

GRASSLAND BYPASS PROJECT

MONTHLY DATA REPORT

June 2001

September 17, 2001

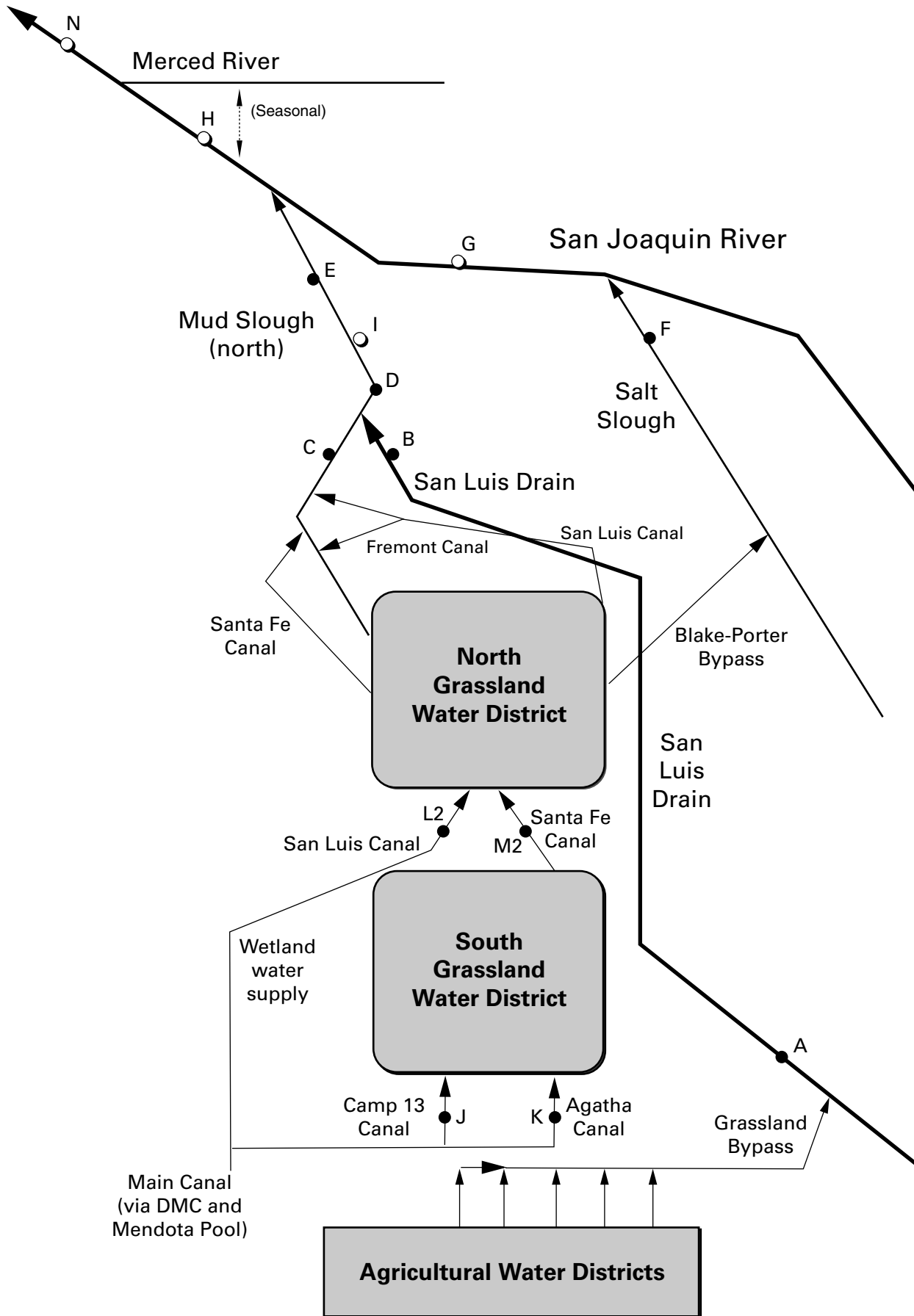
Preliminary Results

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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See Table 26 for explanation of footnotes and agency abbreviations.

PARAMETER	Flow	Specific Conductance
DATA SOURCE	SLDMWA	SLDMWA
UNITS	cfs	µS/cm
Jun-01-2001	52	4,460
Jun-02-2001	52	4,550
Jun-03-2001	50	4,570
Jun-04-2001	51	4,680
Jun-05-2001	55	3,970
Jun-06-2001	54	4,050
Jun-07-2001	59	4,590
Jun-08-2001	55	4,620
Jun-09-2001	60	4,550
Jun-10-2001	59	4,460
Jun-11-2001	62	4,450
Jun-12-2001	54	4,330
Jun-13-2001	49	4,490
Jun-14-2001	49	4,590
Jun-15-2001	44	4,590
Jun-16-2001	43	4,520
Jun-17-2001	44	4,440
Jun-18-2001	50	4,550
Jun-19-2001	50	4,370
Jun-20-2001	49	3,990
Jun-21-2001	50	4,210
Jun-22-2001	52	4,080
Jun-23-2001	49	4,060
Jun-24-2001	48	4,190
Jun-25-2001	47	4,160
Jun-26-2001	50	4,280
Jun-27-2001	52	4,350
Jun-28-2001	51	4,120
Jun-29-2001	55	4,000
Jun-30-2001	56	3,950
.	.	.
Mean	52	4,340

Table 2. Continuous water monitoring at Station B (discharge from San Luis Drain), June 2001.

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
Jun-01-2001	51	27.1	7.6	4,630	54.9	15.1
Jun-02-2001	52	26.5	7.7	4,410	48.2	13.5
Jun-03-2001	54	23.6	7.5	4,310	45.5	13.3
Jun-04-2001	52	22.3	7.8	4,470	49.3	13.8
Jun-05-2001	54	22.4	7.7	4,600	52.4	15.3
Jun-06-2001	58	22.4	7.8	4,680	48.8	15.3
Jun-07-2001	56	23.9	7.9	4,390	53.5	16.2
Jun-08-2001	59	25.2	7.8	4,910	55.9	17.8
Jun-09-2001	57	25.4	8.1	4,990	58.1	17.9
Jun-10-2001	59	25.6	8.0	4,910	58.1	18.5
Jun-11-2001	59	24.7	8.1	4,900	51.1	16.3
Jun-12-2001	62	23.7	8.0	4,850	49.9	16.7
Jun-13-2001	59	21.9	7.8	4,730	48.3	15.4
Jun-14-2001	51	22.3	7.6	4,720	50.1	13.8
Jun-15-2001	49	24.2	7.7	4,720	49.8	13.2
Jun-16-2001	45	25.5	7.6	4,600	43.7	10.6
Jun-17-2001	44	26.0	7.4	4,680	45.8	10.9
Jun-18-2001	46	26.4	7.7	4,820	49.3	12.2
Jun-19-2001	50	27.3	7.8	4,790	45.6	12.3
Jun-20-2001	50	27.9	7.9	4,620	44.3	11.9
Jun-21-2001	49	28.0	7.9	4,710	43.3	11.4
Jun-22-2001	50	28.2	7.9	4,620	53.9	14.5
Jun-23-2001	52	27.4	7.5	4,230	44.2	12.4
Jun-24-2001	50	26.5	7.7	4,420	53.3	14.4
Jun-25-2001	49	25.4	7.3	4,270	51.1	13.5
Jun-26-2001	48	24.5	7.2	4,240	48.3	12.5
Jun-27-2001	50	24.4	7.3	4,300	49.6	13.4
Jun-28-2001	54	24.2	7.3	4,330	46.8	13.6
Jun-29-2001	52	24.9	7.5	4,400	50.4	14.1
Jun-30-2001	56	26.1	7.5	4,400	54.0	16.3
.
Mean	53	25.1	7.7	4,590	49.9	
Total						426

Load Limitation for June 2001	(lbs)	509
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**Table 3. Continuous water monitoring at Station D
(Mud Slough North downstream of drainage discharges), June 2001.**

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
Jun-01-2001	65	26.3	3,030
Jun-02-2001	61	25.4	3,260
Jun-03-2001	70	22.7	2,920
Jun-04-2001	72	21.3	2,940
Jun-05-2001	65	21.5	3,230
Jun-06-2001	71	21.3	3,100
Jun-07-2001	77	22.8	2,880
Jun-08-2001	72	24.1	2,880
Jun-09-2001	69	24.3	3,020
Jun-10-2001	72	24.8	2,940
Jun-11-2001	72	24.3	3,140
Jun-12-2001	72	23.8	3,500
Jun-13-2001	65	22.2	3,970
Jun-14-2001	58	22.8	4,470
Jun-15-2001	58	24.8	4,340
Jun-16-2001	54	26.0	4,120
Jun-17-2001	61	26.3	3,650
Jun-18-2001	68	26.6	3,510
Jun-19-2001	70	27.5	3,660
Jun-20-2001	61	28.0	3,970
Jun-21-2001	58	28.3	4,180
Jun-22-2001	60	28.5	4,250
Jun-23-2001	61	27.7	4,070
Jun-24-2001	58	26.7	4,010
Jun-25-2001	56	25.6	4,240
Jun-26-2001	56	25.0	4,160
Jun-27-2001	61	24.7	4,000
Jun-28-2001	62	24.6	4,230
Jun-29-2001	63	25.1	4,250
Jun-30-2001	69	26.2	4,180
.	.	.	.

Table 4. Continuous water monitoring at Station F (Salt Slough at Highway 165), June 2001.

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
Jun-01-2001	126	27.6	1,320
Jun-02-2001	105	25.3	1,330
Jun-03-2001	116	22.1	1,320
Jun-04-2001	159	21.4	1,140
Jun-05-2001	156	22.1	1,080
Jun-06-2001	146	22.6	1,200
Jun-07-2001	145	24.3	1,300
Jun-08-2001	152	25.6	1,280
Jun-09-2001	131	25.2	1,310
Jun-10-2001	120	25.0	1,410
Jun-11-2001	112	24.1	1,470
Jun-12-2001	131	23.6	1,370
Jun-13-2001	139	22.1	1,390
Jun-14-2001	162	22.8	1,310
Jun-15-2001	165	25.2	1,240
Jun-16-2001	190	26.1	1,200
Jun-17-2001	174	26.1	1,250
Jun-18-2001	172	26.2	1,300
Jun-19-2001	203	27.0	1,170
Jun-20-2001	198	27.3	1,200
Jun-21-2001	177	27.6	1,170
Jun-22-2001	172	27.8	1,190
Jun-23-2001	178	26.3	1,110
Jun-24-2001	184	25.3	1,100
Jun-25-2001	191	24.2	1,060
Jun-26-2001	198	23.9	1,020
Jun-27-2001	200	24.0	1,070
Jun-28-2001	191	24.0	1,100
Jun-29-2001	174	25.1	1,120
Jun-30-2001	149	26.4	1,220
.	.	.	.

Table 5. Continuous water monitoring at Station N (San Joaquin River at Crow's Landing), June 2001.

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
Jun-01-2001	613	26.8	1,260	4.3
Jun-02-2001	576	25.3	1,370	4.5
Jun-03-2001	577	23.3	1,380	4.7
Jun-04-2001	622	22.2	1,340	4.4
Jun-05-2001	630	22.9	1,270	4.0
Jun-06-2001	637	23.2	1,150	4.0
Jun-07-2001	597	24.3	1,250	4.5
Jun-08-2001	538	25.2	1,370	4.6
Jun-09-2001	511	24.7	1,450	5.0
Jun-10-2001	531	24.3	1,490	5.8
Jun-11-2001	534	24.3	1,420	5.6
Jun-12-2001	523	24.2	1,460	6.3
Jun-13-2001	549	23.0	1,450	5.6
Jun-14-2001	486	23.5	1,500	5.9
Jun-15-2001	470	25.7	1,460	5.7
Jun-16-2001	493	26.3	1,400	5.2
Jun-17-2001	473	26.7	1,400	5.0
Jun-18-2001	468	26.3	1,480	4.5
Jun-19-2001	482	26.8	1,420	4.3
Jun-20-2001	496	27.2	1,490	5.1
Jun-21-2001	471	27.9	1,480	5.0
Jun-22-2001	444	28.2	1,460	4.7
Jun-23-2001	421	27.7	NA	NA
Jun-24-2001	476	25.5	NA	NA
Jun-25-2001	502	23.9	NA	NA
Jun-26-2001	508	23.8	NA	NA
Jun-27-2001	505	24.6	NA	NA
Jun-28-2001	532	24.3	NA	NA
Jun-29-2001	551	24.8	1,300	4.1
Jun-30-2001	507	25.9	1,340	4.5
.

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
Apr-04-2001	40	.	.	5,820	59	Selenium and boron analyses		
Apr-11-2001	39	.	.	5,610	75	from weekly grab		
Apr-18-2001	33	.	.	5,710	62	discontinued 2/1/00.		
Apr-25-2001	34	.	.	5,560	71	.	.	.
May-02-2001	35	.	.	4,910	110	.	.	.
May-09-2001	37	.	.	4,980	82	.	.	.
May-16-2001	42	.	.	4,690	200	.	.	.
May-23-2001	48	.	.	4,230	350	.	.	.
May-30-2001	51	.	.	4,230	200	.	.	.
Jun-06-2001	54	.	.	4,810	81	.	.	.
Jun-13-2001	49	.	.	NA	NA	.	.	.
Jun-20-2001	49	.	.	4,230	240	.	.	.
Jun-27-2001	52	.	.	4,560	230	.	.	.

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
Apr-03-2001	37	.	.	5,810	.	92.8	.	8.7
Apr-10-2001	38	.	.	5,320	.	80.1	.	8.0
Apr-17-2001	35	.	.	5,560	.	88.8	.	7.7
Apr-24-2001	35	.	.	5,360	.	74.3	.	7.6
May-01-2001	33	.	.	5,080	.	69.3	.	7.4
May-08-2001	33	.	.	NA	.	70.5	.	8.0
May-15-2001	43	.	.	NA	.	62.0	.	7.5
May-22-2001	48	.	.	NA	.	50.5	.	7.1
May-29-2001	48	.	.	4,370	.	53.4	.	6.9
Jun-05-2001	55	.	.	4,600	.	49.8	.	7.6
Jun-12-2001	54	.	.	4,700	.	51.4	.	7.5
Jun-19-2001	50	.	.	4,780	.	47.4	.	8.0
Jun-26-2001	50	.	.	4,330	.	48.2	.	7.3

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
Apr-05-2001	39	17.0	8.1	5,670	33	79.8	Selenium	8.7
Apr-12-2001	38	14.0	7.4	4,810	38	75.5	(dissolved)	7.4
Apr-19-2001	32	17.5	8.3	5,660	56	94.2	analyses	8.1
Apr-26-2001	32	21.3	8.3	5,280	37	79.4	discontinued	6.8
May-03-2001	34	18.1	7.7	5,210	38	76.3	1/15/2000.	7.5
May-10-2001	35	24.3	8.1	4,840	49	71.1	.	7.6
May-17-2001	40	25.1	7.8	4,360	55	46.7	.	7.0
May-24-2001	45	26.5	7.8	4,240	42	46.5	.	6.7
May-31-2001	50	26.1	7.6	4,470	44	53.4	.	6.8
Jun-07-2001	56	27.8	8.5	4,860	P	51.3	.	7.9
Jun-14-2001	51	21.1	8.4	4,460	P	49.1	.	7.2
Jun-21-2001	49	37.2	8.4	4,720	P	53.3	.	7.3
Jun-28-2001	54	24.1	8.4	4,280	P	43.5	.	7.4

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
Apr-05-2001	40	18.0	8.5	2,360	0.9	2.2
Apr-12-2001	57	14.8	8.0	1,860	2.2	1.9
Apr-19-2001	25	18.3	8.3	2,450	0.8	2.1
Apr-26-2001	40	23.8	8.0	3,460	0.7	2.6
May-03-2001	33	16.6	8.0	1,860	1.3	1.5
May-10-2001	32	23.3	7.8	1,550	<0.4	1.2
May-17-2001	36	26.5	7.4	1,500	0.9	1.1
May-24-2001	24	26.6	7.6	1,930	0.8	1.4
May-31-2001	31	29.1	8.1	1,580	0.9	1.2
Jun-07-2001	21	28.1	8.3	1,720	1.3	1.5
Jun-14-2001	7	23.1	8.1	3,270	1.1	2.4
Jun-21-2001	9	34.0	8.4	2,690	0.6	2.0
Jun-28-2001	8	29.3	8.5	2,570	0.5	1.9

++ 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
Apr-05-2001	79 e	17.5	8.4	3,760	34.1	4.8
Apr-12-2001	95	15.8	8.0	3,310	33.3	4.4
Apr-19-2001	57	17.8	8.3	4,420	42.3	5.7
Apr-26-2001	72 e	23.4	8.2	4,960	50.8	6.0
May-03-2001	67 e	17.0	8.1	3,980	39.9	5.2
May-10-2001	67 e	23.2	7.8	3,350	29.2	4.6
May-17-2001	76	24.4	7.1	3,200	28.2	4.3
May-24-2001	69	28.3	6.9	3,450	28.6	5.0
May-31-2001	81	26.0	8.0	3,400	34.1	4.6
Jun-07-2001	77	27.0	8.4	3,930	33.7	5.6
Jun-14-2001	58	21.6	8.3	4,560	48.2	6.9
Jun-21-2001	58	31.9	8.3	4,570	40.8	6.8
Jun-28-2001	62	24.8	8.4	4,190	41.7	6.4

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
Apr-05-2001	286	15.8	7.7	1,740	1.4	1.2
Apr-12-2001	273	13.2	7.2	1,590	1.7	1.1
Apr-19-2001	153	16.8	7.8	1,890	1.0	0.9
Apr-26-2001	210	22.8	6.8	1,390	1.3	0.6
May-03-2001	120	15.4	7.8	1,880	1.1	0.8
May-10-2001	186	22.9	7.8	1,270	0.9	0.6
May-17-2001	222	23.1	7.8	1,020	1.0	0.5
May-24-2001	132	23.5	6.6	1,320	0.8	0.5
May-31-2001	113	25.6	7.8	1,310	0.8	0.5
Jun-07-2001	145	25.1	7.8	1,290	0.7	P
Jun-14-2001	162	20.8	7.8	1,270	1.6	P
Jun-21-2001	177	29.6	7.3	1,110	0.7	P
Jun-28-2001	191	24.0	7.8	1,040	0.7	P

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
Apr-05-2001	.	15.7	8.0	1,850	1.1	1.1
Apr-12-2001	.	13.2	6.9	1,490	1.3	0.9
Apr-19-2001	.	16.8	7.8	2,090	0.8	0.8
Apr-26-2001	.	21.7	7.4	1,240	0.9	0.4
May-03-2001	.	17.5	7.0	2,120	0.9	0.7
May-10-2001	.	23.7	7.6	1,610	0.7	0.6
May-17-2001	.	22.4	7.0	1,200	1.0	0.5
May-24-2001	.	26.8	6.8	1,730	0.6	0.6
May-31-2001	.	27.5	7.6	1,690	0.7	0.5
Jun-07-2001	.	23.1	7.9	1,410	0.6	0.5
Jun-14-2001	.	22.2	7.8	1,490	1.3	0.6
Jun-21-2001	.	28.0	7.8	1,250	0.7	0.5
Jun-28-2001	.	26.0	8.1	1,020	0.6	0.4

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
Apr-03-2001	.	.	.	2,430	9.6	1.9
Apr-11-2001	.	.	.	1,890	6.0	1.5
Apr-17-2001	.	.	.	2,290	8.7	1.6
Apr-24-2001	.	.	.	1,340	5.3	1.0
May-04-2001	.	.	.	2,770	10.5	1.9
May-08-2001	.	.	.	2,350	8.0	1.7
May-15-2001	.	.	.	1,610	6.2	1.3
May-22-2001	.	.	.	2,210	6.7	1.8
May-29-2001	.	.	.	2,000	7.9	1.6
Jun-05-2001	.	.	.	1,860	9.6	1.8
Jun-12-2001	.	.	.	2,570	12.4	2.6
Jun-19-2001	.	.	.	2,020	9.3	1.8
Jun-28-2001	.	.	.	1,740	8.4	1.7

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
Apr-04-2001	7	.	.	1,040	3.1	0.7
Apr-11-2001	7	.	.	523	2.1	0.4
Apr-18-2001	7	.	.	674	2.5	0.5
Apr-25-2001	7	.	.	656	2.1	0.5
May-02-2001	15	.	.	680	2.4	0.5
May-09-2001	55	.	.	666	2.3	0.5
May-16-2001	30	.	.	629	1.4	0.4
May-23-2001	10	.	.	628	1.5	0.4
May-30-2001	10	.	.	631	1.7	0.4
Jun-06-2001	20	.	.	613	1.3	0.4
Jun-13-2001	20	.	.	508	1.9	0.3
Jun-20-2001	20	.	.	516	1.9	0.4
Jun-27-2001	10	.	.	540	1.1	0.3

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
Apr-04-2001	10	.	.	1,540	2.8	2.2
Apr-11-2001	10	.	.	1,070	2.5	1.1
Apr-18-2001	10	.	.	970	3.3	0.7
Apr-25-2001	25	.	.	567	1.8	0.3
May-02-2001	35	.	.	614	2.1	0.3
May-09-2001	50	.	.	584	1.9	0.3
May-16-2001	65	.	.	532	1.1	0.2
May-23-2001	30	.	.	561	1.1	0.3
May-30-2001	40	.	.	579	1.2	0.3
Jun-06-2001	20	.	.	640	1.2	0.4
Jun-13-2001	10	.	.	640	1.8	0.4
Jun-20-2001	25	.	.	505	1.0	0.3
Jun-27-2001	25	.	.	522	1.2	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
Apr-04-2001	44	.	.	1,090	5.8	0.8
Apr-11-2001	46	.	.	1,170	6.7	1.0
Apr-18-2001	26	.	.	1,100	3.0	0.9
Apr-25-2001	25	.	.	1,080	2.6	1.1
May-02-2001	40	.	.	781	1.9	0.6
May-09-2001	70	.	.	810	2.2	0.6
May-16-2001	80	.	.	787	1.4	0.6
May-23-2001	60	.	.	728	1.3	0.5
May-30-2001	60	.	.	748	1.6	0.5
Jun-06-2001	70	.	.	886	1.2	0.7
Jun-13-2001	80	.	.	574	1.9	0.4
Jun-20-2001	90	.	.	699	1.2	0.5
Jun-27-2001	110	.	.	676	1.2	0.5

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
Apr-04-2001	23	.	.	2,320	4.2	3.2
Apr-11-2001	100	.	.	1,600	2.0	2.0
Apr-18-2001	48	.	.	1,630	2.3	1.6
Apr-25-2001	49	.	.	1,340	2.3	1.5
May-02-2001	24	.	.	1,010	2.3	0.9
May-09-2001	12	.	.	1,280	2.2	1.1
May-16-2001	105	.	.	836	1.4	0.5
May-23-2001	36	.	.	1,050	1.4	0.8
May-30-2001	70	.	.	922	1.4	0.5
Jun-06-2001	18	.	.	1,310	1.6	1.5
Jun-13-2001	11	.	.	1,300	2.5	1.6
Jun-20-2001	16	.	.	1,380	1.7	1.7
Jun-27-2001	17	.	.	1,490	1.8	2.1

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
Apr-05-2001	841	15.0	8.0	1,750	4.5	1.4
Apr-12-2001	967	15.2	6.8	1,330	4.0	1.0
Apr-19-2001	856	17.3	7.9	1,260	3.7	0.8
Apr-26-2001	2,010	22.3	8.0	591	1.6	0.3
May-03-2001	1,100	18.1	7.2	992	2.5	0.6
May-10-2001	1560 e	21.1	7.7	653	1.6	0.4
May-17-2001	1780 e	19.6	6.9	542	1.6	0.4
May-24-2001	657	26.2	7.8	1,280	3.5	0.9
May-31-2001	621	28.4	7.4	1,150	3.3	0.7
Jun-07-2001	597	22.5	8.0	1,260	3.9	0.9
Jun-14-2001	486	21.0	8.0	1,400	5.6	1.1
Jun-21-2001	471	26.9	7.9	1,480	4.3	1.1
Jun-28-2001	532	22.5	7.8	1,250	4.2	1.0

Table 18. Summary of fathead minnow (*Pimephales promelas*) larvae survival in 7-day tests using water samples collected from July 2000 to June 2001. 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	%	%	%	%	%	%
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
Jan-2001	95	85	93	90	100	100
Feb-2001	100	90	93	78	78	100
Mar-2001	100	93	93	90	95	100
Apr-2001	100	100	95	93	95	100
May-2001	88	97	90	90	90	100
Jun-2001	88	98	98	98	98	100

Table 19. Summary of fathead minnow (*Pimephales promelas*) larvae growth in 7-day tests using water samples collected from July 2000 to June 2001. 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
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
Jan-2001	0.63	0.50	0.59	0.55	0.62	0.57
Feb-2001	0.54*	0.53*	0.64	0.61	0.68	0.65
Mar-2001	0.61	0.66	0.67	0.63	0.64	0.60
Apr-2001	0.64	0.72	0.71	0.73	0.67	0.57
May-2001	0.45	0.45	0.46	0.43	0.45	0.46
Jun-2001	0.61*	0.83	0.85	0.85	0.74	0.65

Table 20. Summary of *Daphnia magna* survival in 7-day tests using water samples collected from July 2000 to June 2001. 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	%	%	%	%	%	%
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*
Jan-2001	90	70*	100	100	90	80
Feb-2001	100	100	90	100	90	100
Mar-2001	100	100	90	90	90	90
Apr-2001	100	100	100	100	89	89
May-2001	0††	100	100	100	70	100
Jun-2001	50*	70	70	90	100	100

Table 21. Summary of *Daphnia magna* reproduction in 7-day tests using water samples collected from July 2000 to June 2001. 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
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*
Jan-2001	30.8	31.3	46.2	36.9	30.8	27.1
Feb-2001	31.2	25.7	25.1	29.9	27.2	27.5
Mar-2001	11.7	21.9	19.3	15.6	13.4	17.8
Apr-2001	30.7	28.6	36.5	26.2	24.9	24.8
May-2001	0††	25.0	27.5	23.3	13.1	25.2
Jun-2001	18.9*	32.7*	36.6	47.9	44.5	36.4

Table 22. Summary of *Selenastrum capricornutum* growth in 4-day tests using water samples collected from July 2000 to June 2001. 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
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
Jan-2001	2.0	2.0	2.1	2.3 ‡	2.1 ‡	2.2
Feb-2001	11.3 ‡	23.8	21.5	16.7 ‡	22.5	17.6
Mar-2001	18.9	24.6	20.0	21.7	18.4	23.5
Apr-2001	9.9	10.5	10.2	5.8*	10.7	20.2
May-2001	10.1*5	18.4	13.1	19.6	15.5	14.5
Jun-2001	4.2*	12.9*	10.3*	14.7*	21.8	16.4

Table 23. Summary of selenium concentrations in grab water samples collected at study stations for use in laboratory toxicity tests, April 2001 to June 2001.

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
Apr-09-2001	77	1.5	50	1.7	1.5**
Apr-11-2001	74	1.7	32	1.5	<0.4
Apr-13-2001	79	1.7	37	1.5	0.5
May-14-2001	65	0.7	32	0.8	<0.4
May-16-2001	47	0.4	22	1.0	<0.4
May-18-2001	52	0.5	35	0.6	<0.4
Jun-11-2001	52	1.0	43	0.6	0.6
Jun-13-2001	53	0.5	53	0.7	<0.4
Jun-15-2001	55	0.5	53	0.5	0.5

Table 24. Summary of sulfate concentrations in grab water samples collected at study stations for use in laboratory toxicity tests, April 2001 to June 2001.

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
Apr-09-2001	1,910	465	1,300	247	122**
Apr-11-2001	1,890	346	1,030	250	44
Apr-13-2001	2,000	366	1,050	263	34
May-14-2001	1,580	204	898	162	40
May-16-2001	1,450	191	709	132	41
May-18-2001	1,450	324	1,120	148	40
Jun-11-2001	1,510	423	1,250	204	74
Jun-13-2001	1,450	640	1,400	187	37
Jun-15-2001	1,440	698	1,380	153	53

Table 25. Summary of total suspended solids concentrations in grab water samples collected from April 2001 to June 2001.

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
Apr-09-2001	53	74	57	102	4
Apr-11-2001	51	104	94	60	NA
Apr-13-2001	49	90	88	118	26
May-14-2001	70	50	67	99	1
May-16-2001	75	51	86	212	ND
May-18-2001	120	148	184	353	11
Jun-11-2001	54	27	60	376	3
Jun-13-2001	94	26	80	185	45
Jun-15-2001	50	20	87	144	35

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
USBR	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
*	Significantly reduced from Delta Mendota Canal (p<0.05)
**	Sample re-analyzed and result confirmed.
†	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.
‡‡	Fungal growth observed on test organisms.
#	New testing laboratory with reporting limit of 0.4 µg/L as of June 1998.
5	Based on definitive bioassay, NOEC is 50 percent