

GRASSLAND BYPASS PROJECT

MONTHLY DATA REPORT

November 2000

January 29, 2001

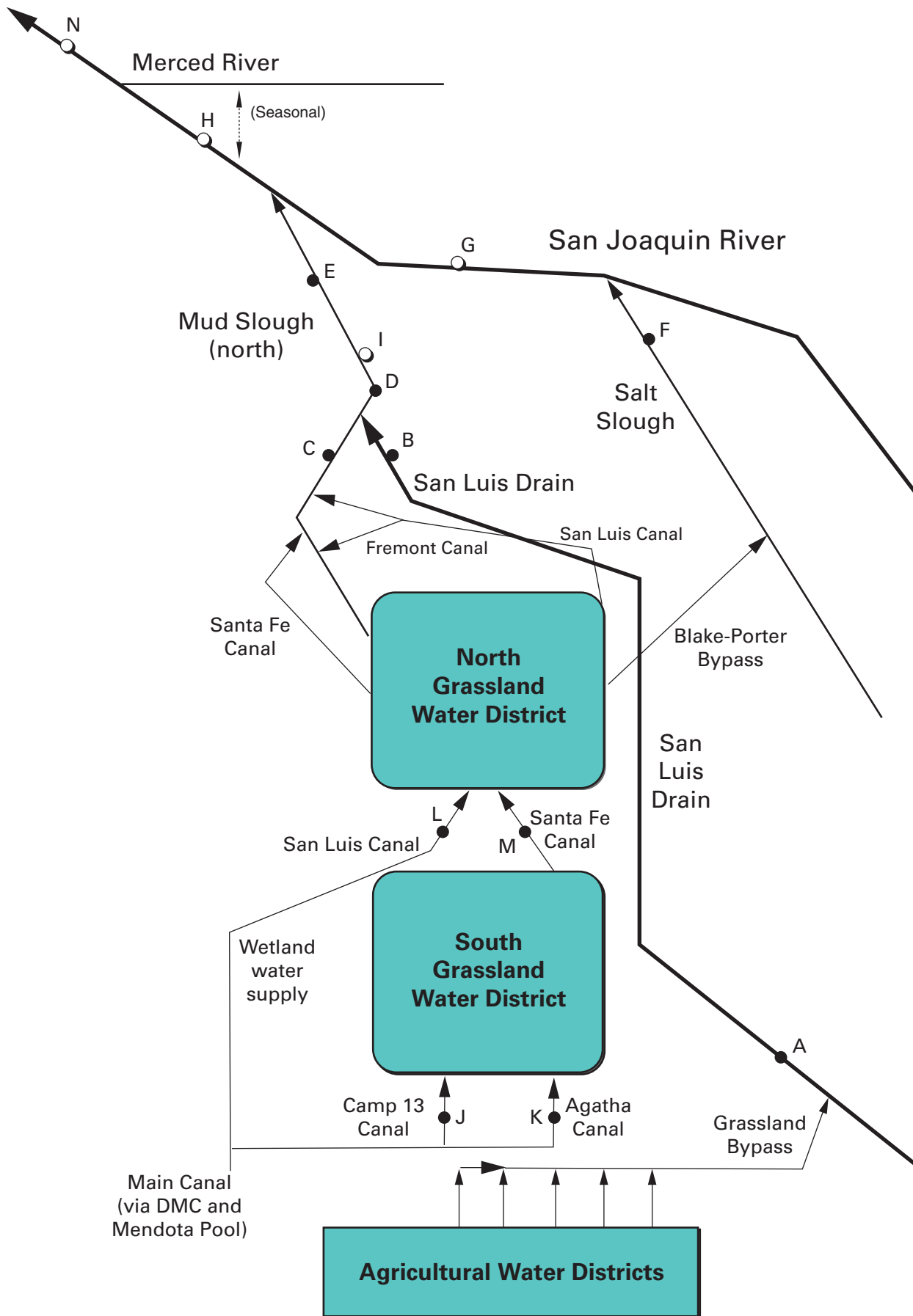
Preliminary Results

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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MONTHLY DATA REPORT

LIST OF TABLES FOR MONTHLY REPORT

Continuous Monitoring

1. Continuous water monitoring at Station A (inflow to San Luis Drain), November 2000.
2. Continuous water monitoring at Station B (discharge from San Luis Drain), November 2000.
3. Continuous water monitoring at Station D (Mud Slough North downstream of drainage discharges), November 2000.
4. Continuous water monitoring at Station F (Salt Slough at Highway 165), November 2000.
5. Continuous water monitoring at Station N (San Joaquin River at Crow's Landing), November 2000.

Weekly Monitoring

- 6a. Weekly water quality monitoring at Station A (inflow to San Luis Drain), taken from grab samples.
- 6b. Weekly water quality monitoring at Station A (inflow to San Luis Drain), taken from composite samples.
7. Weekly water quality monitoring at Station B (discharge from San Luis Drain).
8. Weekly water quality monitoring at Station C (Mud Slough North upstream of drainage discharge).
9. Weekly water quality monitoring at Station D (Mud Slough North downstream of drainage discharge).
10. Weekly water quality monitoring at Station F (Salt Slough at Lander Avenue).
11. Weekly water quality monitoring at Station G (San Joaquin River at Fremont Ford).
12. Weekly water quality monitoring at Station H (San Joaquin River at Hills Ferry).
13. Weekly water quality monitoring at Station J (Camp 13 Ditch).
14. Weekly water quality monitoring at Station K (Agatha Canal).
15. Weekly water quality monitoring at Station L2 (San Luis Canal at splits).
16. Weekly water quality monitoring at Station M2 (Santa Fe Canal at weir).
17. Weekly water quality monitoring at Station N (San Joaquin River at Crow's Landing).

Monthly Monitoring

18. Summary of fathead minnow (*Pimephales promelas*) larvae survival in 7-day tests using water samples collected from December 1999 to November 2000.
19. Summary of fathead minnow (*Pimephales promelas*) larvae growth in 7-day tests using water samples collected from December 1999 to November 2000.
20. Summary of *Daphnia magna* survival in 7-day tests using water samples collected from December 1999 to November 2000.
21. Summary of *Daphnia magna* reproduction in 7-day tests using water samples collected from December 1999 to November 2000.
22. Summary of *Selenastrum capricornutum* growth in 4-day tests using water samples collected from December 1999 to November 2000.
23. Summary of selenium concentrations in grab water samples collected at study stations for use in laboratory toxicity tests, September 2000 to November 2000.
24. Summary of sulfate concentrations in grab water samples collected at study stations for use in laboratory toxicity tests, September 2000 to November 2000.
25. Summary of total suspended solids concentrations in grab water samples collected from September 2000 to November 2000.
26. Explanations of footnotes and agency abbreviations.

Table 1. Continuous water monitoring at Station A (inflow to San Luis Drain), November 2000.

See Table 26 for explanation of footnotes and agency abbreviations.

PARAMETER	Flow	Specific Conductance
DATA SOURCE	SLDMWA	SLDMWA
UNITS	cfs	µS/cm
Nov-01-2000	14	4,870
Nov-02-2000	16	4,930
Nov-03-2000	20	4,050
Nov-04-2000	20	3,960
Nov-05-2000	15	4,400
Nov-06-2000	14	4,870
Nov-07-2000	14	5,040
Nov-08-2000	15	5,100
Nov-09-2000	13	5,190
Nov-10-2000	14	5,140
Nov-11-2000	14	5,110
Nov-12-2000	13	5,020
Nov-13-2000	13	5,020
Nov-14-2000	14	4,980
Nov-15-2000	15	4,990
Nov-16-2000	15	4,990
Nov-17-2000	16	5,090
Nov-18-2000	14	5,000
Nov-19-2000	14	4930
Nov-20-2000	15	4820
Nov-21-2000	16	4,880
Nov-22-2000	18	5,020
Nov-23-2000	17	5,050
Nov-24-2000	16	4,510
Nov-25-2000	15	4,330
Nov-26-2000	19	4,230
Nov-27-2000	18	3,890
Nov-28-2000	18	3,870
Nov-29-2000	18	4,140
Nov-30-2000	19	4,570
Mean	16	4,730

Table 2. Continuous water monitoring at Station B (discharge from San Luis Drain), November 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
Nov-01-2000	21	15.5	6.6	3,960	25.0	2.8
Nov-02-2000	20	15.7	6.9	3,950	26.6	2.9
Nov-03-2000	21	16.1	6.9	4,130	46.1	5.2
Nov-04-2000	25	16.4	6.3	3,850	43.4	5.9
Nov-05-2000	24	16.5	6.8	3,770	30.3	3.9
Nov-06-2000	20	15.9	6.8	3,890	34.4	3.7
Nov-07-2000	19	14.3	6.9	3,930	42.7	4.4
Nov-08-2000	19	14.4	6.2	4,350	73.1	7.5
Nov-09-2000	19	14.3	6.6	4,420	67.0	6.9
Nov-10-2000	18	13.8	5.9	3,750	42.8	4.2
Nov-11-2000	17	13.2	5.7	3,720	45.1	4.1
Nov-12-2000	18	12.6	6.1	3,900	46.0	4.5
Nov-13-2000	17	12.2	6.8	4,220	53.1	4.9
Nov-14-2000	17	12.1	7.3	4,430	59.6	5.5
Nov-15-2000	17	11.7	7.2	4,470	61.4	5.6
Nov-16-2000	19	12.0	7.2	4,500	60.0	6.1
Nov-17-2000	19	11.8	7.1	4,530	69.0	7.1
Nov-18-2000	19	11.6	7.0	4,510	69.1	7.1
Nov-19-2000	19	11.6	7.1	4,430	59.0	6.0
Nov-20-2000	18	11.6	7.2	4,410	55.2	5.4
Nov-21-2000	19	11.5	7.2	4,380	56.5	5.8
Nov-22-2000	19	11.7	7.5	4,430	59.9	6.1
Nov-23-2000	22	11.4	7.3	4,450	63.7	7.6
Nov-24-2000	21	11.4	7.2	4,530	70.7	8.0
Nov-25-2000	20	11.5	7.3	4,430	64.7	7.0
Nov-26-2000	20	11.2	7.5	4,410	58.2	6.3
Nov-27-2000	22	11.3	7.5	4,340	57.2	6.8
Nov-28-2000	22	11.4	7.6	4,340	61.4	7.3
Nov-29-2000	22	10.8	7.5	4,550	62.2	7.4
Nov-30-2000	22	11.1	7.5	4,330	68.1	8.1
Mean	20	12.9	7.0	4,240	54.4	
Total						174

Load Limitation for November 2000	(lbs)	348
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**Table 3. Continuous water monitoring at Station D
(Mud Slough North downstream of drainage discharges), November 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
Nov-01-2000	237	14.7	1,300
Nov-02-2000	224	15.3	1,340
Nov-03-2000	218	15.7	1,370
Nov-04-2000	215	NA	NA
Nov-05-2000	203	NA	NA
Nov-06-2000	194	NA	NA
Nov-07-2000	179	NA	NA
Nov-08-2000	171	NA	NA
Nov-09-2000	166	NA	NA
Nov-10-2000	163	NA	NA
Nov-11-2000	167	12.0	1,430
Nov-12-2000	159	11.1	1,570
Nov-13-2000	153	10.7	1,640
Nov-14-2000	143	10.8	1,740
Nov-15-2000	132	10.5	1,830
Nov-16-2000	132	11.2	1,870
Nov-17-2000	133	10.7	1,870
Nov-18-2000	130	10.6	1,890
Nov-19-2000	130	10.8	1,870
Nov-20-2000	128	10.7	1,870
Nov-21-2000	124	10.9	1,900
Nov-22-2000	126	11.1	1,910
Nov-23-2000	127	10.7	1,940
Nov-24-2000	127	10.7	1,950
Nov-25-2000	132	10.9	1,860
Nov-26-2000	131	10.7	1,850
Nov-27-2000	142	10.7	1,830
Nov-28-2000	149	NA	NA
Nov-29-2000	156	NA	NA
Nov-30-2000	160	NA	NA
	.	.	.

Table 4. Continuous water monitoring at Station F (Salt Slough at Highway 165), November 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
Nov-01-2000	180	14.5	NA
Nov-02-2000	190	14.9	NA
Nov-03-2000	193	15.2	NA
Nov-04-2000	193	15.3	NA
Nov-05-2000	186	15.5	NA
Nov-06-2000	181	15.0	NA
Nov-07-2000	174	13.5	NA
Nov-08-2000	175	13.5	1,280
Nov-09-2000	172	13.4	1,670
Nov-10-2000	158	12.8	1,730
Nov-11-2000	143	11.8	1,780
Nov-12-2000	134	11.2	1,630
Nov-13-2000	129	10.8	NA
Nov-14-2000	124	11.1	NA
Nov-15-2000	126	10.8	NA
Nov-16-2000	119	11.6	NA
Nov-17-2000	109	11.1	NA
Nov-18-2000	104	10.9	1,860
Nov-19-2000	107	11.0	1,680
Nov-20-2000	108	10.9	1,590
Nov-21-2000	108	11.0	1,470
Nov-22-2000	112	11.5	NA
Nov-23-2000	120	10.9	NA
Nov-24-2000	130	10.9	NA
Nov-25-2000	129	11.1	NA
Nov-26-2000	137	11.0	NA
Nov-27-2000	136	11.2	NA
Nov-28-2000	133	11.4	NA
Nov-29-2000	131	10.5	NA
Nov-30-2000	122	10.8	NA
	.	.	.

Table 5. Continuous water monitoring at Station N (San Joaquin River at Crow's Landing), November 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
Nov-01-2000	1,430	14.2	555	1.1
Nov-02-2000	1,430	14.4	523	1.0
Nov-03-2000	1,350	14.7	581	0.7
Nov-04-2000	1,260	14.8	610	0.8
Nov-05-2000	1,200	15.0	649	1.3
Nov-06-2000	1,160	14.8	705	1.5
Nov-07-2000	1,130	13.6	720	0.9
Nov-08-2000	1,110	13.4	725	0.9
Nov-09-2000	1,090	13.3	698	1.2
Nov-10-2000	1,060	12.8	453	1.6
Nov-11-2000	1,040	12.1	786	1.3
Nov-12-2000	1,030	11.4	786	1.4
Nov-13-2000	1,050	10.9	784	1.1
Nov-14-2000	1,030	10.8	775	1.1
Nov-15-2000	1,000	10.6	830	1.3
Nov-16-2000	983	11.1	833	1.5
Nov-17-2000	967	10.8	804	1.3
Nov-18-2000	937	10.5	823	1.4
Nov-19-2000	914	10.6	833	1.5
Nov-20-2000	929	10.4	837	2.0
Nov-21-2000	947	10.4	820	1.7
Nov-22-2000	932	10.9	819	1.6
Nov-23-2000	922	10.7	827	1.7
Nov-24-2000	941	10.6	836	1.6
Nov-25-2000	969	10.7	818	2.0
Nov-26-2000	964	11.0	826	2.3
Nov-27-2000	972	11.1	828	1.8
Nov-28-2000	967	11.1	845	1.8
Nov-29-2000	963	10.5	841	1.8
Nov-30-2000	962	10.5	847	1.8

Table 6a. Weekly water quality monitoring at Station A (inflow to San Luis Drain), taken from grab samples.

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
Sep-06-2000	46	.	.	3,700	76	Selenium and boron analyses		
Sep-13-2000	20	.	.	5,020	40	from weekly grab		
Sep-20-2000	20	.	.	4,350	42	discontinued 2/1/00.		
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 e	.	.	4,860	60	.	.	.
Oct-25-2000	8	.	.	4,830	53	.	.	.
Nov-01-2000	14	.	.	5,070	48	.	.	.
Nov-08-2000	15	.	.	5,030	41	.	.	.
Nov-15-2000	15	.	.	5,000	11	.	.	.
Nov-22-2000	18	.	.	4,910	43	.	.	.
Nov-29-2000	18	.	.	4,000	35	.	.	.

Table 6b. Weekly water quality monitoring at Station A (inflow to San Luis Drain), taken from composite samples.

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
Sep-05-2000	48	.	.	3,940	.	50.7	.	6.4
Sep-12-2000	23	.	.	4,140	.	52.0	.	6.6
Sep-19-2000	18	.	.	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 e	.	.	NA	.	71.1	.	8.1
Oct-31-2000	15	.	.	4,390	.	68.0	.	7.6
Nov-07-2000	14	.	.	4,610	.	73.3	.	7.5
Nov-14-2000	14	.	.	5,040	.	87.2	.	8.4
Nov-21-2000	16	.	.	4,920	.	75.3	.	8.3
Nov-28-2000	18	.	.	4,330	.	65.2	.	7.5

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
Sep-07-2000	46	21.4	7.3	3,690	78	46.4	Selenium	6.0
Sep-14-2000	18	23.7	8.0	3,140	53	33.3	(dissolved)	5.0
Sep-21-2000	23	23.3	5.5	4,790	64	53.2	analyses	8.3
Sep-28-2000	18	24.9	6.2	4,130	33	35.2	discontinued	7.4
Oct-05-2000	21	21.1	7.1	4,520	P	49.8	1/15/2000.	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
Nov-02-2000	20	15.6	6.9	3,980	50	32.4		6.8
Nov-09-2000	19	13.1	8.2	4,460	52	59.5		7.0
Nov-16-2000	19	10.9	6.7	4,510	48	65.2		7.2
Nov-21-2000	19	9.5	7.7	4,440	32	62.1		7.1
Nov-30-2000	22	11.9	7.5	4,250	36	60.0		6.5

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
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
Nov-02-2000	204	15.0	7.6	985	<0.4	0.8
Nov-09-2000	147	13.3	7.7	1,100	<0.4	0.9
Nov-16-2000	113	10.7	7.5	1,290	<0.4	1.0
Nov-21-2000	105	9.9	7.9	1,350	<0.4	1.1
Nov-30-2000	138	11.6	7.8	1,330	0.5	1.0

++ 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
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
Nov-02-2000	224	14.3	7.5	1,370	3.7	1.5
Nov-09-2000	166	12.5	7.8	1,640	8.2	1.8
Nov-16-2000	132	10.9	7.3	1,870	9.0	2.1
Nov-21-2000	124	9.3	8.1	1,970	9.5	2.2
Nov-30-2000	160	9.6	7.8	1,940	12.4	2.0

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
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
Nov-02-2000	190	14.0	6.3	1,310	0.8	0.8
Nov-09-2000	172	13.0	7.7	1,400	0.6	0.9
Nov-16-2000	119	11.0	6.9	1,570	<0.4	0.8
Nov-21-2000	99	9.0	7.9	1,600	0.5	0.7
Nov-30-2000	122	10.0	7.1	1,640	<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
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
Nov-02-2000	.	14.0	6.3	661	<0.4	0.3
Nov-09-2000	.	12.0	7.8	1,240	0.6	0.7
Nov-16-2000	.	10.0	7.4	1,570	<0.4	0.7
Nov-21-2000	.	9.0	7.2	1,710	<0.4	0.7
Nov-30-2000	.	9.0	7.4	1,740	<0.4	0.7

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
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
Nov-01-2000	25	.	.	559	2.2	0.3
Nov-08-2000	25	.	.	483	1.3	0.3
Nov-15-2000	25	.	.	499	0.9	0.3
Nov-22-2000	25	.	.	583	1.0	0.2
Nov-29-2000	25	.	.	588	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
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
Nov-01-2000	50	.	.	501	1.4	0.2
Nov-08-2000	50	.	.	500	1.0	0.3
Nov-15-2000	50	.	.	525	0.9	0.3
Nov-22-2000	65	.	.	594	0.7	0.2
Nov-29-2000	65	.	.	617	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
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
Nov-01-2000	0	.	.	2,530	3.9	3.3
Nov-08-2000	0	.	.	2,130	2.9	2.8
Nov-15-2000	0	.	.	1,890	2.4	2.5
Nov-22-2000	0	.	.	1,560	2.6	1.9
Nov-29-2000	0	.	.	2,410	3.7	3.3

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
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
Nov-01-2000	142	.	.	950	1.2	0.9
Nov-08-2000	141	.	.	917	0.9	0.8
Nov-15-2000	112	.	.	979	0.7	0.8
Nov-22-2000	107	.	.	990	0.9	0.8
Nov-29-2000	143	.	.	994	0.9	0.8

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
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
Nov-02-2000	1,430	15.3	6.6	545	0.9	0.4
Nov-09-2000	1,090	13.3	7.4	726	1.7	0.5
Nov-16-2000	983	10.1	7.3	822	1.4	0.5
Nov-21-2000	947	10.1	7.9	822	1.5	0.5
Nov-30-2000	962	9.0	7.8	863	1.8	0.5

Table 18. Summary of fathead minnow (*Pimephales promelas*) larvae survival in 7-day tests using water samples collected from December 1999 to November 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	%	%	%	%	%	%
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
Nov-2000	88	15*	23*	63*	95	100

Table 19. Summary of fathead minnow (*Pimephales promelas*) larvae growth in 7-day tests using water samples collected from December 1999 to November 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
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
Nov-2000	0.29	0.05*	0.07*	0.21*	0.28	0.31

Table 20. Summary of *Daphnia magna* survival in 7-day tests using water samples collected from December 1999 to November 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	%	%	%	%	%	%
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
Nov-2000	100	100	100	100	90	100

Table 21. Summary of *Daphnia magna* reproduction in 7-day tests using water samples collected from December 1999 to November 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
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
Nov-2000	45.7	40.4	43.9	35.1	22.8	26.3

Table 22. Summary of *Selenastrum capricornutum* growth in 4-day tests using water samples collected from December 1999 to November 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
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
Nov-2000	8.3	7.5	8.1	7.6	7.7	7.9

Table 23. Summary of selenium concentrations in grab water samples collected at study stations for use in laboratory toxicity tests, September 2000 to November 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
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
Nov-13-2000	54	0.5	6.7	<0.4	<0.4
Nov-15-2000	61	0.4	9.4	<0.4	<0.4
Nov-17-2000	75	0.5	10	<0.4	<0.4

Table 24. Summary of sulfate concentrations in grab water samples collected at study stations for use in laboratory toxicity tests, September 2000 to November 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
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
Nov-13-2000	1,340	130	293	196	29
Nov-15-2000	1,470	142	352	192	30
Nov-17-2000	1,490	151	367	213	28

Table 25. Summary of total suspended solids concentrations in grab water samples collected from September 2000 to November 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
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
Nov-13-2000	40	37	5	68	2
Nov-15-2000	35	37	4	33	9
Nov-17-2000	57	37	38	36	29

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.