and water-quality data for Robinson Creek at Twin Lakes Outlet, near Bridgeport, California	18
Table 9.	Site 8: Discharge, field measurements, and water-quality data for Robinson Creek at Highway 395, near Bridgeport, California	20
Table 10.	Site 9: Discharge, field measurements, and water-quality data for Robinson Creek at Bridgeport Reservoir, near Bridgeport, California	22
Table 11.	Site 10: Discharge, field measurements, and water-quality data for Green Creek above Campground, near Bridgeport, California	24
Table 12.	Site 11: Discharge, field measurements, and water-quality data for Green Creek near Bridgeport, California	25
Table 13.	Site 12: Discharge, field measurements, and water-quality data for Virginia Creek at Conway Summit, near Lee Vining, California	27

Table 14. Site 13: Discharge, field measurements, and water-quality data for Virginia Creek near Bridgeport, California	28
Table 15. Site 14: Discharge, field measurements, and water-quality data for East Walker River at Bridgeport, California	30
Table 16. Site 15: Discharge, field measurements, and water-quality data for East Walker River near Bridgeport, California	32
Table 17. Quality-assurance data for field blanks collected in conjunction with water-quality samples in Bridgeport Valley, California	34

Conversion Factors and Water-Quality Abbreviations

Multiply	Ву	To obtain
acre-foot (acre-ft)	1,233	cubic meter (m ³)
cubic foot per second (ft ³ /s)	0.02832	cubic meter per second (m ³ /s)
foot (ft)	0.3048	meter (m)
inch (in.)	25.4	millimeter (mm)
mile (mi)	1.609	kilometer (km)
ton (T)	0.9072	metric ton

Temperature in degrees Celsius (°C) may be converted to degrees Fahrenheit (°F) as follows:

```
°F=(1.8×°C)+32
```

Temperature in degrees Fahrenheit (°F) may be converted to degrees Celsius (°C) as follows:

°C=(°F-32)/1.8

Vertical coordinate information is referenced to National Geodetic Vertical Datum of 1929 (NGVD 29).

Horizontal coordinate information is referenced to North American Datum of 1983 (NAD 83).

Altitude, as used in this report, refers to distance above the vertical datum.

Water-Quality Abbreviations

μg/L, UG/L	microgram per liter
μm, UM	micrometer
μS/cm, US/CM	microsiemens per centimeter at 25°C
LRL	laboratory reporting level
mg/L, MG/L	milligram per liter
mL, ML	milliliter
MM of HG	millimeter of mercury
MRL	minimum reporting level
NTU	nephelometric turbidity unit
t/day, T/DAY	ton per day

By Gerald L. Rockwell and Paul D. Honeywell

Abstract

The U.S. Geological Survey in cooperation with the California Regional Water Quality Control Board, Lahonton Region, carried out a water-quality data-collection program of selected streams in and near Bridgeport Valley, California, during April 2000 to June 2003. These data were collected to provide information used by the California Regional Water Quality Control Board to develop total maximum daily load standards. Field measurements of streamflow, barometric pressure, dissolved oxygen, pH, specific conductance, and water temperature were made at 15 sites located on 6 streams. Water samples were analyzed for nutrients, major ions, turbidity, fecal coliform, fecal streptococci, and suspended sediment. Field data, turbidity, nutrient, major ion, and sediment concentrations and fecal coliform and fecal streptococci densities are given in tables for each site. Field blank data are also presented in a table.

Introduction

Bridgeport Valley (fig. 1) is located adjacent to the eastern slopes of the Sierra Nevada in Mono County, California. Altitude of the drainage basin ranges from 6,420 feet at the Bridgeport Reservoir outlet to over 12,000 feet at the Sierra Nevada crest. Most precipitation comes during the winter months in the form of snow. Streams flowing through Bridgeport Valley form the headwaters of the East Walker River. The main human activities in the valley are cattle ranching and tourism. The only town in the valley is Bridgeport (population 843), the county seat. Nearly all streams are diverted for irrigation at the head of the valley. From May through November nearly all the water in the mid-valley stream channels is irrigation return. Buckeye Creek has a second diversion at mid-valley that diverts up to 90 percent of the flow for irrigation. This water enters Bridgeport Reservoir through several small irrigation return channels. The reservoir, located near the valley mouth, was built in 1923 and has a capacity of

45,490 acre-feet. Walker River Irrigation District operates the reservoir. The water is used for irrigation on farms and ranches in Nevada.

Purpose and Scope

This report presents surface-water-quality data collected from selected streams in Bridgeport Valley (see *figure 1* and *table 1* for sampling site locations). The types of data presented include water discharge, turbidity, field measurements, and concentrations of nutrients, major ions, bacteria, and sediment. The purpose of this study was to provide data to aid in the development of total maximum daily load standards by the California Regional Water Quality Control Board, Lahontan Region, for the various streams in Bridgeport Valley.

Sampling sites were selected to account for the main surface-water sources entering Bridgeport Reservoir and to define variability in quality between the headwaters and the release from the reservoir. Monthly samples were taken during the first year (April 2000 to June 2001, at sites 2-5, 7-9, 11, and 13-15). Green Creek near Bridgeport (site 11) was added in June 2000. The main focus was on quantifying concentrations of nutrients and sediment. Monthly bacteria samples also were taken. Samples collected in May and September 2000 and January 2001 at each site were analyzed for major ions. One snowmelt diurnal (June 7, 2000) was sampled at three sites (sites 4, 9, and 14).

Sampling in the second year (July 2001 to June 2002) of the program was reduced owing to budget constraints. Bacteria and major ions analyses were discontinued. Robinson Creek at Highway 395 (site 8) and Buckeye Creek at Highway 395 (site 3) were discontinued. Samples were collected quarterly at the remaining sites. One storm sample (Nov. 22, 2001) was collected at five sites (sites 2, 4, 7, 9, and 14).

In the third year (June 2002 to June 2003), the program was limited to quarterly nutrient and sediment samples and one fecal coliform sample at four sites in canyon reaches tributary to the Bridgeport Valley floor (sites 1, 6, 10, and 12).





Figure 1. Location of the study area and sites in and near Bridgeport Valley, California, where water samples were collected, April 2000 to June 2003: (*A*) Study area, (*B*) Water-sample collection sites.



Figure 1. Location of the study area and sites in and near Bridgeport Valley, California, where water samples were collected, April 2000 to June 2003: (A) Study area, (**B**) Water-sample collection sites.—Continued Site numbers correspond with those in *table 1*. Click on site number to see data for that site.

Methods of Study

On-site measurements included streamflow, barometric pressure, dissolved oxygen, pH, water temperature, and specific conductance. Water samples were analyzed at the U.S. Geological Survey (USGS) National Water Quality Laboratory (NWQL) in Denver, Colorado, for nutrients and major ions. Suspended-sediment samples were analyzed at the USGS California District Sediment Laboratory in Marina, California. Fecal coliform and fecal streptococci were analyzed by USGS field personnel at a temporary laboratory set up in a U.S. Forest Service facility in Bridgeport.

Sampling Procedures

The on-site measurements of barometric pressure, dissolved oxygen, pH, specific conductance, water temperature, and chemical and bacterial samples were collected and processed using methods described in the USGS National Field Manual (U.S. Geological Survey, 1997 to present). Streamflow measurements were done using procedures described by Rantz (1982). Concentrations of nutrients and major ions were analyzed by the National Water Quality Laboratory according to methods described by Fishman (1993). Dissolved (filtered) samples were processed through 0.45 micron filters. Suspended sediment samples were obtained using methods described by Edwards and Glysson (1988). Sediment analysis was done at the USGS California District Sediment Laboratory using methods described by Guy (1969).

During the first year of sampling it was discovered that during the irrigation season, up to 90 percent of the flow in Buckeye Creek was being diverted upstream of site 4 at the mid-valley diversion (fig. 1). Therefore, sampling at site 4 did not reflect the true sediment and chemical quality contributed by Buckeye Creek to Bridgeport Reservoir. Subsequently, when sampling dates coincided with periods of diversion of water from Buckeye Creek (September 2001 and June 2002), a composite sample was collected using all of the irrigation return channels. These composite samples were proportioned based on the total streamflow at the mid-valley diversion. Each irrigation return channel was measured and then the proportional volume of water from the channel was added to the churn splitter. The composite better reflects the total sediment and chemical quality contributed by Buckeye Creek to Bridgeport Reservoir than would a single sample at site 4.

Quality Assurance Procedures

During each field run, a sequential replicate water sample or a field blank was taken. Replicate samples allow evaluation of variability introduced by sampling procedures. Field blanks consist of inorganic-free water that is subjected to the same aspects of sample collection, field processing, preservation, transportation, and laboratory handling as an environmental sample. The National Water Quality Laboratory followed analytical quality assurance practices described by Pritt and Raese (1995) and Pirkey and Glodt (1998). Nearly all sediment samples were collected and analyzed in duplicate at each site. The USGS California District Sediment Laboratory followed quality assurance practices described in the laboratory's unpublished quality assurance plan. The results of the fieldblank and replicate sampling are discussed in the next section.

Review of Data

Field data, turbidity, nutrient, major ion, and sediment concentrations and fecal coliform and fecal streptococci densities are listed in *tables 2-16*. Field blank data are listed in *table 17*.

Most of the field blank samples indicate that no contamination was introduced by sampling or analytical procedures. Three of the field blank samples, May 12, June 8, and September 14, 2002, indicated some contamination of the environmental samples may have occurred. A careful analysis of the data revealed the following:

- May 12, 2000: field blank data indicate possible aluminum and zinc contamination. These constituents were not analyzed for in the environmental samples, so the results were not affected.
- June 8, 2000: field blank data indicate possible dissolved ammonia and dissolved nitrite-plus-nitrate contamination. Dissolved ammonia data at sites 4 and 9 were flagged with a "V" to indicate possible contamination. All other environmental data associated with this blank appeared reasonable.
- September 14, 2000: field blank data indicate possible dissolved ammonia, nitrite plus nitrate, dissolved ammonia plus organic nitrogen, orthophosphate, total phosphorus, and calcium contamination. The calcium concentration (0.013 mg/L) in the blank sample was near the detection limit (0.010 mg/L) and much lower than in any of the environmental samples (4.84 to 19.8 mg/L). All of the environmental calcium data appeared reasonable. The analysis revealed possible contamination at six sites (sites 2, 3, 5, 7, 8, and 11). The dissolved ammonia value at site 7 was judged unreliable and removed from the table. Some data at these sites were flagged with a "V" to indicate possible contamination. All other environmental data associated with this blank appeared reasonable.

The sequential replicate samples collected at sites 4, 13, and 14 indicate that a reproducible sample can be collected using procedures described in this report.

In a few instances, the concentration of a specific element was greater in the dissolved (filtered through 0.45 micron filter) sample than the unfiltered (total) sample. In these instances, differences may be due to normal variance in analytical results. The data were analyzed using the following criteria: If dissolved is greater than total the results are acceptable if it is within two times the long-term detection limit of the least precise of the two analytical methods. An analysis of the data indicates these differences are within the acceptable ranges except site 2, March 14, 2001 (*table 3*), orthophosphate and total phosphorus; site 5, March 13, 2001 (*table 6*), total and dissolved ammonia plus organic nitrogen; and site 15, October 11, 2000 (*table 16*), total and dissolved ammonia plus organic nitrogen. These values were removed from the tables.

The less-than (<) values reported for analytes in water samples are reported when an analyte either is not detected or is detected at a concentration less than the laboratory reporting level (LRL). The LRL is defined as generally equal to twice the annually determined long-term method detection level (Childress and others, 1999). The estimated (E) value is reported for data where the analyte is detected above the method detection limit, but below the minimum reporting level (MRL) (Childress and others, 1999). The MRL is defined as the smallest measured concentration of a substance that can be reliably measured using a given analytical method. For these samples, the compound has passed all criteria used to identify its presence, and only the concentration is estimated.

National Water Quality Laboratory procedures for turbidity changed during the project. The old procedure for static turbidity measurements using the Hach 2100A turbidimeter instrument was replaced with a dynamic flow-through procedure using the Hach 2100AN turbidimeter. Values less than 20 Nephelometric Turbidity Units (NTU) minimally are affected by the change in analytical procedures. Data may change for more turbid and colored samples, usually with increased values on the Hach 2100AN (Brown, 2000). Both methods have been published in this report where they are available.

Summary

The U.S. Geological Survey collected water-quality data from selected streams in and near Bridgeport Valley between April 2000 and June 2003. Water samples were collected and analyzed according to U.S. Geological Survey procedures. On-site measurements of streamflow, barometric pressure, dissolved oxygen, pH, water temperature, and specific conductance were made at 15 sites on 6 different streams. Water samples were collected for chemical analyses of nutrients and major ion concentrations. Water samples were also analyzed for turbidity, fecal coliform and fecal streptococci densities, and suspended sediment concentration. Field blanks and replicate samples were collected to assure the quality of the environmental-sample data. Data are presented in *tables 2-17*.

References Cited

- Childress, C.J.O., Foreman, W.T., Connor, B.F., and Maloney, T.J., 1999, New reporting procedures based on long-term method detection levels and some considerations for interpretations of water-quality data provided by the U.S. Geological Survey National Water Quality Laboratory: U.S. Geological Survey Open-File Report 99-193, 19 p.
- Brown, G.E., 2000, Hach Turbidimeter 2100AN to replace Hach Turbidimeter 2100A for determination of turbidity in raw unfiltered water: U.S. Geological Survey National Water Quality Laboratory Technical Memorandum 00.04, 1 p.
- Edwards, T.K., and Glysson, G.D., 1988, Field methods for measurement of fluvial sediment: U.S. Geological Survey Open-File Report 86-531, 118 p.
- Fishman, M.J., ed., 1993, Methods of analysis by U.S.
 Geological Survey National Water Quality Laboratory—
 Determination of inorganic and organic constituents in water and fluvial sediments: U.S. Geological Survey OpenFile Report 93-125, 217 p.
- Guy, H.P., 1969, Laboratory theory and methods for sediment analysis: U.S. Geological Survey Techniques of Water-Resources Investigations, book 5, chap. C1, 58 p.
- Pirkey, K.D., and Glodt, S.R., 1998, Quality control at the U.S. Geological Survey National Water Quality Laboratory: U.S. Geological Survey Fact Sheet 26-98, 4 p.
- Pritt, J.W., and Raese, J.W., 1995, Quality assurance/quality control manual—National Water Quality Laboratory: U.S. Geological Survey Open-File Report 95-443, 35 p.
- Rantz, S.E., 1982, Measurement and computation of streamflow: Volume 1. Measurement of stage and discharge: U.S. Geological Survey Water-Supply Paper 2175, 284 p.
- U.S. Geological Survey, 1997 to present, National field manual for the collection of water-quality data: U.S. Geological Survey Techniques of Water-Resources Investigations, book 9, chap. A1-A9, 2 v., variously paginated.

Tables

Table 1. Location of sites in and near Bridgeport Valley, California, where water-quality samples were collected, April 2000 to June 2003.

[USGS, U.S. Geological Survey. mi², square mile. Site numbers correspond to those shown in *figure 1*. Click on the site number to see data for that site]

Site no. (fig. 1)	Table no.	USGS station no.	Station name	Drainage area (mi²)	Elevation (feet)	Latitude	Longitude
1	2	381406119213501	Buckeye Creek above Campground,	Not determined	7,210	38°14'06"	119°21'35"
			near Bridgeport				
2	3	10291500	Buckeye Creek near Bridgeport	44.1	6,945	38°14'18"	119°19'37"
3	4	10291800	Buckeye Creek at Highway 395,	54.8	6,499	38°15'48"	119°16'39"
			near Bridgeport				
4	5	10292100	Buckeye Creek at Bridgeport	110	6,459	38°16'37"	119°15'25"
			Reservoir, near Bridgeport				
5	6	10292000	Swauger Creek near Bridgeport	52.8	6,620	38°17'00"	119°17'55"
6	7	380834119261201	Robinson Creek below Barney Lake,	Not determined	8,270	38°08'34"	119°26'12"
			near Bridgeport				
7	8	10290500	Robinson Creek at Twin Lakes	39.1	7,107	38°10'19"	119°19'26"
			Outlet, near Bridgeport				
8	9	10291100	Robinson Creek at Highway 395,	47.0	6,505	38°15'34"	119°16'23"
			near Bridgeport				
9	10	10291200	Robinson Creek at Bridgeport	47.5	6,456	38°16'23"	119°15'15"
			Reservoir, near Bridgeport				
10	11	380621119165601	Green Creek above Campground,	Not determined	8,065	38°06'21"	119°16'56"
			near Bridgeport		,		
11	12	10289500	Green Creek near Bridgeport	19.5	6.866	38°10'27"	119°14'01"
12	13	380505110113301	Virginia Creek at Conway Summit	Not determined	8 367	38°05'05"	110°11'33"
12	15	560505117115501	near Lee Vining	Not determined	0,507	58 05 05	119 11 55
13	14	10289000	Virginia Creek near Bridgeport	63.6	6.742	38°11'27"	119°12'35"
14	15	10290200	East Walker River at Bridgeport	159	6 4 3 3	38°15'29"	119°13'33"
11	1.5	102/0200	Lust marker haver at Bridgepolt	157	0,155	50 15 27	117 15 55
15	16	10293000	East Walker River near Bridgeport	359	6,391	38°19'42"	119°12'48"

Table 2. Site 1: Discharge, field measurements, and water-quality data for Buckeye Creek above Campground, near Bridgeport, California.

(Back to table 1. Back to figure 1)

[NTU, nephelometric turbidity unit; mm, millimeter; mg/L, milligram per liter; µs/cm, microsiemens per centimeter; deg C, degrees Celsius; mL, milliliter; t/day, ton per day. —, no data. <, less than. E, Estimated]

Date	Time	Discharge, inst. (cubic feet per second) (00061)	Turbidity lab Hach 2100AN (NTU) (99872)	Barometric pressure (mm of HG) (00025)	Oxygen, dissolved (mg/L) (00300)	Oxygen, dissolved (percent saturation) (00301)	pH water whole field (standard units) (00400)	Specific conductance (µs/cm) (00095)	Temperature, water (deg C) (00010)
Jun 5, 2002	1335	135	2.1	592	9.2	106	7.5	24	10.5
Sep 24	1300	8.4	1.3	588	_	_	8.2	89	11.0
Mar 11, 2003	1215	15	1.3	583	—	—	8.0	81	4.0
Jun 5	1350	190	3.3	589	9.2	104	5.3	25	9.5
Date	Nitrogen, ammonia dissolved (mg/L as N) (00608)	Nitrogen, ammonia + organic dissolved (mg/L as N) (00623)	Nitrogen ammonia + organic total (mg/L as N) (00625)	Nitrogen, NO2+NO3 dissolved (mg/L as N) (00631)	Orthophos- phate, dissolved (mg/L as P) (00671)	Phosphorus total (mg/L as P) (00665)	Coliform, fecal, 0.7 UM-MF (cols/100 mL) (31625)	Sediment, suspended (mg/L) (80154)	Sediment, discharge, suspended (t/day) (80155)
Jun 5, 2002	< 0.015	< 0.10	E0.07	0.016	< 0.007	0.016	<1	25	9.1
Sep 24	<.015	<.10	E.08	<.013	<.007	.006		1	.02
Mar 11, 2003	<.015	<.10	<.10	<.022	E.004	.010	_	4.0	.16
Jun 5	<.015	<.10	E.10	E.018	<.007	.023		31	16

Table 3. Site 2: Discharge, field measurements, and water-quality data for Buckeye Creek near Bridgeport, California.(Back to table 1. Back to figure 1)

[NTU, nephelometric turbidity unit; mm, millimeter; mg/L, milligram per liter; μ s/cm, microsiemens per centimeter; deg C, degrees Celsius; mL, milliliter; μ g/L, microgram per liter; t/day, ton per day. —, no data. <, less than. E, Estimated. V, Analyte detected in both the environmental sample and the associated blank(s). k, Counts outside acceptable range. >, greater than]

		Discharge,		Turbidity	Doromotrio	0	Oxygen,	pH water	Creatific	Tomporatura
Date	Time	inst. (cubic feet per second) (00061)	Turbidity (NTU) (00076)	lab Hach 2001AN (NTU) (99872)	pressure (mm of HG) (00025)	Uxygen, dissolved (mg/L) (00300)	dissolved (percent saturation) (00301)	whole field (standard units) (00400)	specific conductance (μs/cm) (00095)	water (deg C) (00010)
Apr 12, 2000	1310	65			_					
May 10	1100	137	0.60	_	595	97	96	78	40	45
Jun 8	1135	213	80		587	10.0	101	7.0	29	4.5
Jul 13	0950	89	.00		595	9 <u>4</u>	101	8.0	42	4.5 8 5
Aug 10	1015	41	.00		593	83	04	7.8	63	0.5
Sep 14	1015	20	.40		503	0.J 8 3	04	7.0	87	9.5
Oct 12	1645	20	<		590	0.3	94	7.9	85	9.5
New 14	1045	19	.25		590	9.5	97	7.0	00	0.0
Nov 14 Dec 12	1303	16	.20	.9	500	10.5	95 75	/.0	00	0
Dec 15	1143	10	2.0	1.1	500	0.J	75	0.1 7.0	100	0
Jan 11, 2001	1110	12	.32	.4	382	10.0	95	7.9	102	0
Feb Io	1255	14	.45	8.3	605	8.3	/4	8.0	95	.5
Mar 14	1045	13	.35	.0		0.6		8.2	97	1.5
Apr 10	1020	23	1.1	./	585 502	9.6	86	7.9	79	0
May 11	0930	164	2.9	4.4	593	9.7	95	7.4	28	4.0
Jun /	1015	105		.9	596	8.9	94	7.3	36	7.0
Sep 13	0920	12		1.6	593	8.8	94	8.2	90	7.5
Nov 22	1530	21		1.9					89	4.0
Dec 19	1010	18		.4	588	10.0	89	8.2	91	0
Mar 20, 2002	1730	19	_	5.7	594	10.4	105	8.0	81	5.0
Jun 3	1115	172		2.2	596	9.9	103	7.6	28	6.5
Date	Hardness total (mg/L as CACO3) (00900)	Calcium, dissolved (mg/L as CA) (00915)	Magnesium, dissolved (mg/L as MG) (00925)	Potassium, dissolved (mg/L as K) (00935)	Sodium adsorption ratio (00931)	Sodium, dissolved (mg/L as NA) (00930)	Sodium percent (00932)	Chloride, dissolved (mg/L as CL) (00940)	Fluoride, dissolved (mg/L as F) (00950)	Silica, dissolved (mg/L as SI02) (00955)
Apr 12, 2000										
May 10	16	4.84	0.907	0.71	0.2	1.63	17	E0.20	< 0.1	7.66
Jun 8			_			_				
Jul 13			_			_			_	
Aug 10			_			_			_	
Sep 14	35	10.3	2.31	1.59	.2	3.29	16	.43	<.1	12.9
Oct 12			_			_			_	
Nov 14		_				_				_
Dec 13						_				
Jan 11, 2001	42	12.1	2.82	1.72	.3	3.83	16	.45	<.2	13.3
Feb 16				_		_				_
Mar 14		_	_	_		_	_			_
Apr 10			_			_				
May 11			_				_			
Jun 7	_				_	_	_	_		
Sen 13										
Nov 22										
Dec 19								_	_	
Mar 20, 2002										

Table 3. Site 2: Discharge, field measurements, and water-quality data for Buckeye Creek near Bridgeport, California.—Continued

[NTU, nephelometric turbidity unit; mm, millimeter; mg/L, milligram per liter; μ s/cm, microsiemens per centimeter; deg C, degrees Celsius; mL, milliliter; μ g/L, microgram per liter; t/day, ton per day. —, no data. <, less than. E, Estimated. V, Analyte detected in both the environmental sample and the associated blank(s). k, Counts outside acceptable range. >, greater than]

Date	Sulfate, dissolved (mg/L as S04) (00945)	Solids, residue at 180 deg. C dissolved (mg/L) (70300)	Nitrogen, ammonia dissolved (mg/L as N) (00608)	Nitrogen, ammonia + organic dis- solved (mg/L as N) (00623)	Nitrogen, ammonia + organic total (mg/L as N) (00625)	Nitrogen, NO2+NO3 dissolved (mg/L as N) (00631)	Ortho- phosphate, dissolved (mg/L as P) (00671)	Phosphorus total (mg/L as P) (00665)
Apr 12, 2000			< 0.002	E0.05	0.13	< 0.005	0.002	0.014
May 10	1.6	31	<.002	E.08	.11	.005	.002	.010
Jun 8	_		<.002	E.05	E.10	.022	<.001	.018
Jul 13	_		<.002	<.10	<.10	.010	.004	.012
Aug 10	_		<.002	E.05	E.06	.021	.003	.009
Sep 14	4.6	63	.003	.10	.10	<.005	V.012	.010
Oct 12	_		.002	E.06	E.05	<.005	<.007	.006
Nov 14	_		<.002	<.10	.08	.009	<.007	.007
Dec 13	_		.018	.15	<.08	.006	<.007	.004
Jan 11, 2001	6.2	70	<.002	<.10	<.08	.033	.008	.007
Feb 16	_		.005	E.07	E.06	.055	E.004	.008
Mar 14	_		.004	E.06	E.04	.028		
Apr 10	_		.011	<.10	.10	.017	<.007	.009
May 11	_		.002	E.06	.19	.017	E.005	.055
Jun 7	_		.005	<.10	E.04	.014	<.007	.012
Sep 13	_	_	.002	E.05	.09	.009	<.007	.007
Nov 22	_	_	<.015	E.08	.14	<.013	E.004	.014
Dec 19	_		<.015	<.10	E.07	.023	<.007	.006
Mar 20, 2002	_		<.015	<.10	E.06	E.010	<.007	.009
Jun 3	_	_	<.015	<.10	E.07	.018	<.007	.026
Date	Coliform, fecal, 0.7 UM-MF (cols./100 mL) (31625)	Fecal strep, KF strp MF, water (col/100 mL) (31673)	lron, dissolved (µg/L as FE) (01046)	lron, total recoverable (μg/L as FE) (01045)	Manganese, dissolved (µg/L as MN) (01056)	Sediment, suspended (mg/L) (80154)	Sediment, discharge, suspended (t/day) (80155)	
Apr 12, 2000	k2	k2				7.0	1.2	
May 10	k2	k1	32	310	3.2	14	5.2	
Jun 8				_		28	16.1	
Jul 13	>60	54		_		6.0	1.4	
Aug 10	56	39	_	_	_	1.0	.11	
Sep 14	k11	k13	44	90	2.3	1.0	.05	
Oct 12	k2	k4	_	_	_	4.0	.20	
Nov 14	<1	k1		_		2.0	.12	
Dec 13	k1	k1		_		2.0	.08	
Jan 11, 2001	<1	k1	E9	50	E2.0	2.0	.06	
Feb 16	<1	k2		_		1.0	.04	
Mar 14	<1	k2		_		1.0	.03	
Apr 10	<1	<1		_		5.0	.32	
May 11	k2	k3		_		46	20.4	
Jun 7	k1	k14	_	_	_	8.0	2.3	
Sep 13						2.0	.07	
Nov 22						2.0	.11	
Dec 19						1.0	.05	
Mar 20, 2002	_		—	—		2.0	.10	

Table 4. Site 3: Discharge, field measurements, and water-quality data for Buckeye Creek at Highway 395, near Bridgeport, California.

(Back to table 1. Back to figure 1)

_

_

Apr 12

May 9 Jun 5

[NTU, nephelometric turbidity unit; mm, millimeter; mg/L, milligram per liter; μ s/cm, microsiemens per centimeter; deg C, degrees Celsius; mL, milliliter; μ g/L, microgram per liter; t/day, ton per day. —, no data. <, less than. E, Estimated. V, Analyte detected in both the environmental sample and the associated blank(s). k, Counts outside acceptable range. >, greater than]

Date	Time	Discharge, inst. (cubic feet per second) (00061)	Turbidity (NTU) (00076)	Turbidity lab Hach 2001AN (NTU) (99872)	Barometric pressure (mm of HG) (00025)	Oxygen, dis- solved (mg/L) (00300)	Oxygen, dissolved (percent saturation) (00301)	pH water whole field (standard units) (00400)	Specific conductance (µs/cm) (00095)	Temperature, water (deg C) (00010)
Apr 13, 2000	1050	12		_	600	8.9	93	7.7	76	6.5
May 11	0940	46	0.50		600	10.0	95	78	59	3.0
Jun 6	0945	150	2.2		603	94	98	6.9	36	7.0
Jul 12	0945	45	1.4		605	8.8	104	7.5	61	12.5
A110 9	1000	99	1.1	_	604	6.7	82		98	14.0
Sep 13	1000	2.8	.70	_	605	7.6	87	7.2	132	11.0
Oct 12	1135	12	.34	_	602	9.7	99	6.8	114	6.0
Nov 14	1110	8.5	.40	1.2	596	10.1	90	7.4	115	.5
Dec 12	1045	11	.36	.7	594	10.4	91	7.9	120	0
Jan 10, 2001	0930	4.4	1.3	.9	596	9.8	86	7.2	143	0
Feb 14	0930	14	.60	1.9	610	9.5	81	7.9	113	0
Mar 13	1430	10	.50	1.2	600	8.6	94	7.9	120	8.5
Apr 12	1145	7.9	6.5	1.0	600	9.2	93	7.6	98	5.5
May 9	1150	120	6.8	12	602	7.6	85	7.3	35	9.5
Jun 5	1250	54		2.3	599	7.6	94	7.3	45	14.0
Date	Hardness total (mg/L as CAC03) (00900)	Calcium, dissolved (mg/L as CA) (00915)	Magnesium, dissolved (mg/L as MG) (00925)	Potassium, dissolved (mg/L as K) (00935)	Sodium adsorption ratio (00931)	Sodium, dissolved (mg/L as NA) (00930)	Sodium percent (00932)	Chloride, dissolved (mg/L as CL) (00940)	Fluoride, dissolved (mg/L as F) (00950)	Silica, dissolved (mg/L as SI02) (00955)
Apr 13, 2000			_	_	_		_			
May 11	22	6.47	1.44	0.91	0.2	2.68	20	E0.25	< 0.1	9.86
Jun 6			—		—		—		—	
Jul 12			—		—		—		—	
Aug 9	_	_	_	—	—	—	—		_	_
Sep 13	47	13.4	3.31	2.11	.4	5.84	20	.53	.1	16.8
Oct 12						—	—		_	
Nov 14						—	—		_	
Dec 12	_				—		—			
Jan 10, 2001	51	14.5	3.63	1.95	.4	6.56	21	.84	E.1	17.2
Feb 14	—				—	—	—			—
Mar 13			_			_	_		_	_

 Table 4.
 Site 3: Discharge, field measurements, and water-quality data for Buckeye Creek at Highway 395, near Bridgeport, California.—Continued

[NTU, nephelometric turbidity unit; mm, millimeter; mg/L, milligram per liter; μ s/cm, microsiemens per centimeter; deg C, degrees Celsius; mL, milliliter; μ g/L, microgram per liter; t/day, ton per day. —, no data. <, less than. E, Estimated. V, Analyte detected in both the environmental sample and the associated blank(s). k, Counts outside acceptable range. >, greater than]

Date	Sulfate, dissolved (mg/L as S04) (00945)	Solids, residue at 180 deg. C dissolved (mg/L) (70300)	Nitrogen, ammonia dissolved (mg/L as N) (00608)	Nitrogen, ammonia + organic dis- solved (mg/L as N) (00623)	Nitrogen, ammonia + organic total (mg/L as N) (00625)	Nitrogen, NO2+NO3 dissolved (mg/L as N) (00631)	Ortho- phosphate, dissolved (mg/L as P) (00671)	Phosphorus total (mg/L as P) (00665)
Apr 13, 2000			0.004	0.26	0.52	< 0.005	0.10	0.116
May 11	2.4	50	.010	.13	.17	<.005	.002	.011
Jun 6			.002	E.08	.17	.013	<.001	.032
Jul 12			<.002	.14	.19	<.005	.006	.029
Aug 9			<.002	.29	.32	<.005	.011	.036
Sep 13	5.3	85	.009	.12	.14	V.046	.006	.018
Oct 12			.005	E.09	.14	<.005	<.007	.013
Nov 14			.003	<.10	.17	.005	<.007	.008
Dec 12			<.002	E.06	E.05	.005	<.007	.004
Jan 10, 2001	8.3	93	.003	<.10	E.05	.008	<.007	.008
Feb 14			.006	<.10	E.08	.035	<.007	.009
Mar 13			.012	E.08	E.04	.005	<.007	.010
Apr 12			.004	E.05	.09	.005	<.007	.010
May 9			<.002	.16	.41	.005	E.005	.115
Jun 5			.004	<.10	.12	<.005	<.007	.018
Date	Coliform, fecal, 0.7 UM-MF (cols./100 mL) (31625)	Fecal strep, KF strp MF, water (col/100 mL) (31673)	lron, dissolved (µg/L as FE) (01046)	lron, total recoverable (µg/L as FE) (01045)	Manganese, dissolved (µg/L as MN) (01056)	Sediment, suspended (mg/L) (80154)	Sediment, discharge, suspended (t/day) (80155)	
Apr 13, 2000	k15	86						
May 11	73	38	61	350	19.2	9.0	1.1	
Jun 6	k180	119	—	—		28	11.3	
Jul 12	>600	380	—			10	1.2	
Aug 9	k288	560	—			4.0	.11	
Sep 13	533	k40	115	420	50.0	2.0	.02	
Oct 12	105	k58	—	—		5.0	.16	
Nov 14	41	28	—			4.0	.09	
Dec 12	k11	k2	—			10	.30	
Jan 10, 2001	k6	k4	80	230	56.3	5.0	.06	
Feb 14	k3	k2	_		_	3.0	.11	

2.0

2.0

9.0

77

.06

.04

24.9

1.3

Mar 13

Apr 12

May 9

Jun 5

k2

k1

k15

50

k11

<1

58

44

Table 5. Site 4: Discharge, field measurements, and water-quality data for Buckeye Creek at Bridgeport Reservoir, near Bridgeport, California.

(Back to table 1. Back to figure 1)

[NTU, nephelometric turbidity unit; mm, millimeter; mg/L, milligram per liter; μ s/cm, microsiemens per centimeter; deg C, degrees Celsius; mL, milliliter; μ g/L, microgram per liter; t/day, ton per day. —, no data. <, less than. E, Estimated. V, Analyte detected in both the environmental sample and the associated blank(s). k, Counts outside acceptable range. >, greater than]

Date	Time	Discharge, inst. (cubic feet per second) (00061)	Turbidity (NTU) (00076)	Turbidity lab Hach 2001AN (NTU) (99872)	Barometric pressure (mm of HG) (00025)	Oxygen, dissolved (mg/L) (00300)	Oxygen, dissolved (percent saturation) (00301)	pH water whole field (standard units) (00400)	Specific conductance (µs/cm) (00095)	Temperature, water (deg C) (00010)
Apr 11, 2000	1430	6.0	_	_	605	8.7	109	7.5	135	15.0
May 9	1420	56	1.7	_	600	8.4	102	7.9	62	13.0
Jun 7	0800	118	1.9	_	600	9.3	98	7.0	45	7.0
Jun 7	1340	112	3.3	_	598	8.2	104	7.6	47	15.0
Jun 7	1830	91	2.1	_	598	7.7	99	7.2	49	15.5
Jul 11	1015	22	1.5	_	605	6.8	85	7.6	77	15.0
Aug 8	1110	2.0	2.3	_	604	7.0	98	7.5	213	20.0
Sep 12	1120	8.4	<.50	_	605	8.1	98	7.1	193	13.5
Oct 11	1100	20	.55	_	597	7.6	78	8.0	131	5.5
Nov 15	1025	25	1.1	4.6	601	10.5	91	7.2	135	0
Dec 11	1345	27	2.6	4.3	599	10.3	91	7.9	130	.5
Jan 12, 2001	1025	17	1.6	1.9	598	10.2	89	7.9	146	0
Jan 12 ¹	1040			_	_				_	
Feb 15	1055	21	.80	2.6	614	9.1	77	7.6	122	0
Mar 13	0925	29	1.9	3.4	605	9.5	84	7.8	130	1.0
Apr 11	1100	13	2.9	1.4	595	9.1	93	7.7	140	5.5
May 10	1010	144	7.2	14	604	7.6	79	7.4	45	7.0
Jun 6	0955	52	_	2.5	604	7.7	86	7.2	57	10.0
Sep 12	1220	12	_	12	600	7.9	98	8.5	113	14.5
Nov 22	1150	26		9.0	_	_			124	7.0
Dec 18	1400	21	_	1.6	603	10.3	90	7.8	116	0
Mar 20, 2002	1400	19	_	5.6	605	9.8	112	8.0	124	11.0
Jun 4	1250	114		8.6	607	8.3	108	7.5	55	16.5
	Hardness	Calcium,	Magnesium,	Potassium,	Sodium	Sodium,	Codium	Chloride,	Fluoride,	Silica,

Date	total (mg/L as CACO3) (00900)	dissolved (mg/L as CA) (00915)	dissolved (mg/L as MG) (00925)	dissolved (mg/L as K) (00935)	adsorption ratio (00931)	dissolved (mg/L as NA) (00930)	Sodium percent (00932)	dissolved (mg/L as CL) (00940)	dissolved (mg/L as F) (00950)	dissolved (mg/L as SI02) (00955)
Apr 11, 2000		_		—	_	_	—	—		_
May 9	22	6.20	1.46	1.14	0.4	4.13	28	0.49	0.1	9.90
Jun 7		—		—	_	_	_	—	_	
Jun 7		_		—	_	_	—	—		_
Jun 7		—		—	_	_	_	—	_	
Jul 11		—		—	_	_		—		
Aug 8		_		—	—	_	—	—		_
Sep 12	53	14.5	4.02	4.76	1	17.1	39	2.55	.3	21.3
Oct 11		—		—	_	_		—		
Nov 15		—		—	_	_		—		
Dec 11		_		—	—	_	—	—		_
Jan 12, 2001	48	13.5	3.37	1.86	.6	9.29	29	1.42	.2	18.3
Jan 12 ¹		—		—	_	_		—		
Feb 15		_		—	—	_	—	—		_
Mar 13		_		—	_	_	—	—		_
Apr 11		—		—	_	_		—		
May 10		—		—	_	_		—		
Jun 6		—		—	_	_	_	—	_	
Sep 12		—		—	_	_		—		
Nov 22		_		—	_	_	—	—		_
Dec 18		—		—	_	_		—		
Mar 20, 2002	_	—	—	_	_	—		—		
Jun 4	—	—	_		_			—		

Table 5. Site 4: Discharge, field measurements, and water-quality data for Buckeye Creek at Bridgeport Reservoir, near Bridgeport, California.—Continued

[NTU, nephelometric turbidity unit; mm, millimeter; mg/L, milligram per liter; μ s/cm, microsiemens per centimeter; deg C, degrees Celsius; mL, milliliter; μ g/L, microgram per liter; t/day, ton per day. —, no data. <, less than. E, Estimated. V, Analyte detected in both the environmental sample and the associated blank(s). k, Counts outside acceptable range. >, greater than]

Date	Sulfate, dissolved (mg/L as S04) (00945)	Solids, residue at 180 deg. C dissolved (mg/L) (70300)	Nitrogen, ammonia dissolved (mg/L as N) (00608)	Nitrogen, ammonia + organic dis- solved (mg/L as N) (00623)	Nitrogen, ammonia + organic total (mg/L as N) (00625)	Nitrogen, NO2+NO3 dissolved (mg/L as N) (00631)	Ortho- phosphate, dissolved (mg/L as P) (00671)	Phosphorus total (mg/L as P) (00665)
Apr 11, 2000			0.007	0.18	0.28	< 0.005	0.022	0.048
May 9	2.6	50	.010	.20	.26	<.005	.007	.029
Jun 7			.004	.11	.20	.031	.005	.045
Jun 7			.002	.12	.22	.012	.005	.045
Jun 7			V.017	.12	.20	.013	.006	.030
Jul 11			<.002	.14	.20	<.005	.009	.029
Aug 8			<.002	.41	.58	<.005	.044	.100
Sep 12	9.3	137	.009	.53	.58	<.005	.021	.059
Oct 11			.004	E.07	.24	<.005	.013	.038
Nov 15			.002	<.10	.17	.008	.008	.051
Dec 11			.002	E.07	.09	.008	.007	.040
Jan 12, 2001	9.3	94	.002	E.07	.09	.027	.013	.024
Jan 12 ¹			<.002	E.07	.14	.022	E.006	.040
Feb 15			.004	E.09	.08	.043	.007	.023
Mar 13			<.002	.10	.16	.007	.012	.040
Apr 11			.006	E.09	.16	<.005	.009	.024
May 10	_	—	.005	.17	.36	.008	.012	.089
Jun 6	_	_	.006	.16	.21	.007	.021	.057
Sep 12			.009	.16	.32	.008	.020	.092
Nov 22			<.015	.10	.26	<.013	.020	.073
Dec 18			<.015	<.10	.11	.025	.014	.039
Mar 20, 2002			<.015	<.10	.10	<.013	.016	.031
Jun 4	Coliform_fecal	Fecal strep,	.018	.46	.63 Manganese	<.013	E.005 Sediment,	.120
Date	0.7 UM-MF (cols./100 mL) (31625)	KF strp MF, water (col/100 mL) (31673)	dissolved (µg/L as FE) (01046)	recoverable (µg/L as FE) (01045)	dissolved (µg/L as MN) (01056)	suspended (mg/L) (80154)	discharge, suspended (t/day) (80155)	
Apr 11, 2000	k2	k4				5.0	0.08	
May 9	k13	23	57	560	13.6	19	2.9	
Jun 7	>200	305	_			37	11.8	
Jun 7	>300	160				32	9.7	
Jun 7	192	120	_		_	16	3.9	
Jul 11	>600	262				2.0	12	
201 1 1	2000	202				2.0	.12	

50111								
Aug 8	k55	k71				4.0	.02	
Sep 12	>600	520	81	300	30.5	12	.27	
Oct 11	114	52		_		12	.64	
Nov 15	37	38				46	3.1	
Dec 11	k7	k20				15	1.1	
Jan 12, 2001	k2	k7	27	360	30.4	14	.66	
Jan 12 ¹								
Feb 15	k2	k17			_	6.0	.35	
Mar 13	k1	k6			—	16	1.3	
Apr 11	k1	k2	—	—	—	3.0	.11	
May 10	>120	>200	—	—	—	127	49.4	
Jun 6	k1,630	154	—	—	—	18	2.5	
Sep 12	_	—	_	_	_	3.0	.10	
Nov 22						19	1.3	
Dec 18	—		—			12	.68	
Mar 20, 2002	_	—	—			5.0	.25	
Jun 4						14	43	

¹Replicate sample.

Table 6. Site 5: Discharge, field measurements, and water-quality data for Swauger Creek near Bridgeport, California. (Back to table 1. Back to figure 1)

[NTU, nephelometric turbidity unit; mm, millimeter; mg/L, milligram per liter; µs/cm, microsiemens per centimeter; deg C, degrees Celsius; mL, milliliter; µg/L, microgram per liter; t/day, ton per day. —, no data. <, less than. E, Estimated. V, Analyte detected in both the environmental sample and the associated blank(s). k, Counts outside acceptable range. >, greater than]

Date	Time	Discharge, inst. (cubic feet per second) (00061)	Turbidity (NTU) (00076)	Turbidity lab Hach 2001AN (NTU) (99872)	Barometric pressure (mm of HG) (00025)	Oxygen, dissolved (mg/L) (00300)	Oxygen, dissolved (percent saturation) (00301)	pH water whole field (standard units) (00400)	Specific conductance (µs/cm) (00095)	Temperature, water (deg C) (00010)
Apr 13, 2000	1020	20			600	9.1	92	8.3	118	5.5
May 11	0850	13	2.2		600	10.9	98	8.3	120	1.0
Jun 6	0845	5.2	1.9		598	9.6	102	8.0	153	7.5
Jul 12	0900	3.0	.70		605	9.1	103	8.0	201	10.5
A119 9	0910	2.3	2.1		600	7.1	80		201	10.0
Sen 13	0910	5.1			600	8 5	94	73	149	9.0
Oct 12	1030	5.6	72		597	9.9	97	7.6	136	4.0
Nov 14	1015	4 4	68	12	593	10.2	96	7.0	160	2.5
Dec 12	0950	6.1	.00	1.2	591	10.2	90	8.5	136	1.5
Ian 0, 2001	1545	6.0	2.4	2.5	501	0.6	03	8.5	130	3.5
Jail 9, 2001 Feb 14	1140	6.6	2.4	2.5	591 605	9.0	102	8.5	132	3.0
Гео 14 Mar 12	1140	0.0	1.4	3.2	508	0.1	102	8.0 8.4	120	3.0
Mar 13	1525	/.5	2.1	4.0	596	9.1	90	0.4 7.0	133	7.0
Apr 12	1045	11	5.7	5.2	596	9.4	88	/.8	150	2.5
May 9	1350	5.5	5.5	10	598	0./	91	8.2	156	18.5
Jun 5	1150	3.8	_	3.9	595	1.1	98	8.3	1/6	15.0
Sep 12	1630	3.1	—	2.1	595	6.2	82	8.1	160	16.5
Dec 18	1040	4.7	—	1.8	598	9.4	87	8.2	158	2.0
Mar 19, 2002	1650	7.3		6.5	600	9.2	103	8.1	131	9.5
Jun 6	1450	3.4		4.5	600	9.0	130	8.9	182	21.5
Date	Hardness total (mg/L as CACO3) (00900)	Calcium, dissolved (mg/L as CA) (00915)	Magnesium, dissolved (mg/L as MG) (00925)	Potassium, dissolved (mg/L as K) (00935)	Sodium adsorption ratio (00931)	Sodium, dissolved (mg/L as NA) (00930)	Sodium percent (00932)	Chloride, dissolved (mg/L as CL) (00940)	Fluoride, dissolved (mg/L as F) (00950)	Silica, dissolved (mg/L as SI02) (00955)
Apr 13, 2000	_			_	_		_			
May 11	42	10.8	3.66	2.13	0.6	8.72	30	1.60	0.1	28.3
Jun 6	_									
Jul 12	_					_	_			
Aug 9	_					_	_			
Sep 13	45	11.5	3.92	2.70	.8	11.8	35	1.34	.2	30.4
Oct 12	_	_	_		_	_	_		_	_
Nov 14	_									
Dec 12	_				_	_				
Jan 9, 2001	41	10.6	3.57	2.44	.7	10.8	35	1.44	.2	28.4
Feb 14	_									
Mar 13	_					_			_	
Apr 12	_									
May 9							_			
Iun 5							_			
Sen 12										
Dec 18										
Mar 19 2002										
Jun 6										_

Jun 6

Table 6. Site 5: Discharge, field measurements, and water-quality data for Swauger Creek near Bridgeport, California.—Continued

[NTU, nephelometric turbidity unit; mm, millimeter; mg/L, milligram per liter; μ s/cm, microsiemens per centimeter; deg C, degrees Celsius; mL, milliliter; μ g/L, microgram per liter; t/day, ton per day. —, no data. <, less than. E, Estimated. V, Analyte detected in both the environmental sample and the associated blank(s). k, Counts outside acceptable range. >, greater than]

Date	Sulfate, dissolved (mg/L as S04) (00945)	Solids residue at 180 deg. C dissolved (mg/L) (70300)	Nitrogen, ammonia dissolved (mg/L as N) (00608)	Nitrogen, ammonia + organic dis- solved (mg/L as N) (00623)	Nitrogen, ammonia + organic total (mg/L as N) (00625)	Nitrogen, NO2+NO3 dissolved (mg/L as N) (00631)	Ortho- phosphate, dissolved (mg/L as P) (00671)	Phosphorus total (mg/L as P) (00665)
Apr 13, 2000			0.003	0.28	0.44	0.037	0.045	0.107
May 11	3.5	99	.004	.11	.19	.052	.038	.044
Jun 6			<.002	E.08	.17	.083	.035	.059
Jul 12			.009	.29	.29	.180	.056	.090
Aug 9			.012	.14	.25	.282	.060	.100
Sep 13	5.9	116	V.015	E.09	.25	V.148	.045	.091
Oct 12			.006	.23	.23	<.005	E.006	.023
Nov 14			<.002	<.10	.11	.141	.038	.051
Dec 12			<.002	E.09	<.08	.102	.037	.054
Jan 9, 2001	6.3	102	.003	E.09	.14	.084	.030	.047
Feb 14			.002	E.07	.12	.076	.032	.049
Mar 13		_	.005			.049	.030	.063
Apr 12			006	11	27	082	035	082
May 9			013	29	51	102	067	117
Iun 5			007	10	17	086	057	085
Sep 12			009	11	15	101	057	078
Dec 18			< 015	< 10	13	129	034	054
Mar 19 2002		_	< 015	E 07	19	.129	032	065
Jun 6			<.013 E 012	31	30	E 012	.052	000
Date	Coliform, fecal, 0.7 UM-MF (cols./100 mL) (31625)	Fecal strep, KF strp MF, water (col/100 mL) (31673)	lron, dissolved (µg/L as FE) (01046)	lron, total recoverable (µg/L as FE) (01045)	Manganese, dissolved (µg/L as MN) (01056)	Sediment, suspended (mg/L) (80154)	Sediment, discharge, suspended (t/day) (80155)	
Apr 13, 2000	k6	55				32	1.7	
May 11	k2	k8	64	370	16.8	8.0	.29	
Jun 6	59	89				3.0	.04	
Jul 12	50	>1,000				2.0	.02	
Aug 9	73	k182				5.0	.03	
Sep 13	250	310	65	620	14.9	18	.25	
Oct 12	k28	160				53	.80	
Nov 14	k8	96				4.0	.05	
Dec 12	k8	55				6.0	.10	
Jan 9, 2001	k2	88	22	260	5.9	8.0	.13	
Feb 14	k1	39				5.0	.09	
Mar 13	k1	30				13	.26	
Apr 12	k1	k16				20	.57	
May 9	k3	73				16	.24	
Jun 5	k128	k330				6.0	.06	
Sep 12						6.0	.05	
Dec 18	_			_		3.0	.04	
Mar 19, 2002						12	.24	
						8.0	07	

Table 7. Site 6: Discharge, field measurements, and water-quality data for Robinson Creek below Barney Lake, near Bridgeport, California.

(Back to table 1. Back to figure 1)

[NTU, nephelometric turbidity unit; mg/L, milligram per liter; µs/cm, microsiemens per centimeter; deg C, degrees Celsius; mL, milliliter; t/day, ton per day. —, no data. <, less than. E, Estimated. k, Counts outside acceptable range]

Date	Time	Discharge, inst. cubic feet per second (00061)	Turbidity lab Hach 2100AN NTU (99872)	Barometric pressure mm of HG (00025)	Oxygen, dis- solved mg/L (00300)	Oxygen, dissolved (percent saturation) (00301)	pH water whole field (standard units) (00400)	Specific conductance µs/cm (00095)	Temperature, water deg C (00010)
Jun 5, 2002	1025	61	2.8	568	9.1	104	6.9	8	8.0
Sep 24	1530	.94	.9				7.4	18	13.5
Mar 11, 2003	0910	4.6	1.2	580	_	_	7.7	40	2.0
Jun 4	1130	82	<1.0	564			5.5	8	5.5
Date	Nitrogen, ammonia dissolved mg/L as N (00608)	Nitrogen, ammonia + organic dis- solved mg/L as N (00623)	Nitrogen ammonia + organic total mg/L as N (00625)	Nitrogen, NO2+NO3 dissolved mg/L as N (00631)	Orthophos- phate, dissolved mg/L as P (00671)	Phosphorus total mg/L as P (00665)	Coliform, fecal, 0.7 UM-MF cols/100 mL (31625)	Sediment, suspended mg/L (80154)	Sediment, discharge, suspended t/day (80155)
Jun 5, 2002	< 0.015	< 0.10	E0.06	< 0.013	< 0.007	0.004	k1	<0.5	< 0.01
Sep 24	<.015	.11	.16	<.013	<.007	.010		1.0	<.01
Mar 11, 2003	<.015	<.10	<.10	<.022	<.007	.008	_	1.0	.01
Jun 4	<.015	E.06	E.07	<.022	<.007	E.002		2.0	.44

 Table 8.
 Site 7: Discharge, field measurements, and water-quality data for Robinson Creek at Twin Lakes Outlet, near Bridgeport, California.

(Back to table 1. Back to figure 1)

[NTU, nephelometric turbidity unit; mm, millimeter; mg/L, milligram per liter; μ s/cm, microsiemens per centimeter; deg C, degrees Celsius; mL, milliliter; μ g/L, microgram per liter; t/day, ton per day. —, no data. <, less than. E, Estimated. V, Analyte detected in both the environmental sample and the associated blank(s). k, Counts outside acceptable range]

		Discharge,		Turbidity	Devenetrie	0	Oxygen,	pH water	C	T
Date	Time	inst. (cubic feet per second) (00061)	Turbidity (NTU) (00076)	lab Hach 2001AN (NTU) (99872)	pressure (mm of HG) (00025)	Uxygen, dissolved (mg/L) (00300)	dissolved (percent saturation) (00301)	whole field (standard units) (00400)	specific conductance (µs/cm) (00095)	water (deg C) (00010)
Apr 12, 2000	1145	38		_	605	9.6	99	8.2	60	7.0
May 10	0940	144	0.40	_	595	8.9	96	8.0	58	8.0
Jun 8	1030	214	.40		583	8.2	101	7.8	56	12.5
Jul 13	0855	115	.40		592	7.6	101	7.8	47	16.5
Aug 10	0920	76	.40		590	7.1	97	7.4	45	18.0
Sep 14	0920	26	<.50		590	7.4	95	7.7	49	15.0
Oct 12	1400	21	.24		589	8.3	103	7.4	49	13.5
Nov 14	1355	12	.30	0.4	584	8.7	95	7.6	51	7.5
Dec 13	1045	10	.31	1.2	584	8.7	87	8.3	54	4.5
Jan 11, 2001	1010	5.8	.48	.9	579	9.7	89	7.5	52	.5
Feb 16	1520	13	.32	1.6	600	9.5	87	8.0	54	2.0
Mar 14	0915	14	.30	1.0	590	10.3	96	7.9	53	2.0
Apr 10	1150	31	2.3	.5	583	8.8	89	7.8	59	4.5
May 11	1040	131	.46	3.7	590	8.2	97	7.7	60	11.5
Jun 7	0920	120		1.1	592	7.3	91	7.5	53	14.0
Sep 11	1335	18		.7	589	7.2	98		44	17.5
Nov 22	1447	8.9		2.0					59	8.5
Dec 19	1130	2.6	_	.3	585	8.8	86	7.8	56	3.5
Mar 21, 2002	1405	13	_	1.0	590	9.6	99	7.9	59	5.5
Jun 3	0920	184	_	1.4	588	8.0	98	7.9	59	12.5
Date	Hardness total (mg/L as CACO3) (00900)	Calcium, dissolved (mg/L as CA) (00915)	Magnesium, dissolved (mg/L as MG) (00925)	Potassium, dissolved (mg/L as K) (00935)	Sodium adsorption ratio (00931)	Sodium, dissolved (mg/L as NA) (00930)	Sodium percent (00932)	Chloride, dissolved (mg/L as CL) (00940)	Fluoride, dissolved (mg/L as F) (00950)	Silica, dissolved (mg/L as SI02) (00955)
Apr 12, 2000	_					_				
May 10	23	7.88	0.836	0.72	0.2	1.97	15	E0.24	0.1	5.58
Jun 8	_					_				
Jul 13						_				_
Aug 10	_					_				
Sep 14	19	6.70	.663	.54	.2	1.72	16	E.17	<.1	4.99
Oct 12	_					_				
Nov 14	_					_				
Dec 13	_					_				
Jan 11, 2001	22	7.68	.796	.62	.2	1.91	15	.41	E.1	5.97
Feb 16						_				_
Mar 14						_				_
Apr 10						_				_
May 11		_			_	_				
Jun 7		_			_	_				
Sep 11		_			_	_				
Nov 22		_			_	_				
Dec 19		_			_	_				
Mar 21, 2002		_			_	_				
Jun 3	_			_			_			

Table 8. Site 7: Discharge, field measurements, and water-quality data for Robinson Creek at Twin Lakes Outlet, near Bridgeport, California.—Continued

[NTU, nephelometric turbidity unit; mm, millimeter; mg/L, milligram per liter; μ s/cm, microsiemens per centimeter; deg C, degrees Celsius; mL, milliliter; μ g/L, microgram per liter; t/day, ton per day. —, no data. <, less than. E, Estimated. V, Analyte detected in both the environmental sample and the associated blank(s). k, Counts outside acceptable range]

Date	Sulfate, dissolved (mg/L as S04) (00945)	Solids residue at 180 deg. C dissolved (mg/L) (70300)	Nitrogen, ammonia dissolved (mg/L as N) (00608)	Nitrogen, ammonia + organic dissolved (mg/L as N) (00623)	Nitrogen, ammonia + organic total (mg/L as N) (00625)	Nitrogen, NO2+NO3 dissolved (mg/L as N) (00631)	Orthophos- phate, dissolved (mg/L as P) (00671)	Phosphorus total (mg/L as P) (00665)
Apr 12, 2000			< 0.002	< 0.10	E0.08	< 0.005	< 0.001	E0.004
May 10	4.8	38	<.002	E.05	E.10	<.005	<.001	<.008
Jun 8	_		.002	<.10	E.07	.007	<.001	<.008
Jul 13	_		<.002	<.10	.14	<.005	.001	E.005
Aug 10	_		<.002	E.08	E.06	<.005	<.001	E.005
Sep 14	3.5	32		VE.08	E.08	V.037		
Oct 12			.003	E.07	E.07	<.005	<.007	E.003
Nov 14	_		.002	E.06	.17	.006	<.007	.004
Dec 13	_		.004	.10	E.06	.053	<.007	.005
Jan 11, 2001	4.7	39	.002	E.05	.14	.005	E.004	.009
Feb 16	_		.006	E.09	E.07	<.005	<.007	.007
Mar 14	_		.006	E.06	<.08	<.005	<.007	.004
Apr 10	_		.006	<.10	E.08	<.005	<.007	.005
May 11	_		<.002	E.06	E.06	<.005	<.007	.004
Jun 7	_		.004	.11	E.08	<.005	<.007	.006
Sep 11	_		.002	E.07	.09	.008	<.007	.005
Nov 22	_		<.015	E.06	.12	<.013	<.007	.005
Dec 19	_		<.015	E.05	E.06	E.009	<.007	.006
Mar 21, 2002	_		<.015	<.10	.10	<.013	<.007	.005
Jun 3	_		<.015	E.06	E.07	<.013	<.007	.006
Date	Coliform, fecal, 0.7 UM-MF (cols./100 mL) (31625)	Fecal strep, KF strp MF, water (col/100 mL) (31673)	lron, dissolved (µg/L as FE) (01046)	lron, total recoverable (µg/L as FE) (01045)	Manganese, dissolved (µg/L as MN) (01056)	Sediment, suspended (mg/L) (80154)	Sediment, discharge, suspended (t/day) (80155)	
Apr 12, 2000	<1	<1				1.0	0.10	-
May 10	<1	<1	<10	30	<2.2	1.0	.39	
Jun 8				_	_	3.0	1.7	
Jul 13	k2	k10		_	—	2.0	.62	
Aug 10	k14	k6		_	_	1.0	.21	
Sep 14	k4	k10	E6	<20	<2.2	<.5	<.01	
Oct 12	<1	k6	_	_	_	7.0	.40	
Nov 14	k1	k4		_	—	1.0	.03	
Dec 13	<1	<1	_	_	_	3.0	.08	
Jan 11, 2001	<1	k2	<10	30	E1.7	3.0	.05	
Feb 16	<1	<1		_	—	1.0	.04	
Mar 14	<1	<1		_	_	<.5	<.01	
Apr 10	<1	<1		_	—	1.0	.08	
May 11	<1	<1	_	_	_	2.0	.71	
Jun 7	<1	<1		_	—	1.0	.32	
Sep 11	_	_	_		_	<.5	<.01	
Nov 22	_	_	_		_	1.0	.02	
Dec 19						2.0	.01	
Mar 21, 2002						1.0	.04	
Jun 3	_	_	_	_	_	2.0	.99	

Table 9. Site 8: Discharge, field measurements, and water-quality data for Robinson Creek at Highway 395, near Bridgeport, California.(Back to table 1. Back to figure 1)

[NTU, nephelometric turbidity unit; mm, millimeter; mg/L, milligram per liter; μ s/cm, microsiemens per centimeter; deg C, degrees Celsius; mL, milliliter; μ g/L, microgram per liter; t/day, ton per day. —, no data. <, less than. E, Estimated. V, Analyte detected in both the environmental sample and the associated blank(s). k, Counts outside acceptable range]

Date	Time	Discharge, inst. (cubic feet per second) (00061)	Turbidity (NTU) (00076)	Turbidity lab Hach 2001AN (NTU) (99872)	Barometric pressure (mm of HG) (00025)	Oxygen, dissolved (mg/L) (00300)	Oxygen, dissolved (percent saturation) (00301)	pH water whole field (standard units) (00400)	Specific conductance (µs/cm) (00095)	Temperature, water (deg C) (00010)
Apr 13, 2000	1130	11		_	600	8.8	95	7.6	77	8.0
May 11	1040	39	0.50	_	600	9.4	96	7.6	60	6.0
Jun 6	1140	124	.80	_	602	8.3	103	7.3	64	14.5
Jul 12	1045	12	2.1	_	605	8.1	106	7.3	82	17.0
Aug 9	1100	8.8	1.5	_	603	6.6	87	8.5	77	17.0
Sep 13	1045	4.6	<.50	_	605	8.0	97	7.2	82	13.5
Oct 12	1215	5.0	.36	_	601	8.2	91	6.8	75	9.5
Nov 14	1210	2.1	.21	0.4	596	9.6	90	7.3	80	2.5
Dec 12	1145	4.5	.35	.5	594	10.1	94	7.8	83	2.0
Jan 10, 2001	1045	2.7	1.2	.7	596	9.9	88	7.3	96	.5
Feb 14	1040	10	.55	2.4	609	10.2	87	7.9	72	0
Mar 13	1525	15	.50	1.9	600	8.6	96	7.8	69	9.5
Apr 12	1240	1.4	1.8	1.1	599	8.6	96	7.3	85	9.5
May 9	1255	16	1.7	5.0	602	6.6	86	7.3	57	16.5
Jun 5	1345	30		1.7	599	7.2	95	7.3	57	17.0
Date	Hardness total (mg/L as CACO3) (00900)	Calcium, dissolved (mg/L as CA) (00915)	Magnesium, dissolved (mg/L as MG) (00925)	Potassium, dissolved (mg/L as K) (00935)	Sodium adsorption ratio (00931)	Sodium, dissolved (mg/L as NA) (00930)	Sodium percent (00932)	Chloride, dissolved (mg/L as CL) (00940)	Fluoride, dissolved (mg/L as F) (00950)	Silica, dissolved (mg/L as SI02) (00955)
Apr 13, 2000		_		—		—		—		—
May 11	23	7.28	1.21	0.85	0.2	2.44	18	E0.28	0.1	8.78
Jun 6		—		—	—	—				
Jul 12		—	—	—	—	—	—		—	—
Aug 9		—		—	—	—				—
Sep 13	31	9.77	1.63	1.27	.2	2.96	16	.43	.1	11.8
Oct 12		—		—	—	—				—
Nov 14		—		—	—	—				—
Dec 12	_	—		—	—	_				
Jan 10, 2001	39	12.0	2.13	1.26	.2	3.32	15	.58	E.1	14.5
Feb 14		—		—		—		—		—
Mar 13		—		—		—	_			—
Apr 12		—		—		—	_			—
May 9			_		_		_	_		_

Jun 5

Table 9. Site 8: Discharge, field measurements, and water-quality data for Robinson Creek at Highway 395, near Bridgeport, California.—Continued

[NTU, nephelometric turbidity unit; mm, millimeter; mg/L, milligram per liter; μ s/cm, microsiemens per centimeter; deg C, degrees Celsius; mL, milliliter; μ g/L, microgram per liter; t/day, ton per day. —, no data. <, less than. E, Estimated. V, Analyte detected in both the environmental sample and the associated blank(s). k, Counts outside acceptable range]

Date	Sulfate, dissolved (mg/L as S04) (00945)	Residue at 180 deg. C dissolved (mg/L) (70300)	Nitrogen, am- monia dissolved (mg/L as N) (00608)	Nitrogen, ammonia + organic dissolved (mg/L as N) (00623)	Nitrogen, ammonia + organic total (mg/L as N) (00625)	Nitrogen, NO2+NO3 dissolved (mg/L as N) (00631)	Orthophos- phate, dissolved (mg/L as P) (00671)	Phosphorus total (mg/L as P) (00665)
Apr 13, 2000	_		0.005	0.30	0.36	0.007	0.004	0.023
May 11	3.9	47	<.002	E.08	.16	<.005	<.001	.012
Jun 6	_		.003	.12	.20	.008	<.001	.016
Jul 12	_		.002	.16	.22	.009	.003	.018
Aug 9			.003	.19	.21	<.005	.003	.016
Sep 13	4.0	58	.002	.10	.10	V.107	.001	E.005
Oct 12			.005	E.06	.08	<.005	<.007	.006
Nov 14	_		<.002	E.05	.15	.016	<.007	E.002
Dec 12			<.002	E.05	<.08	.011	<.007	<.004
Jan 10, 2001	5.8	66	.002	E.06	.08	.033	<.007	.004
Feb 14	_		.003	E.09	.10	.021	<.007	.010
Mar 13			.004	<.10	.17	<.005	<.007	.007
Apr 12	_		.012	E.09	.10	.023	<.007	.008
May 9			<.002	.23	.29	<.005	E.006	.034
Jun 5			.006	E.07	.14	<.005	<.007	.018
Date	Coliform, fecal, 0.7 UM-MF (cols./100 mL) (31625)	Fecal strep, KF strp MF, water (col/100 mL) (31673)	lron, dissolved (µg/L as FE) (01046)	lron, total recoverable (µg/L as FE) (01045)	Manganese, dissolved (µg/L as MN) (01056)	Sediment, suspended (mg/L) (80154)	Sediment, discharge, suspended (t/day) (80155)	
Apr 13, 2000	k7	134				8.0	0.24	•
May 11	k7	61	23	320	4.8	11	1.2	
Jun 6	k202	136				9.0	3.0	
Jul 12	450	100				4.0	.12	
Aug 9	2,100	66				4.0	.10	
Sep 13	3,600	88	54	240	11.6	<.5	<.01	
Oct 12	k33	k14				12	.16	
Nov 14	k5	k2				2.0	.01	
Dec 12	k2	k1				2.0	.02	
Jan 10, 2001	k2	k2	32	90	12.8	3.0	.02	
Feb 14	k6	k13		_		6.0	.16	
Mar 13	k1	k2		_		4.0	.16	
Apr 12	<1	k6		_		3.0	.01	
May 9	47	k139		_		7.0	.29	
T	1-622	60		_		8.0	64	

 Table 10. Site 9: Discharge, field measurements, and water-quality data for Robinson Creek at Bridgeport Reservoir, near Bridgeport, California.

(Back to table 1. Back to figure 1)

[NTU, nephelometric turbidity unit; mm, millimeter; mg/L, milligram per liter; μ s/cm, microsiemens per centimeter; deg C, degrees Celsius; mL, milliliter; μ g/L, microgram per liter; t/day, ton per day. —, no data. <, less than. E, Estimated. V, Analyte detected in both the environmental sample and the associated blank(s). k, Counts outside acceptable range. >, greater than]

Date	Time	Discharge, inst. (cubic feet per second) (00061)	Turbidity (NTU) (00076)	Turbidity lab Hach 2001AN (NTU) (99872)	Barometric pressure (mm of HG) (00025)	Oxygen, dissolved (mg/L) (00300)	Oxygen, dissolved (percent saturation) (00301)	pH water whole field (standard units) (00400)	Specific conductance (µs/cm) (00095)	Temperature, water (deg C) (00010)
Apr 11, 2000	1540	5.0	_		605	9.1	117	8.2	103	16.0
May 9	1520	36	0.50		600	7.6	100	8.0	88	17.0
Jun 7	0910	123	1.5		600	8.3	97	7.1	69	11.5
Jun 7	1445	123	2.0	_	599	7.4	102	7.7	68	19.0
Jun 7	1945	123	1.9	_	599	6.7	88	7.2	68	16.5
Jul 11	0915	15	2.2	_	605	6.5	80	7.5	88	14.0
Aug 8	1015	12	1.4		604	7.3	93	7.6	108	15.5
Sep 12	1015	3.9	<.50		605	7.6	88	7.1	123	11.5
Oct 11	1215	6.7	.49		597	7.8	84	7.6	110	7.5
Nov 15	1130	4.2	.40	1.8	599	9.2	84	7.4	130	2.0
Dec 11	1445	6.6	.36	.7	599	10.2	95	8.2	130	2.5
Jan 12, 2001	1130	2.9	.63	.7	598	8.9	80	8.0	152	1.0
Feb 15	1200	3.5	.50	3.0	614	8.0	70	7.7	126	1.0
Mar 13	1025	9.4	1.0	3.6	605	7.9	74	7.7	188	3.0
Apr 11	1200	5.3	2.0	1.2	595	8.9	96	7.7	126	8.0
May 10	1120	22	2.7	4.9	604	7.5	90	7.5	76	12.5
Jun 6	1110	24		1.5	604	8.1	99	7.8	65	14.0
Sep 12	1335	9.4		1.6	600	7.7	100		69	16.0
Nov 22	1055	8.5		1.2					103	6.0
Dec 18	1500	2.5		.7	602	9.7	91	7.7	116	3.0
Mar 20, 2002	1500	2.0	—	5.3	603	9.9	124	8.4	141	14.5
Jun 4	1015	64		1.2	606	9.2	110	7.7	88	13.0

Date	Hardness total (mg/L as CACO3) (00900)	Calcium, dissolved (mg/L as CA) (00915)	Magnesium, dissolved (mg/L as MG) (00925)	Potassium, dissolved (mg/L as K) (00935)	Sodium adsorption ratio (00931)	Sodium, dissolved (mg/L as NA) (00930)	Sodium percent (00932)	Chloride, dissolved (mg/L as CL) (00940)	Fluoride, dissolved (mg/L as F) (00950)	Silica, dissolved (mg/L as SI02) (00955)
Apr 11, 2000		_		_						
May 9	36	10.7	2.25	1.18	0.3	3.59	17	0.35	0.2	12.2
Jun 7				_	_		_	—		
Jun 7				_	_			_		
Jun 7				_	_		_	—		
Jul 11			_	—	_	_	_		_	
Aug 8				_	_		_	—		
Sep 12	47	13.8	3.02	2.14	.3	5.38	19	.71	.1	15.7
Oct 11				—	—			—		
Nov 15					_		_			
Dec 11				_	_		_			
Jan 12, 2001	58	16.8	3.90	1.71	.4	6.54	19	1.13	E.2	17.4
Feb 15				_	_		_			
Mar 13				_	_		_			
Apr 11				_	_		_			
May 10				_	_		_			
Jun 6				_	_		_	—		
Sep 12				_	_		_	—		
Nov 22				_	_		_	—		
Dec 18				—	_		_	_		
Mar 20, 2002				_	_			_		
Jun 4						_	_			

Table 10. Site 9: Discharge, field measurements, and water-quality data for Robinson Creek at Bridgeport Reservoir, near Bridgeport, California.—Continued

[NTU, nephelometric turbidity unit; mm, millimeter; mg/L, milligram per liter; μ s/cm, microsiemens per centimeter; deg C, degrees Celsius; mL, milliliter; μ g/L, microgram per liter; t/day, ton per day. —, no data. <, less than. E, Estimated. V, Analyte detected in both the environmental sample and the associated blank(s). k, Counts outside acceptable range. >, greater than]

Date	Sulfate, dissolved (mg/L as S04) (00945)	Solids residue at 180 deg. C dissolved (mg/L) (70300)	Nitrogen, ammonia dissolved (mg/L as N) (00608)	Nitrogen, ammonia + organic dissolved (mg/L as N) (00623)	Nitrogen, ammonia + organic total (mg/L as N) (00625)	Nitrogen, NO2+NO3 dissolved (mg/L as N) (00631)	Orthophos- phate, dissolved (mg/L as P) (00671)	Phosphorus total (mg/L as P) (00665)
Apr 11, 2000			< 0.002	0.11	0.13	< 0.005	0.006	0.014
May 9	3.5	68	.004	.28	.35	<.005	.002	.018
Jun 7			.004	.14	.20	.010	<.001	.021
Jun 7			.002	.14	.26	.010	<.001	.027
Jun 7			V.016	.16	.23	.010	<.001	.025
Jul 11		_	<.002	.18	.22	.008	.003	.026
Aug 8		_	.005	.30	.35	<.005	.003	.026
Sep 12	5.0	84	.003	.15	.16	<.005	.007	.016
Oct 11			.005	.11	.12	<.005	E.005	.014
Nov 15			.008	< 10	.12	.009	.009	.009
Dec 11			< 002	E 07	< 08	010	< 007	010
Ian 12, 2001	69	95	< 002	< 10	₹.00 F.06	015	₹.007 F.006	013
Feb 15	0.9	-	003	E 08	E.00 E 07	015	E.000	013
Mar 13		_	.003	68	80	.015	018	.015
Apr 11			.008	.00	.00	.007	.018 E 005	.070
May 10			.008	.12	.10	.000	£.003	.010
Jun 6			.002	.29	.55	<.005	<.007	.037
San 12			.008	.11	.14	<.003	<.007	.015
Sep 12 New 22			.007	.17	.21 E 10	.007	<.007	.011
NOV 22			<.015	<.10 E.07	E.10	<.013	<.007	.008
Dec 18	_	_	<.015	E.07	E.10	<.013	.008	.018
Mar 20, 2002	_	_	<.015	<.10	.11	<.013	.009	.019
Jun 4	Coliform		<.015	.28	.34	<.013	<.007	.024
Date	contorni, fecal, 0.7 UM-MF (cols./100 mL) (31625)	KF strp MF, water (col/100 mL) (31673)	lron, dissolved (µg/L as FE) (01046)	lron, total recoverable (μg/L as FE) (01045)	Manganese, dissolved (µg/L as MN) (01056)	Sediment, suspended (mg/L) (80154)	discharge, suspended (t/day) (80155)	
Apr 11 2000	k2	k8				1.0	0.01	
May 9	k16	88	58	340	72	17	17	
Iun 7	k253	132				14	4.6	
Jun 7	280	110				21	7.0	
Jun 7						13	43	
Jul 11	>600	350				5.0	20	
Aug 8	k50	k100				8.0	.20	
Sep 12	k670	263	66	200	16.4	< 5	< 01	
Oct 11	69	205 k18		200	10.1	5.0	09	
Nov 15	55	k10 k6	_	_	_	2.0	.09	
Dec 11	55 125	k0 1-4				2.0	4.2	
Lep 12, 2001	K.) 1/2	1-2	25	120	28.1	5.0	.05	
Jail 12, 2001	K2	K.5 1-2	23	150	20.1	2.5	<.01	
Feb 13	<1	KZ				1.0	.01	
Mar 13	K3	39			_	0.0	.15	
Apr 11	K1	KO			_	4.0	.00	
May 10	50	111				9.0	.53	
Jun 6	54	62				2.0	.13	
Sep 12						3.0	.08	
Nov 22	—					2.0	.05	
Dec 18	—	—				1.0	.01	
Mar 20, 2002			_			2.0	.01	
						4.0	.09	

Table 11. Site 10: Discharge, field measurements, and water-quality data for Green Creek above Campground, near Bridgeport, California.

(Back to table 1. Back to figure 1)

[NTU, nephelometric turbidity unit; mm, millimeter; mg/L, milligram per liter; µs/cm, microsiemens per centimeter; deg C, degrees Celsius; mL, milliliter; µg/L, microgram per liter; t/day, ton per day. —, no data. <, less than. E, Estimated]

Date	Time	Discharge, inst. (cubic feet per second) (00061)	Turbidity lab Hach 2100AN (NTU) (99872)	Barometric pressure (mm of HG) (00025)	Oxygen, dissolved (mg/L) (00300)	Oxygen, dissolved (percent saturation) (00301)	pH water whole field (standard units) (00400)	Specific conductance (µs/cm) (00095)	Temperature, water (deg C) (00010)
Jun 6, 2002	0850	119	0.5	570	9.3	105	7.4	43	8.0
Sep 23	1530	9.0	.5				7.7	57	13.0
Mar 10, 2003	1515	5.5	<1.0	565			7.1	63	3.0
Jun 5	1030	152	1.1	572	9.2	100	5.7	39	6.5
Date	Nitrogen, ammonia dissolved (mg/L as N) (00608)	Nitrogen, ammonia + organic dissolved (mg/L as N) (00623)	Nitrogen ammonia + organic total (mg/L as N) (00625)	Nitrogen, NO2+NO3 dissolved (mg/L as N) (00631)	Orthophos- phate, dissolved (mg/L as P) (00671)	Phosphorus total (mg/L as P) (00665)	Coliform, fecal, 0.7 UM-MF (cols/100 mL) (31625)	Sediment, suspended (mg/L) (80154)	Sediment, discharge, suspended (t/day) (80155)
Jun 6, 2002	< 0.015	< 0.10	E0.07	0.031	< 0.007	0.006	<1	4.0	1.3
Sep 23	<.015	<.10	E.07	<.013	<.007	<.004	—	2.0	.05
Mar 10, 2003	<.015	<.10	E.06	.022	<.007	E.003	_	1.0	.01
Jun 5	<.015	<.10	E.06	.038	<.007	.004	—	2.0	.82

Table 12. Site 11: Discharge, field measurements, and water-quality data for Green Creek near Bridgeport, California.

(Back to table 1. Back to figure 1)

[NTU, nephelometric turbidity unit; mm, millimeter; mg/L, milligram per liter; μ s/cm, microsiemens per centimeter; deg C, degrees Celsius; mL, milliliter; μ g/L, microgram per liter; t/day, ton per day. —, no data. <, less than. E, Estimated. V, Analyte detected in both the environmental sample and the associated blank(s). k, Counts outside acceptable range]

Date	Time	Discharge, inst. (cubic feet per second) (00061)	Turbidity (NTU) (00076)	Turbidity lab Hach 2001AN (NTU) (99872)	Barometric pressure (mm of HG) (00025)	Oxygen, dissolved (mg/L) (00300)	Oxygen, dissolved (percent saturation) (00301)	pH water whole field (standard units) (00400)	Specific conductance (µs/cm) (00095)	Temperature, water (deg C) (00010)
Jun 6, 2000	1530	125	0.40	_	593	8.3	99	7.1	41	12.0
Jul 12	1410	48	.60	_	605	8.3	106	7.5	44	16.0
Aug 9	1500	20	1.1	_	593	6.2	82		50	16.5
Sep 13	1520	8.3	<.50	—	595	7.6	95	7.1	58	14.0
Oct 10	1410	6.4	.30		584	8.4	93	7.4	65	8.0
Nov 13	1500	7.2	.26	1.0	588	11.0	97	7.6	77	0
Dec 12	1555	5.3	.27	1.0	587	10.6	94	7.9	75	0
Jan 10, 2001	1435	6.1	.50	.7	585	10.3	92	7.9	77	0
Feb 14	1550	10	.55	2.0	601	10.4	91	8.1	69	0
Mar 14	1450	7.2	.40	2.2		_	_	7.7	68	2.0
Apr 10	1830	19	2.8	.7	588	9.4	88	7.8	65	2.0
May 10	1515	89	1.7	5.3	593	7.1	80	7.8	38	9.5
Jun 6	1445	47		.7	596	6.5	79	7.8	36	13.0
Sep 11	1030	6.4		.6	594	8.1	98	7.6	60	12.5
Dec 19	1330	6.1		.3	589	9.4	85	7.6	82	.5
Mar 19, 2002	1325	8.1		1.6	598	11.7	104	7.8	71	.5
Jun 6	1020	113		1.4	595	8.8	102	7.5	46	11.0

Date	Hardness total (mg/L as CACO3) (00900)	Calcium, dissolved (mg/L as CA) (00915)	Magnesium, dissolved (mg/L as MG) (00925)	Potassium, dissolved (mg/L as K) (00935)	Sodium adsorption ratio (00931)	Sodium, dissolved (mg/L as NA) (00930)	Sodium percent (00932)	Chloride, dissolved (mg/L as CL) (00940)	Fluoride, dissolved (mg/L as F) (00950)	Silica, dissolved (mg/L as Sl02) (00955)
Jun 6, 2000	—				—	—				
Jul 12	—									—
Aug 9	—									—
Sep 13	21	7.46	0.458	0.72	0.2	1.86	16	E0.15	< 0.1	5.24
Oct 10	—				—	—				
Nov 13	_	_				_	_			
Dec 12	_	_				_	_			
Jan 10, 2001	29	10.4	.759	.88	.2	2.89	17	.40	<.2	8.64
Feb 14	_	_				_	_			
Mar 14	_		—		_	_				
Apr 10	_	_				_	_			
May 10	—				—	—				
Jun 6	_	_				_	_			
Sep 11	_	_				_	_			
Dec 19	_	_				_	_	_		
Mar 19, 2002	_			—	—	—	_		_	
Jun 6	_									

Table 12. Site 11: Discharge, field measurements, and water-quality data for Green Creek near Bridgeport, California.—Continued

[NTU, nephelometric turbidity unit; mm, millimeter; mg/L, milligram per liter; μ s/cm, microsiemens per centimeter; deg C, degrees Celsius; mL, milliliter; μ g/L, microgram per liter; t/day, ton per day. —, no data. <, less than. E, Estimated. V, Analyte detected in both the environmental sample and the associated blank(s). k, Counts outside acceptable range]

Date	Sulfate, dissolved (mg/L as S04) (00945)	Residue at 180 deg. C dissolved (mg/L) (70300)	Nitrogen, ammonia dissolved (mg/L as N) (00608)	Nitrogen, ammonia + organic dissolved (mg/L as N_ (00623)	Nitrogen, ammonia + organic total (mg/L as N) (00625)	Nitrogen, NO2+NO3 dissolved (mg/L as N) (00631)	Orthophos- phate, dissolved (mg/L as P) (00671)	Phosphorus total (mg/L as P) (00665)
Jun 6, 2000			0.004	< 0.10	E0.09	0.011	< 0.001	E0.004
Jul 12	_	_	<.002	<.10	<.10	.006	.001	E.004
Aug 9	_		.002	.15	.18	.023	.017	.034
Sep 13	12.2	40	.006	E.07	E.06	<.005	V.019	<.008
Oct 10			.003	<.10	.11	<.005	<.007	E.003
Nov 13	_	_	.002	<.10	E.06	.005	<.007	.004
Dec 12			<.002	E.07	E.06	.012	<.007	<.004
Jan 10, 2001	14.0	55	<.002	<.10	E.06	.015	<.007	E.002
Feb 14	_	_	.006	<.10	E.08	.038	<.007	E.003
Mar 14	_	_	.009	<.10	<.08	.015	<.007	E.003
Apr 10	_	_	.004	<.10	.10	.030	<.007	.004
May 10			<.002	E.06	.14	.006	<.007	.012
Jun 6	_	_	.006	<.10	.09	.007	<.007	.009
Sep 11			.003	E.05	E.06	.008	<.007	.004
Dec 19	_	_	<.015	<.10	E.06	E.009	<.007	E.002
Mar 19, 2002			<.015	<.10	.11	<.013	<.007	.004
Jun 6			<.015	<.10	E.08	<.013	<.007	.011
Date	Coliform, fecal, 0.7 UM-MF (cols./100 mL) (31625)	Fecal strep, KF strp MF, water (col/100 mL) (31673)	lron, dissolved (µg/L as FE) (01046)	lron, total recoverable (µg/L as FE) (01045)	Manganese, dissolved (µg/L as MN) (01056)	Sediment, suspended (mg/L) (80154)	Sediment, discharge, suspended (t/day) (80155)	
Jun 6, 2000	k2	29	_	_		5.0	1.7	
Jul 12	37	22	—	_		4.0	.52	
Aug 9	k2	k4	—	_		1.0	.06	
Sep 13	k1	k10	33	60	3.1	2.0	.04	
Oct 10	k4	k8	—					
Nov 13	k1	28	—	_		8.0	.15	
Dec 12	<1	k2	—	_		1.0	.01	
Jan 10, 2001	<1	k4	13	50	E2.0	1.0	.02	
Feb 14	<1	k1				2.0	.06	
Mar 14	<1	k11				<.5	<.01	
Apr 10	<1	64				2.0	.10	
May 10	k2	k8				8.0	1.9	
Jun 6	k2	k5	—			2.0	.25	
Sep 11						3.0	.05	
Dec 19			—			1.0	.02	
Mar 19, 2002			—			2.0	.04	

9.0

2.7

Jun 6

Table 13. Site 12: Discharge, field measurements, and water-quality data for Virginia Creek at Conway Summit, near Lee Vining, California.

(Back to table 1. Back to figure 1)

[NTU, nephelometric turbidity unit; mm, millimeter; µs/cm, microsiemens per centimeter; deg C, degrees Celsius; mg/L, milligram per liter; mL, milliliter; t/day, ton per day. —, no data. <, less than. E, Estimated]

Date	Time	Discharge, inst. (cubic feet per second) (00061)	Turbidity lab Hach 2100AN (NTU) (99872)	Barometric pressure (mm of HG) (00025)	pH water whole field (standard units) (00400)	Specific conductance (µs/cm) (00095)	Temperature, water (deg C) (00010)	Nitrogen, ammonia dissolved (mg/L as N) (00608)
Jun 5, 2002	1630	21	1.6	565	7.8	63	16.0	< 0.015
Sep 23	1720	2.3	1.1		7.7	56	10.0	<.015
Mar 10, 2003	1740	1.9	<1.0	558	7.6	56	1.0	<.015
Jun 4	1430	42	2.0	564	6.5	56	13.5	<.015
Date	Nitrogen, ammonia + organic dissolved (mg/L as N) (00623)	Nitrogen ammonia + organic total (mg/L as N) (00625)	Nitrogen, NO2+NO3 dissolved (mg/L as N) (00631)	Orthophos- phate, dissolved (mg/L as P) (00671)	Phosphorus total (mg/L as P) (00665)	Coliform, fecal, 0.7 UM-MF (cols/100 mL) (31625)	Sediment, suspended (mg/L) (80154)	Sediment, discharge, suspended (t/day) (80155)
Jun 5, 2002	E0.06	0.12	E0.010	< 0.007	0.013	<1	6.0	0.34
Sep 23	<.10	E.09	E.010	<.007	.008		4.0	.02
Mar 10, 2003	<.10	<.10	.073	E.004	.007		1.0	<.01
Jun 4	E.06	.15	E.015	<.007	.017		12	1.4

Table 14. Site 13: Discharge, field measurements, and water-quality data for Virginia Creek near Bridgeport, California.

(Back to table 1. Back to figure 1)

[NTU, nephelometric turbidity unit; mm, millimeter; mg/L, milligram per liter; µs/cm, microsiemens per centimeter; deg C, degrees Celsius; mL, milliliter; µg/L, microgram per liter; t/day, ton per day. —, no data. <, less than. E, Estimated. k, Counts outside acceptable range. >, greater than]

Date	Time	Discharge, inst. (cubic feet per second) (00061)	Turbidity (NTU) (00076)	Turbidity lab Hach 2001AN (NTU) (99872)	Barometric pressure (mm of HG) (00025)	Oxygen, dissolved (mg/L) (00300)	Oxygen, dissolved (percent saturation) (00301)	pH water whole field (standard units) (00400)	Specific conductance (µs/cm) (00095)	Temperature, water (deg C) (00010)
Apr 12, 2000	1515	20			605	8.6	99	8.3	103	11.0
May 10	1240	23	0.90	_	595	8.6	98	8.0	87	10.0
Jun 5	1625	30	3.2	_	597	7.2	98	7.9	75	18.0
Jul 12	1500	7.7	.80	_	605	7.5	107	8.2	94	21.0
Aug 9	1550	5.3	.60		597	5.7	82		99	21.0
Sep 13	1625	7.2	.50		597	7.6	99	7.9	108	16.0
Oct 10	1525	5.2	1.1	_	587	8.4	97	8.0	131	10.0
Nov 13	1600	9.5	.90	1.9	591	10.9	98	7.8	106	.5
Dec 13	1440	15	2.0	3.1	592	10.4	91	8.0	103	0
Jan 10, 2001	1530	8.4	2.3	2.0	588	10.8	97	8.0	127	.5
Feb 15	1500	14	2.0	5.5	606	9.2	81	8.2	108	.5
Mar 12	1345	12	1.8	2.6	597	8.9	87	8.2	124	4.0
Apr 11	1535	17	3.5	2.1	589	8.6	94	8.1	118	8.0
May 10	1620	29	3.9	7.7	596	6.5	85	7.9	86	16.5
Jun 6	1530	12		1.9	599	6.6	91	8.3	83	19.0
Sep 11	1135	5.9	_	2.3	597	7.9	94	8.0	106	12.0
Dec 19	1440	12		2.0	592	10.1	90	7.9	102	.5
Dec 191	1500			2.2			_	_	_	_
Mar 19, 2002	1515	13		7.3	599	10.7	105	8.0	103	4.5
Jun 6	1130	25		6.1	601	8.5	104	8.0	88	13.5

Date	Hardness total (mg/L as CACO3) (00900)	Calcium, dissolved (mg/L as CA) (00915)	Magnesium, dissolved (mg/L as MG) (00925)	Potassium, dissolved (mg/L as K) (00935)	Sodium adsorption ratio (00931)	Sodium, dissolved (mg/L as NA) (00930)	Sodium percent (00932)	Chloride, dissolved mg/L as CL (00940)	Fluoride, dissolved mg/L as F (00950)	Silica, dissolved (mg/L as SI02) (00955)
Apr 12, 2000			_	_		_	_	_		_
May 10	31	9.95	1.58	1.61	0.4	5.09	25	0.99	< 0.1	17.0
Jun 5			_	_	_	_	—			—
Jul 12				—		—				—
Aug 9				—		—				—
Sep 13	37	11.6	1.90	1.58	.5	6.60	27	.90	<.1	19.1
Oct 10						—	—			
Nov 13			—			—				—
Dec 13	_	_	_	—	_	_	—		_	_
Jan 10, 2001	41	12.2	2.42	1.87	.6	8.43	30	1.59	<.2	22.0
Feb 15						_	_			
Mar 12						—	—			
Apr 11						—	—			
May 10				—		—				—
Jun 6				—		—				—
Sep 11						—	—			
Dec 19		_				—	_	—		
Dec 191				—		—				—
Mar 19, 2002			_	_	_	_	—			—
Jun 6				—		—				—

Table 14. Site 13: Discharge, field measurements, and water-quality data for Virginia Creek near Bridgeport, California.—Continued

[NTU, nephelometric turbidity unit; mm, millimeter; mg/L, milligram per liter; µs/cm, microsiemens per centimeter; deg C, degrees Celsius; mL, milliliter; µg/L, microgram per liter; t/day, ton per day. —, no data. <, less than. E, Estimated. k, Counts outside acceptable range. >, greater than]

Date	Sulfate, dissolved (mg/L as S04) (00945)	Solids residue at 180 deg. C dissolved (mg/L) (70300)	Nitrogen, ammonia dissolved (mg/L as N) (00608)	Nitrogen, ammonia + organic dissolved (mg/L as N) (00623)	Nitrogen, ammonia + organic total (mg/L as N) (00625)	Nitrogen, NO2+NO3 dissolved (mg/L as N) (00631)	Orthophos- phate, dissolved (mg/L as P) (00671)	Phosphorus total (mg/L as P) (00665)
Apr 12, 2000			0.004	0.17	0.27	0.007	0.013	0.033
May 10	8.2	70	.004	.17	.38	.010	.014	.025
Jun 5			<.002	E.08	.25	.015	.006	.045
Jul 12			<.002	.16	.21	.018	.016	.032
Aug 9			<.002	E.09	.10	<.005	<.001	E.004
Sep 13	6.1	83	.004	E.10	.12	<.005	.004	.032
Oct 10			.007	.11	.22	.020	.024	.051
Nov 13			.003	.12	.20	.014	.018	.036
Dec 13		_	<.002	E.10	.20	<.005	<.007	.038
Jan 10, 2001	8.9	94	.007	E.08	.13	.016	.020	.030
Feb 15		_	.003	.14	.20	.037	.011	.039
Mar 12			<.002	.24	.17	.007	.014	.032
Apr 11			.008	.21	.20	.008	.013	.032
May 10		_	.002	.19	.28	.009	.010	.044
Jun 6			.008	E.08	.13	.014	.017	.037
Sep 11			.002	E.10	.11	.023	.018	.034
Dec 19			<.015	E.09	.15	.023	.009	.030
Dec 191			<.015	E.08	.13	.021	.010	.028
Mar 19, 2002			<.015	E.07	.18	.015	.011	.043
Jun 6		_	<.015	.12	.27	.013	.009	.044
Date	Coliform, fecal, 0.7 UM-MF (cols./100 mL) (31625)	Fecal strep, KF strp MF, water (col/100 mL) (31673)	lron, dissolved (µg/L as FE) (01046)	lron, total recoverable (µg/L as FE) (01045)	Manganese, dissolved (µg/L as MN) (01056)	Sediment, suspended (mg/L) (80154)	Sediment, discharge, suspended (t/day) (80155)	
Apr 12, 2000	k2	k7			_	9.0	0.48	
May 10	k1	25	125	580	16.0	12	.75	
Jun 5	k11	110			_	23	1.9	
Jul 12	50	>100			_	7.0	.14	
Aug 9	k23	68			_	6.0	.09	
Sep 13	k20	62	229	400	13.3	3.0	.06	
Oct 10	k10	59			_	5.0	.07	
Nov 13	k8	114			_	8.0	.21	
Dec 13	k2	39				12	.47	
Jan 10, 2001	k64	k6	105	350	23.0	6.0	.14	
Feb 15	k2	21			_	15	.58	
Mar 12	k2	k13			_	7.0	.22	
Apr 11	k1	k5			_	9.0	.42	
May 10	k4	28				14	1.1	
Jun 6	k7	67			_	7.0	.23	
Sep 11				_	_	4.0	.06	
Dec 19						()	20	
D 101						6.0	.20	
Dec 19 ¹				_	_	6.0	.20	
Dec 19 ⁴ Mar 19, 2002	_					20	.20	

¹Replicate sample.

Table 15. Site 14: Discharge, field measurements, and water-quality data for East Walker River at Bridgeport, California.

(Back to table 1. Back to figure 1)

[NTU, nephelometric turbidity unit; mm, millimeter; mg/L, milligram per liter; µs/cm, microsiemens per centimeter; deg C, degrees Celsius; mL, milliliter; µg/L, microgram per liter; t/day, ton per day. —, no data. <, less than. E, Estimated. k, Counts outside acceptable range]

Date	Time	Discharge, inst. (cubic feet per second) (00061)	Turbidity (NTU) (00076)	Turbidity lab Hach 2001AN (NTU) (99872)	Barometric pressure (mm of HG) (00025)	Oxygen, dissolved (mg/L) (00300)	Oxygen, dissolved (percent saturation) (00301)	pH water whole field (standard units) (00400)	Specific conductance (µs/cm) (00095)	Temperature, water (deg C) (00010)
Apr 12, 2000	1725	34			605	9.4	113	8.2	197	13.0
May 10	1620	71	0.50	—	595	8.5	108	8.5	166	14.5
Jun 7	0825	143	2.1		600	8.2	100	7.8	135	13.5
Jun 7	1522	143	1.8	_	600	7.5	103	7.7	126	19.0
Jun 7	2005	152	2.5		597	5.7	80	7.4	121	19.5
Jul 11	1345	43	1.6	_	605	7.2	101	8.3	148	20.5
Aug 8	1445	28	2.3	—	603	9.1	129	8.4	197	21.0
Sep 12	1440	17	.60		605	9.2	121	7.6	187	17.0
Oct 11	1620	30	.81		597	9.1	100	7.6	145	8.5
Nov 13	1120	36	.80	7.2	598	11.4	101	7.2	148	.5
Dec 11	1620	32	.50	1.0	598	10.4	93	8.4	185	1.0
Jan 11, 2001	1340	40	14	9.6	591	9.8	87	8.0	145	0
Feb 13	1455	31	2.4	5.4	608	10.5	90	8.0	167	0
Mar 12	1445	49	3.5	6.1	603	9.1	94	8.5	405	6.5
Apr 10	1510	52	3.4	5.0	597	8.6	96	8.3	361	9.5
May 9	1740	36	4.1	9.1	602	6.7	93	8.4	156	19.5
Jun 5	0925	69		6.5	599	7.3	85	7.6	144	11.0
Sep 10	1650	16		3.0	605	9.7	126	8.8	137	16.5
Sep 10 ¹	1655	16		3.1		_	_			_
Nov 22	1345	29		5.3					141	7.5
Dec 21	1120	32		2.3	598	10.7	94	8.1	174	0
Mar 20, 2002	1120	30		4.1	607	11.8	112	8.0	163	3.5
Jun 6	1550	74		5.3	604	9.7	139	8.3	163	21.5

Date	Hardness total (mg/L as CACO3) (00900)	Calcium, dissolved (mg/L as CA) (00915)	Magnesium, dissolved (mg/L as MG) (00925)	Potassium, dissolved (mg/L as K) (00935)	Sodium adsorption ratio (00931)	dissolved (mg/L as NA) (00930)	Sodium percent (00932)	Chloride, dissolved (mg/L as CL) (00940)	Fluoride, dissolved (mg/L as F) (00950)	dissolved (mg/L as SI02) (00955)
Apr 12, 2000	_	—		—	—	—	_	_		
May 10	61	18.0	3.80	2.70	0.6	10.2	26	1.03	0.2	21.6
Jun 7	_			_	_	_	—			
Jun 7	_	—		—	—	—	_	_		
Jun 7	_			_	_	_	—			
Jul 11	_			_	_	_	—			
Aug 8	_	—		—	—	—	_	_		
Sep 12	66	19.8	3.99	2.85	.6	11.0	26	1.45	.2	24.3
Oct 11	_	—		—	—	—	_	_		
Nov 13	_			_	_	_	—			
Dec 11	_	—		—	—	—	_	_		
Jan 11, 2001	54	16.2	3.33	2.03	.5	8.76	25	1.49	E.1	21.2
Feb 13	_			_	_	_	—			
Mar 12	_						_			
Apr 10	_			_	_	_	—			
May 9	_	—		—	—	—	_	_		
Jun 5	_						_			
Sep 10	_	—		—	—	—		_		
Sep 10 ¹	_			_	_	_	—			
Nov 22	_			_	_	_	—			
Dec 21				_	_	_	_			
Mar 20, 2002	_			_	_	_	_			
Jun 6	_	_	_	_	_	_				

Table 15. Site 14: Discharge, field measurements, and water-quality data for East Walker River at Bridgeport, California.—Continued

[NTU, nephelometric turbidity unit; mm, millimeter; mg/L, milligram per liter; µs/cm, microsiemens per centimeter; deg C, degrees Celsius; mL, milliliter; µg/L, microgram per liter; t/day, ton per day. —, no data. <, less than. E, Estimated. k, Counts outside acceptable range]

Date	Sulfate, dissolved (mg/L as S04) (00945)	Solids residue at 180 deg. C dissolved (mg/L) (70300)	Nitrogen, ammonia dissolved (mg/L as N) (00608)	Nitrogen, ammonia + organic dissolved (mg/L as N) (00623)	Nitrogen, ammonia + organic total (mg/L as N) (00625)	Nitrogen, NO2+NO3 dissolved (mg/L as N) (00631)	Ortho- phosphate, dissolved (mg/L as P) (00671)	Phosphorus total (mg/L as P) (00665)
Apr 12, 2000	_		< 0.002	0.42	0.52	< 0.005	0.023	0.051
May 10	11.1	137	.012	.62	.60	<.005	.019	.042
Jun 7			.005	.49	.47	.008	.006	.041
Jun 7			.007	.49	.52	.009	.007	.041
Jun 7		_	.011	.54	.50	.010	.008	.046
Jul 11		_	.003	.41	.37	<.005	.016	.042
Aug 8		_	<.002	.45	.52	<.005	.016	.042
Sep 12	10.6	132	.011	.24	.27	<.005	.013	.030
Oct 11			.008	E.07	.19	.116	.033	.069
Nov 13			017	E 09	13	005	008	016
Dec 11			<.002	.15	.11	.005	E.004	.013
Jan 11, 2001	11.8	109	<.002	E.08	.30	.011	.012	.048
Feb 13			.005	.12	.20	.022	.009	.032
Mar 12			.003	.51	.57	<.005	.036	.088
Apr 10		_	.012	.32	.49	.006	.024	.055
May 9			.003	.42	.48	<.005	.018	.054
Jun 5			.007	.35	.37	<.005	E.005	.034
Sep 10			.005	.12	.13	.008	.016	.025
Sep 10 ¹			_	_	.17	_	_	.027
Nov 22			<.015	.15	.23	<.013	.010	.032
Dec 21			<.015	.14	.16	.036	.008	.021
Mar 20, 2002	_	_	<.015	E.10	.15	<.013	.009	.021
Jun 6			E.014	.80	.83	<.013	.022	.075
Date	Coliform, fecal, 0.7 UM-MF (cols./100 mL) (31625)	Fecal strep, KF strp MF, water (col/100 mL) (31673)	lron, dissolved (µg/L as FE) (01046)	lron, total recoverable (µg/L as FE) (01045)	Manganese, dissolved (µg/L as MN) (01056)	Sediment, suspended (mg/L) (80154)	Sediment, discharge, suspended (t/day) (80155)	
Apr 12, 2000	k3	34				7.0	0.65	
May 10	82	196	116	400	44.5	12	2.3	
Jun 7	k355	300	_	_	_	9.0	3.5	
Jun 7	k268	250				9.0	3.5	
Iun 7	270	293	_		_	12	4.9	
Jul 11	167	76	_		_	5.0	.59	
	132	54		_	_	3.0	22	
Sep 12	93	k22	75	240	25.4	3.0	.22	
Oct 11	210	58	15	240	23.4	7.0	56	
Nev 12	210 1×10	1-22				5.0	.50	
Dec 11	k10 k4	K32				5.0	.40	
Jan 11 2001	k3	k15	50	900	62.3	25	27	
Feb 13	k2	k12	50			15	1.3	
Mar 12	k2	60	_		_	18	2.4	
Apr 10	k8	51		_	_	9.0	1.3	
May 9	63	62		_	_	9.0	.87	
Jun ⁵	170	287		_	—	5.0	.94	
Sep 10	_	_	_	_	_	3.0	.13	
Sep 10 ¹	_	_			_			
Nov 22		—	_	—	—	6.0	.46	
Dec 21			—	—	—	6.0	.51	
Mar 20, 2002		_	_	_	_	4.0	.32	

12

2.4

¹Replicate sample.

Jun 6

Table 16. Site 15: Discharge, field measurements, and water-quality data for East Walker River near Bridgeport, California. (*Back to table 1. Back to figure 1*)

[NTU, nephelometric turbidity unit; mm, millimeter; mg/L, milligram per liter; µs/cm, microsiemens per centimeter; deg C, degrees Celsius; mL, milliliter; µg/L, microgram per liter; t/day, ton per day. —, no data. <, less than. E, Estimated. k, Counts outside acceptable range]

Date	Time	Discharge, inst. (cubic feet per second) (00061)	Turbidity (NTU) (00076)	Turbidity lab Hach 2001AN (NTU) (99872)	Barometric pressure (mm of HG) (00025)	Oxygen, dissolved (mg/L) (00300)	Oxygen, dissolved (percent saturation) (00301)	pH water whole field (standard units) (00400)	Specific conductance (µs/cm) (00095)	Temperature, water (deg C) (00010)
Apr 12, 2000	1840	136	_		605	8.3	100	8.3	216	13.0
May 10	1450	154	2.8	_	595	8.1	101	8.5	214	14.0
Jun 7	1145	208	1.6		600	7.7	102	8.3	193	17.0
Jul 11	1510	274	1.6		605	5.7	78	8.3	161	19.0
Aug 8	1600	244	1.4		604	6.2	87	8.8	161	20.5
Sep 12	1610	228	1.5		605	6.7	85	8.3	175	15.5
Oct 11	1450	70	5.5		597	7.1	86	7.1	171	13.0
Nov 13	1320	19	5.2	10	598	10.0	97	79	171	4.0
Dec 12	1420	26	3.0	3.8	596	94	91	9.0	186	3.5
Ian 11 2001	1610	15	43	5.0	593	93	91	8.2	187	4.0
Feb 13	1620	22	2.0	3.6	609	8.9	86	7.9	209	4.5
Mar 12	1620	16	2.0	3.0	604	70	78	7.9	240	4 .5
Apr 10	1410	75	2.8	5.5	507	7.9 Q 1	78	7.0 9.1	240	5.0
Apr 10 May 0	1410	212	4.5	1.0	597	6.1 6.0	00 84	0.1	228	0.0 12.5
Iviay 9	1550	129	1.4	2.9	602	0.9	04	0.4	169	13.3
Jun 5 See 11	1530	138		5.0	602	7.0	93	8.1	108	17.0
Sep 11	1550	39	_	9.8	601 500	J./	/0	8.8	108	17.5
Dec 21	1215	22	_	4.6	599	8.1	/8	8.3	216	4.0
Mar 20, 2002	0945	49		3.9	606	10.6	103	8.1	199	4.5
Jun 3	1400	230		2.9	608	7.7	100	8.5	209	17.0
Date	Hardness total (mg/L as CACO3) (00900)	Calcium, dissolved (mg/L as CA) (00915)	Magnesium, dissolved (mg/L as MG) (00925)	Potassium, dissolved (mg/L as K) (00935)	Sodium adsorption ratio (00931)	Sodium, dissolved (mg/L as NA) (00930)	Sodium percent (00932)	Chloride, dissolved (mg/L as CL) (00940)	Fluoride, dissolved (mg/L as F) (00950)	Silica, dissolved (mg/L as Sl02) (00955)
Apr 12, 2000										
May 10	64	18.5	4.33	3.50	1	19.1	38	3.73	0.3	15.5
Jun 7		_								
Jul 11		_			_		_	_		
Aug 8						_				
Sep 12	56	16.4	3.70	2.96	.8	13.4	33	1.86	.3	12.5
Oct 11	_									
Nov 13										
Dec 12								_		_
Ian 11, 2001	65	10.1	4 10	2.28	7	13.5	30	2 23	2	8 78
Feb 13				2.20	.,	15.5			.2	0.70
Mar 12										
Apr 10										
May 9										
Jun 5										
Son 11										
Dec 21										
Mar 20, 2002	_			_	_	_	_	_	—	—
Jun 3					_		_	_	_	—

Table 16. Site 15: Discharge, field measurements, and water-quality data for East Walker River near Bridgeport, California.—Continued

[NTU, nephelometric turbidity unit; mm, millimeter; mg/L, milligram per liter; µs/cm, microsiemens per centimeter; deg C, degrees Celsius; mL, milliliter; µg/L, microgram per liter; t/day, ton per day. —, no data. <, less than. E, Estimated. k, Counts outside acceptable range]

ophos- late, Phosphorus solved total L as P) (00665)
004 0.031
.038
036 .073
.140
.180
.145
.153
.052
010 .030
.035
011 .039
023 062
007 024
009 028
010 045
219 26
013 035
015 .055
015 053
iment, harge, jended (day)
1
.0
).1
1
./1
.00
.30
.21
.01
1 2
2.3
2.3 2.6
2.3 2.6 .80
2.3 2.6 .80 .24

Table 17. Quality-assurance data for field blanks collected in conjunction with water-quality samples in Bridgeport Valley, California. (*Back to table 1. Back to figure 1*)

[mg/L, milligram per liter; µg/L, microgram per liter. —, no data. <, less than]

Date	Time	Calcium dissolved (mg/L as CA) (00915)	Magnesium, dissolved (mg/L as MG) (00925)	Sodium, dissolved (mg/L as NA) (00930	Silica, dissolved (mg/L as SIO2) (00955)	Nitrogen, ammonia dissolved (mg/L as N) (00608)	Nitrogen, ammonia + organic dissolved (mg/L as N) (00623)	Nitrogen, ammonia + organic total (mg/L as N) (00625)	Nitrogen, NO2+NO3 dissolved (mg/L as N) (00631)	Nitrogen, nitrate dissolved (mg/L as N) (00613)
April 13, 2000	1400					< 0.002			< 0.005	< 0.001
May 12	1200	< 0.002	< 0.001	< 0.03	< 0.02	<.002	—		<.005	<.001
Jun 8	1300	—		—		.038	—		.008	.001
Jul 12	1700	—		—		.01	—		<.005	.001
Aug 9	1200					.002	—		<.005	<.001
Sep 14	1145	.013	<.001	<.03	<.02	.014	—		.148	.002
Nov 16	1600	—		—		.006	—		<.005	<.001
Dec 13	1520					<.002	—		.004	<.002
Jan 12, 2001	1330	.005	<.001	<.03	<.02	<.002	—		<.005	.001
Feb 16	0945	_	_			.002	—		<.005	.001
Mar 14	1115					.006	—		<.005	<.001
Apr 12	1400					.003	—		<.005	<.001
May 14	1450					.002	—		<.005	<.001
Jun 7	1135					.007	—		<.005	<.001
Sep 13	1000					.004	—		.007	<.001
Jun 6, 2002	1715					<.015	<.10	<.10	<.013	
Date	Orthophos- phate, dissolved (mg/L as P) (00671)	Phosphorus total (mg/L as P) (00665)	Aluminum, dissolved (µg/L as AL) (01106)	Antimony, dissolved (µg/L as SB) (01095)	Barium, dissolved (µg/L as BA) (01005)	Beryllium, dissolved (µg/L as BE) (01010)	Boron, dissolved (µg/L as B) (01020)	Cadmium, dissolved (µg/L as CD) (01025)	Chromium, dissolved (µg/L as CR) (01030)	Copper, dissolved (µg/L as CU) (01040)
April 13, 2000	0.001									
May 12	<.001	_	4.2	< 0.2	< 0.2	< 0.2	<2	< 0.3	< 0.2	< 0.2
Jun 8	<.001	_	_					_		_
Jul 12	.001	_	_					_	_	_
Aug 9	.001	_	_					_		_
Sep 14	.044	_	<.3	<.2	<.2	<.2	<2	<.3	<.2	.2
Nov 16	<.007	_	_							
Dec 13	<.007	_	_							
Jan 12, 2001	<.007	_	<.3	<.2	<.2	<.2	<2	<.3	<.2	<.2
Feb 16	<.007	_	_					_	_	_
Mar 14	<.007			_		_	_	_	_	_
Apr 12	<.007					_	_	_	_	_
May 14	<.007			_				_	_	_
Jup 7										
Juli /	<.007			_		_			_	
Sep 13	<.007 <.007		_				_	_		_

 Table 17. Quality-assurance data for field blanks collected in conjunction with water-quality samples in Bridgeport Valley, California.

 Continued

Date	lron, dissolved (µg/L as FE) (01046)	Lead, dissolved (µg/L as PB) (01049)	Manganese, dissolved (µg/L as MN) (01056)	Molybde- num, dissolved (µg/L as MO) (01060)	Nickel, dissolved (µg/L as NI) (01065)	Silver, dissolved (µg/L as AG) (01075)	Strontium, dissolved (µg/L as SR) (01080)	Thallium, dissolved (µg/L as TL) (01057)	Zinc, dissolved (µg/L as ZN) (01090)	Uranium natural dissolved (µg/L as U) (22703)
April 13, 2000				—	—	—				—
May 12	<3	< 0.3	< 0.1	< 0.2	< 0.5	< 0.2	< 0.1	< 0.1	2.1	< 0.2
Jun 8			—		—	_				
Jul 12					—					
Aug 9					—	—				
Sep 14	<3	<.3	<.1	<.2	<.5	<.2	<.1	<.1	<.5	<.2
Nov 16					—		_			
Dec 13			—	—	—					
Jan 12, 2001	<3	<.3	<.1	<.2	<.5	<.2	<.1	<.1	<.5	<.2
Feb 16				_	_	_			_	_
Mar 14				_	_	_			_	_
Apr 12				_	_	_			_	_
May 14			_		_	_	_			_
Jun 7				_	_	_			_	_
Sep 13		_				_	_		_	_
Jun 6, 2002								—		

[mg/L, milligram per liter; µg/L, microgram per liter. —, no data. <, less than]



1879–2004

