

GRASSLAND BYPASS PROJECT

MONTHLY DATA REPORT

October 2000

January 08, 2001

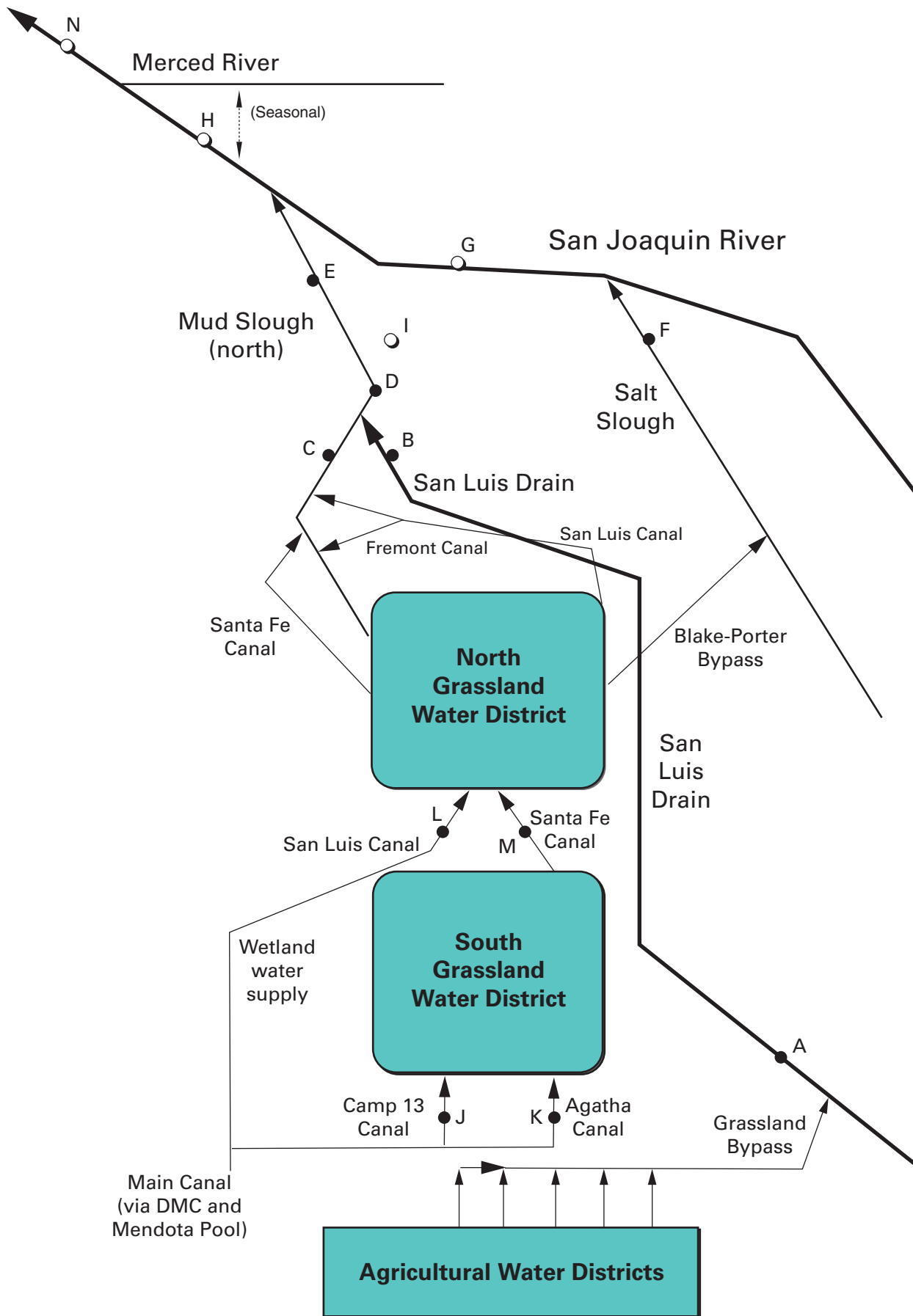
Preliminary Results

A cooperative effort of:

U.S. Bureau of Reclamation
Central Valley Regional Water Quality Control Board
U.S. Fish and Wildlife Service
California Department of Fish and Game
San Luis & Delta-Mendota Water Authority
U.S. Environmental Protection Agency
U.S. Geological Survey

compiled by San Francisco Estuary Institute





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Flow data reported by SLDMWA since October 1, 1999.**

See Table 26 for explanation of footnotes and agency abbreviations.

PARAMETER	Flow	Specific Conductance
DATA SOURCE	SLDMWA	SLDMWA
UNITS	cfs	µS/cm
Oct-01-2000	16	4,340
Oct-02-2000	17	4,020
Oct-03-2000	16	3,900
Oct-04-2000	18	3,850
Oct-05-2000	18	3,560
Oct-06-2000	17	3,510
Oct-07-2000	14	3,910
Oct-08-2000	12	4,720
Oct-09-2000	12	4,940
Oct-10-2000	18	4,950
Oct-11-2000	31	4,300
Oct-12-2000	31	3,810
Oct-13-2000	23	3,430
Oct-14-2000	19	3,460
Oct-15-2000	18	3,580
Oct-16-2000	14	4,010
Oct-17-2000	16	4,480
Oct-18-2000	16	4,800
Oct-19-2000	14	4990
Oct-20-2000	11	5010
Oct-21-2000	11	5,020
Oct-22-2000	11	5,110
Oct-23-2000	11	5,000
Oct-24-2000	9	4,920
Oct-25-2000	8	4,780
Oct-26-2000	11	4,570
Oct-27-2000	19	4,570
Oct-28-2000	16	4,320
Oct-29-2000	14	4,110
Oct-30-2000	14	4,270
Oct-31-2000	15	4,190
Mean	16	4,340

Table 2. Continuous water monitoring at Station B (discharge from San Luis Drain), October 2000.

See Table 26 for explanation of footnotes and agency abbreviations.

PARAMETER	Flow	Temperature	Boron	Specific Conductance	Selenium (total)	Selenium (total) Load
DATA SOURCE	USGS	USGS	CVRWQCB	CVRWQCB	CVRWQCB	Computed
UNITS	cfs	°C	mg/L	µS/cm	µg/L	lbs
Oct-01-2000	18	25.5	6.6	3,960	49.3	4.8
Oct-02-2000	19	25.8	6.4	3,960	55.0	5.6
Oct-03-2000	19	25.2	7.2	4,430	59.1	6.1
Oct-04-2000	19	24.6	7.4	4,530	53.9	5.5
Oct-05-2000	21	24.4	7.4	4,480	56.4	6.4
Oct-06-2000	21	24.7	6.9	4,350	53.0	6.0
Oct-07-2000	20	24.1	7.0	4,280	51.6	5.6
Oct-08-2000	19	23.4	6.6	4,050	45.4	4.7
Oct-09-2000	17	23.1	6.1	3,820	41.2	3.8
Oct-10-2000	17	21.4	6.1	3,770	39.0	3.6
Oct-11-2000	24	20.3	6.5	3,690	31.3	4.1
Oct-12-2000	34	19.9	5.7	3,450	27.7	5.1
Oct-13-2000	33	20.0	5.7	3,650	26.9	4.8
Oct-14-2000	27	20.4	6.8	4,340	37.6	5.5
Oct-15-2000	25	20.6	7.6	4,710	40.5	5.5
Oct-16-2000	23	20.8	6.4	4,320	62.9	7.8
Oct-17-2000	21	21.2	6.0	4,110	60.3	6.8
Oct-18-2000	20	21.3	5.3	3,750	55.2	6.0
Oct-19-2000	21	21.1	4.9	3,470	38.9	4.4
Oct-20-2000	19	20.9	5.0	3,430	31.0	3.2
Oct-21-2000	17	19.1	5.1	3,460	29.2	2.7
Oct-22-2000	16	15.6	5.2	3,530	26.4	2.3
Oct-23-2000	16	15.6	5.7	3,670	29.8	2.6
Oct-24-2000	17	16.5	6.5	4,090	43.8	4.0
Oct-25-2000	15	16.6	6.6	4,150	39.3	3.2
Oct-26-2000	16	15.7	6.6	4,040	51.6	4.5
Oct-27-2000	19	15.3	6.1	4,040	40.7	4.2
Oct-28-2000	23	15.8	6.1	4,140	43.4	5.4
Oct-29-2000	22	16.0	6.3	4,150	40.5	4.8
Oct-30-2000	21	15.6	6.7	4,140	36.5	4.1
Oct-31-2000	19	15.5	6.4	4,020	30.4	3.1
Mean	21	20.2	6.3	4,000	42.8	
Total						146

Load Limitation for October 2000	(lbs)	348
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**Table 3. Continuous water monitoring at Station D
(Mud Slough North downstream of drainage discharges), October 2000.**

See Table 26 for explanation of footnotes and agency abbreviations.

PARAMETER	Flow	Temperature	Specific Conductance
DATA SOURCE	usgs	usgs	usgs
UNITS	cfs	°C	µS/cm
Oct-01-2000	65	23.1	1,670
Oct-02-2000	69	23.6	1,610
Oct-03-2000	78	22.4	1,510
Oct-04-2000	88	21.9	1,490
Oct-05-2000	107	21.6	1,450
Oct-06-2000	121	22.0	1,330
Oct-07-2000	126	21.7	1,330
Oct-08-2000	126	21.1	1,270
Oct-09-2000	136	20.7	1,160
Oct-10-2000	180	18.5	1,070
Oct-11-2000	222	17.5	1,120
Oct-12-2000	216	17.4	1,220
Oct-13-2000	203	18.0	1,250
Oct-14-2000	195	18.8	1,280
Oct-15-2000	189	19.5	1,310
Oct-16-2000	186	19.8	1,310
Oct-17-2000	188	20.3	1,180
Oct-18-2000	194	20.3	1,120
Oct-19-2000	199	19.9	1,100
Oct-20-2000	202	19.7	1,080
Oct-21-2000	205	17.9	1,010
Oct-22-2000	209	14.3	1,020
Oct-23-2000	206	14.5	1,060
Oct-24-2000	202	15.8	1,120
Oct-25-2000	188	16.3	1,190
Oct-26-2000	193	14.9	1,250
Oct-27-2000	249	15.1	1,180
Oct-28-2000	288	15.4	1,210
Oct-29-2000	301	15.4	1,210
Oct-30-2000	271	14.9	1,250
Oct-31-2000	263	14.6	1,240

Table 4. Continuous water monitoring at Station F (Salt Slough at Highway 165), October 2000.

See Table 26 for explanation of footnotes and agency abbreviations.

PARAMETER	Flow	Temperature	Specific Conductance
DATA SOURCE	usgs	usgs	usgs
UNITS	cfs	°C	µS/cm
Oct-01-2000	93	22.5	863
Oct-02-2000	84	23.1	891
Oct-03-2000	76	21.4	935
Oct-04-2000	86	20.7	944
Oct-05-2000	91	20.7	959
Oct-06-2000	84	21.2	966
Oct-07-2000	89	20.4	1,030
Oct-08-2000	101	19.9	1,010
Oct-09-2000	118	19.6	957
Oct-10-2000	139	17.8	936
Oct-11-2000	186	17.1	916
Oct-12-2000	223	16.8	NA
Oct-13-2000	211	17.2	NA
Oct-14-2000	180	17.9	NA
Oct-15-2000	142	18.4	961
Oct-16-2000	127	18.8	973
Oct-17-2000	119	19.2	1,000
Oct-18-2000	113	19.4	1,090
Oct-19-2000	108	18.9	1,250
Oct-20-2000	113	18.5	1,160
Oct-21-2000	112	17.0	1,310
Oct-22-2000	103	14.1	1,230
Oct-23-2000	97	14.5	1,400
Oct-24-2000	97	15.7	1,150
Oct-25-2000	95	16.1	1,030
Oct-26-2000	99	14.4	1,010
Oct-27-2000	118	15.0	1,000
Oct-28-2000	174	15.2	1,070
Oct-29-2000	195	15.4	1,100
Oct-30-2000	188	14.8	NA
Oct-31-2000	187	14.4	NA

Table 5. Continuous water monitoring at Station N (San Joaquin River at Crow's Landing), October 2000.

See Table 26 for explanation of footnotes and agency abbreviations.

PARAMETER	Flow	Temperature	Specific Conductance	Selenium (total)
DATA SOURCE	USGS	USGS	CVRWQCB	CVRWQCB
UNITS	cfs	°C	µS/cm	µg/L
Oct-01-2000	489	22.8	NA	NA
Oct-02-2000	515	23.1	NA	NA
Oct-03-2000	490	22.4	NA	NA
Oct-04-2000	489	21.7	NA	NA
Oct-05-2000	539	21.4	NA	NA
Oct-06-2000	527	21.5	1,040	3.0
Oct-07-2000	550	21.5	1,080	3.0
Oct-08-2000	565	21.2	1,040	2.9
Oct-09-2000	636	20.7	940	2.3
Oct-10-2000	668	19.2	920	2.2
Oct-11-2000	765	18.1	757	1.4
Oct-12-2000	830	17.8	747	1.3
Oct-13-2000	862	17.9	760	1.5
Oct-14-2000	899	18.4	743	1.3
Oct-15-2000	870	18.9	806	1.4
Oct-16-2000	888	19.1	863	1.6
Oct-17-2000	1,120	19.0	642	1.4
Oct-18-2000	1,270	18.7	495	1.3
Oct-19-2000	1,370	18.3	476	1.3
Oct-20-2000	1,300	18.1	471	1.3
Oct-21-2000	1,210	17.3	503	1.1
Oct-22-2000	1,190	15.0	509	0.9
Oct-23-2000	1,510	14.7	432	0.7
Oct-24-2000	1,620	14.8	378	0.7
Oct-25-2000	1,570	15.2	478	0.7
Oct-26-2000	1,680	14.8	410	0.9
Oct-27-2000	1,800	14.9	405	0.8
Oct-28-2000	1,700	14.8	429	0.9
Oct-29-2000	1,590	14.9	493	0.9
Oct-30-2000	1,540	14.5	523	1.2
Oct-31-2000	1,460	14.2	576	1.1

**Table 6a. Weekly water quality monitoring at Station A (inflow to San Luis Drain), taken from grab samples.
Flow data reported by SLDMWA since October 1, 1999.**

See Table 26 for explanation of footnotes and agency abbreviations.

PARAMETER	Flow	.	.	Specific Conductance	Total Suspended Solids	Selenium (total)	Selenium (dissolved)	Boron
DATA SOURCE	SLDMWA	.	.	CVRWQCB	CVRWQCB	CVRWQCB	CVRWQCB	CVRWQCB
UNITS	cfs	.	.	µS/cm	mg/L	µg/L	µg/L	mg/L
Aug-02-2000	63	.	.	3,740	190	Selenium and boron analyses		
Aug-09-2000	60	.	.	3,740	90	from weekly grab		
Aug-16-2000	51	.	.	3,650	NA	discontinued 2/1/00.		
Aug-23-2000	61	.	.	3,690	100	.	.	.
Aug-30-2000	57	.	.	4,080	100	.	.	.
Sep-06-2000	46	.	.	3,700	76	.	.	.
Sep-13-2000	20 e	.	.	5,020	40	.	.	.
Sep-20-2000	20	.	.	4,350	42	.	.	.
Sep-27-2000	12	.	.	4,890	78	.	.	.
Oct-04-2000	18	.	.	4,090	45	.	.	.
Oct-11-2000	31	.	.	3,960	93	.	.	.
Oct-18-2000	16	.	.	4,860	60	.	.	.
Oct-25-2000	8	.	.	4,830	53	.	.	.

**Table 6b. Weekly water quality monitoring at Station A (inflow to San Luis Drain), taken from composite samples.
Flow data reported by SLDMWA since October 1, 1999.**

See Table 26 for explanation of footnotes and agency abbreviations.

PARAMETER	Flow	.	.	Specific Conductance	.	Selenium (total)	.	Boron
DATA SOURCE	SLDMWA	.	.	CVRWQCB	.	CVRWQCB	.	CVRWQCB
UNITS	cfs	.	.	µS/cm	.	µg/L	.	mg/L
Aug-01-2000	57	.	.	3,940	.	40.3	.	6.8
Aug-08-2000	58	.	.	3,810	.	34.7	.	6.5
Aug-15-2000	52	.	.	3,620	.	26.1	.	6.6
Aug-22-2000	57	.	.	3,480	.	28.6	.	5.9
Aug-29-2000	62	.	.	3,740	.	41.6	.	6.1
Sep-05-2000	48	.	.	3,940	.	50.7	.	6.4
Sep-12-2000	23	.	.	4,140	.	52.0	.	6.6
Sep-19-2000	18 e	.	.	4,680	.	48.0	.	7.9
Sep-26-2000	11	.	.	4,440	.	55.0	.	7.7
Oct-03-2000	16	.	.	4,640	.	55.0	.	7.9
Oct-10-2000	18	.	.	4,410	.	48.7	.	7.2
Oct-17-2000	16	.	.	4,010	.	59.7	.	6.2
Oct-24-2000	9	.	.	NA	.	71.1	.	8.1
Oct-31-2000	15	.	.	4,390	.	68.0	.	7.6

Table 7. Weekly water quality monitoring at Station B (discharge from San Luis Drain), taken from grab samples.

See Table 26 for explanation of footnotes and agency abbreviations.

PARAMETER	Flow	Temperature	pH	Specific Conductance	Total Suspended Solids	Selenium (total)	Selenium (dissolved)	Boron
DATA SOURCE	USGS	CVRWQCB	CVRWQCB	CVRWQCB	CVRWQCB	CVRWQCB	CVRWQCB	CVRWQCB
UNITS	cfs	°C		µS/cm	mg/L	µg/L	µg/L	mg/L
Aug-03-2000	60	27.4	7.6	3,760	52	39.4	Selenium	6.5
Aug-10-2000	57	23.2	8.1	3,760	80	35.4	(dissolved)	6.5
Aug-17-2000	49	26.6	8.1	3,700	36	27.4	analyses	6.7
Aug-24-2000	58	23.1	8.0	3,480	52	30.1	discontinued	6.0
Aug-31-2000	55	23.4	7.7	4,010	71	45.5	1/15/2000.	6.5
Sep-07-2000	46	21.4	7.3	3,690	78	46.4	.	6.0
Sep-14-2000	18	23.7	8.0	3,140	53	33.3	.	5.0
Sep-21-2000	23	23.3	5.5	4,790	64	53.2	.	8.3
Sep-28-2000	18	24.9	6.2	4,130	33	35.2	.	7.4
Oct-05-2000	21	21.1	7.1	4,520	P	49.8	.	7.6
Oct-12-2000	34	17.5	8.0	3,340	P	25.8	.	5.2
Oct-19-2000	21	18.2	7.8	3,350	P	43.6	.	4.7
Oct-26-2000	16	14.6	6.8	4,300	P	53.9	.	6.0

Table 8. Weekly water quality monitoring at Station C (Mud Slough North upstream of drainage discharges).

See Table 26 for explanation of footnotes and agency abbreviations.

PARAMETER	Flow	Temperature	pH	Specific Conductance	Selenium (total)	Boron
DATA SOURCE	calculated **	CVRWQCB	CVRWQCB	CVRWQCB	CVRWQCB	CVRWQCB
UNITS	cfs	°C		µS/cm	µg/L	mg/L
Aug-03-2000	-5	26.8	8.3	2,580	0.7	2.2
Aug-10-2000	4	19.5	7.0	1,410	1.7	1.7
Aug-17-2000	7	27.4	8.2	1,080	1.0	1.0
Aug-24-2000	5	21.4	8.2	1,450	2.0	1.3
Aug-31-2000	2	23.8	8.4	1,300	<0.4	1.2
Sep-07-2000	14	22.7	8.5	689	<0.4	0.5
Sep-14-2000	25	25.8	8.1	654	<0.4	0.5
Sep-21-2000	27	23.1	6.7	620	<0.4	0.4
Sep-28-2000	25	25.7	8.0	816	0.7	0.6
Oct-05-2000	86	20.9	7.7	735	<0.4	0.6
Oct-12-2000	182	17.9	7.8	726	0.5	0.5
Oct-19-2000	178	17.9	7.7	804	0.5	0.6
Oct-26-2000	177	14.5	7.5	906	<0.4	0.6

++ Calculated flow value. Flow at Station C = flow at Station D - flow at Station B.

Table 9. Weekly water quality monitoring at Station D (Mud Slough North downstream of drainage discharges).

See Table 26 for explanation of footnotes and agency abbreviations.

PARAMETER	Flow	Temperature	pH	Specific Conductance	Selenium (total)	Boron
DATA SOURCE	USGS	CVRWQCB	CVRWQCB	CVRWQCB	CVRWQCB	CVRWQCB
UNITS	cfs	°C		µS/cm	µg/L	mg/L
Aug-03-2000	55	28.5	8.1	3,760	42.6	6.3
Aug-10-2000	61	22.9	7.6	3,390	29.8	5.8
Aug-17-2000	56	26.7	8.2	3,180	20.3	5.6
Aug-24-2000	63	23.3	8.3	3,110	25.1	5.2
Aug-31-2000	57	24.1	8.3	3,870	45.1	6.2
Sep-07-2000	60	21.2	7.9	3,180	34.7	5.2
Sep-14-2000	43	24.3	7.6	2,120	20.7	3.1
Sep-21-2000	50	22.9	7.1	2,560	23.0	3.9
Sep-28-2000	43	25.3	7.8	2,240	14.7	3.3
Oct-05-2000	107	20.9	7.6	1,600	9.5	2.1
Oct-12-2000	216	19.0	7.9	1,250	5.2	1.4
Oct-19-2000	199	17.9	8.0	1,210	7.5	1.2
Oct-26-2000	193	14.6	7.3	1,270	4.8	1.2

Table 10. Weekly water quality monitoring at Station F (Salt Slough at Lander Avenue).

See Table 26 for explanation of footnotes and agency abbreviations.

PARAMETER	Flow	Temperature	pH	Specific Conductance	Selenium (total)	Boron
DATA SOURCE	USGS	CVRWQCB	CVRWQCB	CVRWQCB	CVRWQCB	CVRWQCB
UNITS	cfs	°C		µS/cm	µg/L	mg/L
Aug-03-2000	184	26.2	7.8	916	0.8	0.6
Aug-10-2000	169	22.4	8.1	927	1.1	0.5
Aug-17-2000	155	23.8	7.9	955	0.5	0.4
Aug-24-2000	169	21.9	8.1	1,020	0.7	0.6
Aug-31-2000	128	21.7	8.1	1,060	<0.4	0.5
Sep-07-2000	102	20.2	7.8	1,280	<0.4	0.6
Sep-14-2000	106	22.9	7.9	1,140	<0.4	0.5
Sep-21-2000	85	21.5	7.7	1,320	<0.4	0.6
Sep-28-2000	67	21.4	8.0	1,300	0.9	0.6
Oct-05-2000	91	19.1	7.2	1,330	0.5	0.7
Oct-12-2000	223	16.1	8.0	909	1.1	0.5
Oct-19-2000	108	17.2	7.8	1,400	0.7	0.7
Oct-26-2000	99	14.7	7.2	1,610	0.4	0.8

Table 11. Weekly water quality monitoring at Station G (San Joaquin River at Fremont Ford).

See Table 26 for explanation of footnotes and agency abbreviations.

PARAMETER	.	Temperature	pH	Specific Conductance	Selenium (total)	Boron
DATA SOURCE	.	CVRWQCB	CVRWQCB	CVRWQCB	CVRWQCB	CVRWQCB
UNITS	.	°C		µS/cm	µg/L	mg/L
Aug-03-2000	.	26.5	7.7	971	0.7	0.6
Aug-10-2000	.	23.3	8.2	910	0.8	0.4
Aug-17-2000	.	23.7	7.9	1,070	0.5	0.4
Aug-24-2000	.	21.8	8.1	978	0.5	0.4
Aug-31-2000	.	21.1	7.7	1,060	<0.4	0.5
Sep-07-2000	.	19.6	7.5	1,030	<0.4	0.4
Sep-14-2000	.	22.6	7.0	1,030	<0.4	0.4
Sep-21-2000	.	22.2	6.9	1,320	0.6	0.6
Sep-28-2000	.	21.3	7.1	1,190	0.8	0.5
Oct-05-2000	.	18.8	6.3	1,370	0.5	0.6
Oct-12-2000	.	15.7	7.3	900	0.9	0.4
Oct-19-2000	.	16.2	7.2	1,170	0.6	0.5
Oct-26-2000	.	13.7	7.5	1,400	<0.4	0.6

Table 12. Weekly water quality monitoring at Station H (San Joaquin River at Hills Ferry).

See Table 26 for explanation of footnotes and agency abbreviations.

PARAMETER	.	Temperature	pH	Specific Conductance	Selenium (total)	Boron
DATA SOURCE	.	CVRWQCB	CVRWQCB	CVRWQCB	CVRWQCB	CVRWQCB
UNITS	.	°C		µS/cm	µg/L	mg/L
.
.	Data no longer collected regularly for this station. Contact CVRWQCB for details.					

Table 13. Weekly water quality monitoring at Station J (Camp 13 Ditch).

See Table 26 for explanation of footnotes and agency abbreviations.

PARAMETER	Flow	.	.	Specific Conductance	Selenium (total)	Boron
DATA SOURCE	SLDMWA ^{††}	.	.	CVRWQCB	CVRWQCB	CVRWQCB
UNITS	cfs	.	.	µS/cm	µg/L	mg/L
Aug-02-2000	20	.	.	402	0.8	0.3
Aug-09-2000	10	.	.	385	0.9	0.2
Aug-16-2000	0	.	.	529	1.4	0.7
Aug-23-2000	0	.	.	1,570	0.9	2.8
Aug-30-2000	35	.	.	488	0.5	0.3
Sep-06-2000	35	.	.	396	<0.4	0.3
Sep-13-2000	140	.	.	457	0.6	0.3
Sep-20-2000	215	.	.	453	1.2	0.2
Sep-27-2000	245	.	.	368	0.8	0.2
Oct-04-2000	245	.	.	511	0.8	0.3
Oct-11-2000	35	.	.	440	0.7	0.2
Oct-18-2000	35	.	.	512	1.7	0.2
Oct-25-2000	25	.	.	535	0.8	0.2

Table 14. Weekly water quality monitoring at Station K (Agatha Canal).

See Table 26 for explanation of footnotes and agency abbreviations.

PARAMETER	Flow	.	.	Specific Conductance	Selenium (total)	Boron
DATA SOURCE	SLDMWA ^{††}	.	.	CVRWQCB	CVRWQCB	CVRWQCB
UNITS	cfs	.	.	µS/cm	µg/L	mg/L
Aug-02-2000	15	.	.	413	0.8	0.3
Aug-09-2000	15	.	.	373	0.9	0.2
Aug-16-2000	15	.	.	392	0.8	0.2
Aug-23-2000	25	.	.	368	0.8	0.2
Aug-30-2000	70	.	.	439	<0.4	0.3
Sep-06-2000	90	.	.	355	<0.4	0.2
Sep-13-2000	140	.	.	366	0.7	0.2
Sep-20-2000	150	.	.	362	0.9	0.2
Sep-27-2000	190	.	.	490	1.0	0.2
Oct-04-2000	200	.	.	424	1.2	0.2
Oct-11-2000	150	.	.	429	0.9	0.2
Oct-18-2000	90	.	.	509	1.3	0.2
Oct-25-2000	70	.	.	466	0.7	0.2

Table 15. Weekly water quality monitoring at Station L2 (San Luis Canal at splits).

See Table 26 for explanation of footnotes and agency abbreviations.

PARAMETER	Flow	.	.	Specific Conductance	Selenium (total)	Boron
DATA SOURCE	SLDMWA ^{††}	.	.	CVRWQCB	CVRWQCB	CVRWQCB
UNITS	cfs	.	.	µS/cm	µg/L	mg/L
Aug-02-2000	10	.	.	1,190	1.8	1.3
Aug-09-2000	10	.	.	1,020	1.8	1.0
Aug-16-2000	10	.	.	1,220	1.8	1.1
Aug-23-2000	10	.	.	1,250	1.7	1.4
Aug-30-2000	10	.	.	1,060	0.8	1.0
Sep-06-2000	130	.	.	452	0.4	0.3
Sep-13-2000	150	.	.	462	0.6	0.3
Sep-20-2000	150	.	.	388	0.8	0.2
Sep-27-2000	150	.	.	467	1.8	0.3
Oct-04-2000	170	.	.	440	0.9	0.2
Oct-11-2000	20	.	.	584	2.2	0.3
Oct-18-2000	20	.	.	626	1.6	0.3
Oct-25-2000	0	.	.	2,470	3.4	3.2

Table 16. Weekly water quality monitoring at Station M2 (Santa Fe Canal at weir).

See Table 26 for explanation of footnotes and agency abbreviations.

PARAMETER	Flow	.	.	Specific Conductance	Selenium (total)	Boron
DATA SOURCE	SLDMWA ^{††}	.	.	CVRWQCB	CVRWQCB	CVRWQCB
UNITS	cfs	.	.	µS/cm	µg/L	mg/L
Aug-02-2000	46	.	.	1,050	1.8	1.7
Aug-09-2000	34	.	.	1,110	1.9	1.6
Aug-16-2000	20	.	.	903	1.4	1.0
Aug-23-2000	38	.	.	1,200	1.8	1.9
Aug-30-2000	8	.	.	953	0.7	1.0
Sep-06-2000	6	.	.	583	0.5	0.5
Sep-13-2000	41	.	.	481	0.5	0.3
Sep-20-2000	69	.	.	466	1.0	0.3
Sep-27-2000	83	.	.	443	2.0	0.3
Oct-04-2000	74	.	.	525	1.0	0.3
Oct-11-2000	200	.	.	609	1.0	0.4
Oct-18-2000	164	.	.	743	1.2	0.6
Oct-25-2000	134	.	.	716	1.0	0.6

Table 17. Weekly water quality monitoring at Station N (San Joaquin River at Crow's Landing).

See Table 26 for explanation of footnotes and agency abbreviations.

PARAMETER	Flow	Temperature	pH	Specific Conductance	Selenium (total)	Boron
DATA SOURCE	USGS	CVRWQCB	CVRWQCB	CVRWQCB	CVRWQCB	CVRWQCB
UNITS	cfs	°C		µS/cm	µg/L	mg/L
Aug-03-2000	636	28.3	8.0	1,140	3.3	1.0
Aug-10-2000	633	22.9	8.0	1,070	3.1	0.9
Aug-17-2000	611	26.8	8.2	1,160	2.2	0.9
Aug-24-2000	620	23.7	8.1	1,050	2.7	0.8
Aug-31-2000	623	20.1	6.8	1,080	3.4	0.9
Sep-07-2000	630	19.0	7.1	1,070	3.3	0.8
Sep-14-2000	643	24.2	7.8	844	1.6	0.5
Sep-21-2000	504	22.6	7.1	1,040	2.8	0.7
Sep-28-2000	527	21.1	5.8	916	2.1	0.6
Oct-05-2000	539	20.8	7.7	990	2.4	0.7
Oct-12-2000	830	16.1	7.7	734	1.5	0.4
Oct-19-2000	1,370	17.2	7.4	472	1.3	0.3
Oct-26-2000	1,680	15.7	6.8	402	0.6	0.2

Table 18. Summary of fathead minnow (*Pimephales promelas*) larvae survival in 7-day tests using water samples collected from November 1999 to October 2000. Each value is the mean of 4 replicates with 10 fish in each replicate.

See Table 26 for explanation of footnotes and agency abbreviations.

LOCATION	Station B	Station C	Station D	Station F	Delta Mendota Canal	Laboratory Control
DATA SOURCE	SLDMWA	SLDMWA	SLDMWA	SLDMWA	SLDMWA	SLDMWA
UNITS	%	%	%	%	%	%
Nov-1999	98	38*	60*	50*	87	95
Dec-1999	100	73*	73*	70*	100	100
Jan-2000	98	33*	48*	85	83	100
Feb-2000	95	85	65*	75*	95	98
Mar-2000	100	100	100	85	93	100
Apr-2000	95	93	95	98	83	100
May-2000	93	93	98	100	93	100
Jun-2000	90	85	95	95	88	100
Jul-2000	98	100	90	98	100	100
Aug-2000	100	97	88	80	100	100
Sep-2000	100	100	93	98	98	98
Oct-2000	100	75*	93	100	100	98

Table 19. Summary of fathead minnow (*Pimephales promelas*) larvae growth in 7-day tests using water samples collected from November 1999 to October 2000. Each value is the mean of 4 replicates with 10 fish in each replicate.

See Table 26 for explanation of footnotes and agency abbreviations.

LOCATION	Station B	Station C	Station D	Station F	Delta Mendota Canal	Laboratory Control
DATA SOURCE	SLDMWA	SLDMWA	SLDMWA	SLDMWA	SLDMWA	SLDMWA
UNITS	mg	mg	mg	mg	mg	mg
Nov-1999	0.58	0.20*	0.35*	0.29*	0.51	0.52
Dec-1999	0.67	0.47*	0.49	0.50*	0.68	0.61
Jan-2000	0.68	0.23*	0.37	0.59	0.53	0.64
Feb-2000	0.71	0.60	0.54	0.51*	0.68	0.65
Mar-2000	0.66	0.64	0.62	0.62	0.53	0.60
Apr-2000	0.66	0.65	0.69	0.53	0.51	0.82
May-2000	0.27	0.28	0.36	0.35	0.27	0.33
Jun-2000	0.48	0.42	0.56	0.48	0.46	0.54
Jul-2000	0.68	0.60	0.58	0.62	0.62	0.69
Aug-2000	0.50	0.40	0.49	0.44	0.56	0.64
Sep-2000	0.42	0.34	0.34	0.41	0.37	0.34
Oct-2000	0.66	0.46*	0.58*	0.67	0.68	0.58

Table 20. Summary of *Daphnia magna* survival in 7-day tests using water samples collected from November 1999 to October 2000. Each value is the mean of 10 replicates with 1 animal in each replicate.

See Table 26 for explanation of footnotes and agency abbreviations.

LOCATION	Station B	Station C	Station D	Station F	Delta Mendota Canal	Laboratory Control
DATA SOURCE	SLDMWA	SLDMWA	SLDMWA	SLDMWA	SLDMWA	SLDMWA
UNITS	%	%	%	%	%	%
Nov-1999	100	100	100	100	90	100
Dec-1999	90	100	100	100	90	90
Jan-2000	100	100	100	100	100	100
Feb-2000	90	90	70	70	80	100
Mar-2000	90	90	90	90	90	100
Apr-2000	80	100	90	90	80	100
May-2000	100	100	100	100	100	90
Jun-2000	80	100	100	90	100	90
Jul-2000	100	100	100	100	90	90
Aug-2000	90	100	90	100	90	90
Sep-2000	90	90	90	100	100	100
Oct-2000	80	80	60*	80	80	70

Table 21. Summary of *Daphnia magna* reproduction in 7-day tests using water samples collected from November 1999 to October 2000. Each value is the mean of 10 replicates with 1 animal in each replicate.

See Table 26 for explanation of footnotes and agency abbreviations.

LOCATION	Station B	Station C	Station D	Station F	Delta Mendota Canal	Laboratory Control
DATA SOURCE	SLDMWA	SLDMWA	SLDMWA	SLDMWA	SLDMWA	SLDMWA
UNITS	neonates per female	neonates per female	neonates per female	neonates per female	neonates per female	neonates per female
Nov-1999	16.2	11.7	10.1	14.8	5.3 †††	7.3 †††
Dec-1999	34.9	32.0	43.0	37.7	31.2	40.9
Jan-2000	18.9	22.3	23.0	24.9	15.0	14.0
Feb-2000	37.1	29.0	24.5	22.7	22.5	32.1
Mar-2000	10.6	10.6	13.0	10.6	6.2	12.7
Apr-2000	14.5	17.3	11.2	10.5	9.7 †††	11.6
May-2000	13.4	18.5	12.5	9.7	11.4	17.7
Jun-2000	21.5	29.1	35.0	22.1	15.5	16.6
Jul-2000	27.3	36.8	31.4	17.0	8.8	28.6
Aug-2000	20.9	18.2	21.5	26.8	16.3	14.5
Sep-2000	42.4	38.9	39.9	41.6	48.7	31.8
Oct-2000	29.8	41.5	23.9	25.7	31.8	17.7

Table 22. Summary of *Selenastrum capricornutum* growth in 4-day tests using water samples collected from November 1999 to October 2000. Each value is the mean of 4 replicates.

See Table 26 for explanation of footnotes and agency abbreviations.

LOCATION	Station B	Station C	Station D	Station F	Delta Mendota Canal	Laboratory Control
DATA SOURCE	SLDMWA	SLDMWA	SLDMWA	SLDMWA	SLDMWA	SLDMWA
UNITS	10 ⁵ cells/mL	10 ⁵ cells/mL	10 ⁵ cells/mL	10 ⁵ cells/mL	10 ⁵ cells/mL	10 ⁵ cells/mL
Nov-1999	9.9*	12.8	11.4*	12.9	14.3	15.3
Dec-1999	12.0*	22.7	20.9	20.4	18.8	23.4
Jan-2000	2.3*	6.5	7.5	7.3	6.9 ††††	8.2 ††††
Feb-2000	5.8*	9.4	9.8	6.7*	10.0	10.2 ‡
Mar-2000	7.1	9.7	8.0	8.1	8.3 ††††, ‡	11.4 ††††
Apr-2000	18.7	19.9	21.5	22.4	10.0 ‡	12.2
May-2000	16.2	16.3	17.3	16.5	15.2	17.2
Jun-2000	19.7	24.3	21.7	21.4	19.9	11.9
Jul-2000	13.7	16.3	13.5	11.3	12.1	13.3
Aug-2000	19.8	25.1	24.8	33.3	13.4	23.0
Sep-2000	9.4	11.5	10.8	13.7	10.8	9.6
Oct-2000	15.0	15.7	14.3	16.1	14.4	16.2

Table 23. Summary of selenium concentrations in grab water samples collected at study stations for use in laboratory toxicity tests, August 2000 to October 2000.

See Table 26 for explanation of footnotes and agency abbreviations.

LOCATION	Station B	Station C	Station D	Station F	Delta Mendota Canal
DATA SOURCE #	SLDMWA/USBR	SLDMWA/USBR	SLDMWA/USBR	SLDMWA/USBR	SLDMWA/USBR
UNITS	µg/L	µg/L	µg/L	µg/L	µg/L
Aug-14-2000	24	1.2	26	0.6	<0.4
Aug-16-2000	23	1.0	20	0.6	<0.4
Aug-18-2000	28	0.8	24	1.6	<0.4
Sep-11-2000	52	0.6	32	0.7	<0.4
Sep-13-2000	45	0.5	21	0.6	<0.4
Sep-15-2000	40	0.8	17	0.7	<0.4
Oct-16-2000	56	0.5	8.3	<0.4	<0.4
Oct-18-2000	55	<0.4	7.4	0.5	<0.4
Oct-20-2000	28	<0.4	3.9	<0.4	<0.4

Table 24. Summary of sulfate concentrations in grab water samples collected at study stations for use in laboratory toxicity tests, August 2000 to October 2000.

See Table 26 for explanation of footnotes and agency abbreviations.

LOCATION	Station B	Station C	Station D	Station F	Delta Mendota Canal
DATA SOURCE	SLDMWA/USBR	SLDMWA/USBR	SLDMWA/USBR	SLDMWA/USBR	SLDMWA/USBR
UNITS	mg/L	mg/L	mg/L	mg/L	mg/L
Aug-14-2000	1,130	289	1,110	110	23
Aug-16-2000	1,050	208	923	118	17
Aug-18-2000	1,210	175	1,120	115	15
Sep-11-2000	1,110	58	675	101	23
Sep-13-2000	1,090	55	505	135	22
Sep-15-2000	1,050	71	508	136	36
Oct-16-2000	1,360	47	299	162	28
Oct-18-2000	1,230	60	205	175	28
Oct-20-2000	1,110	61	180	185	28

Table 25. Summary of total suspended solids concentrations in grab water samples collected from August 2000 to October 2000.

See Table 26 for explanation of footnotes and agency abbreviations.

LOCATION	Station B	Station C	Station D	Station F	Delta Mendota Canal
DATA SOURCE	SLDMWA	SLDMWA	SLDMWA	SLDMWA	SLDMWA
UNITS	mg/L	mg/L	mg/L	mg/L	mg/L
Aug-14-2000	17	39	19	33	5
Aug-16-2000	17	22	24	43	5
Aug-18-2000	44	16	61	86	18
Sep-11-2000	59	80	85	32	12
Sep-13-2000	39	35	58	80	16
Sep-15-2000	49	10	67	67	19
Oct-16-2000	29	14	15	64	10
Oct-18-2000	38	13	27	82	9
Oct-20-2000	36	13	64	108	14

Table 26. Explanations of footnotes and agency abbreviations.

Footnote	Explanation
CVRWQCB	California Regional Water Quality Control Board, Central Valley Region
SLDMWA	San Luis & Delta-Mendota Water Authority
USBRR	U.S. Bureau of Reclamation
USGS	U.S. Geological Survey
e	Estimated value
.	Not applicable
<	Less than MDL. If needed in calculation, use 1/2 MDL
NA	Not analyzed - operator error, data will not be available in the future
NP	Not Provided. Data may be available in the future.
NT	Not tested
P	Pending, data not available at this time but will be available in the future
(4)	In situ cages could not be deployed due to wet weather conditions.
(5)	Baseline results for 3/96 are for 14-day old larvae. There was no survival for the 24-hour old larvae.
(6)	Windmill station was dry due to water drainage. Use of plastic screened beakers for Station F during 8/96 with use of 4-day old larvae resulted in 0/39. Apparent cause of mortality was elevated temperature and sediment which was found in all cages and beakers.
(7)	Heavy silt accumulation was noted in Stations D and F cages and light silt accumulation was observed in both the Windmill Station and Station B.
(8)	Moderate silt accumulation was noted in Stations B and F cages and light silt accumulation was observed in Station D.
(9)	No test deployment was done at the Windmill Station due to extreme conditions (stagnant & pH>9.0). At Station B, replicate A was retrieved with no cork and replicate C lost its cork during retrieval. There were no surviving fish for a growth determination for Station F cages.
*	Significantly reduced from Delta Mendota Canal (p<0.05)
†	DMC water failed to meet the survival (>80%) acceptability criteria.
††	Data from records of the Grassland Water District. Data is not subjected to the criteria documented in the Compliance Monitoring Program for the Use and Operation of the Grassland Bypass Project (1996) nor the Quality Assurance Project Plan for the GBP (1997 draft).
†††	DMC water failed to meet the reproduction (>10 neonates/adult) acceptability criteria.
††††	DMC water failed to meet minimum growth (10 ⁶ cell/mL) acceptability criteria.
‡	Control value exceeds suggested maximum variance (20%) acceptability criteria.
#	New testing laboratory with reporting limit of 0.4 µg/L as of June 1998.