GRASSLAND BYPASS PROJECT

MONTHLY DATA REPORT

January 2001

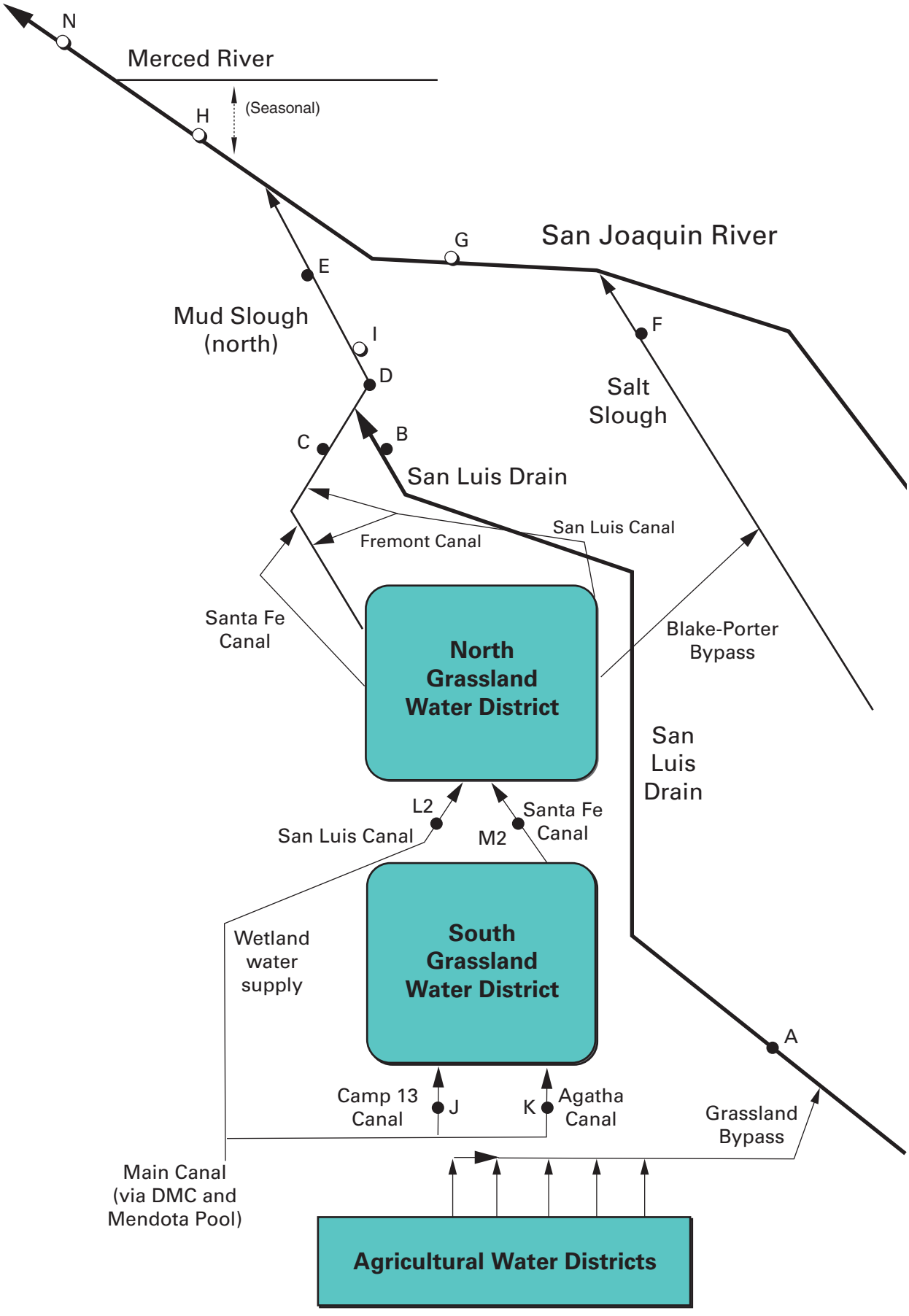
March 26, 2001

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


N
Merced River
H
(Seasonal)
G
San Joaquin River
E
Mud Slough
(north)
I
D
F
Salt
Slough
C
B
San Luis Drain
San Luis Canal
Fremont Canal
Santa Fe
Canal
North
Grassland
Water District
Blake-Porter
Bypass
San
Luis
Drain
L2
San Luis Canal
M2
Santa Fe
Canal
South
Grassland
Water District
Wetland
water
supply
A
Camp 13
Canal
J
K
Agatha
Canal
Grassland
Bypass
Main Canal
(via DMC and
Mendota Pool)
Agricultural Water Districts

GRASSLAND BYPASS PROJECT

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
Jan-01-2001	14	4,780
Jan-02-2001	14	4,820
Jan-03-2001	15	4,890
Jan-04-2001	16	4,880
Jan-05-2001	17	4,810
Jan-06-2001	17	4,720
Jan-07-2001	18	4,710
Jan-08-2001	21	4,430
Jan-09-2001	20	4,460
Jan-10-2001	19	4,530
Jan-11-2001	29	4,290
Jan-12-2001	28	4,530
Jan-13-2001	23	4,620
Jan-14-2001	21	4,750
Jan-15-2001	21	4,620
Jan-16-2001	23	4,670
Jan-17-2001	21	4,630
Jan-18-2001	20	4,480
Jan-19-2001	21	4750
Jan-20-2001	21	4840
Jan-21-2001	22	4,880
Jan-22-2001	26	5,030
Jan-23-2001	28	5,070
Jan-24-2001	30	4,860
Jan-25-2001	32	4,740
Jan-26-2001	35	4,460
Jan-27-2001	35	4,440
Jan-28-2001	35	4,700
Jan-29-2001	33	4,740
Jan-30-2001	33	4,690
Jan-31-2001	36	4,660
Mean	24	4,690

PRELIMINARY RESULTS

Table 2. Continuous water monitoring at Station B (discharge from San Luis Drain), January 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
Jan-01-2001	21	8.5	7.0	4,310	50.2	5.7
Jan-02-2001	20	8.3	7.0	4,290	47.8	5.2
Jan-03-2001	20	8.4	6.8	4,260	48.2	5.2
Jan-04-2001	21	8.6	6.9	4,380	62.5	7.1
Jan-05-2001	22	8.5	7.0	4,190	48.6	5.8
Jan-06-2001	22	8.6	7.0	4,160	45.3	5.4
Jan-07-2001	23	8.7	7.1	4,110	44.0	5.5
Jan-08-2001	26	9.4	6.9	4,130	45.7	6.4
Jan-09-2001	27	9.7	6.9	4,160	45.9	6.7
Jan-10-2001	26	9.4	6.6	4,160	47.9	6.7
Jan-11-2001	25	9.2	6.5	4,050	45.0	6.1
Jan-12-2001	32	9.5	6.4	4,030	46.9	8.1
Jan-13-2001	32	9.9	6.5	4,050	45.7	7.9
Jan-14-2001	28	10.3	6.4	3,980	50.2	7.6
Jan-15-2001	27	9.5	6.6	4,110	53.4	7.8
Jan-16-2001	25	8.7	6.4	4,010	49.1	6.6
Jan-17-2001	28	8.6	6.2	4,100	59.5	9.0
Jan-18-2001	27	8.5	6.4	4,280	66.3	9.7
Jan-19-2001	26	8.9	6.6	4,340	65.2	9.1
Jan-20-2001	26	8.7	6.6	4,340	61.5	8.6
Jan-21-2001	26	8.7	6.7	4,220	53.0	7.4
Jan-22-2001	27	9.3	6.6	4,240	53.9	7.8
Jan-23-2001	30	9.9	6.3	4,100	49.9	8.1
Jan-24-2001	33	10.5	6.8	4,330	53.1	9.5
Jan-25-2001	33	10.3	7.1	4,340	52.8	9.4
Jan-26-2001	34	10.2	7.2	4,440	58.4	10.7
Jan-27-2001	36	10.0	7.4	4,540	67.6	13.1
Jan-28-2001	36	9.9	6.8	4,500	72.8	14.1
Jan-29-2001	37	10.3	6.8	4,390	67.8	13.5
Jan-30-2001	35	10.0	6.8	4,250	56.3	10.6
Jan-31-2001	35	10.0	6.5	4,130	54.8	10.3
Mean	28	9.3	6.7	4,220	53.8	
Total						**255**

Load Limitation for January 2001	**(lbs)**	**453**

Table 3. Continuous water monitoring at Station D (Mud Slough North downstream of drainage discharges), January 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
Jan-01-2001	124	7.8	2,160
Jan-02-2001	120	7.7	2,160
Jan-03-2001	115	7.9	2,210
Jan-04-2001	113	8.1	2,290
Jan-05-2001	113	8.2	2,300
Jan-06-2001	112	8.2	2,320
Jan-07-2001	110	8.5	2,330
Jan-08-2001	126	9.6	2,280
Jan-09-2001	142	9.7	2,170
Jan-10-2001	163	9.0	2,060
Jan-11-2001	205	8.8	1,950
Jan-12-2001	231	9.2	1,890
Jan-13-2001	230 e	9.6	1,840
Jan-14-2001	225 e	10.3	1,790
Jan-15-2001	220 e	8.9	1,840
Jan-16-2001	207 e	7.6	1,870
Jan-17-2001	206 e	7.3	1,950
Jan-18-2001	206 e	7.4	2,020
Jan-19-2001	205 e	8.3	2,020
Jan-20-2001	204 e	8.1	2,050
Jan-21-2001	203 e	8.2	2,050
Jan-22-2001	202 e	9.1	2,030
Jan-23-2001	200 e	P	P
Jan-24-2001	203	10.6	2,080
Jan-25-2001	210	9.9	2,110
Jan-26-2001	224	9.6	2,110
Jan-27-2001	222	9.3	2,170
Jan-28-2001	214	9.3	2,170
Jan-29-2001	P	P	P
Jan-30-2001	P	P	P
Jan-31-2001	P	P	P

Table 4. Continuous water monitoring at Station F (Salt Slough at Highway 165), January 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
Jan-01-2001	108	8.3	1,290
Jan-02-2001	112	8.4	1,270
Jan-03-2001	104	8.8	1,290
Jan-04-2001	100	8.9	1,330
Jan-05-2001	100	8.8	1,340
Jan-06-2001	104	8.8	1,320
Jan-07-2001	123	8.8	1,270
Jan-08-2001	162	9.7	1,190
Jan-09-2001	221	10.0	1,180
Jan-10-2001	253	9.4	1,300
Jan-11-2001	322	9.1	1,310
Jan-12-2001	354	9.1	1,330
Jan-13-2001	331	9.2	1,430
Jan-14-2001	311	9.5	1,490
Jan-15-2001	293	8.7	1,530
Jan-16-2001	268	7.3	1,590
Jan-17-2001	224	7.1	1,590
Jan-18-2001	201	7.7	1,650
Jan-19-2001	186	8.5	1,690
Jan-20-2001	170	8.5	1,720
Jan-21-2001	159	8.6	1,740
Jan-22-2001	153	9.7	1,730
Jan-23-2001	155	10.4	1,750
Jan-24-2001	160	11.1	1,750
Jan-25-2001	187	10.4	1,620
Jan-26-2001	233	10.0	1,500
Jan-27-2001	261	9.5	1,490
Jan-28-2001	259	9.3	1,530
Jan-29-2001	P	P	P
Jan-30-2001	P	P	P
Jan-31-2001	P	P	P

Table 5. Continuous water monitoring at Station N (San Joaquin River at Crow's Landing), January 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
Jan-01-2001	720	7.9	1,220	2.1
Jan-02-2001	703	7.8	1,250	2.2
Jan-03-2001	701	7.8	1,270	2.0
Jan-04-2001	681	7.9	1,270	1.9
Jan-05-2001	656	8.0	1,330	2.1
Jan-06-2001	656	8.0	1,360	2.5
Jan-07-2001	669	8.0	1,330	2.0
Jan-08-2001	702	9.0	1,310	2.0
Jan-09-2001	744	9.5	1,280	2.0
Jan-10-2001	816	9.2	1,200	1.8
Jan-11-2001	948	8.8	1,050	2.0
Jan-12-2001	1,060	9.1	1,060	1.5
Jan-13-2001	1,110	9.3	1,080	1.5
Jan-14-2001	1,110	9.5	1,120	1.9
Jan-15-2001	1,080	8.8	1,140	1.8
Jan-16-2001	1,050	7.8	1,170	1.7
Jan-17-2001	1,000	7.3	1,210	1.8
Jan-18-2001	960	7.2	1,250	1.7
Jan-19-2001	922	7.9	1,290	2.2
Jan-20-2001	908	7.8	1,300	2.3
Jan-21-2001	869	7.9	1,330	2.3
Jan-22-2001	849	8.6	1,390	2.3
Jan-23-2001	866	9.5	1,400	2.1
Jan-24-2001	876	10.3	1,380	2.2
Jan-25-2001	893	9.8	1,330	2.1
Jan-26-2001	1,020	9.5	1,330	2.2
Jan-27-2001	1,160	9.2	1,200	1.9
Jan-28-2001	1,200	8.9	1,080	2.1
Jan-29-2001	P	P	1,100	2.5
Jan-30-2001	P	P	1,210	2.7
Jan-31-2001	P	P	1,290	2.6

PRELIMINARY RESULTS

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
Nov-01-2000	14	.	.	5,070	48	Selenium and boron analyses		
Nov-08-2000	15	.	.	5,030	41	from weekly grab		
Nov-15-2000	15	.	.	5,000	11	discontinued 2/1/00.		
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	54	.	.	.
Dec-27-2000	19	.	.	4,640	32	.	.	.
Jan-03-2001	15	.	.	4,800	P	.	.	.
Jan-10-2001	19	.	.	4,650	P	.	.	.
Jan-17-2001	21	.	.	4,620	P	.	.	.
Jan-24-2001	30	.	.	4,740	P	.	.	.
Jan-31-2001	36	.	.	4,600	P	.	.	.

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
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
Jan-02-2001	14	.	.	4,730	.	65.0	.	P
Jan-09-2001	20	.	.	4,670	.	65.9	.	P
Jan-16-2001	23	.	.	4,530	.	73.4	.	P
Jan-23-2001	28	.	.	4,750	.	73.4	.	P
Jan-30-2001	33	.	.	NA	.	67.9	.	P

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
Nov-02-2000	20	15.6	6.9	3,980	50	32.4	Selenium	6.8
Nov-09-2000	19	13.1	8.2	4,460	52	59.5	(dissolved)	7.0
Nov-16-2000	19	10.9	6.7	4,510	48	65.2	analyses	7.2
Nov-21-2000	19	9.5	7.7	4,440	32	62.1	discontinued	7.1
Nov-30-2000	22	11.9	7.5	4,250	36	60.0	1/15/2000.	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
Jan-04-2001	21	7.8	7.1	4,490	22	66.4	.	P
Jan-11-2001	25	8.9	5.5	4,040	53	45.0	.	P
Jan-18-2001	27	7.7	5.9	4,380	32	68.7	.	P
Jan-25-2001	33	9.9	7.8	4,380	52	54.6	.	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
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
Jan-04-2001	92	8.0	7.9	1,760	<0.4	P
Jan-11-2001	180	8.9	6.9	1,620	0.5	P
Jan-18-2001	179	7.6	7.6	1,630	0.5	P
Jan-25-2001	177	9.7	7.9	1,710	0.4	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
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
Jan-04-2001	113	8.2	7.7	2,390	11.9	P
Jan-11-2001	205	8.7	6.6	2,080	6.9	P
Jan-18-2001	206 e	8.2	7.5	2,120	9.9	P
Jan-25-2001	210	9.6	7.9	2,230	10.3	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
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
Jan-04-2001	100	7.6	7.8	1,900	<0.4	P
Jan-11-2001	322	9.2	7.7	1,310	1.1	P
Jan-18-2001	201	6.7	7.3	1,800	1.0	P
Jan-25-2001	187	10.5	6.6	1,790	0.8	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
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
Jan-04-2001	.	7.5	6.9	2,020	<0.4	P
Jan-11-2001	.	8.7	7.6	1,290	0.7	P
Jan-18-2001	.	6.2	8.0	1,650	0.6	P
Jan-25-2001	.	9.9	7.3	1,850	0.5	P

PRELIMINARY RESULTS

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
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
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

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
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
Jan-03-2001	15	.	.	671	1.2	P
Jan-10-2001	15	.	.	721	1.0	P
Jan-17-2001	5	.	.	740	1.5	P
Jan-24-2001	5	.	.	780	1.7	P
Jan-31-2001	5	.	.	785	1.4	P

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
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
Jan-03-2001	40	.	.	687	1.0	P
Jan-10-2001	40	.	.	708	0.9	P
Jan-17-2001	40	.	.	774	1.1	P
Jan-24-2001	40	.	.	755	1.3	P
Jan-31-2001	40	.	.	842	1.4	P

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
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
Jan-03-2001	0	.	.	1,780	2.8	P
Jan-10-2001	45	.	.	1,240	1.9	P
Jan-17-2001	0	.	.	2,160	3.3	P
Jan-24-2001	10	.	.	396	0.4	P
Jan-31-2001	0	.	.	2,020	3.1	P

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
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
Jan-03-2001	111	.	.	1,300	1.0	P
Jan-10-2001	92	.	.	1,200	1.1	P
Jan-17-2001	160	.	.	1,500	1.5	P
Jan-24-2001	144	.	.	1,710	2.2	P
Jan-31-2001	138	.	.	1,750	2.2	P

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
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
Jan-04-2001	681	8.9	7.6	1,290	1.7	P
Jan-11-2001	948	8.7	7.5	1,120	2.1	P
Jan-18-2001	960	8.2	8.1	1,270	1.8	P
Jan-25-2001	893	8.8	7.8	1,390	2.1	P

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

Table 19. Summary of fathead minnow (*Pimephales promelas*) larvae growth in 7-day tests using water samples collected from February 2000 to January 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
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
Jan-2001	0.63	0.50	0.59	0.55	0.62	0.57

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

Table 21. Summary of *Daphnia magna* reproduction in 7-day tests using water samples collected from February 2000 to January 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
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*
Jan-2001	30.8	31.3	46.2	36.9	30.8	27.1

Table 22. Summary of *Selenastrum capricornutum* growth in 4-day tests using water samples collected from February 2000 to January 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
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
Jan-2001	2.0	2.0	2.1	2.3 ‡	2.1 ‡	2.2

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

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

Table 25. Summary of total suspended solids concentrations in grab water samples collected from November 2000 to January 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
Dec-11-2000	64	8	30	62	22
Dec-13-2000	68	22	27	81	25
Dec-15-2000	85	18	39	61	11
Dec-11-2000	64	8	30	62	22
Dec-13-2000	68	22	27	81	25
Dec-15-2000	85	18	39	61	11
Jan-08-2001	60	28	31	42	7
Jan-10-2001	53	20	33	34	8
Jan-12-2001	59	32	33	53	10

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
(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 (10^6cell/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.