

GRASSLAND BYPASS PROJECT

MONTHLY DATA REPORT

January 1997

March 25, 1997

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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Table 1. Continuous water monitoring at Station A (inflow to San Luis Drain), January 1997.

See Table 26 for explanation of footnotes and agency abbreviations.

PARAMETER	Flow
DATA SOURCE	USBR
UNITS	cfs
01-Jan-97	42.5
02-Jan-97	43.5
03-Jan-97	63.9
04-Jan-97	61.7
05-Jan-97	42.1
06-Jan-97	49.8
07-Jan-97	65.9
08-Jan-97	61.2
09-Jan-97	50.4
10-Jan-97	48.6
11-Jan-97	51.0
12-Jan-97	52.1
13-Jan-97	56.9
14-Jan-97	55.7
15-Jan-97	61.8
16-Jan-97	70.4
17-Jan-97	68.4
18-Jan-97	73.9
19-Jan-97	73.9
20-Jan-97	73.6
21-Jan-97	71.0
22-Jan-97	74.6
23-Jan-97	75.7
24-Jan-97	77.6
25-Jan-97	79.6
26-Jan-97	76.3
27-Jan-97	73.8
28-Jan-97	37.9
29-Jan-97	49.7
30-Jan-97	64.4
31-Jan-97	81.7

Table 2. Continuous water monitoring at Station B (discharge from San Luis Drain), January 1997.

See Table 26 for explanation of footnotes and agency abbreviations.

PARAMETER	Flow	Temperature	Specific Conductance	Selenium (total)	Selenium (total) Load
DATA SOURCE	USBR	USBR	USBR	CVRWQCB	Computed
UNITS	cfs	°C	µS/cm	µg/l	lbs
Jan-01-1997	51.6	14.1	4,688	80.8	22.5
Jan-02-1997	47.7	14.8	4,495	73.6	18.9
Jan-03-1997	49.9	14.8	4,312	76.6	20.6
Jan-04-1997	65.0	13.9	3,813	65.0	22.8
Jan-05-1997	60.1	12.9	4,032	61.8	20.0
Jan-06-1997	48.2	10.0	3,847	53.9	14.0
Jan-07-1997	55.8	8.4	3,018	36.6	11.0
Jan-08-1997	64.0	7.6	3,484	35.8	12.4
Jan-09-1997	59.1	9.3	3,864	44.1	14.1
Jan-10-1997	51.3	9.0	3,942	47.2	13.1
Jan-11-1997	48.7	9.2	4,114	60.0	15.8
Jan-12-1997	51.6	9.3	4,387	64.0	17.8
Jan-13-1997	54.1	8.0	4,529	63.8 ^{est 1}	18.6
Jan-14-1997	56.2	7.3	4,577	63.6	19.3
Jan-15-1997	56.9	7.8	4,580	66.3	20.3
Jan-16-1997	60.9	8.1	4,683	66.8	21.9
Jan-17-1997	65.9	8.2	4,622	76.4	27.2
Jan-18-1997	61.9	8.6	4,563	70.3	23.5
Jan-19-1997	57.6	9.2	3,996	55.7	17.3
Jan-20-1997	60.4	9.8	4,191	55.2	18.0
Jan-21-1997	64.8	10.5	4,351	55.6	19.4
Jan-22-1997	70.5	11.4	4,464	62.8	23.9
Jan-23-1997	71.6	11.8	4,362	66.2	25.6
Jan-24-1997	72.1	12.1	4,437	73.0	28.4
Jan-25-1997	75.3	12.7	3,970	59.7	24.2
Jan-26-1997	77.9	13.5	3,911	56.4	23.7
Jan-27-1997	76.4	13.8	4,118	59.6	24.6
Jan-28-1997	56.2	14.3	4,157	65.1	19.7
Jan-29-1997	50.1	14.3	4,186	57.0	15.4
Jan-30-1997	58.0	14.1	3,368	40.6	12.7
Jan-31-1997	67.0	13.8	3,455	34.2	12.4
Mean	60.2	11.1	4,146	59.5	
Total					599

Load Limitation for January 1997 (lbs)	533
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**Table 3. Continuous water monitoring at Station D
(Mud Slough North downstream of drainage discharges), January 1997.**

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
01-Jan-97	503	14.3	1,590
02-Jan-97	570	15.0	1,600
03-Jan-97	601	14.4	1,470
04-Jan-97	611	12.3	1,300
05-Jan-97	604	11.1	1,230
06-Jan-97	619	8.4	1,170
07-Jan-97	611	8.0	1,100
08-Jan-97	611	8.4	1,140
09-Jan-97	573	9.0	1,220
10-Jan-97	527	9.1	1,240
11-Jan-97	486	9.0	1,270
12-Jan-97	456	8.7	1,430
13-Jan-97	438	6.3	1,700
14-Jan-97	409	4.9	1,870
15-Jan-97	413	5.8	1,940
16-Jan-97	424	7.0	1,820
17-Jan-97	436	7.8	1,740
18-Jan-97	435	8.4	1,650
19-Jan-97	445	8.7	1,510
20-Jan-97	448	9.0	1,510
21-Jan-97	444	10.0	1,560
22-Jan-97	465	10.9	1,560
23-Jan-97	514	11.2	1,570
24-Jan-97	539	11.1	1,560
25-Jan-97	580	12.0	1,520
26-Jan-97	645	12.8	1,340
27-Jan-97	696	12.9	1,250
28-Jan-97	726	13.2	1,160
29-Jan-97	707	13.2	1,050
30-Jan-97	690	12.7	1,050
31-Jan-97	684	12.3	1,070

Table 4. Continuous water monitoring at Station F (Salt Slough at Highway 165), January 1997.

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
01-Jan-97	380	14.4	1,670
02-Jan-97	442	15.2	1,700
03-Jan-97	420	15.0	1,700
04-Jan-97	381	13.3	1,570
05-Jan-97	325	11.8	1,640
06-Jan-97	364	9.1	1,680
07-Jan-97	439	8.1	1,680
08-Jan-97	478	7.8	1,470
09-Jan-97	479	8.2	1,090
10-Jan-97	459	8.4	992
11-Jan-97	414	8.6	1,050
12-Jan-97	394	8.6	1,030
13-Jan-97	384	7.3	1,150
14-Jan-97	358	6.0	1,290
15-Jan-97	351	6.4	1,300
16-Jan-97	343	7.2	1,330
17-Jan-97	336	7.9	1,360
18-Jan-97	330	8.5	1,400
19-Jan-97	338	8.8	1,420
20-Jan-97	332	9.1	1,440
21-Jan-97	311	9.9	1,420
22-Jan-97	331	11.0	1,410
23-Jan-97	380	11.5	1,530
24-Jan-97	414	11.4	1,600
25-Jan-97	471	12.1	1,600
26-Jan-97	550	13.1	1,600
27-Jan-97	613	13.5	1,620
28-Jan-97	657	13.5	1,560
29-Jan-97	615	13.5	1,900
30-Jan-97	576	13.1	2,080
31-Jan-97	550	12.9	2,140

Table 5. Continuous water monitoring at Station N (San Joaquin River at Crow's Landing), January 1997.

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
01-Jan-97	e11100	13.2	246	0.6
02-Jan-97	e17700	14.1	203	0.5
03-Jan-97	e23000	13.8	167	0.4
04-Jan-97	e25100	13.1	147	0.3
05-Jan-97	e25800	11.9	141	0.3
06-Jan-97	e26100	9.9	139	0.2
07-Jan-97	e27500	8.6	136	0.3
08-Jan-97	e27600	8.5	121	0.3
09-Jan-97	e25800	8.8	136	0.2
10-Jan-97	e23400	8.9	164	0.3
11-Jan-97	e21600	8.8	174	0.3
12-Jan-97	e21000	8.7	178	0.2
13-Jan-97	e20800	7.7	172	0.3
14-Jan-97	e21000	6.8	162	0.3
15-Jan-97	e21500	6.9	156	0.3
16-Jan-97	e21700	7.4	155	0.4
17-Jan-97	e22000	8.0	159	0.4
18-Jan-97	e21800	8.4	NP	NP
19-Jan-97	e22200	8.7	NP	NP
20-Jan-97	e22900	8.9	NP	NP
21-Jan-97	e22900	9.4	NP	NP
22-Jan-97	e23800	10.0	NP	NP
23-Jan-97	e26500	10.5	NP	NP
24-Jan-97	e28200	10.6	NP	NP
25-Jan-97	e30300	11.1	NP	NP
26-Jan-97	e33400	11.8	NP	NP
27-Jan-97	e35700	12.1	NP	NP
28-Jan-97	e37100	12.1	NP	NP
29-Jan-97	e36000	11.7	NP	NP
30-Jan-97	e34500	11.6	NP	NP
31-Jan-97	e33800	11.3	NP	NP

Note: Flow recorder malfunction due to flood event

Table 6. Weekly water quality monitoring at Station A (inflow to San Luis Drain), 1997.

See Table 26 for explanation of footnotes and agency abbreviations.

PARAMETER	Flow	Temperature	pH	Specific Conductance	Total Suspended Solids	Selenium (total)	Selenium (dissolved) L	Selenium (dissolved) F	Boron
DATA SOURCE	USBR	CVRWQCB	CVRWQCB	CVRWQCB	CVRWQCB	CVRWQCB	CVRWQCB	CVRWQCB	CVRWQCB
UNITS	cfs	°C		µS/cm	mg/l	µg/l	µg/l	µg/l	mg/l
09-Jan-97	50.4	9.9	8.0	4,710	90	78.7	76.6	72.4	P
21-Jan-97	71.0	16.0	8.0	4,870	180	88.2	84.8	NP	P

Table 7. Weekly water quality monitoring at Station B (discharge from San Luis Drain), 1997.

See Table 26 for explanation of footnotes and agency abbreviations.

PARAMETER	Flow	Temperature	pH	Specific Conductance	Total Suspended Solids	Selenium (total)	Selenium (dissolved) L	Selenium (dissolved) F	Boron
DATA SOURCE	USBR	CVRWQCB	CVRWQCB	CVRWQCB	CVRWQCB	CVRWQCB	CVRWQCB	CVRWQCB	CVRWQCB
UNITS	cfs	°C		µS/cm	mg/l	µg/l	µg/l	µg/l	mg/l
09-Jan-97	59.1	13.2	7.9	3,830	12	33.3	34.2	32.4	P
21-Jan-97	64.8	12.1	7.9	4,530	33	57.0	56.4	NP	P

Table 8. Weekly water quality monitoring at Station C (Mud Slough North upstream of drainage discharges), 1997.

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
09-Jan-97	.	12.1	7.5	921	0.2	P
21-Jan-97	.	11.6	7.6	1,070	0.4	P

Table 9. Weekly water quality monitoring at Station D (Mud Slough North downstream of drainage discharges), 1997.

See Table 26 for explanation of footnotes and agency abbreviations.

PARAMETER	Flow	Temperature	pH	Specific Conductance	Selenium (total)	Boron
DATA SOURCE	USBR	CVRWQCB	CVRWQCB	CVRWQCB	CVRWQCB	CVRWQCB
UNITS	cfs	°C		µS/cm	µg/l	mg/l
09-Jan-97	573	12.1	7.7	1,284	5.0	P
21-Jan-97	444	11.6	7.7	1,620	9.2	P

Table 10. Weekly water quality monitoring at Station F (Salt Slough at Highway 165), 1997.

See Table 26 for explanation of footnotes and agency abbreviations.

PARAMETER	Flow	Temperature	pH	Specific Conductance	Selenium (total)	Boron
DATA SOURCE	USBR	CVRWQCB	CVRWQCB	CVRWQCB	CVRWQCB	CVRWQCB
UNITS	cfs	°C		µS/cm	µg/l	mg/l
09-Jan-97	479	11.0	8.0	1,203	1.0	P
22-Jan-97	331	NP	NP	NP	1.0	P
24-Jan-97	414	11.0	7.0	1,609	NP	P

Table 11. Weekly water quality monitoring at Station G (San Joaquin River at Fremont Ford), 1997.

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
09-Jan-97	12.1	7.8	106	0.1	P
22-Jan-97	NP	NP	NP	0.2	P
24-Jan-97	10.4	7.1	102	NP	P

Table 12. Weekly water quality monitoring at Station H (San Joaquin River at Hills Ferry), 1997.

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
09-Jan-97	NP	NP	NP	NP	P
22-Jan-97	NP	NP	NP	1.1	P
24-Jan-97	11.0	7.6	548	NP	P

Table 13. Weekly water quality monitoring at Station J (Camp 13 Ditch), 1997.

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
09-Jan-97	9.9	8.5	224	NP	P
16-Jan-97	NP	NP	122	NP	P
21-Jan-97	NP	NP	178	NP	P

Table 14. Weekly water quality monitoring at Station K (Agatha Canal), 1997.

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
09-Jan-97	11.0	8.0	305	NP	P
21-Jan-97	13.2	8.1	231	NP	P

Table 15. Weekly water quality monitoring at Station L (San Luis Canal at Henry Miller Road), 1997.

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
no data	no data	no data	no data	no data	no data

Table 16. Weekly water quality monitoring at Station M (Santa Fe Canal at Henry Miller Road), 1997.

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
no data	no data	no data	no data	no data	no data

Table 17. Weekly water quality monitoring at Station N (San Joaquin River at Crow's Landing), 1997.

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
09-Jan-97	P	NP	NP	NP	NP	P
14-Jan-97	P	NP	NP	NP	0.3	P
22-Jan-97	P	NP	NP	NP	0.3	P
24-Jan-97	P	10.4	7.6	154	NP	P
30-Jan-97	P	NP	NP	128	0.2	P

Table 18. Summary of fathead minnow (*Pimephales promelas*) larvae survival in 7-day tests using water samples collected from December 1995 to January 1997. 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	%	%	%	%	%	%
December-95	NT	83	95	93	90	93
March-96	NT	93	95	93	95	96
August-96	NT	98	93	90	90	100
October-96	68	83	88	88	93	98
November-96	98	98	95	85	95	93
December-96	98	50 *	78 *	93	98	100
January-97	95	92	83	90	88	95

Table 19. Summary of fathead minnow (*Pimephales promelas*) larvae growth in 7-day tests using water samples collected from December 1995 to January 1997. 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	grams	grams	grams	grams	grams	grams
December-95	NT	0.32	0.27	0.32	0.32	0.32
March-96	NT	0.43	0.44	0.44	0.47	0.48
August-96	NT	0.56	0.45	0.44	0.50	0.47
October-96	0.56	0.56	0.53 *	0.59	0.60	0.59
November-96	0.53	0.57	0.63	0.53	0.55	0.59
December-96	0.71	0.71	0.83	0.65	0.68	0.58
January-97	0.74	0.80	0.80	0.83	0.65	0.71

Table 20. Summary of *Daphnia magna* survival in 7-day tests using water samples collected from December 1995 to January 1997. 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	%	%	%	%	%	%
December-95	NT	100	100	100	100	100
March-96	NT	90	90	100	100	100
August-96	NT	100	100	100	100	100
October-96	90	100	100	100	100	70
November-96	100	90	90	100	100	100
December-96	100	80	80	100	100	100
January-97	100	90	100	100	100	100

Table 21. Summary of *Daphnia magna* reproduction in 7-day tests using water samples collected from December 1995 to November 1996. 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/female	neonates/female	neonates/female	neonates/female	neonates/female	neonates/female
December-95 ⁽¹⁾	NT	21.5 *	18.5 *	18.4 *	19.8	16.9
March-96	NT	18.8	23.9 *	18.2	20.1	19.9
August-96	NT	27.0	32.8 *	27.4	27.8	26.4
October-96	16.8	20.2	17.9	13.1	12.9	16.0
November-96	30.6	21.8	21.9	22.4	21.5	15.9
December-96	23.2	14.0	17.2	17.8	16.8	14.8
January-97	15.2	15.4	15.3	15.6	13.6	10.9

Table 22. Summary of *Selenastrum capricornutum* growth in 7-day tests using water samples collected from December 1995 to November 1996. 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
December-95	NT	22.0 *	12.0	11.0 *	12.0	11.0
March-96	NT	94.0 *	11.3	14.7	11.9	10.7
August-96	NT	6.2 *	5.6 *	13.8	16.8	14.7
October-96 ⁽²⁾	4.3 *	12.3	11.3	8.5	3.5	36.6
November-96 ⁽³⁾	16.6	56.1	48.9	33.5	39.7	91.1
December-96	0.5 *	5.9	0.5 *	4.2	3.4	18.9
January-97	11.0	9.3	12.5	11.6	8.0	8.2

Table 23. Summary of selenium concentrations in grab water samples collected at study sites for use in laboratory toxicity tests, December 1995 to January 1997.

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
December 11, 1995	NT	1	1	12	<1
December 12, 1995	NT	<1	<1	14	<1
December 15, 1995	NT	<1	<1	12	<1
March 18, 1996	NT	<1	<1	17	<1
March 21, 1996	NT	<1	<1	16	<1
March 23, 1996	NT	<1	<1	18	<1
March 27, 1996	NT	1	<1	19	<1
August 6, 1996	NT	3	2	13	<1
August 8, 1996	NT	<1	1	13	<1
August 10, 1996	NT	2	2	11	<1
August 13, 1996	NT	NT	NT	NT	NT
October 8, 1996	65	<1	20	1	<1
October 10, 1997	62	<1	16	1	<1
October 12, 1997	72	<1	19	<1	<1
November 1996	P	P	P	P	P
December 10, 1996	36	<1	5	<1	<1
December 12, 1996	54	<1	8	<1	<1
December 14, 1996	51	<1	5	2	<1
January 1997	P	P	P	P	P

Table 24. Summary of sulfate concentrations in grab water samples collected at study sites for use in laboratory toxicity tests, December 1995 to January 1997.

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
December 11, 1995	NT	NT	NT	NT	NT
December 12, 1995	NT	NT	NT	NT	NT
December 15, 1995	NT	NT	NT	NT	NT
March 18, 1996	NT	320	320	520	55
March 21, 1996	NT	330	360	490	52
March 23, 1996	NT	350	370	530	52
March 27, 1996	NT	350	330	550	51
August 6, 1996	NT	220	270	410	55
August 8, 1996	NT	680	450	390	20
August 10, 1996	NT	260	370	370	48
August 13, 1996	NT	NT	NT	NT	NT
October 8, 1996	1,400	89	480	140	32
October 10, 1997	1,400	89	480	140	31
October 12, 1997	1,600	85	540	150	26
November 1996	P	P	P	P	P
December 10, 1996	1590	138	330	284	33
December 12, 1996	1540	124	351	255	33
December 14, 1996	1330	133	269	288	33
January 1997	P	P	P	P	P

Table 25. Summary of quarterly in situ bioassay results from December 1995 to November 1996. Results are the number of live fathead minnows (*Pimephales promelas*) per number of fish recovered at the end of the 7 day deployment at each station (initial count of 80 used at each station).

See Table 26 for explanation of footnotes and agency abbreviations.

LOCATION	Windmill (4 day old larvae)	Station B (4 day old larvae)	Station D (4 day old larvae)	Station D (14 day old larvae)	Station F (4 day old larvae)	Station F (14 day old larvae)
DATA SOURCE	SLDMWA	SLDMWA	SLDMWA	SLDMWA	SLDMWA	SLDMWA
UNITS	# alive/total count	# alive/total count	# alive/total count	# alive/total count	# alive/total count	# alive/total count
December-95 ⁽⁴⁾	NT	NT	NT	NT	NT	NT
March-96 ⁽⁵⁾	80/80	NT	NT	44/44	NT	70/70
August-96 ⁽⁶⁾	NT	NT	13/19	22/29	28/40	20/49
November-96	46/62	63/68	0/2	.	16/36	.

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
est 1	estimated value determined by using method for 1 missing values - average of 1/12/97 - 1/14/97
.	Not applicable
F	Sample filtered in the field
L	Sample filtered in the lab
<	less than
P	pending, data not available at this time but will be available in the future
NA	not analyzed - operator error, data will not be available in the future
NP	data not provided - future unknown
NT	not tested
(1)	This test used <i>Ceriodaphnia dubia</i> in water with high hardness. Results were compared to hard water and moderately hard water for definitive bioassays. All treatment means were significantly different from the laboratory control (hard water) for definitive tests.
(2)	Selenate added
(3)	Lab Control was significantly different from DMC, Site B, and Site F samples. (There was no significant difference for site samples versus DMC water.)
(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.
*	Significantly different from Delta Mendota Canal (p<0.05)