Water-Data Report 2013

11262900 Mud Slough near Gustine, CA

San Joaquin River Basin

LOCATION.--Lat 37°15′45″, long 120°54′20″ referenced to North American Datum of 1927, in SE ¼ SE ¼ sec.6, T.8 S., R.10 E., Merced County, CA, Hydrologic Unit 18040001, in Kesterson National Wildlife Refuge, on right bank at footbridge, 400 ft northwest of terminus of San Luis Drain, and 5.2 mi east of Gustine.

DRAINAGE AREA.--Indeterminate.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1985 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 70 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good. During major storm events record can be affected by backwater from the San Joaquin River. Discharge is affected by irrigation return and drainage from Kesterson Wildlife Refuge.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,060 ft^3/s, Feb. 8, 1998, gage height, 11.11 ft, maximum gage height, 12.03 ft, Jan. 28, 1997; minimum daily, 0.01 ft^3/s, Sept. 24, 1991.

11262900 Mud Slough near Gustine, CA—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	41	116	167	156	90	145	80	33	59	53	23	19
2	44	99	198	145	86	147	76	31	55	38	21	14
3	44	99	213	141	90	155	74	30	58	29	19	13
4	43	98	230	128	92	172	93	39	68	31	15	17
5	49	97	228	120	90	182	85	39	51	34	11	16
6	49	94	227	157	90	180	83	41	41	31	11	17
7	53	95	213	187	87	182	69	52	39	30	19	14
8	72	96	199	206	89	191	56	50	44	31	23	13
9	81	98	181	195	90	187	65	51	40	30	22	22
10	73	99	170	170	92	179	71	60	35	25	17	26
11	64	99	162	160	101	166	59	60	38	20	12	24
12	77	95	164	156	93	179	63	49	41	20	11	20
13	93	92	156	150	84	193	51	47	36	25	13	20
14	96	90	142	139	85	198	42	50	32	25	13	19
15	87	88	140	128	88	198	37	49	35	20	14	20
16	94	89	137	113	87	192	39	53	32	21	13	26
17	113	98	130	102	85	196	42	56	24	26	16	21
18	127	104	139	96	87	197	41	52	21	34	21	26
19	122	116	139	91	103	183	38	47	18	33	13	23
20	108	116	130	92	112	165	34	52	16	25	14	26
21	94	107	116	88	118	139	33	52	21	25	18	31
22	97	110	118	86	120	121	33	39	29	26	15	28
23	99	121	133	98	119	107	31	39	31	30	17	33
24	93	124	175	100	115	85	33	44	29	33	23	35
25	88	116	182	103	133	75	29	37	29	33	18	32
26	85	114	198	100	130	86	36	33	33	42	11	30
27	85	113	208	106	131	83	28	32	42	33	15	34
28	88	121	206	106	131	82	28	34	43	31	14	40
29	84	126	198	103	---	70	30	32	44	37	14	46
30	83	141	185	101	---	64	32	31	48	38	14	50
31	87	---	171	105	---	65	---	35	---	32	18	---
Total	2,513	3,171	5,355	3,928	2,818	4,564	1,511	1,349	1,132	941	498	755
Mean	81.1	106	173	127	101	147	50.4	43.5	37.7	30.4	16.1	25.2
Max	127	141	230	206	133	198	93	60	68	53	23	50
Min	41	88	116	86	84	64	28	30	16	20	11	13
Ac-ft	4,980	6,290	10,620	7,790	5,590	9,050	3,000	2,680	2,250	1,870	988	1,500

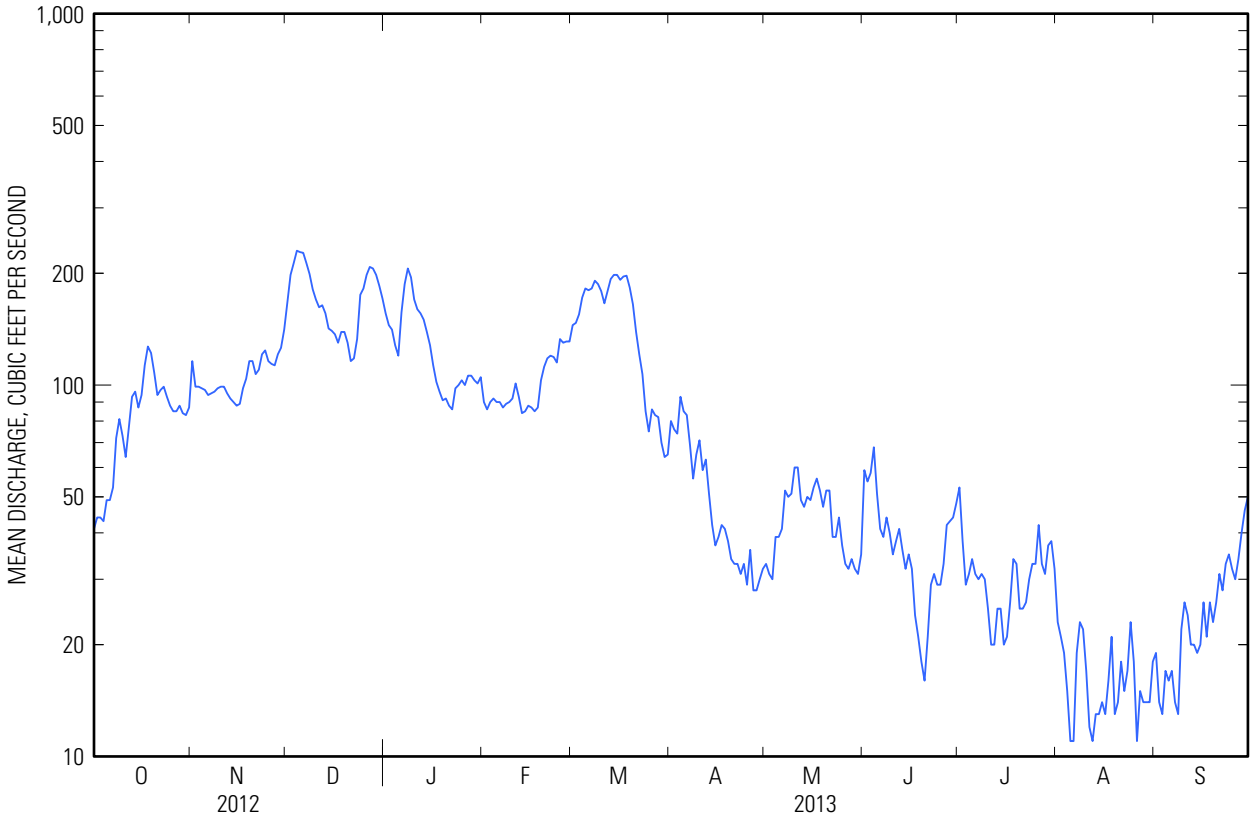
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 2013, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	92.8	108	124	162	191	183	82.5	56.5	54.4	47.8	42.1	34.6
Max	189	201	305	545	958	563	229	123	130	114	100	105
(WY)	(1999)	(2007)	(1997)	(1997)	(1998)	(1998)	(1986)	(1998)	(1986)	(1998)	(1987)	(1998)
Min	3.35	7.53	5.86	6.17	6.96	28.0	19.2	1.76	3.79	7.42	3.36	2.67
(WY)	(1993)	(1991)	(1991)	(1991)	(1991)	(1990)	(1992)	(1992)	(1994)	(1994)	(1994)	(1990)

11262900 Mud Slough near Gustine, CA—Continued

SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1986 - 2013	
Annual total	29,232		28,535			
Annual mean	79.9		78.2		97.8	
Highest annual mean					252	1998
Lowest annual mean					17.6	1991
Highest daily mean	230	Dec 4	230	Dec 4	1,060	Feb 9, 1998
Lowest daily mean	18	May 5	11	Aug 5	0.01	Sep 24, 1991
Annual seven-day minimum	21	Sep 8	13	Aug 11	0.12	Sep 23, 1992
Maximum peak flow			234	Dec 5	1,060	Feb 8, 1998
Maximum peak stage			7.09	Dec 5	12.03	Jan 28, 1997
Annual runoff (ac-ft)	57,980		56,600		70,870	
10 percent exceeds	144		168		198	
50 percent exceeds	64		65		70	
90 percent exceeds	28		20		9.4	



11262900 Mud Slough near Gustine, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1985 to current year.
CHEMICAL DATA: Water years 1985-88, 1993-94, 1999, 2001-02.
SEDIMENT DATA: Water years 1985-88, 1993-94, 1999, 2001-02.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1985 to current year.
WATER TEMPERATURE: November 1985 to current year.

INSTRUMENTATION.--Multi-parameter water-quality sonde, equipped with water temperature and specific conductance sensors, since November 1985.

REMARKS.--Data for the period October 1985 to March 1987 are available in U.S. Geological Survey Open-File Report 88-479. Data for the period April 1987 to September 1988 are available in U.S. Geological Survey Open-File Report 91-74. Maximum and minimum values are affected by the drainage of holding ponds located immediately upstream and the terminus of San Luis Drain 400 ft upstream from the station.
Specific conductance records rated excellent except for Oct. 1 to Oct. 16, Jan. 28 to Feb. 5, Feb. 23 to Mar. 28, Apr. 25 to May 8, May 21 to June 17, June 28 to Aug. 6, which are rated good.
Water-temperature records rated excellent.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum recorded, 15,900 microsiemens, Feb. 25, 1991; minimum recorded, 470 microsiemens, Oct. 15, 1986.
WATER TEMPERATURE: Maximum recorded, 34.5°C, July 22, 1988, Aug. 6, 1990, July 2, 25, Aug. 13, 1996, July 23, 24, 2006; minimum recorded, 2.5°C, Jan. 17, 1987, Dec. 24, 1990.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum recorded, 9,020 microsiemens, Aug 12; minimum recorded, 1,280 microsiemens, Oct. 17, 18.
WATER TEMPERATURE: Maximum recorded, 32.7°C, July 4; minimum recorded, 5.3°C, Jan. 14, 15.

11262900 Mud Slough near Gustine, CA—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Day	Max	Min	Median	Max	Min	Median	Max	Min	Median	Max	Min	Median
		October			November			December			January	
1	2,030	1,920	1,960	1,680	1,360	1,590	1,660	1,560	1,580	2,200	2,150	2,160
2	2,030	1,800	1,970	1,690	1,650	1,680	1,680	1,610	1,660	2,210	2,140	2,190
3	1,810	1,680	1,750	1,660	1,630	1,650	1,670	1,630	1,660	2,140	2,070	2,110
4	1,740	1,560	1,600	1,660	1,640	1,640	1,760	1,630	1,660	2,240	2,070	2,200
5	1,580	1,490	1,540	1,640	1,600	1,620	1,870	1,740	1,810	2,240	2,210	2,230
6	1,700	1,560	1,610	1,660	1,620	1,640	1,760	1,730	1,740	2,230	1,950	2,080
7	1,880	1,640	1,770	1,710	1,650	1,680	1,790	1,730	1,760	2,260	1,950	2,120
8	1,640	1,400	1,440	1,890	1,710	1,850	1,900	1,780	1,830	2,350	2,200	2,290
9	1,410	1,360	1,380	1,890	1,840	1,870	1,920	1,890	1,900	2,380	2,160	2,280
10	1,640	1,400	1,440	1,840	1,800	1,820	1,910	1,900	1,910	2,380	2,240	2,290
11	1,660	1,530	1,630	1,910	1,810	1,880	1,910	1,890	1,900	2,310	2,160	2,280
12	1,530	1,410	1,480	1,860	1,770	1,820	1,900	1,860	1,870	2,180	2,140	2,160
13	1,410	1,330	1,370	1,770	1,740	1,750	1,960	1,860	1,870	2,240	2,170	2,220
14	1,410	1,320	1,360	1,980	1,750	1,830	2,000	1,920	1,980	2,280	2,220	2,250
15	1,470	1,410	1,430	1,980	1,910	1,940	1,930	1,870	1,910	2,400	2,280	2,320
16	1,470	1,380	1,440	1,960	1,890	1,930	1,970	1,880	1,920	2,450	2,390	2,400
17	1,380	1,280	1,350	1,900	1,800	1,840	1,980	1,840	1,930	2,470	2,420	2,430
18	1,340	1,280	1,300	1,860	1,760	1,840	1,920	1,810	1,860	2,540	2,470	2,510
19	1,400	1,310	1,330	1,780	1,750	1,760	1,980	1,920	1,950	2,590	2,540	2,560
20	1,630	1,380	1,440	1,770	1,730	1,750	2,060	1,950	2,020	2,660	2,590	2,640
21	1,640	1,620	1,630	1,850	1,760	1,800	2,090	2,030	2,060	2,620	2,600	2,610
22	1,650	1,540	1,600	2,040	1,850	1,970	2,080	1,980	2,020	2,640	2,560	2,620
23	1,590	1,540	1,570	2,220	2,040	2,090	2,040	1,910	1,980	2,560	2,450	2,500
24	1,770	1,590	1,680	2,220	2,020	2,110	1,970	1,850	1,890	2,520	2,430	2,490
25	1,880	1,770	1,840	2,210	2,040	2,120	1,990	1,890	1,930	2,600	2,430	2,450
26	1,880	1,800	1,840	2,240	2,080	2,180	1,980	1,790	1,890	2,600	2,420	2,520
27	1,880	1,790	1,850	2,080	1,970	2,070	1,920	1,780	1,790	2,630	2,430	2,570
28	1,800	1,680	1,720	1,970	1,750	1,850	1,980	1,920	1,960	2,730	2,600	2,650
29	1,710	1,660	1,680	1,870	1,700	1,810	1,980	1,900	1,950	2,680	2,640	2,660
30	1,680	1,650	1,670	1,730	1,660	1,700	2,010	1,910	1,940	2,690	2,590	2,670
31	1,700	1,490	1,670	---	---	---	2,170	2,010	2,050	2,850	2,560	2,590
Max	2,030	1,920	1,970	2,240	2,080	2,180	2,170	2,030	2,060	2,850	2,640	2,670
Min	1,340	1,280	1,300	1,640	1,360	1,590	1,660	1,560	1,580	2,140	1,950	2,080

11262900 Mud Slough near Gustine, CA—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Day	Max	Min	Median	Max	Min	Median	Max	Min	Median	Max	Min	Median
		February			March			April			May	
1	2,870	2,810	2,830	2,570	2,340	2,530	3,380	3,100	3,220	3,960	2,380	3,430
2	2,900	2,770	2,880	2,470	2,330	2,350	3,650	3,380	3,550	3,910	3,250	3,520
3	2,770	2,700	2,750	2,590	2,340	2,550	3,540	2,930	3,460	3,980	2,690	3,800
4	2,820	2,710	2,780	2,390	2,270	2,330	2,930	2,710	2,800	3,210	2,110	2,460
5	2,830	2,740	2,790	2,440	2,340	2,410	3,140	2,820	2,980	3,160	2,370	2,600
6	2,910	2,810	2,870	2,520	2,420	2,470	3,030	2,830	2,870	3,970	3,160	3,760
7	2,880	2,820	2,860	2,490	2,410	2,460	3,470	3,020	3,200	3,500	3,160	3,330
8	2,870	2,800	2,850	2,460	2,370	2,440	3,840	3,310	3,530	3,620	3,220	3,460
9	2,870	2,760	2,800	2,500	2,380	2,420	3,900	3,590	3,740	3,270	2,420	3,050
10	2,910	2,750	2,880	2,520	2,430	2,480	4,180	3,550	3,710	2,500	2,280	2,370
11	2,750	2,620	2,670	2,460	2,320	2,440	4,560	4,150	4,400	2,280	2,000	2,080
12	2,820	2,670	2,780	2,330	2,140	2,250	4,160	3,720	3,890	2,320	2,050	2,180
13	2,850	2,810	2,840	2,250	2,170	2,210	4,050	3,730	3,950	2,390	2,230	2,320
14	2,830	2,760	2,790	2,390	2,240	2,320	4,030	3,530	3,860	2,640	2,130	2,260
15	2,840	2,760	2,780	2,440	2,280	2,320	4,230	3,820	3,940	2,540	2,320	2,400
16	2,910	2,840	2,860	2,470	2,370	2,420	4,390	3,810	4,100	2,430	2,170	2,400
17	2,930	2,890	2,920	2,600	2,450	2,470	4,480	3,780	3,980	2,270	2,030	2,150
18	2,960	2,740	2,890	2,510	2,450	2,470	4,300	3,660	3,980	2,770	2,250	2,540
19	2,790	2,730	2,780	2,550	2,490	2,510	4,660	3,730	4,040	2,910	2,420	2,750
20	2,780	2,540	2,680	2,660	2,530	2,600	4,850	4,510	4,670	2,830	2,170	2,660
21	2,590	2,500	2,560	2,680	2,620	2,660	5,330	4,820	5,080	3,090	2,210	2,430
22	2,630	2,490	2,580	2,690	2,570	2,610	5,330	3,780	4,810	3,240	2,810	3,090
23	2,530	2,400	2,480	2,900	2,690	2,830	5,000	3,580	4,750	3,540	3,160	3,300
24	2,510	2,330	2,450	3,160	2,900	3,040	4,430	3,480	3,680	3,780	3,060	3,520
25	2,440	2,330	2,390	3,340	2,970	3,270	5,140	3,320	5,030	3,560	3,200	3,480
26	2,520	2,400	2,480	2,970	2,860	2,880	4,600	3,180	3,760	3,520	3,320	3,450
27	2,670	2,500	2,590	3,050	2,730	2,880	4,900	4,470	4,640	3,540	3,330	3,410
28	2,760	2,400	2,680	3,050	2,720	2,860	4,550	3,700	4,420	3,460	3,170	3,320
29	---	---	---	3,000	2,920	2,960	4,030	3,270	3,640	3,620	3,350	3,410
30	---	---	---	3,350	3,000	3,090	3,840	2,220	3,000	3,720	3,050	3,410
31	---	---	---	3,390	3,120	3,240	---	---	---	3,330	2,640	3,170
Max	2,960	2,890	2,920	3,390	3,120	3,270	5,330	4,820	5,080	3,980	3,350	3,800
Min	2,440	2,330	2,390	2,250	2,140	2,210	2,930	2,220	2,800	2,270	2,000	2,080

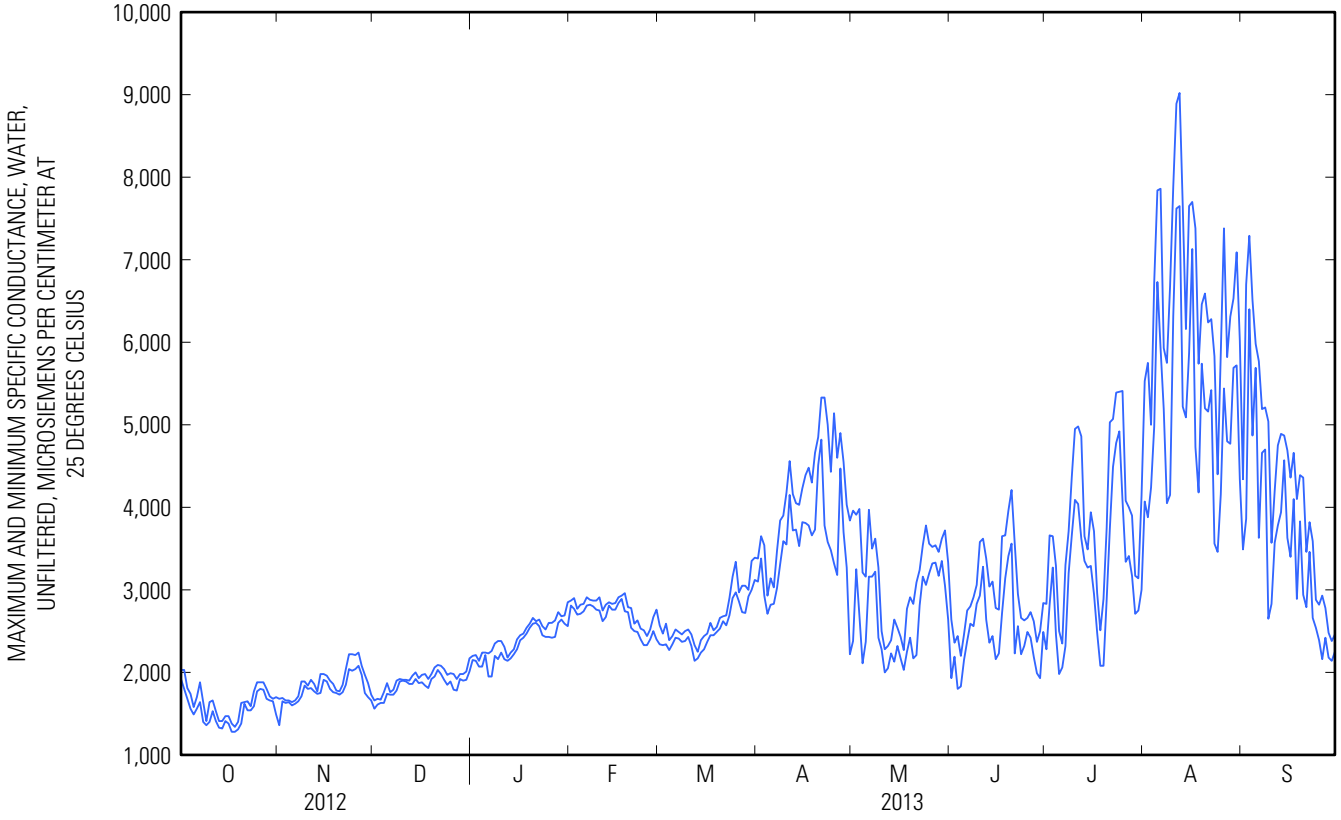
11262900 Mud Slough near Gustine, CA—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Day	Max	Min	Median	Max	Min	Median	Max	Min	Median	Max	Min	Median
		June			July			August			September	
1	2,640	1,930	2,140	2,830	2,280	2,370	5,530	4,070	4,420	4,340	3,490	3,860
2	2,360	2,190	2,280	3,660	2,820	2,920	5,750	3,880	4,600	6,700	3,860	4,240
3	2,440	1,800	2,140	3,650	3,270	3,380	5,000	4,240	4,680	7,290	6,400	6,860
4	2,200	1,830	1,920	3,290	2,460	2,870	6,730	4,980	5,400	6,510	4,870	5,740
5	2,460	2,150	2,260	2,500	1,980	2,190	7,840	6,730	7,440	5,980	5,690	5,850
6	2,750	2,380	2,510	2,350	2,060	2,110	7,860	5,930	7,820	5,770	3,630	4,550
7	2,800	2,590	2,690	3,300	2,320	2,660	5,930	5,190	5,590	5,190	4,660	4,890
8	2,910	2,560	2,710	3,710	3,200	3,360	5,750	4,050	4,570	5,210	4,700	4,980
9	3,060	2,830	2,960	4,370	3,660	3,770	6,680	4,150	5,800	5,040	2,650	2,960
10	3,580	2,930	3,320	4,950	4,090	4,740	7,880	6,310	6,660	3,570	2,830	2,990
11	3,620	3,280	3,460	4,980	4,040	4,370	8,890	7,620	8,020	4,200	3,570	3,920
12	3,380	2,640	2,950	4,860	3,620	4,080	9,020	7,650	8,770	4,750	3,780	4,540
13	3,040	2,360	2,760	3,650	3,350	3,530	7,650	5,220	5,680	4,890	3,940	4,780
14	3,100	2,440	2,870	3,490	3,270	3,400	6,160	5,090	5,820	4,870	4,570	4,650
15	2,780	2,160	2,530	3,940	3,290	3,490	7,650	5,870	6,550	4,690	3,630	4,510
16	2,760	2,230	2,360	3,710	2,950	3,450	7,700	7,130	7,350	4,360	3,400	3,590
17	3,650	2,720	3,120	2,960	2,480	2,820	7,380	4,730	6,680	4,660	4,100	4,510
18	3,660	3,140	3,370	2,510	2,080	2,340	5,740	4,180	4,510	4,100	2,890	3,550
19	3,960	3,410	3,580	2,890	2,080	2,180	6,460	5,740	6,120	4,390	3,830	3,990
20	4,210	3,560	3,970	3,750	2,880	3,200	6,590	5,200	6,380	4,360	2,940	3,430
21	3,560	2,230	2,900	5,030	3,740	4,510	6,240	5,160	5,800	3,460	2,790	3,100
22	2,950	2,560	2,740	5,070	4,490	4,730	6,280	5,420	5,830	3,820	3,460	3,690
23	2,660	2,220	2,440	5,390	4,780	5,060	5,830	3,560	5,360	3,590	2,660	2,900
24	2,630	2,320	2,500	5,400	4,920	5,180	4,400	3,460	3,690	2,880	2,540	2,710
25	2,660	2,490	2,600	5,410	4,080	5,150	5,870	4,160	4,310	2,820	2,390	2,620
26	2,730	2,420	2,640	4,080	3,340	3,590	7,380	5,440	5,980	2,930	2,160	2,730
27	2,620	2,190	2,450	4,000	3,410	3,610	5,820	4,800	5,350	2,780	2,420	2,520
28	2,370	1,990	2,180	3,900	3,170	3,690	6,310	4,770	4,970	2,480	2,180	2,290
29	2,500	1,930	2,070	3,170	2,710	2,950	6,530	5,690	6,010	2,380	2,140	2,240
30	2,840	2,490	2,640	3,140	2,750	2,980	7,090	5,720	6,700	2,460	2,250	2,350
31	---	---	---	4,140	3,000	3,290	6,020	4,340	5,580	---	---	---
Max	4,210	3,560	3,970	5,410	4,920	5,180	9,020	7,650	8,770	7,290	6,400	6,860
Min	2,200	1,800	1,920	2,350	1,980	2,110	4,400	3,460	3,690	2,380	2,140	2,240

	Max	Min	Median
Year Maximum	9020	7650	8770
Year Minimum	1340	1280	1300

11262900 Mud Slough near Gustine, CA—Continued



11262900 Mud Slough near Gustine, CA—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Day	Max	Min	Median	Max	Min	Median	Max	Min	Median	Max	Min	Median
		October			November			December			January	
1	26.5	20.9	23.4	18.3	17.3	17.9	14.8	13.7	14.2	8.8	7.3	7.8
2	26.6	21.0	23.6	18.9	15.9	17.2	15.0	14.4	14.7	8.8	6.6	7.6
3	26.6	21.3	23.5	18.7	15.9	17.2	14.9	13.4	14.3	8.9	6.8	7.7
4	25.6	20.6	22.6	18.8	15.8	17.3	14.5	13.6	14.2	9.2	7.1	7.9
5	22.8	20.0	21.3	19.4	16.1	17.6	14.7	14.0	14.3	9.4	7.4	8.2
6	23.4	18.7	20.6	19.5	16.2	17.9	15.0	14.2	14.6	9.5	8.8	9.1
7	23.1	18.6	20.6	19.4	16.6	17.9	14.8	13.6	14.2	9.6	8.0	8.8
8	22.4	18.8	20.5	18.1	15.8	17.0	13.6	11.9	12.6	10.0	8.2	8.9
9	21.9	18.5	20.1	16.3	14.3	15.1	12.7	11.2	11.8	9.5	8.6	9.2
10	21.8	18.4	19.8	15.0	12.8	13.9	12.5	10.8	11.6	9.6	8.0	8.8
11	19.5	17.6	18.4	14.2	11.7	12.9	12.2	10.8	11.5	9.0	7.2	8.2
12	18.8	17.1	17.7	13.8	11.2	12.4	12.2	11.4	11.5	8.5	6.9	7.8
13	19.8	16.4	17.8	13.9	11.0	12.5	11.7	10.4	11.0	7.8	6.2	7.0
14	20.7	17.1	18.6	14.1	11.5	12.9	10.4	9.1	10.0	7.2	5.3	6.3
15	21.7	18.1	19.6	13.9	11.7	12.9	9.8	8.8	9.4	7.5	5.3	6.2
16	22.6	18.9	20.4	13.9	12.6	13.2	10.2	8.8	9.5	8.3	5.6	6.8
17	21.4	19.0	20.3	15.0	13.4	14.1	11.5	10.1	10.8	9.1	6.2	7.4
18	21.8	18.4	19.8	16.0	13.8	14.6	11.4	9.8	10.8	9.8	6.8	8.1
19	22.3	19.5	20.5	15.7	13.7	14.6	10.0	8.5	9.3	10.2	7.3	8.6
20	22.4	19.5	20.7	15.8	13.5	14.8	9.0	7.3	8.2	10.6	7.7	9.0
21	20.7	18.1	19.4	16.0	14.4	14.8	8.6	7.0	7.8	10.9	8.0	9.3
22	18.9	16.9	17.9	15.4	13.5	14.3	9.3	8.4	8.6	11.2	8.4	9.7
23	18.0	15.9	16.7	14.9	12.6	13.8	9.7	8.9	9.3	10.4	9.8	10.3
24	17.0	14.9	15.9	14.9	12.6	13.6	10.9	9.2	9.9	11.4	10.2	10.6
25	18.3	15.4	16.1	14.6	12.3	13.4	9.9	9.2	9.4	12.6	11.0	11.5
26	17.2	14.2	15.7	14.4	12.0	13.1	10.3	8.8	9.4	13.9	12.4	12.7
27	18.0	14.3	15.7	13.7	12.0	13.0	10.8	9.3	9.8	13.0	10.9	11.9
28	19.0	15.2	16.6	13.3	12.5	13.0	9.7	8.6	9.2	12.0	9.8	10.9
29	19.6	16.1	17.5	13.6	12.6	13.0	9.5	8.6	9.0	12.1	9.5	10.7
30	20.3	16.7	18.2	14.4	13.6	14.0	9.5	7.9	8.6	12.8	9.5	10.9
31	19.2	17.3	18.3	---	---	---	8.8	7.3	8.2	13.1	10.0	11.3
Max	26.6	21.3	23.6	19.5	17.3	17.9	15.0	14.4	14.7	13.9	12.4	12.7
Min	17.0	14.2	15.7	13.3	11.0	12.4	8.6	7.0	7.8	7.2	5.3	6.2

11262900 Mud Slough near Gustine, CA—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Day	Max	Min	Median	Max	Min	Median	Max	Min	Median	Max	Min	Median
		February			March			April			May	
1	13.7	10.3	11.9	16.8	13.2	14.8	23.4	18.8	20.1	23.4	15.4	19.2
2	13.0	11.5	12.3	17.3	14.3	15.6	21.9	17.7	19.9	25.0	17.3	20.6
3	13.7	11.0	12.2	16.9	15.7	16.3	23.5	17.6	19.8	27.0	18.4	22.0
4	14.4	10.8	12.3	17.6	14.4	16.0	22.2	19.3	20.6	26.3	19.8	21.9
5	13.4	11.7	12.5	17.3	14.4	16.0	22.0	18.4	19.9	24.4	18.6	20.9
6	13.8	10.4	12.0	15.8	13.9	14.9	21.8	17.9	19.7	24.1	19.3	21.1
7	13.3	11.1	12.0	15.6	13.1	14.4	22.9	17.6	19.4	23.5	19.8	21.1
8	12.8	10.9	11.4	15.9	13.5	14.4	19.3	14.8	17.3	24.8	19.8	21.2
9	12.2	9.1	10.6	15.4	12.7	14.1	17.8	12.3	14.8	25.7	19.2	22.2
10	12.1	8.7	10.4	16.1	12.6	14.0	20.1	13.7	16.2	26.2	20.7	23.4
11	12.6	9.0	10.6	17.3	13.3	15.0	21.1	16.7	18.3	28.3	22.2	25.0
12	13.2	9.3	11.1	18.4	15.1	16.2	22.4	16.4	19.0	28.8	23.2	25.5
13	13.7	9.9	11.8	19.9	16.6	17.5	23.1	17.3	19.7	28.3	21.8	25.0
14	14.6	10.6	12.4	20.4	17.8	19.0	22.4	16.9	19.4	28.6	22.8	24.8
15	15.2	11.2	13.1	19.9	18.0	19.2	22.2	15.9	18.1	27.2	21.0	23.8
16	15.2	12.0	13.5	20.0	17.5	18.8	18.6	12.8	15.6	24.4	20.7	22.3
17	15.6	12.1	13.7	19.6	17.3	18.5	17.9	11.7	14.6	25.4	19.3	21.8
18	15.3	12.0	13.5	18.6	16.2	17.8	19.8	12.8	16.0	25.4	18.9	22.0
19	13.3	11.1	12.3	19.5	16.3	17.7	21.9	14.6	18.2	24.8	19.3	21.4
20	12.6	9.7	11.0	19.4	17.5	18.4	22.4	16.3	18.8	24.9	18.7	22.0
21	12.7	9.6	11.0	18.4	16.3	17.4	23.6	17.0	19.9	26.5	20.4	22.3
22	13.2	9.8	11.5	16.6	13.2	14.7	24.2	18.2	20.5	22.1	16.4	19.8
23	13.6	11.3	11.9	15.6	11.4	13.6	23.4	16.0	19.1	23.4	15.8	19.7
24	12.5	9.2	11.1	18.4	12.4	14.4	24.7	17.0	20.0	25.3	17.5	20.6
25	13.2	9.8	11.4	19.4	15.0	17.0	25.6	17.2	20.3	25.8	18.0	21.3
26	13.2	10.4	11.9	20.0	16.0	18.2	25.1	18.4	21.5	25.0	18.2	21.2
27	14.0	10.5	12.0	21.1	16.4	18.4	26.1	18.7	22.0	22.9	17.9	20.5
28	15.2	11.6	13.4	21.1	17.6	19.2	26.8	19.1	22.4	25.9	19.0	21.9
29	---	---	---	22.1	17.5	19.5	26.3	20.1	22.4	26.9	20.0	22.5
30	---	---	---	23.1	19.0	20.9	24.0	17.6	21.3	27.2	19.1	22.4
31	---	---	---	23.8	18.8	20.6	---	---	---	26.2	19.7	22.7
Max	15.6	12.1	13.7	23.8	19.0	20.9	26.8	20.1	22.4	28.8	23.2	25.5
Min	12.1	8.7	10.4	15.4	11.4	13.6	17.8	11.7	14.6	22.1	15.4	19.2

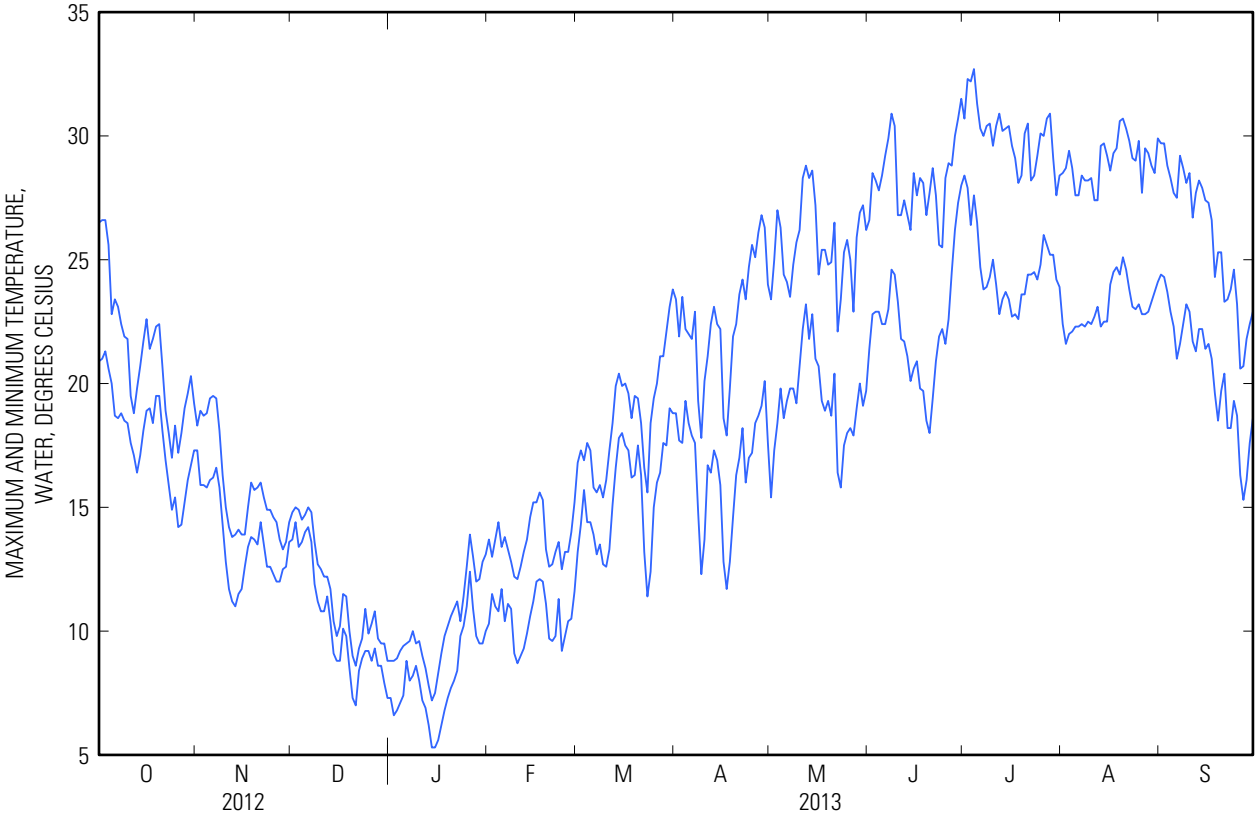
11262900 Mud Slough near Gustine, CA—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Day	Max	Min	Median	Max	Min	Median	Max	Min	Median	Max	Min	Median
		June			July			August			September	
1	26.6	21.4	24.4	30.7	28.4	29.5	28.5	22.4	24.9	29.7	24.4	26.1
2	28.5	22.8	25.4	32.3	27.9	29.3	28.7	21.6	24.8	29.7	24.3	26.0
3	28.2	22.9	25.8	32.2	26.4	29.2	29.4	22.0	24.8	28.8	23.7	25.6
4	27.8	22.9	25.4	32.7	27.6	29.5	28.7	22.1	25.1	28.3	22.9	25.0
5	28.4	22.4	25.2	31.3	26.5	28.0	27.6	22.3	25.1	27.7	22.3	24.5
6	29.2	22.4	25.6	30.3	24.7	26.2	27.6	22.3	25.1	27.5	21.0	24.1
7	29.9	23.0	26.5	30.0	23.8	26.2	28.4	22.4	24.5	29.2	21.6	24.6
8	30.9	24.6	27.3	30.4	23.9	26.4	28.2	22.3	24.9	28.7	22.4	25.4
9	30.4	24.4	26.8	30.5	24.3	26.8	28.2	22.5	24.8	28.1	23.2	25.1
10	26.8	23.3	24.8	29.6	25.0	27.3	28.3	22.4	25.1	28.5	22.9	24.6
11	26.8	21.8	24.1	30.4	24.0	26.8	27.4	22.7	25.3	26.7	21.7	23.6
12	27.4	21.7	24.2	30.9	22.8	25.7	27.4	23.1	25.6	27.7	21.3	24.0
13	26.8	21.1	23.3	30.2	23.4	25.8	29.6	22.3	25.2	28.2	22.2	24.8
14	26.2	20.1	22.9	30.3	23.7	25.8	29.7	22.5	25.0	27.9	22.2	24.8
15	28.5	20.6	24.4	30.4	23.4	25.6	29.2	22.5	26.2	27.4	21.4	23.8
16	27.6	20.9	23.7	29.6	22.7	25.1	28.6	24.0	26.6	27.3	21.6	23.7
17	28.3	19.8	23.4	29.1	22.8	25.2	29.3	24.5	26.4	26.6	21.0	23.1
18	28.1	19.7	22.9	28.1	22.6	25.1	29.5	24.7	26.4	24.3	19.6	21.6
19	26.8	18.5	21.8	28.4	23.6	26.0	30.6	24.4	27.1	25.3	18.5	21.7
20	27.7	18.0	22.3	30.1	23.6	26.5	30.7	25.1	27.0	25.3	19.7	22.2
21	28.7	19.4	22.9	30.5	24.4	26.9	30.3	24.6	26.6	23.3	20.4	21.5
22	27.6	20.9	24.0	28.2	24.4	26.4	29.8	23.8	26.0	23.4	18.2	20.2
23	25.6	21.9	23.5	28.4	24.5	25.9	29.1	23.1	25.7	23.8	18.2	20.9
24	25.5	22.2	23.0	29.2	24.2	26.6	29.0	23.0	25.2	24.6	19.3	21.3
25	28.3	21.6	23.7	30.1	24.8	27.5	29.8	23.2	25.6	23.2	18.7	20.4
26	28.9	22.6	25.5	30.0	26.0	27.9	27.7	22.8	25.3	20.6	16.3	18.4
27	28.8	24.5	26.7	30.7	25.6	27.7	29.5	22.8	25.2	20.7	15.3	17.7
28	30.0	26.2	28.0	30.9	25.2	27.4	29.3	22.9	26.0	21.8	16.1	18.8
29	30.7	27.3	29.1	29.1	25.2	26.5	28.8	23.3	25.8	22.4	17.6	20.0
30	31.5	28.0	29.7	27.6	24.2	25.5	28.5	23.7	26.0	22.9	18.6	20.7
31	---	---	---	28.4	23.9	25.2	29.9	24.1	26.4	---	---	---
Max	31.5	28.0	29.7	32.7	28.4	29.5	30.7	25.1	27.1	29.7	24.4	26.1
Min	25.5	18.0	21.8	27.6	22.6	25.1	27.4	21.6	24.5	20.6	15.3	17.7

	Max	Min	Median
Year Maximum	32.7	28.4	29.7
Year Minimum	7.2	5.3	6.2

11262900 Mud Slough near Gustine, CA—Continued



11262900 Mud Slough near Gustine, CA—Continued

CROSS SECTION ANALYSES
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
[ft, feet; °C, degrees Celsius; µS/cm, microsiemens per centimeter]

Sample date-time	Specific conductance, water, unfiltered, µS/cm at 25°C (00095)	Temperature, water, °C (00010)	Depth to bottom at sample location, ft (81903)	Sampling depth, ft (00003)	Stream width, ft (00004)	Location in cross section, distance from left bank looking downstream, ft (00009)
11-08-2012 0943	1,840	16.5	1.00	0.60	55.0	3.00
11-08-2012 0944	1,840	16.4	2.17	1.30	55.0	8.50
11-08-2012 0945	1,840	16.4	2.14	1.28	55.0	14.0
11-08-2012 0946	1,840	16.4	2.05	1.23	55.0	19.5
11-08-2012 0947	1,830	16.4	2.01	1.21	55.0	25.0
11-08-2012 0948	1,830	16.4	1.93	1.16	55.0	30.5
11-08-2012 0949	1,830	16.4	1.77	1.06	55.0	36.0
11-08-2012 0950	1,830	16.4	1.64	.98	55.0	41.5
11-08-2012 0951	1,830	16.4	1.61	.97	55.0	47.0
11-08-2012 0952	1,830	16.4	1.52	.91	55.0	52.5
03-28-2013 1311	2,970	19.1	1.50	.90	55.0	2.75
03-28-2013 1312	2,960	19.1	1.77	1.06	55.0	8.25
03-28-2013 1313	2,950	19.1	1.62	.97	55.0	14.0
03-28-2013 1314	2,940	19.1	1.48	.89	55.0	19.5
03-28-2013 1315	2,940	19.1	1.47	.88	55.0	25.0
03-28-2013 1316	2,940	19.1	1.33	.80	55.0	30.5
03-28-2013 1317	2,940	19.1	1.12	.67	55.0	36.0
03-28-2013 1318	2,940	19.1	1.22	.73	55.0	41.5
03-28-2013 1319	2,940	19.1	1.53	.92	55.0	47.0
03-28-2013 1320	2,940	19.2	.83	.50	55.0	52.5
05-08-2013 1521	3,250	24.4	1.18	.71	36.0	1.80
05-08-2013 1522	3,250	24.4	2.04	1.22	36.0	5.40
05-08-2013 1523	3,240	24.4	2.03	1.22	36.0	9.00
05-08-2013 1524	3,240	24.4	2.10	1.26	36.0	12.6
05-08-2013 1525	3,230	24.4	2.25	1.35	36.0	16.2
05-08-2013 1526	3,230	24.4	2.22	1.33	36.0	19.8
05-08-2013 1527	3,220	24.4	2.00	1.20	36.0	23.4
05-08-2013 1528	3,230	24.4	1.88	1.13	36.0	27.0
05-08-2013 1529	3,240	24.4	1.68	1.01	36.0	30.6
05-08-2013 1530	3,250	24.4	1.18	.71	36.0	34.2

Note: Instantaneous discharge at the mean time of cross-sectional measurements: Mar. 28, 76.9 ft^3/s; May 8, 52.1 ft^3/s.