

GRASSLAND BYPASS PROJECT

MONTHLY DATA REPORT

March 2001

May 24, 2001

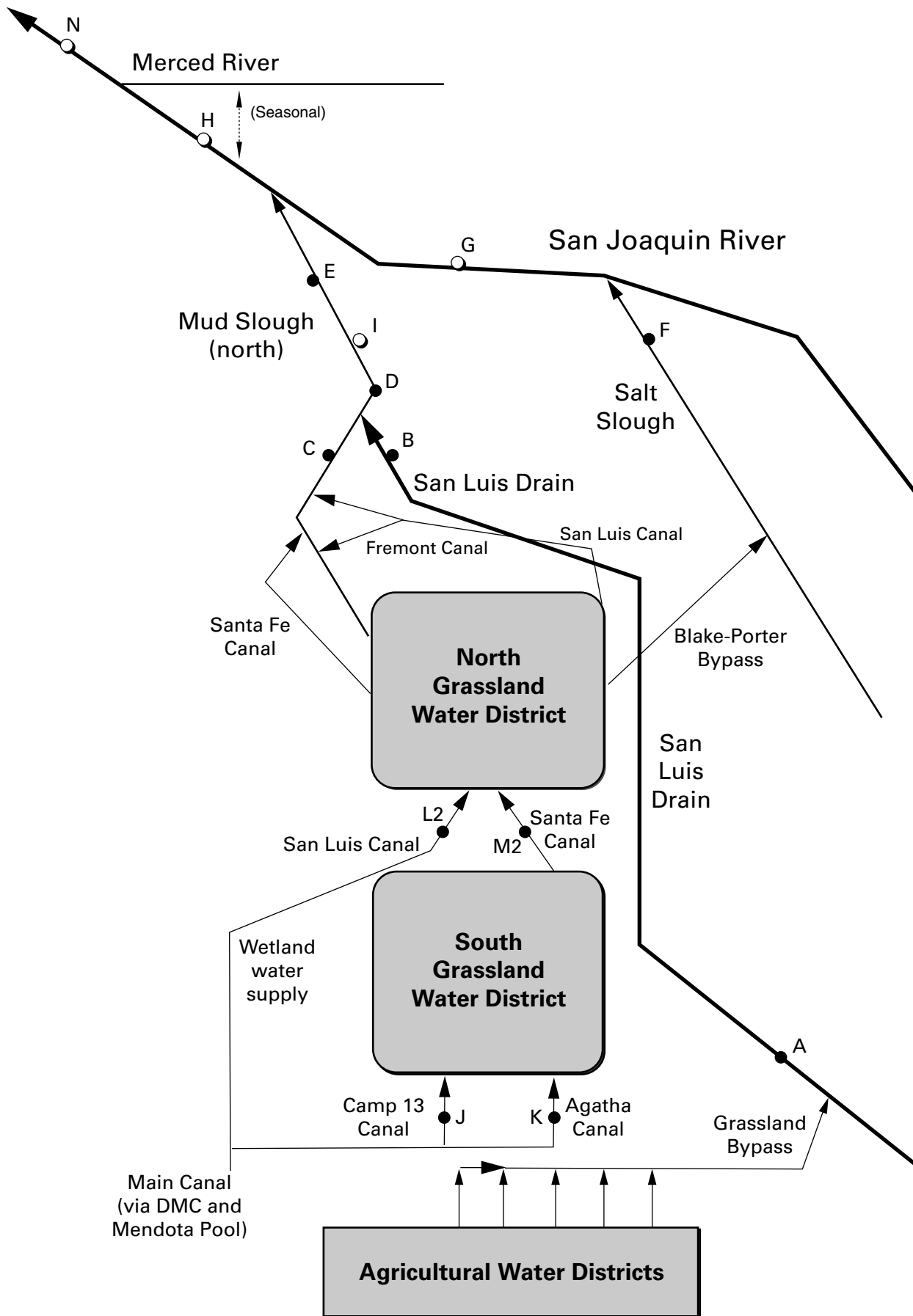
Preliminary Results

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

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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
Mar-01-2001	56	5,220
Mar-02-2001	56	5,250
Mar-03-2001	55	5,330
Mar-04-2001	58	5,410
Mar-05-2001	65	5,140
Mar-06-2001	81	4,500
Mar-07-2001	83	5,070
Mar-08-2001	77	5,300
Mar-09-2001	72	5,420
Mar-10-2001	67	5,450
Mar-11-2001	66	5,300
Mar-12-2001	64	5,450
Mar-13-2001	61	5,610
Mar-14-2001	58	5,650
Mar-15-2001	56	5,810
Mar-16-2001	55	5,810
Mar-17-2001	53	5,730
Mar-18-2001	53	5,740
Mar-19-2001	58	5,620
Mar-20-2001	57	5,490
Mar-21-2001	46	5,300
Mar-22-2001	40	5,450
Mar-23-2001	38	5,440
Mar-24-2001	39	5,600
Mar-25-2001	42	5,420
Mar-26-2001	46	5,490
Mar-27-2001	51	5,370
Mar-28-2001	53	5,230
Mar-29-2001	48	5,700
Mar-30-2001	44	5,710
Mar-31-2001	42	5,570
Mean	56	5,440

Table 2. Continuous water monitoring at Station B (discharge from San Luis Drain), March 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
Mar-01-2001	63	13.7	7.1	4,650	75.0	25.5
Mar-02-2001	57	13.8	7.2	4,530	67.5	20.8
Mar-03-2001	57	13.3	7.9	4,930	73.0	22.4
Mar-04-2001	57	12.7	8.1	5,030	78.8	24.2
Mar-05-2001	60	12.6	8.0	5,030	78.3	25.3
Mar-06-2001	67	12.9	8.1	5,070	80.2	29.0
Mar-07-2001	79	14.1	8.3	5,200	83.5	35.6
Mar-08-2001	82	15.3	7.1	4,690	73.0	32.3
Mar-09-2001	76	14.9	7.0	4,710	70.8	29.0
Mar-10-2001	71	14.5	8.0	5,210	81.9	31.4
Mar-11-2001	67	14.9	8.1	5,330	83.8	30.3
Mar-12-2001	66	15.1	8.2	5,360	86.9	30.9
Mar-13-2001	65	16.0	8.1	5,350	94.5	33.1
Mar-14-2001	61	16.8	7.8	5,260	87.5	28.8
Mar-15-2001	58	17.0	8.1	5,330	91.2	28.5
Mar-16-2001	56	16.8	7.7	5,660	92.6	28.0
Mar-17-2001	56	16.8	8.8	5,680	90.0	27.2
Mar-18-2001	54	17.4	9.0	5,800	94.1	27.4
Mar-19-2001	54	18.6	9.3	5,840	96.8	28.2
Mar-20-2001	58	19.8	8.8	5,730	94.5	29.6
Mar-21-2001	55	20.4	8.9	5,730	91.8	27.2
Mar-22-2001	46	20.4	9.0	5,750	91.4	22.7
Mar-23-2001	41	19.9	8.6	5,480	88.6	19.6
Mar-24-2001	38	20.0	8.5	5,480	83.9	17.2
Mar-25-2001	38	19.6	8.2	5,230	67.6	13.9
Mar-26-2001	41	18.8	8.4	5,340	66.4	14.7
Mar-27-2001	45	18.4	8.8	5,330	65.6	15.9
Mar-28-2001	50	19.3	8.8	5,500	71.7	19.3
Mar-29-2001	52	19.7	7.8	5,350	71.5	20.1
Mar-30-2001	47	19.7	8.3	5,450	84.7	21.5
Mar-31-2001	43	20.3	8.1	5,260	83.8	19.4
Mean	57	16.9	8.2	5,300	82.0	
Total						779

Load Limitation for March 2001	(lbs)	906
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**Table 3. Continuous water monitoring at Station D
(Mud Slough North downstream of drainage discharges), March 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
Mar-01-2001	228	13.3	2,770
Mar-02-2001	229	13.5	2,610
Mar-03-2001	233	13.0	2,720
Mar-04-2001	254	12.3	2,710
Mar-05-2001	308	12.2	2,620
Mar-06-2001	372	13.0	2,440
Mar-07-2001	411	14.5	2,600
Mar-08-2001	441	15.8	2,410
Mar-09-2001	435	14.5	2,490
Mar-10-2001	443	13.6	2,440
Mar-11-2001	452	14.4	2,460
Mar-12-2001	420	15.2	2,470
Mar-13-2001	370	16.4	2,650
Mar-14-2001	353	17.1	2,670
Mar-15-2001	332	16.9	2,720
Mar-16-2001	292	16.4	2,900
Mar-17-2001	211	16.8	3,180
Mar-18-2001	201	18.2	3,060
Mar-19-2001	184	19.6	3,070
Mar-20-2001	170	20.9	3,270
Mar-21-2001	154	20.8	3,310
Mar-22-2001	132	20.5	3,290
Mar-23-2001	117	19.8	3,200
Mar-24-2001	103	20.1	3,360
Mar-25-2001	101	19.2	3,430
Mar-26-2001	97	18.0	3,570
Mar-27-2001	96	17.9	3,720
Mar-28-2001	94	19.1	3,560
Mar-29-2001	97	19.4	4,040
Mar-30-2001	88	19.5	4,440
Mar-31-2001	80	20.0	4,450

Table 4. Continuous water monitoring at Station F (Salt Slough at Highway 165), March 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
Mar-01-2001	357	12.8	1,510
Mar-02-2001	332	12.9	1,480
Mar-03-2001	356	12.6	1,420
Mar-04-2001	421	12.2	1,330
Mar-05-2001	505	12.0	1,290
Mar-06-2001	588	12.6	1,290
Mar-07-2001	685	13.8	1,260
Mar-08-2001	714	15.1	1,310
Mar-09-2001	645	14.6	1,420
Mar-10-2001	526	13.4	1,520
Mar-11-2001	431	13.9	1,540
Mar-12-2001	402	14.7	1,530
Mar-13-2001	419	15.6	1,520
Mar-14-2001	427	16.4	1,550
Mar-15-2001	428	16.5	1,550
Mar-16-2001	443	16.0	1,530
Mar-17-2001	433	16.0	1,600
Mar-18-2001	375	17.1	1,710
Mar-19-2001	329	18.7	1,710
Mar-20-2001	278	19.9	1,780
Mar-21-2001	266	20.2	1,810
Mar-22-2001	259	19.7	1,800
Mar-23-2001	255	18.9	1,790
Mar-24-2001	266	19.1	1,720
Mar-25-2001	312	19.0	1,540
Mar-26-2001	356	18.0	1,460
Mar-27-2001	373	17.5	1,430
Mar-28-2001	356	18.5	1,490
Mar-29-2001	312	19.2	1,560
Mar-30-2001	246	19.2	1,650
Mar-31-2001	253	19.7	1,600

Table 5. Continuous water monitoring at Station N (San Joaquin River at Crow's Landing), March 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
Mar-01-2001	1,530	12.8	1,190	4.0
Mar-02-2001	1,450	13.1	1,260	4.2
Mar-03-2001	1,420	12.7	1,190	3.8
Mar-04-2001	1,440	12.4	1,240	3.9
Mar-05-2001	1,970	11.8	1,110	3.4
Mar-06-2001	2,280	12.3	1,020	2.8
Mar-07-2001	2,750	12.6	794	3.0
Mar-08-2001	2,990	14.0	674	2.3
Mar-09-2001	2,990	14.6	925	2.7
Mar-10-2001	2,690	13.8	1,100	3.1
Mar-11-2001	2,310	14.0	1,240	3.6
Mar-12-2001	2,000	14.5	1,340	4.2
Mar-13-2001	1,820	15.4	1,400	4.5
Mar-14-2001	1,740	16.2	1,460	4.7
Mar-15-2001	1,660	16.3	1,500	3.9
Mar-16-2001	1,610	16.1	1,580	4.8
Mar-17-2001	1,520	16.4	1,650	5.1
Mar-18-2001	1,440	17.4	1,650	5.3
Mar-19-2001	1,380	18.4	1,690	5.1
Mar-20-2001	1,260	19.6	1,780	5.4
Mar-21-2001	1,150	20.1	NA	6.1
Mar-22-2001	1,100	20.0	NA	NA
Mar-23-2001	1,040	19.8	1,810	5.7
Mar-24-2001	996	19.8	1,790	5.1
Mar-25-2001	992	19.7	1,810	5.1
Mar-26-2001	1,000	18.4	1,680	4.4
Mar-27-2001	966	18.1	1,610	4.2
Mar-28-2001	959	19.0	1,620	4.3
Mar-29-2001	980	19.5	1,600	4.9
Mar-30-2001	950	19.4	1,650	5.1
Mar-31-2001	866	19.9	1,810	5.4

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
Jan-03-2001	15	.	.	4,800	24	Selenium and boron analyses		
Jan-10-2001	19	.	.	4,650	43	from weekly grab		
Jan-17-2001	21	.	.	4,620	38	discontinued 2/1/00.		
Jan-24-2001	30	.	.	4,740	58	.	.	.
Jan-31-2001	36	.	.	4,600	80	.	.	.
Feb-07-2001	58	.	.	4,240	100	.	.	.
Feb-14-2001	61	.	.	4,620	NA	.	.	.
Feb-21-2001	57	.	.	4,760	130	.	.	.
Feb-28-2001	63	.	.	4,930	93	.	.	.
Mar-07-2001	83	.	.	5,110	NA	.	.	.
Mar-14-2001	58	.	.	5,620	84	.	.	.
Mar-21-2001	46	.	.	5,410	77	.	.	.
Mar-28-2001	53	.	.	5,380	91	.	.	.

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
Jan-02-2001	14	.	.	4,730	.	65.0	.	8.1
Jan-09-2001	20	.	.	4,670	.	65.9	.	7.6
Jan-16-2001	23	.	.	4,530	.	73.4	.	7.0
Jan-23-2001	28	.	.	4,750	.	73.4	.	7.4
Jan-30-2001	33	.	.	NA	.	67.9	.	7.0
Feb-06-2001	58	.	.	4,220	.	60.2	.	6.3
Feb-13-2001	61	.	.	4,490	.	NA	.	6.7
Feb-20-2001	60	.	.	4,710	.	74.9	.	7.2
Feb-27-2001	64	.	.	4,820	.	76.6	.	7.4
Mar-06-2001	81	.	.	5,080	.	85.6	.	7.6
Mar-13-2001	61	.	.	NA	.	89.0	.	8.3
Mar-20-2001	57	.	.	5,720	.	93.7	.	9.0
Mar-27-2001	51	.	.	5,560	.	76.4	.	8.8

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
Jan-04-2001	21	7.8	7.1	4,490	22	66.4	Selenium	6.9
Jan-11-2001	25	8.9	5.5	4,040	53	45.0	(dissolved)	6.5
Jan-18-2001	27	7.7	5.9	4,380	32	68.7	analyses	6.4
Jan-25-2001	33	9.9	7.8	4,380	52	54.6	discontinued	6.5
Feb-01-2001	37	8.4	7.3	4,340	43	70.4	1/15/2000.	6.6
Feb-08-2001	58	12.2	8.1	4,180	26	57.2	.	6.3
Feb-15-2001	61	10.8	8.1	4,370	32	65.6	.	6.2
Feb-22-2001	57	12.9	7.8	4,750	31	71.1	.	6.5
Mar-01-2001	63	12.1	7.4	4,700	P	73.5	.	P
Mar-08-2001	82	16.1	7.1	4,580	P	69.1	.	P
Mar-15-2001	58	17.2	8.3	5,410	P	88.4	.	P
Mar-22-2001	46	20.4	8.5	5,730	P	93.9	.	P
Mar-29-2001	52	20.3	8.3	5,200	P	72.2	.	P

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
Jan-04-2001	92	8.0	7.9	1,760	<0.4	1.4
Jan-11-2001	180	8.9	6.9	1,620	0.5	1.4
Jan-18-2001	179	7.6	7.6	1,630	0.5	1.4
Jan-25-2001	177	9.7	7.9	1,710	0.4	1.4
Feb-01-2001	170	8.6	7.3	1,730	0.5	1.5
Feb-08-2001	140	8.4	8.0	1,900	0.6	1.7
Feb-15-2001	174	11.6	8.2	1,850	0.6	1.6
Feb-22-2001	152	12.7	7.9	1,980	0.7	1.6
Mar-01-2001	165	12.1	7.8	1,950	1.3	P
Mar-08-2001	359	16.6	7.7	1,780	1.0	P
Mar-15-2001	274	17.5	7.9	1,970	1.3	P
Mar-22-2001	86	20.8	7.9	2,140	1.2	P
Mar-29-2001	45	20.4	8.1	2,720	0.8	P

++ 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
Jan-04-2001	113	8.2	7.7	2,390	11.9	2.6
Jan-11-2001	205	8.7	6.6	2,080	6.9	2.2
Jan-18-2001	206 e	8.2	7.5	2,120	9.9	2.2
Jan-25-2001	210	9.6	7.9	2,230	10.3	2.4
Feb-01-2001	207	8.5	7.8	2,300	12.1	2.6
Feb-08-2001	198	9.1	8.1	2,660	17.0	3.1
Feb-15-2001	235	11.8	8.2	2,700	19.0	3.1
Feb-22-2001	209	12.3	8.0	2,920	21.4	3.2
Mar-01-2001	228	12.4	7.3	3,000	25.2	P
Mar-08-2001	441	16.5	7.6	2,420	17.0	P
Mar-15-2001	332	17.1	7.9	2,750	18.9	P
Mar-22-2001	132	20.6	8.1	3,600	33.8	P
Mar-29-2001	97	20.0	8.3	4,150	40.0	P

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
Jan-04-2001	100	7.6	7.8	1,900	<0.4	1.0
Jan-11-2001	322	9.2	7.7	1,310	1.1	0.8
Jan-18-2001	201	6.7	7.3	1,800	1.0	1.2
Jan-25-2001	187	10.5	6.6	1,790	0.8	1.1
Feb-01-2001	173	8.5	6.8	1,900	0.9	1.2
Feb-08-2001	199	8.6	7.8	1,680	0.8	0.9
Feb-15-2001	252	10.5	7.5	1,560	1.3	0.8
Feb-22-2001	236	17.0	7.6	1,600	0.9	0.7
Mar-01-2001	357	11.3	7.3	1,570	2.1	P
Mar-08-2001	714	14.9	7.0	1,340	0.9	P
Mar-15-2001	428	16.6	7.4	1,620	1.9	P
Mar-22-2001	259	19.2	7.6	1,930	1.7	P
Mar-29-2001	312	19.4	8.1	1,550	1.1	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
Jan-04-2001	.	7.5	6.9	2,020	<0.4	0.9
Jan-11-2001	.	8.7	7.6	1,290	0.7	0.7
Jan-18-2001	.	6.2	8.0	1,650	0.6	0.9
Jan-25-2001	.	9.9	7.3	1,850	0.5	1.0
Feb-01-2001	.	8.1	7.6	1,570	0.5	0.9
Feb-08-2001	.	8.9	7.6	1,720	0.7	0.9
Feb-15-2001	.	9.7	7.3	1,200	1.1	0.6
Feb-22-2001	.	14.6	7.8	1,620	0.7	0.6
Mar-01-2001	.	12.7	7.0	1,170	1.6	P
Mar-08-2001	.	13.9	7.6	550	<0.4	P
Mar-15-2001	.	15.8	7.5	1,360	1.6	P
Mar-22-2001	.	19.3	7.7	1,840	1.2	P
Mar-29-2001	.	19.1	8.1	1,700	1.0	P

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
Jan-04-2001	.	.	.	2,120	3.7	1.5
Jan-09-2001	.	.	.	1,830	3.4	1.3
Jan-16-2001	.	.	.	1,630	2.7	1.2
Jan-24-2001	.	.	.	2,020	3.6	1.5
Jan-30-2001	.	.	.	1,700	4.1	1.3
Feb-06-2001	.	.	.	2,150	6.3	1.6
Feb-13-2001	.	.	.	1,790	6.6	1.4
Feb-20-2001	.	.	.	2,020	7.6	1.6
Feb-27-2001	.	.	.	1,350	4.9	1.0
Mar-06-2001	.	.	.	1,360	4.3	1.1
Mar-13-2001	.	.	.	1,690	5.7	1.4
Mar-20-2001	.	.	.	2,210	8.1	1.9
Mar-27-2001	.	.	.	2,140	7.1	1.8

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
Jan-03-2001	15	.	.	671	1.2	0.3
Jan-10-2001	15	.	.	721	1.0	0.2
Jan-17-2001	5	.	.	740	1.5	0.3
Jan-24-2001	5	.	.	780	1.7	0.3
Jan-31-2001	5	.	.	785	1.4	0.4
Feb-07-2001	6	.	.	764	1.4	0.4
Feb-14-2001	5	.	.	715	1.8	0.4
Feb-21-2001	5	.	.	670	2.2	0.4
Feb-28-2001	5	.	.	588	2.3	0.4
Mar-07-2001	5	.	.	690	3.3	0.5
Mar-14-2001	5	.	.	793	5.1	0.6
Mar-21-2001	5	.	.	890	5.4	0.8
Mar-28-2001	5	.	.	680	2.6	0.6

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
Jan-03-2001	40	.	.	687	1.0	0.4
Jan-10-2001	40	.	.	708	0.9	0.3
Jan-17-2001	40	.	.	774	1.1	0.4
Jan-24-2001	40	.	.	755	1.3	0.3
Jan-31-2001	40	.	.	842	1.4	0.5
Feb-07-2001	40	.	.	912	1.6	0.6
Feb-14-2001	40	.	.	964	2.9	0.7
Feb-21-2001	40	.	.	920	2.4	0.6
Feb-28-2001	40	.	.	815	3.3	0.6
Mar-07-2001	40	.	.	996	7.6	0.9
Mar-14-2001	10	.	.	1,030	4.2	1.1
Mar-21-2001	10	.	.	1,500	6.4	2.2
Mar-28-2001	10	.	.	1,490	2.4	2.6

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
Jan-03-2001	0	.	.	1,780	2.8	1.8
Jan-10-2001	45	.	.	1,240	1.9	1.0
Jan-17-2001	0	.	.	2,160	3.3	2.4
Jan-24-2001	10	.	.	396	0.4	0.3
Jan-31-2001	0	.	.	2,020	3.1	2.2
Feb-07-2001	0	.	.	1,880	2.9	2.0
Feb-14-2001	0	.	.	2,270	3.9	2.8
Feb-21-2001	10	.	.	1,270	2.8	1.3
Feb-28-2001	10	.	.	1,360	2.8	1.2
Mar-07-2001	80	.	.	1,390	2.4	1.4
Mar-14-2001	40	.	.	1,140	3.6	1.1
Mar-21-2001	40	.	.	1,060	4.9	0.9
Mar-28-2001	40	.	.	976	2.6	0.9

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
Jan-03-2001	111	.	.	1,300	1.0	1.2
Jan-10-2001	92	.	.	1,200	1.1	1.0
Jan-17-2001	160	.	.	1,500	1.5	1.4
Jan-24-2001	144	.	.	1,710	2.2	1.9
Jan-31-2001	138	.	.	1,750	2.2	2.0
Feb-07-2001	129	.	.	1,720	2.3	1.8
Feb-14-2001	125	.	.	1,590	2.0	1.5
Feb-21-2001	111	.	.	1,800	1.9	2.1
Feb-28-2001	134	.	.	1,590	2.2	1.7
Mar-07-2001	125	.	.	1,590	1.6	2.0
Mar-14-2001	149	.	.	1,590	2.2	1.8
Mar-21-2001	73	.	.	2,000	2.2	2.4
Mar-28-2001	47	.	.	1,960	1.8	2.4

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
Jan-04-2001	681	8.9	7.6	1,290	1.7	0.8
Jan-11-2001	948	8.7	7.5	1,120	2.1	0.7
Jan-18-2001	960	8.2	8.1	1,270	1.8	0.9
Jan-25-2001	893	8.8	7.8	1,390	2.1	0.9
Feb-01-2001	1,030	8.2	7.4	1,350	2.3	1.0
Feb-08-2001	875	10.6	7.6	1,560	3.8	1.2
Feb-15-2001	1,260	10.0	7.4	1,290	4.7	1.0
Feb-22-2001	983	11.9	7.8	1,550	4.8	1.1
Mar-01-2001	1,530	13.0	7.7	1,260	4.9	P
Mar-08-2001	2,990	15.1	7.8	727	2.3	P
Mar-15-2001	1,660	15.8	7.7	1,450	4.6	P
Mar-22-2001	1,100	19.4	7.7	1,830	4.9	P
Mar-29-2001	980	22.2	6.9	1,600	4.3	P

Table 18. Summary of fathead minnow (*Pimephales promelas*) larvae survival in 7-day tests using water samples collected from April 2000 to March 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	%	%	%	%	%	%
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
Jan-2001	95	85	93	90	100	100
Feb-2001	100	90	93	78	78	100
Mar-2001	100	93	93	90	95	100

Table 19. Summary of fathead minnow (*Pimephales promelas*) larvae growth in 7-day tests using water samples collected from April 2000 to March 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
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
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

Table 20. Summary of *Daphnia magna* survival in 7-day tests using water samples collected from April 2000 to March 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	%	%	%	%	%	%
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*
Jan-2001	90	70*	100	100	90	80
Feb-2001	100	100	90	100	90	100
Mar-2001	100	100	90	90	90	90

Table 21. Summary of *Daphnia magna* reproduction in 7-day tests using water samples collected from April 2000 to March 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
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*
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

Table 22. Summary of *Selenastrum capricornutum* growth in 4-day tests using water samples collected from April 2000 to March 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
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
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

Table 23. Summary of selenium concentrations in grab water samples collected at study stations for use in laboratory toxicity tests, January 2001 to March 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
Jan-08-2001	42	<0.4	11	0.4	<0.4
Jan-10-2001	46	0.5	9.3	0.5	<0.4
Jan-12-2001	47	<0.4	7.7	1.0	0.8
Feb-12-2001	65	0.8	17	0.6	<0.4
Feb-14-2001	70	<0.4	20	0.8	<0.4
Feb-16-2001	68	<0.4	19	0.4	<0.4
Mar-12-2001	88	2.9	18	1.2	1.0
Mar-14-2001	85	1.3	20	1.3	1.0
Mar-16-2001	93	1.0	22	1.2	0.5

Table 24. Summary of sulfate concentrations in grab water samples collected at study stations for use in laboratory toxicity tests, January 2001 to March 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
Jan-08-2001	1,180	297	532	193	34
Jan-10-2001	1,350	267	521	205	36
Jan-12-2001	1,280	239	423	205	105
Feb-12-2001	1,340	276	553	199	60
Feb-14-2001	1,350	290	588	202	31
Feb-16-2001	1,360	299	595	220	33
Mar-12-2001	1,720	555	599	263	90
Mar-14-2001	1,640	307	576	274	98
Mar-16-2001	1,780	326	635	286	59

Table 25. Summary of total suspended solids concentrations in grab water samples collected from January 2001 to March 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
Jan-08-2001	60	28	31	42	7
Jan-10-2001	53	20	33	34	8
Jan-12-2001	59	32	33	53	10
Feb-12-2001	64	40	54	44	14
Feb-14-2001	71	47	36	52	20
Feb-16-2001	66	56	39	52	15
Mar-12-2001	NA	296	106	46	20
Mar-14-2001	55	229	135	33	5
Mar-16-2001	74	139	100	76	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
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)
†	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.