

GRASSLAND BYPASS PROJECT

MONTHLY DATA REPORT

December 2000

February 27, 2001

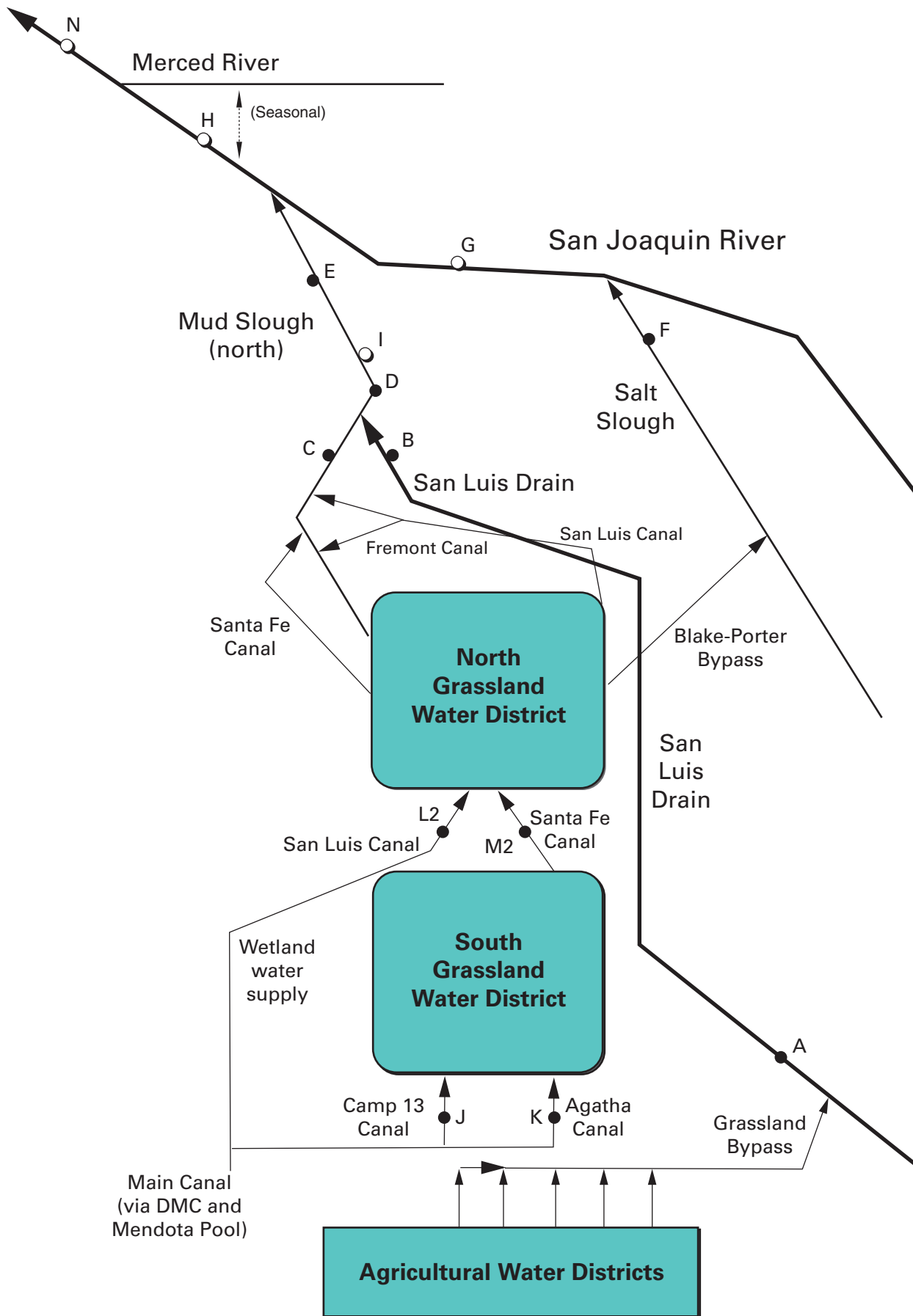
Preliminary Results

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

See Table 26 for explanation of footnotes and agency abbreviations.

PARAMETER	Flow	Specific Conductance
DATA SOURCE	SLDMWA	SLDMWA
UNITS	cfs	µS/cm
Dec-01-2000	19	4,160
Dec-02-2000	19	4,710
Dec-03-2000	18	4,610
Dec-04-2000	18	4,680
Dec-05-2000	17	4,710
Dec-06-2000	18	4,690
Dec-07-2000	19	4,780
Dec-08-2000	18	4,930
Dec-09-2000	17	4,970
Dec-10-2000	19	4,880
Dec-11-2000	20	4,860
Dec-12-2000	19	4,680
Dec-13-2000	24	4,430
Dec-14-2000	25	4,130
Dec-15-2000	19	4,200
Dec-16-2000	18	4,600
Dec-17-2000	18	4,710
Dec-18-2000	18	4,720
Dec-19-2000	18	4740
Dec-20-2000	19	4780
Dec-21-2000	19	4,850
Dec-22-2000	18	4,810
Dec-23-2000	18	4,810
Dec-24-2000	18	4,820
Dec-25-2000	18	4,870
Dec-26-2000	17	4,830
Dec-27-2000	19	4,820
Dec-28-2000	16	5,130
Dec-29-2000	15	4,790
Dec-30-2000	15	4,690
Dec-31-2000	16	4,720
Mean	18	4,710

Table 2. Continuous water monitoring at Station B (discharge from San Luis Drain), December 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
Dec-01-2000	24	11.3	7.1	4,010	48.4	6.3
Dec-02-2000	24	11.0	7.3	4,000	49.0	6.3
Dec-03-2000	24	10.9	6.4	3,680	40.9	5.3
Dec-04-2000	23	10.7	6.1	3,600	41.0	5.1
Dec-05-2000	23	10.4	6.5	3,770	45.1	5.6
Dec-06-2000	23	10.3	7.0	4,130	57.8	7.2
Dec-07-2000	24	10.6	6.9	3,750	44.2	5.7
Dec-08-2000	25	11.2	6.4	4,150	55.9	7.5
Dec-09-2000	24	11.5	6.3	4,150	55.3	7.2
Dec-10-2000	23	12.3	6.4	4,200	51.4	6.4
Dec-11-2000	24	12.7	6.5	4,210	53.1	6.9
Dec-12-2000	25	12.7	6.6	4,200	51.1	6.9
Dec-13-2000	24	12.3	6.8	4,260	49.3	6.4
Dec-14-2000	28	12.5	7.0	4,340	53.4	8.1
Dec-15-2000	28	13.0	7.2	4,410	55.5	8.4
Dec-16-2000	25	12.5	7.4	4,420	49.9	6.7
Dec-17-2000	23	11.8	7.0	4,360	48.7	6.0
Dec-18-2000	23	10.8	6.8	4,250	48.1	6.0
Dec-19-2000	23	10.4	6.7	4,080	41.9	5.2
Dec-20-2000	23	10.4	5.9	3,920	55.7	6.9
Dec-21-2000	24	10.4	5.7	3,400	37.7	4.9
Dec-22-2000	24	10.8	6.7	4,110	46.7	6.0
Dec-23-2000	24	10.7	6.8	4,220	47.0	6.1
Dec-24-2000	23	10.6	6.8	4,210	45.0	5.6
Dec-25-2000	23	10.0	6.8	4,250	46.3	5.7
Dec-26-2000	23	9.6	7.0	4,270	47.8	5.9
Dec-27-2000	23	9.3	6.9	4,320	49.0	6.1
Dec-28-2000	24	9.1	6.9	4,310	50.0	6.5
Dec-29-2000	22	9.0	6.9	4,290	50.3	6.0
Dec-30-2000	21	9.0	7.0	4,320	51.1	5.8
Dec-31-2000	21	8.8	7.0	4,320	48.8	5.5
Mean	24	10.9	6.7	4,130	48.9	
Total						194

Load Limitation for December 2000	(lbs)	389
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**Table 3. Continuous water monitoring at Station D
(Mud Slough North downstream of drainage discharges), December 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
Dec-01-2000	162	NA	NA
Dec-02-2000	155	NA	NA
Dec-03-2000	155	NA	NA
Dec-04-2000	150	NA	NA
Dec-05-2000	145	NA	NA
Dec-06-2000	140	NA	NA
Dec-07-2000	142	NA	NA
Dec-08-2000	144	10.9	1,970
Dec-09-2000	143	11.4	1,990
Dec-10-2000	143	12.4	1,960
Dec-11-2000	147	12.5	1,940
Dec-12-2000	154	12.1	1,970
Dec-13-2000	159	11.4	1,940
Dec-14-2000	167	11.6	1,920
Dec-15-2000	166	12.5	2,010
Dec-16-2000	158	11.6	2,030
Dec-17-2000	155	10.7	2,010
Dec-18-2000	154	9.5	1,990
Dec-19-2000	157	9.2	1,970
Dec-20-2000	159	9.3	1,910
Dec-21-2000	162	9.3	1,880
Dec-22-2000	160	10.1	1,960
Dec-23-2000	153	10.1	2,010
Dec-24-2000	150	10.1	2,020
Dec-25-2000	147	9.1	2,040
Dec-26-2000	143	8.6	2,090
Dec-27-2000	138	8.3	2,120
Dec-28-2000	135	8.1	2,170
Dec-29-2000	127	8.3	2,170
Dec-30-2000	124	8.3	2,170
Dec-31-2000	125	8.0	2,150

Table 4. Continuous water monitoring at Station F (Salt Slough at Highway 165), December 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
Dec-01-2000	132	10.9	NA
Dec-02-2000	155	10.4	NA
Dec-03-2000	163	10.3	NA
Dec-04-2000	179	9.8	NA
Dec-05-2000	188	9.7	NA
Dec-06-2000	181	9.6	1,360
Dec-07-2000	168	10.3	1,430
Dec-08-2000	174	11.1	NA
Dec-09-2000	174	11.4	1,390
Dec-10-2000	174	12.2	NA
Dec-11-2000	172	12.6	NA
Dec-12-2000	169	12.2	NA
Dec-13-2000	156	11.4	NA
Dec-14-2000	146	11.9	NA
Dec-15-2000	146	12.9	NA
Dec-16-2000	149	12.1	1,100
Dec-17-2000	146	10.9	1,120
Dec-18-2000	134	10.0	1,150
Dec-19-2000	129	9.8	1,130
Dec-20-2000	127	9.9	1,150
Dec-21-2000	127	9.8	1,160
Dec-22-2000	124	10.5	1,180
Dec-23-2000	124	10.5	1,180
Dec-24-2000	123	10.5	1,190
Dec-25-2000	120	9.7	1,210
Dec-26-2000	119	9.1	1,230
Dec-27-2000	118	8.7	1,240
Dec-28-2000	119	8.5	1,250
Dec-29-2000	113	8.7	1,250
Dec-30-2000	110	8.8	1,270
Dec-31-2000	107	8.6	1,280

Table 5. Continuous water monitoring at Station N (San Joaquin River at Crow's Landing), December 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
Dec-01-2000	961	10.2	872	2.3
Dec-02-2000	947	9.9	896	2.3
Dec-03-2000	934	10.1	966	2.0
Dec-04-2000	914	10.1	1,010	2.2
Dec-05-2000	906	9.9	1,010	1.8
Dec-06-2000	873	9.6	1,030	2.1
Dec-07-2000	846	10.1	1,040	2.0
Dec-08-2000	837	11.0	1,080	2.5
Dec-09-2000	860	11.2	1,050	1.8
Dec-10-2000	838	12.0	1,080	2.3
Dec-11-2000	816	12.1	1,100	2.1
Dec-12-2000	823	11.8	1,090	2.1
Dec-13-2000	832	11.3	1,100	1.9
Dec-14-2000	821	11.3	1,080	2.0
Dec-15-2000	818	12.0	1,110	2.0
Dec-16-2000	801	11.8	1,140	2.5
Dec-17-2000	798	10.9	1,160	2.2
Dec-18-2000	790	9.8	1,140	2.0
Dec-19-2000	785	9.4	1,160	2.0
Dec-20-2000	817	9.4	1,140	2.0
Dec-21-2000	817	9.3	1,130	1.7
Dec-22-2000	801	9.7	1,140	1.8
Dec-23-2000	784	9.8	1,170	1.5
Dec-24-2000	779	9.8	1,180	1.6
Dec-25-2000	792	9.2	1,190	1.7
Dec-26-2000	802	8.5	1,170	1.5
Dec-27-2000	794	8.2	1,170	1.6
Dec-28-2000	773	8.0	1,190	1.6
Dec-29-2000	757	8.0	1,200	2.2
Dec-30-2000	743	7.9	1,210	1.9
Dec-31-2000	726	8.0	1,220	2.0

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
Oct-04-2000	18	.	.	4,090	45	Selenium and boron analyses		
Oct-11-2000	31	.	.	3,960	93	from weekly grab		
Oct-18-2000	16 e	.	.	4,860	60	discontinued 2/1/00.		
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	.	.	.
Dec-06-2000	18	.	.	4,650	47	.	.	.
Dec-13-2000	24	.	.	4,810	59	.	.	.
Dec-20-2000	19	.	.	4,650	NA	.	.	.
Dec-27-2000	19	.	.	4,640	32	.	.	.

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
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
Dec-05-2000	17	.	.	4,540	.	69.3	.	7.3
Dec-12-2000	19	.	.	4,840	.	70.0	.	8.0
Dec-19-2000	18	.	.	4,500	.	61.5	.	7.5
Dec-26-2000	17	.	.	4,780	.	68.6	.	8.0

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
Oct-05-2000	21	21.1	7.1	4,520	55	49.8	Selenium	7.6
Oct-12-2000	34	17.5	8.0	3,340	49	25.8	(dissolved)	5.2
Oct-19-2000	21	18.2	7.8	3,350	49	43.6	analyses	4.7
Oct-26-2000	16	14.6	6.8	4,300	NA	53.9	discontinued	6.0
Nov-02-2000	20	15.6	6.9	3,980	50	32.4	1/15/2000.	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
Dec-07-2000	24	9.7	7.4	3,840	51	43.1	.	6.2
Dec-12-2000	25	12.1	7.2	4,280	55	52.7	.	6.8
Dec-21-2000	24	11.2	7.9	3,850	38	40.2	.	6.1
Dec-28-2000	24	9.7	7.8	4,320	38	51.9	.	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
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
Dec-07-2000	118	9.6	7.9	1,430	0.6	1.1
Dec-12-2000	129	11.6	7.6	1,450	1.1	1.2
Dec-21-2000	138	10.3	7.8	1,490	0.7	1.2
Dec-28-2000	111	7.8	7.7	1,620	0.6	1.2

++ 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
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	14.9	7.5	1,370	3.7	1.5
Nov-09-2000	166	13.1	7.8	1,640	8.2	1.8
Nov-16-2000	132	10.6	7.3	1,870	9.0	2.1
Nov-21-2000	124	9.6	8.1	1,970	9.5	2.2
Nov-30-2000	160	12.2	7.8	1,940	12.4	2.0
Dec-07-2000	142	9.6	7.9	2,010	9.5	2.3
Dec-12-2000	154	11.8	7.5	2,040	9.0	2.2
Dec-21-2000	162	10.5	7.9	1,920	6.9	2.0
Dec-28-2000	135	7.6	6.9	2,230	10.0	2.3

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
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	14.3	6.3	1,310	0.8	0.8
Nov-09-2000	172	12.5	7.7	1,400	0.6	0.9
Nov-16-2000	119	10.9	6.9	1,570	<0.4	0.8
Nov-21-2000	99	9.3	7.9	1,600	0.5	0.7
Nov-30-2000	122	9.6	7.1	1,640	<0.4	0.8
Dec-07-2000	168	9.8	7.6	1,480	0.8	0.8
Dec-12-2000	169	11.2	7.4	1,470	1.3	0.8
Dec-21-2000	127	9.4	7.7	1,670	0.7	0.9
Dec-28-2000	119	7.9	7.2	1,790	0.7	0.9

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
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	.	14.2	6.3	661	<0.4	0.3
Nov-09-2000	.	12.1	7.8	1,240	0.6	0.7
Nov-16-2000	.	10.1	7.4	1,570	<0.4	0.7
Nov-21-2000	.	8.8	7.2	1,710	<0.4	0.7
Nov-30-2000	.	9.4	7.4	1,740	<0.4	0.7
Dec-07-2000	.	9.3	7.1	1,560	0.7	0.8
Dec-12-2000	.	10.6	7.4	1,540	1.2	0.7
Dec-21-2000	.	8.9	7.7	1,840	0.5	0.9
Dec-28-2000	.	7.6	7.2	1,890	0.5	0.8

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

(Collected data intended for use with biological monitoring.)

See Table 26 for explanation of footnotes and agency abbreviations.

PARAMETER	.	.	.	Specific Conductance	Selenium (total)	Boron
DATA SOURCE	.	.	.	SLDMWA ^{††}	SLDMWA ^{††}	SLDMWA ^{††}
UNITS	.	.	.	µS/cm	µg/L	mg/L
Sep-01-2000	.	.	.	1,520	8.1	1.5
Sep-08-2000	.	.	.	1,580	8.2	1.8
Sep-13-2000	.	.	.	1,250	5.3	1.0
Sep-21-2000	.	.	.	1,560	6.9	1.3
Oct-04-2000	.	.	.	NT	5.3	NT
Oct-12-2000	.	.	.	1,010	2.6	0.8
Oct-18-2000	.	.	.	1,150	2.2	0.8
Oct-26-2000	.	.	.	1,310	2.4	0.9
Nov-02-2000	.	.	.	836	1.3	0.8
Nov-10-2000	.	.	.	1,410	4.0	1.1
Nov-12-2000	.	.	.	1,850	4.3	1.3
Nov-17-2000	.	.	.	1,760	4.4	1.3
Nov-22-2000	.	.	.	1,850	4.3	1.3
Nov-30-2000	.	.	.	1,820	4.0	1.4
Dec-08-2000	.	.	.	1,720	3.3	1.7
Dec-14-2000	.	.	.	1,780	3.3	1.3
Dec-21-2000	.	.	.	1,840	4.3	1.3
Dec-28-2000	.	.	.	2,000	4.0	1.5

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
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
Dec-06-2000	25	.	.	668	1.3	0.4
Dec-13-2000	25	.	.	717	1.8	0.4
Dec-20-2000	25	.	.	650	1.2	0.3
Dec-27-2000	15	.	.	779	1.6	0.4

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
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
Dec-06-2000	50	.	.	659	1.2	0.3
Dec-13-2000	50	.	.	677	1.1	0.3
Dec-20-2000	40	.	.	666	1.1	0.3
Dec-27-2000	40	.	.	645	1.0	0.3

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
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
Dec-06-2000	0	.	.	2,290	3.0	2.8
Dec-13-2000	0	.	.	1,810	2.7	2.3
Dec-20-2000	0	.	.	2,370	3.2	3.2
Dec-27-2000	0	.	.	1,510	2.4	1.5

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
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
Dec-06-2000	116	.	.	1,010	1.0	0.9
Dec-13-2000	132	.	.	1,120	1.0	1.0
Dec-20-2000	129	.	.	1,080	1.1	1.0
Dec-27-2000	105	.	.	1,260	1.2	1.2

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
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
Dec-07-2000	846	10.3	7.8	1,050	1.8	0.7
Dec-12-2000	823	12.8	8.2	1,110	2.4	0.7
Dec-21-2000	817	9.4	7.8	1,140	1.8	0.7
Dec-28-2000	773	6.6	7.9	1,200	2.0	0.7

Table 18. Summary of fathead minnow (*Pimephales promelas*) larvae survival in 7-day tests using water samples collected from January 2000 to December 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	%	%	%	%	%	%
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
Dec-2000	100	63*	73	88	88	93

Table 19. Summary of fathead minnow (*Pimephales promelas*) larvae growth in 7-day tests using water samples collected from January 2000 to December 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
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
Dec-2000	0.72	0.40*	0.49*	0.67	0.74	0.60

Table 20. Summary of *Daphnia magna* survival in 7-day tests using water samples collected from January 2000 to December 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	%	%	%	%	%	%
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
Dec-2000	100	80	80	100	100	60*

Table 21. Summary of *Daphnia magna* reproduction in 7-day tests using water samples collected from January 2000 to December 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
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
Dec-2000	13.7	15.7	13.3	11.2	13.4	4.4*

Table 22. Summary of *Selenastrum capricornutum* growth in 4-day tests using water samples collected from January 2000 to December 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
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
Dec-2000	7.8*	13.6	15.4	14.9	13.1	13.3

Table 23. Summary of selenium concentrations in grab water samples collected at study stations for use in laboratory toxicity tests, October 2000 to December 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
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
Dec-11-2000	51	0.5	9.8	0.5	0.5
Dec-13-2000	51	0.6	8.1	0.7	<0.4
Dec-15-2000	56	0.6	12	0.6	<0.4

Table 24. Summary of sulfate concentrations in grab water samples collected at study stations for use in laboratory toxicity tests, October 2000 to December 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
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
Dec-11-2000	1,350	207	432	201	39
Dec-13-2000	1,450	209	426	209	29
Dec-15-2000	1,470	219	481	213	29

Table 25. Summary of total suspended solids concentrations in grab water samples collected from October 2000 to December 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
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
Dec-11-2000	64	8	30	62	22
Dec-13-2000	68	22	27	81	25
Dec-15-2000	85	18	39	61	11

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.