GRASSLAND BYPASS PROJECT
MONTHLY DATA REPORT

January 2015
Thru
June 2015

A Cooperative Effort By:

United States Bureau of Reclamation
Cantral Valley Regional Water Quality Control Board
United States Fish and Wildlife Service
National Marine Fisheries Service
California Department of Fish and Wildlife
San Luis and Delta-Mendota Water Authority
United States Environmental Protection Agency
United States Geological Survey
San Francisco Estuary Institute

WSID CDO/BBID ACL
WSID0050

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Figure 1: Map of the Grassland Bypass Project area and sampling locations

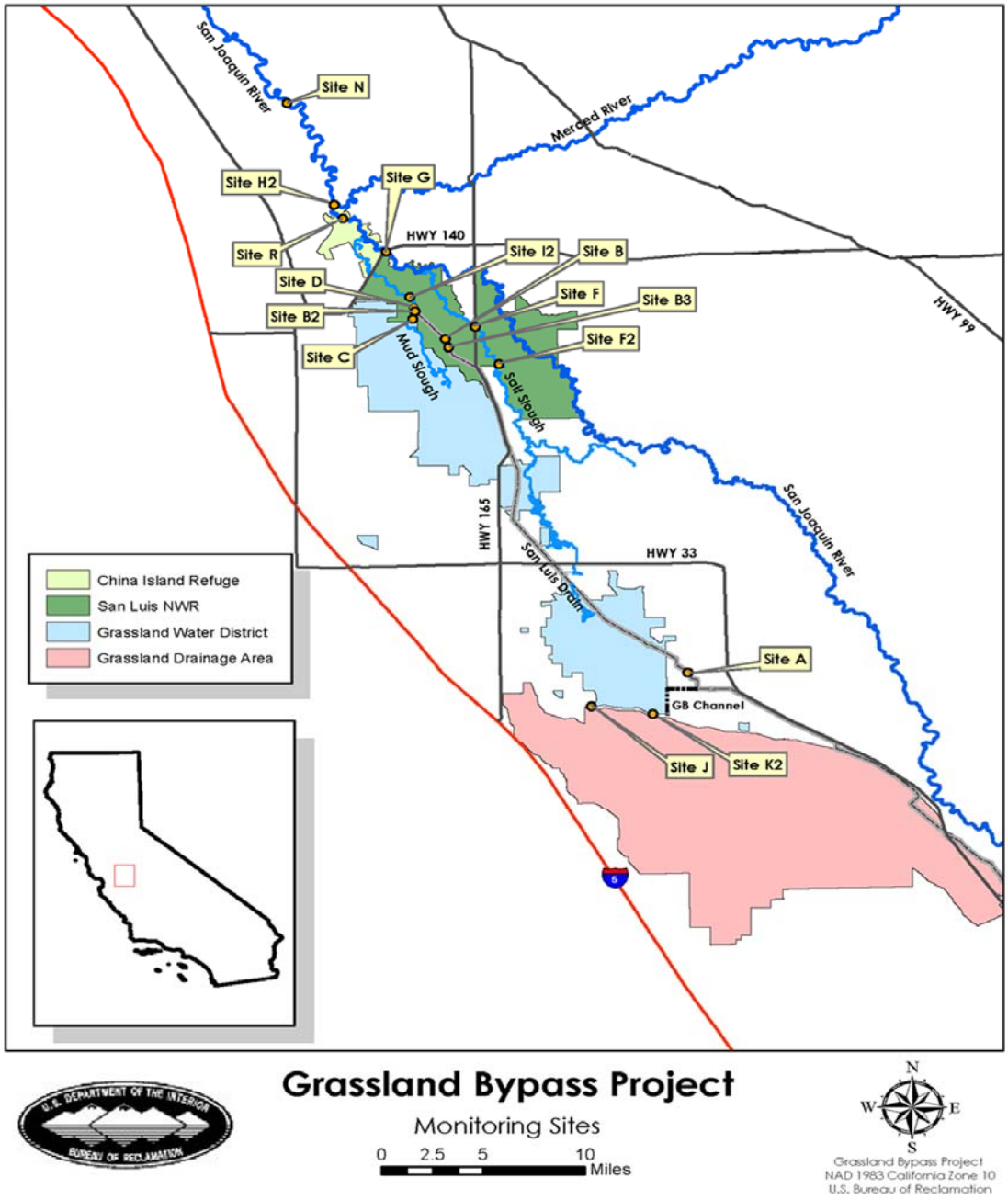

Table 10a. Water monitoring in the San Joaquin River at Fremont Ford (Station G)
USGS Station Code: 11261500

PARAMETER	Flow	Temperature	Specific Conductance
DATA SOURCE	USGS	USGS	USGS
UNITS	cfs	°C	µS/cm
Jan-01-2015	90	6.4	2430
Jan-02-2015	91	6.3	2400
Jan-03-2015	89	6.6	2380
Jan-04-2015	85	7.0	2460
Jan-05-2015	83	7.6	2480
Jan-06-2015	83	8.3	2440
Jan-07-2015	85	8.9	2390
Jan-08-2015	81	9.6	2370
Jan-09-2015	76	10.1	2320
Jan-10-2015	72	11.3	2340
Jan-11-2015	71	11.8	2350
Jan-12-2015	74	11.7	2260
Jan-13-2015	81	11.6	2200
Jan-14-2015	88	10.9	2180
Jan-15-2015	89	10.6	2170
Jan-16-2015	89	10.5	2180
Jan-17-2015	88	10.9	2180
Jan-18-2015	86	11.2	2220
Jan-19-2015	81	11.6	2310
Jan-20-2015	79	11.8	2270
Jan-21-2015	80	11.6	2240
Jan-22-2015	78	11.4	2330
Jan-23-2015	77	10.2	2420
Jan-24-2015	75	10.3	2460
Jan-25-2015	75	10.1	2440
Jan-26-2015	77	9.9	2390
Jan-27-2015	78	11.3	2360
Jan-28-2015	80	11.5	2310
Jan-29-2015	78	12.2	2340
Jan-30-2015	78	12.5	2330
Jan-31-2015	74	12.5	2320
Feb-01-2015	76	12.4	2350
Feb-02-2015	77	12.6	2360
Feb-03-2015	77	13.0	2460
Feb-04-2015	85	13.8	2270
Feb-05-2015	91	13.8	2040
Feb-06-2015	87	13.6	2190
Feb-07-2015	83	14.9	2320
Feb-08-2015	87	16.1	2210
Feb-09-2015	104	16.2	1970

Table 19. Explanations of footnotes and agency abbreviations.

	Agency
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
	Water Quality Monitoring
NA	Not applicable
<	Less than MDL
D	Sample was dechlorinated
H	Result may have high bias
J	Result is between the MDL and RL
L	Result may have low bias,
MDL	Minimum detection level
	Not analyzed,not required, equipment error, data will not be available in the future
P	Pending, data not available at this time but will be available in the future
T	Result obtained past the holding time
U	Result determined to be an outlier at the time of data validation
V	Result may vary excessively from the true value
UA3	Use Agreement for Continued Use of the San Luis Drain January 2010 - December 2019
	Toxicity
*	Significantly reduced from Delta Mendota Canal ($p<0.05$)
**	Sample re-analyzed and result confirmed.
L	Result may be biased low. Sample was not preserved in the field
†	DMC water failed to meet the survival (>80%) acceptability criteria.
†††	DMC water failed to meet the reproduction (>10 neonates/adult) acceptability criteria.
††††	DMC water failed to meet minimum growth (106cell/mL) acceptability criteria.
‡	Control value exceeds suggested maximum variance (20%) acceptability criteria.
‡‡	Fungal growth observed on test organisms.
‡‡‡	Failed cell density requirement of 1E6 cells.
#	New testing laboratory with reporting limit of 0.4 µg/L as of June 1998.
v	Based on definitive bioassay, NOEC is 50 percent

Table 1a. Water monitoring of inflow to the San Luis Drain (Station A)

PARAMETER	Flow	Temperature	Specific Conductance	Total Dissolved Solids	Total Suspended Solids	Total Selenium	Daily Salt Load
DATA SOURCE	SLDMWA	SLDMWA	SLDMWA	Calculated	SLDMWA	USBR	Calculated
UNITS	cfs	°C	µS/cm	mg/L	mg/L	ug/L	tons
Jan-01-2015	9.3	5.1	7121	5270			132
Jan-02-2015	5.9	5.6	7108	5260			84
Jan-03-2015	5.4	6.1	7005	5184			76
Jan-04-2015	3.2	6.8	6935	5132			44
Jan-05-2015	0.1	7.4	7206	5333			1
Jan-06-2015	2.0	7.9	7005	5184			28
Jan-07-2015	4.5	9.3	7167	5304			64
Jan-08-2015	0.0	9.9	7034	5205			0
Jan-09-2015	0.1	10.4	6987	5170			1
Jan-10-2015	0.0	11.7	7503	5553			0
Jan-11-2015	4.5	12.1	8074	5975			73
Jan-12-2015	0.6	12.2	9227	6828	40		11
Jan-13-2015	3.3	11.6	9214	6818			61
Jan-14-2015	5.3	10.9	10236	7574			108
Jan-15-2015	5.6	10.9	9955	7367			111
Jan-16-2015	5.1	10.9	9047	6695			92
Jan-17-2015	5.1	11.2	8068	5970			82
Jan-18-2015	5.3	11.9	7595	5620			80
Jan-19-2015	7.2	12.4	7288	5393			105
Jan-20-2015	8.6	12.3	6841	5062	14		117
Jan-21-2015	7.5	11.5	7365	5450			110
Jan-22-2015	7.7	11.2	7386	5466			114
Jan-23-2015	8.3	10.6	7167	5303			119
Jan-24-2015	24.3	10.9	7511	5558			364
Jan-25-2015	15.9	9.8	10171	7526			323
Jan-26-2015	15.5	9.2	10114	7484	30		313
Jan-27-2015	22.4	11.7	8739	6467		25	391
Jan-28-2015	32.0	13.1	7932	5870		26	507
Jan-29-2015	39.7	12.9	7082	5240		30	561
Jan-30-2015	13.4	13.4	7655	5664		27	205
Jan-31-2015	0.8	12.6	7940	5876		22	13
Feb-01-2015	0.0	12.5	7513	5559		22	0
Feb-02-2015	1.0	12.9	7051	5218	16	24	14
Feb-03-2015	2.3	13.8	7665	5672		19	35
Feb-04-2015	0.9	13.9	8028	5940		20	14
Feb-05-2015	17.0	13.6	8033	5944		19	273
Feb-06-2015	33.6	13.3	7437	5503		24	499
Feb-07-2015	34.6	15.4	6694	4953		33	462
Feb-08-2015	30.1	16.8	6643	4916		35	399
Feb-09-2015	16.9	16.4	6829	5054		34	230
Feb-10-2015	0.0	15.1	7051	5218		31	0
Feb-11-2015	0.0	14.7	6918	5119		31	0
Feb-12-2015	0.0	15.4	6896	5103		31	0
Feb-13-2015	0.0	16.0	7771	5751		29	0
Feb-14-2015	0.1	17.0	8645	6397		31	2
Feb-15-2015	0.0	17.1	8200	6068		31	0
Feb-16-2015	0.0	16.6	9065	6708		30	0
Feb-17-2015	0.0	16.2	9977	7383	45	14	0
Feb-18-2015	0.0	15.7	10421	7711		12	0
Feb-19-2015	0.0	15.5	10008	7406		7	0
Feb-20-2015	0.0	15.0	8559	6334		9	0
Feb-21-2015	0.2	14.2	5329	3944		10	2
Feb-22-2015	2.8	13.7	6953	5145		16	39
Feb-23-2015	13.9	13.1	7254	5368	60	16	201
Feb-24-2015	27.5	13.2	6696	4955		17	368
Feb-25-2015	21.0	13.5	5525	4088		22	232
Feb-26-2015	23.6	14.2	5568	4120		29	262
Feb-27-2015	28.6	14.6	5668	4194		31	324
Feb-28-2015	5.8	13.1	6211	4596		24	72
Mar-01-2015	0.0	13.9	5950	4403		22	0
Mar-02-2015	3.5	13.5	6030	4462	45	23	42
Mar-03-2015	16.9	14.1	7327	5422		26	247
Mar-04-2015	27.0	14.9	6423	4753		40	346
Mar-05-2015	26.3	15.9	6036	4467		43	317
Mar-06-2015	23.1	16.3	5767	4268		39	266
Mar-07-2015	10.4	16.7	6133	4539		38	127
Mar-08-2015	0.0	17.3	6396	4733		33	0
Mar-09-2015	0.4	18.1	6284	4650		34	5
Mar-10-2015	0.8	18.0	6705	4961		28	11
Mar-11-2015	0.8	18.0	7052	5219		22	11
Mar-12-2015	0.3	18.5	7076	5236		21	4
Mar-13-2015	0.3	19.7	6993	5174		19	4
Mar-14-2015	2.2	20.8	6972	5159		18	31
Mar-15-2015	5.9	20.3	7499	5549		19	88
Mar-16-2015	7.5	18.9	7582	5611		22	114
Mar-17-2015	7.1	19.2	7340	5432		32	104
Mar-18-2015	6.6	18.9	6585	4873		37	87
Mar-19-2015	7.4	19.4	6721	4974	53	45	99
Mar-20-2015	14.1	19.1	6855	5073		54	193

PARAMETER	Flow	Temperature	Specific Conductance	Total Dissolved Solids	Total Suspended Solids	Total Selenium	Daily Salt Load
DATA SOURCE	SLDMWA	SLDMWA	SLDMWA	Calculated	SLDMWA	USBR	Calculated
UNITS	cfs	°C	µS/cm	mg/L	mg/L	ug/L	tons
Mar-21-2015	23.7	18.7	6268	4638		47	297
Mar-22-2015	28.4	18.8	6029	4461		39	342
Mar-23-2015	25.9	18.6	6123	4531		40	317
Mar-24-2015	18.4	17.7	5617	4157		44	206
Mar-25-2015	16.1	18.6	5548	4105		41	178
Mar-26-2015	12.4	19.9	5717	4231		40	142
Mar-27-2015	0.2	22.0	5983	4428		36	2
Mar-28-2015	0.0	19.8	5988	4431		36	0
Mar-29-2015	0.0	19.8	6052	4478		36	0
Mar-30-2015	0.0	18.5	6258	4631		35	0
Mar-31-2015	0.0	17.1	6430	4758		33	0
Apr-01-2015	0.0	13.9	6569	4861		30	0
Apr-02-2015	0.0	13.7	6680	4943		27	0
Apr-03-2015	0.0	13.8	6925	5124		23	0
Apr-04-2015	0.0	14.8	6970	5158		19	0
Apr-05-2015	0.0	13.4	6997	5178		16	0
Apr-06-2015	0.0	14.7	7073	5234	70	13	0
Apr-07-2015	0.0	13.6	7008	5186		10	0
Apr-08-2015	3.7	15.6	6570	4862		9	49
Apr-09-2015	9.7	17.5	5764	4265		30	112
Apr-10-2015	6.2	19.3	5831	4315		35	72
Apr-11-2015	6.8	19.0	5703	4220		32	77
Apr-12-2015	5.1	19.8	5620	4159		34	57
Apr-13-2015	6.1	19.8	5812	4301	96	33	71
Apr-14-2015	4.9	16.3	6452	4774		33	63
Apr-15-2015	2.9	15.8	6476	4792		28	37
Apr-16-2015	2.5	18.4	6068	4491		23	30
Apr-17-2015	0.0	16.4	6243	4620		27	0
Apr-18-2015	0.0	17.2	6334	4687		22	0
Apr-19-2015	0.0	18.9	6468	4786		17	0
Apr-20-2015	0.0	18.5	6621	4900		17	0
Apr-21-2015	0.0	16.7	6666	4933		13	0
Apr-22-2015	0.0	16.2	6770	5010		13	0
Apr-23-2015	0.0	17.5	6811	5040		11	0
Apr-24-2015	0.0	17.4	6795	5029		9	0
Apr-25-2015	0.0	16.0	6685	4947		12	0
Apr-26-2015	0.0	14.7	6727	4978		9	0
Apr-27-2015	0.0	16.3	6885	5095	36	8	0
Apr-28-2015	0.0	21.1	7195	5324		8	0
Apr-29-2015	0.0	20.0	6882	5092		9	0
Apr-30-2015	0.0	22.6	6483	4797		8	0
May-01-2015	0.0	23.3	5939	4395		8	0
May-02-2015	0.0	22.5	2338	1730		5	0
May-03-2015	0.0	20.6	1740	1287		5	0
May-04-2015	0.0	19.1	1600	1184		5	0
May-05-2015	0.0	18.5	1593	1179		5	0
May-06-2015	0.0	18.7	1599	1183		4	0
May-07-2015	0.3	16.6	3332	2466		4	2
May-08-2015	0.0	18.5	5110	3781		5	0
May-09-2015	0.0	17.0	4269	3159		6	0
May-10-2015	0.0	18.0	4132	3058		7	0
May-11-2015	0.0	17.3	4118	3047		8	0
May-12-2015	1.7	17.4	5541	4100		10	19
May-13-2015	0.0	16.3	6513	4819		26	0
May-14-2015	0.0	15.2	6801	5033		38	0
May-15-2015	0.0	16.6	7117	5267		37	0
May-16-2015	0.6	19.1	7064	5228		37	8
May-17-2015	0.1	18.2	6946	5140		38	1
May-18-2015	0.0	16.0	6865	5080		31	0
May-19-2015	0.0	15.5	6818	5045		24	0
May-20-2015	0.0	17.0	6740	4987		21	0
May-21-2015	0.0	15.9	6705	4962		17	0
May-22-2015	0.0	16.3	6760	5002		14	0
May-23-2015	0.0	17.1	6931	5129		13	0
May-24-2015	0.0	16.2	7188	5319		12	0
May-25-2015	0.0	17.0	7328	5423		13	0
May-26-2015	0.0	16.1	7389	5468		13	0
May-27-2015	0.0	15.5	7400	5476		14	0
May-28-2015	0.0	16.7	7374	5457		14	0
May-29-2015	0.0	17.9	7355	5442		14	0
May-30-2015	0.0	21.1	7505	5553		14	0
May-31-2015	0.0	20.6	7476	5532		11	0
Jun-01-2015	0.0	17.0	7256	5370		8	0
Jun-02-2015	0.0	20.4	6403	4738		7	0
Jun-03-2015	0.0	19.8	5358	3965		8	0
Jun-04-2015	0.0	21.0	4064	3007		7	0
Jun-05-2015	0.0	22.8	5266	3897		8	0
Jun-06-2015	0.0	23.4	6191	4581		10	0
Jun-07-2015	0.0	24.6	6236	4614		9	0
Jun-08-2015	0.0	27.1	6270	4640		9	0
Jun-09-2015	0.0	24.5	6203	4591		9	0
Jun-10-2015	0.0	22.9	6209	4595		8	0

PARAMETER	Flow	Temperature	Specific Conductance	Total Dissolved Solids	Total Suspended Solids	Total Selenium	Daily Salt Load
DATA SOURCE	SLDMWA	SLDMWA	SLDMWA	Calculated	SLDMWA	USBR	Calculated
UNITS	cfs	°C	µS/cm	mg/L	mg/L	ug/L	tons
Jun-11-2015	0.0	25.0	6197	4586		8	0
Jun-12-2015	0.0	26.6	6109	4521		8	0
Jun-13-2015	0.0	26.1	6169	4565		9	0
Jun-14-2015	0.0	20.8	6510	4817		10	0
Jun-15-2015	0.0	20.4	8843	6544		10	0
Jun-16-2015	0.0	18.8	10472	7749		12	0
Jun-17-2015	0.0	20.6	11321	8377		12	0
Jun-18-2015	0.0	20.8	11794	8728		13	0
Jun-19-2015	0.0	18.7	12165	9002		15	0
Jun-20-2015	0.0	20.1	12623	9341		16	0
Jun-21-2015	0.0	20.7	13120	9709		16	0
Jun-22-2015	0.0	19.1	13596	10061		16	0
Jun-23-2015	0.0	19.6	14193	10503		17	0
Jun-24-2015	0.0	19.8	14760	10923		17	0
Jun-25-2015	0.0	22.2	15090	11166		13	0
Jun-26-2015	0.0	24.1	14631	10827		11	0
Jun-27-2015	0.0	23.3	11458	8479		9	0
Jun-28-2015	0.0	23.7	9864	7299		9	0
Jun-29-2015	0.0	24.2	8975	6641		7	0
Jun-30-2015	0.0	24.9	7418	5489		7	0

NOTES: Zero discharge from the San Luis Drain into Mud Slough and the San Joaquin River for the month of June, 2015.

Table 1b. Monthly averages and totals

PARAMETER	Total Flow	Average Temperature	Average Specific Conducantce	Average Total Dissolved Solids	Average Total Suspended Solids	Average Selenium	Salt Load	Salt Load Objective
DATA SOURCE	Calculated	Calculated	Calculated	Calculated	Calculated	Calculated	Calculated	UA3
UNITS	acre-feet	°C	µS/cm	mg/L	mg/L	ug/L	tons	tons
Jan-15	530.00	10.44	7925	5865	28	26	4290	3626
Feb-15	520.00	14.73	7450	5513	40	23	3430	5739
Mar-15	570.00	18.10	6443	4768	49	34	3580	6799
Apr-15	100.00	16.96	6536	4837	67	19	570	5003
May-15	10.00	17.80	5664	4191	P	15	30	4903
Jun-15	0.00	22.10	9158.73	6777.46	P	10.63	0.00	5072
Cumulative Totals	1730.00						#DIV/0!	49100

NOTES: Zero discharge from the San Luis Drain into Mud Slough and the San Joaquin River for the month of June, 2015.

Table 2a. Water monitoring of San Luis Drain discharge into Mud Slough (north)
Terminus of drain at Mud Slough (Station B2) and San Luis Drain at Gun Club Road (Station B3)

PARAMETER	Flow (B2)	Temperature (B2)	Specific Conductance (B2)	Total Suspended Solids (B2)	Boron (B3)	Total Selenium (B3)	Daily Selenium Load
DATA SOURCE	SLDMWA	SLDMWA	SLDMWA	SLDMWA/USBR	SLDMWA	USBR	Calculated
UNITS	cfs	°C	µS/cm	mg/L	mg/L	ug/L	lbs
Jan-01-2015	24.4	2.8	6724		13	36	4.79
Jan-02-2015	21.1	4.1	6622		12	34	3.81
Jan-03-2015	19.8	5.2	6512		14	34	3.60
Jan-04-2015	16.2	5.4	6534		13	31	2.71
Jan-05-2015	14.9	7.5	6511		12	24	1.95
Jan-06-2015	9.7	8.2	6305		10	23	1.22
Jan-07-2015	5.7	9.1	6112		9	36	1.11
Jan-08-2015	8.0	9.1	6032		9	38	1.64
Jan-09-2015	6.4	10.7	5689		10	36	1.23
Jan-10-2015	5.7	13.1	5680		10	34	1.04
Jan-11-2015	5.6	12.4	5910		10	29	0.88
Jan-12-2015	6.1	10.4	5871	14	11	25	0.81
Jan-13-2015	7.0	9.3	5661		12	23	0.88
Jan-14-2015	6.4	6.4	5987		10	18	0.63
Jan-15-2015	7.8	7.5	5734		10	14	0.61
Jan-16-2015	9.3	8.5	5153		8	12	0.62
Jan-17-2015	9.4	10.2	4764		10	15	0.74
Jan-18-2015	8.9	12.2	5133		8	9	0.43
Jan-19-2015	9.8	12.0	5090		8	8	0.42
Jan-20-2015	11.7	12.8	4770	89	11	10	0.61
Jan-21-2015	13.7	11.6	5582		16	10	0.72
Jan-22-2015	12.6	10.3	6723		17	12	0.80
Jan-23-2015	12.1	9.0	8323		17	10	0.68
Jan-24-2015	11.8	8.1	7856		16	11	0.71
Jan-25-2015	29.0	8.3	6732		14	12	1.86
Jan-26-2015	18.5	10.8	6302	66	14	14	1.41
Jan-27-2015	20.1	13.3	6488		14	14	1.47
Jan-28-2015	27.7	14.2	6540		16	18	2.75
Jan-29-2015	36.1	12.5	8058		20	17	3.23
Jan-30-2015	41.5	11.8	9575		21	22	4.99
Jan-31-2015	21.3	12.6	8564		19	23	2.63
Feb-01-2015	7.0	10.8	8683		16	25	0.94
Feb-02-2015	5.7	13.2	8610	53	17	26	0.80
Feb-03-2015	5.7	12.9	8404		17	26	0.81
Feb-04-2015	6.1	12.5	8351		16	26	0.85
Feb-05-2015	5.9	12.0	8478		16	24	0.76
Feb-06-2015	18.4	16.3	7647		14	22	2.17
Feb-07-2015	43.8	16.6	6541		13	15	3.43
Feb-08-2015	44.7	16.4	6114		16	14	3.40
Feb-09-2015	36.0	17.9	8079		16	21	4.06
Feb-10-2015	23.9	13.1	7294		14	29	3.75
Feb-11-2015	8.7	13.3	6992		14	29	1.37
Feb-12-2015	6.1	15.4	7144		15	30	0.98
Feb-13-2015	5.7	15.5	7057		15	29	0.89
Feb-14-2015	5.7	16.0	7051		15	28	0.86
Feb-15-2015	5.6	15.1	7079		14	28	0.85
Feb-16-2015	5.7	15.1	7084		13	27	0.81
Feb-17-2015	5.7	13.3	7057	12	13	24	0.74
Feb-18-2015	5.6	14.5	6882		12	22	0.67
Feb-19-2015	5.6	12.0	6685		10	21	0.63
Feb-20-2015	5.5	13.0	6468		10	19	0.57
Feb-21-2015	5.5	12.3	6283		9	18	0.54
Feb-22-2015	5.5	10.0	6150		10	17	0.51
Feb-23-2015	5.5	9.7	6062	16	10	16	0.48
Feb-24-2015	12.3	11.0	6058		9	14	0.90
Feb-25-2015	29.4	10.8	4545		7	6	0.92
Feb-26-2015	24.5	12.7	4025		8	5	0.61
Feb-27-2015	26.4	13.6	5611		16	10	1.48
Feb-28-2015	30.9	11.4	7154		15	18	2.95
Mar-01-2015	14.8	11.6	6652		12	23	1.86
Mar-02-2015	6.8	11.7	6460	60	12	25	0.90
Mar-03-2015	5.9	11.5	6298		12	26	0.83
Mar-04-2015	15.6	13.2	6170		13	27	2.29
Mar-05-2015	29.0	13.9	6023		12	25	3.83
Mar-06-2015	29.3	14.0	6080		11	21	3.29
Mar-07-2015	26.3	15.4	6825		15	28	4.03
Mar-08-2015	16.2	15.5	6926		15	37	3.25
Mar-09-2015	7.4	17.2	6736		14	39	1.56
Mar-10-2015	5.7	16.9	6772		14	40	1.22
Mar-11-2015	5.6	17.7	6795		13	38	1.15
Mar-12-2015	5.4	16.8	6725		13	35	1.01
Mar-13-2015	5.5	18.7	6688		14	31	0.91
Mar-14-2015	5.5	22.3	6682		13	28	0.83
Mar-15-2015	5.4	21.0	6646		12	25	0.73
Mar-16-2015	5.7	17.2	6639		11	21	0.65
Mar-17-2015	7.5	18.5	6495		11	18	0.74
Mar-18-2015	8.1	16.5	5915		10	19	0.85
Mar-19-2015	7.6	18.6	5418	35			0.00
Mar-20-2015	8.0	17.5	5322		11	23	0.97

PARAMETER	Flow (B2)	Temperature (B2)	Specific Conductance (B2)	Total Suspended Solids (B2)	Boron (B3)	Total Selenium (B3)	Daily Selenium Load
DATA SOURCE	SLDMWA	SLDMWA	SLDMWA	SLDMWA/USBR	SLDMWA	USBR	Calculated
UNITS	cfs	°C	µS/cm	mg/L	mg/L	ug/L	lbs
Mar-21-2015	11.8	17.5	5447		12	18	1.13
Mar-22-2015	23.0	18.4	5703		13	9	1.10
Mar-23-2015	27.6	16.8	7099		17	20	3.02
Mar-24-2015	25.7	16.1	7316		15	43	6.02
Mar-25-2015	20.1	17.2	7335		14	41	4.41
Mar-26-2015	17.1	20.5	7172		13	36	3.35
Mar-27-2015	14.1	21.7	7132		13	36	2.73
Mar-28-2015	7.2	18.7	7106		13	34	1.34
Mar-29-2015	5.4	19.1	7112		13	33	0.95
Mar-30-2015	4.9	21.5	7116		14	32	0.84
Mar-31-2015	3.5	16.9	7135		13	31	0.59
Apr-01-2015	2.0	15.2	7192		14	29	0.32
Apr-02-2015	1.0	15.2	7206		13	29	0.15
Apr-03-2015	1.4	16.0	7229		14	28	0.21
Apr-04-2015	1.1	15.7	7238		13	26	0.16
Apr-05-2015	1.1	13.5	7241		14	26	0.15
Apr-06-2015	1.1	14.0	7283	41	14	24	0.14
Apr-07-2015	1.6	11.5	7233		13	24	0.20
Apr-08-2015	1.6	13.8	7207		13	23	0.20
Apr-09-2015	1.5	15.3	7219		14	22	0.18
Apr-10-2015	3.1	17.1	7265		14	22	0.36
Apr-11-2015	6.6	17.1	7295		13	21	0.73
Apr-12-2015	6.3	18.0	7251		13	18	0.61
Apr-13-2015	6.2	19.1	7171	42	11	14	0.47
Apr-14-2015	5.2	14.3	6887		10	12	0.33
Apr-15-2015	5.6	16.0	6439		9	10	0.31
Apr-16-2015	5.7	17.8	5851		11	12	0.38
Apr-17-2015	5.5	20.3	5420		13	14	0.42
Apr-18-2015	5.1	21.1	5760		14	14	0.38
Apr-19-2015	3.9	22.2	6518		14	13	0.28
Apr-20-2015	2.1	20.3	6921		14	13	0.15
Apr-21-2015	1.2	17.8	6791		13	13	0.08
Apr-22-2015	0.7	18.7	6638		14	12	0.05
Apr-23-2015	0.2	19.1	6649		15	8	0.01
Apr-24-2015	0.1	19.0	6584		15	12	0.01
Apr-25-2015	0.1	17.4	6572		15	11	0.01
Apr-26-2015	0.0	17.3	6596		14	11	0.00
Apr-27-2015	0.0	21.4	6637	38	15	10	0.00
Apr-28-2015	0.0	24.1	6764		14	10	0.00
Apr-29-2015	0.0	22.1	6792		15	10	0.00
Apr-30-2015	0.0	22.5	6926		14	10	0.00
May-01-2015	0.0	24.9	6996		15	9	0.00
May-02-2015	0.0	24.2	7084		14	8	0.00
May-03-2015	0.0	20.9	7188		15	8	0.00
May-04-2015	0.0	19.3	7158		16	8	0.00
May-05-2015	0.0	18.5	7212		16	8	0.00
May-06-2015	0.0	18.1	7182		16	8	0.00
May-07-2015	0.0	13.9	7187		16	7	0.00
May-08-2015	0.0	17.6	7192		17	7	0.00
May-09-2015	0.0	19.3	7240		17	7	0.00
May-10-2015	0.0	21.5	7239		16	7	0.00
May-11-2015	0.0	19.7	7266		16	7	0.00
May-12-2015	0.0	17.9	7394		17	7	0.00
May-13-2015	0.0	18.1	7421		18	7	0.00
May-14-2015	0.0	16.1	7428		17	7	0.00
May-15-2015	0.0	18.4	7447		18	7	0.00
May-16-2015	0.0	18.5	7445		19	6	0.00
May-17-2015	0.0	17.8	7471		18	7	0.00
May-18-2015	0.0	19.0	7533		17	6	0.00
May-19-2015	0.0	19.6	7642		17	6	0.00
May-20-2015	0.0	19.0	7657		18	6	0.00
May-21-2015	0.0	17.6	7737		19	6	0.00
May-22-2015	0.0	19.8	7801		19	6	0.00
May-23-2015	0.0	19.5	8218		19	6	0.00
May-24-2015	0.0	21.8	8190		18	6	0.00
May-25-2015	0.0	22.0	8131		19	6	0.00
May-26-2015	0.0	21.2	8041		19	6	0.00
May-27-2015	0.0	21.1	8082		19	6	0.00
May-28-2015	0.0	22.4	8134		19	7	0.00
May-29-2015	0.0	24.1	8181		19	4	0.00
May-30-2015	0.0	25.2	8240		19	5	0.00
May-31-2015	0.0	23.4	8300		19	6	0.00
Jun-01-2015	0.0	21.6	8317		19	6	0.00
Jun-02-2015	0.0	22.6	8629		20	6	0.00
Jun-03-2015	0.0	22.5	8816		19	7	0.00
Jun-04-2015	0.0	21.8	8776		20	6	0.00
Jun-05-2015	0.0	24.9	8817		16	7	0.00
Jun-06-2015	0.0	26.2	8794		16	7	0.00
Jun-07-2015	0.0	28.0	8920		17	7	0.00
Jun-08-2015	0.0	31.6	9172				0.00
Jun-09-2015	0.0	28.0	9240				0.00
Jun-10-2015	0.0	25.4	9309				0.00

PARAMETER	Flow (B2)	Temperature (B2)	Specific Conductance (B2)	Total Suspended Solids (B2)	Boron (B3)	Total Selenium (B3)	Daily Selenium Load
DATA SOURCE	SLDMWA	SLDMWA	SLDMWA	SLDMWA/USBR	SLDMWA	USBR	Calculated
UNITS	cfs	°C	µS/cm	mg/L	mg/L	ug/L	lbs
Jun-11-2015	0.0	27.7	9237				0.00
Jun-12-2015	0.0	30.6	9392				0.00
Jun-13-2015	0.0	30.4	9507				0.00
Jun-14-2015	0.0	26.4	9503				0.00
Jun-15-2015	0.0	24.1	9525				0.00
Jun-16-2015	0.0	24.7	9638				0.00
Jun-17-2015	0.0	27.1	9767				0.00
Jun-18-2015	0.0	27.2	9809				0.00
Jun-19-2015	0.0	25.6	9862				0.00
Jun-20-2015	0.0	27.6	9933		19	8	0.00
Jun-21-2015	0.0	25.7	9980		20	8	0.00
Jun-22-2015	0.0	24.5	10067		20	7	0.00
Jun-23-2015	0.0	25.6	10265		18	7	0.00
Jun-24-2015	0.0	27.1	10398		19	7	0.00
Jun-25-2015	0.0	30.4	10513				0.00
Jun-26-2015	0.0	31.3	10672				0.00
Jun-27-2015	0.0	28.3	10793				0.00
Jun-28-2015	0.0	28.7	10992				0.00
Jun-29-2015	0.0	27.7	11044				0.00
Jun-30-2015	0.0	31.4	11139				0.00

NOTES: Zero flow at Station B for the months of May and June, 2015.

Table 2b. Monthly averages and totals

PARAMETER	Total Flow	Average Temperature	Average Specific Conducantce	Average Total Suspended Solids	Average Boron	Average Selenium	Selenium Load	Selenium Load Objective
DATA SOURCE	Calculated	Calculated	Calculated	Calculated	Calculated	Calculated	Calculated	UA3
UNITS	acre-feet	°C	µS/cm	mg/L	mg/L	ug/L	lbs	lbs
Jan-15	910	10	6372	56	13	21	50	119
Feb-15	790	13	6914	27	13	21	40	73
Mar-15	760	17	6579	48	13	29	60	72
Apr-15	140	18	6826	40	13	17	10	79
May-15	0	20	7595	P	17	7	0	82
Jun-15	0	27	9694	P	19	7	0	54
Cumulative Totals	2600.00						160.00	840.00

NOTES: Zero flow at Station B for the months of May and June, 2015.

Table 2c. Other water qulity monitoring in the San Luis Drain (Station B3)

	Physicals							
PARAMETER	**Dissolved Oxygen**	**pH**	**Specific Conductance**	**Temperature**	**Turbidity**	**Total Selenium**	**Total Boron**	**Total Molybdenum**
DATA SOURCE	**USBR**	**USBR**	**USBR**	**USBR**	**USBR**	**USBR**	**USBR**	**USBR**
UNITS	**mg/L**	**units**	**µS/cm**	**°C**	**NTU**	**ug/L**	**mg/L**	**ug/L**
Jan-09-2015	11.8	8.3	5783	11.0	4.7	36	11	
Jan-13-2015	20.8	8.4	5765	11.4	8.6	23	12	16
Jan-23-2015	19.9	8.3	7608	9.8	11.8	10	18	
Jan-30-2015	9.9	8.0	8440	17.5	28.5	21	21	
Feb-04-2015	22.3	8.4	7247	12.7	11.7	26	15	
Feb-13-2015	19.1	8.3	6854	15.1	13.6	29	15	
Feb-19-2015	13.4	8.2	5835	16.1		21	11	17
Feb-27-2015	16.0	8.4	7097	13.6	23.2	10	16	
Mar-06-2015	17.2	8.3	4739	14.7	17.7	11	9	
Mar-13-2015	13.1	8.2	6430	18.8	7.2	30	14	
Mar-20-2015	2.7	3.7	5134	19.2	17.8	19	11	20
Mar-27-2015	16.6	8.5	6850	20.1	15.1	36	13	
Apr-01-2015	13.0	8.6	6800	18.8	17.3	29	14	17
Apr-10-2015	20.9	9.1	6907	16.7	17.1	20	14	
Apr-16-2015	12.7	9.1	6177	17.0	25.5	13	12	18
Apr-24-2015	10.3	8.7	7603	21.6	16.2	10	16	
May-01-2015	6.3	8.3	7654	24.1	20.5	6	16	
May-08-2015	7.0	8.3	7606	18.7	28.6	6	17	
May-15-2015	4.6	8.2	8372	21.9	75.6	6	18	
May-21-2015	3.6	8.1	8262	17.1	70.3	6	19	10
May-27-2015	6.2	8.2	8643	17.5	81.0	7	20	9
Jun-04-2015		8.7	9434	19.7	68.0	9	21	
Jun-11-2015	3.4	8.9	10041	26.5	63.8	9	23	
Jun-17-2015	7.3	8.4	11091	24.4	33.8	9	26	7
Jun-25-2015	10.0	8.3	13037	28.3		11	33	
Jun-29-2015	11.9	8.3	14448	25.5	45.2	15	36	9

NOTES: Zero flow at Station B for the months of May and June, 2015.

	Nutrients				
PARAMETER	**Nitrates as N (Dissolved)**	**Ammonia as N**	**Total Kjeldahl Nitrogen**	**Total Phosphorous as P**	**Ortho-phosphate as P**
DATA SOURCE	**USBR**	**USBR**	**USBR**	**USBR**	**USBR**
UNITS	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
Jan-13-2015	2.60	0.12	1.70	0.08	< 0.010
Feb-19-2015	1.1 T	0.14 L	1.70	0.09	< 0.010 T
Apr-01-2015	3.30	0.10	2.20	0.09	< 0.010
Apr-16-2015	<0.010	0.33	2.80	0.07	0.01
May-21-2015	<0.010	<0.050	3.90	0.19	< 0.010 L
May-27-2015	<0.010	<0.050	6.1 U	0.34 U	< 0.010
Jun-17-2015	<0.010	<0.050	4.80	0.22	0.01
Jun-29-2015	<0.010	<0.050	1.40	0.27	0.02

NOTES: Zero flow at Station B for the months of May and June, 2015.

Figure 2. Monthly selenium discharge from the terminus of the San Luis Drain into Mud Slough compared to selenium loab objectives

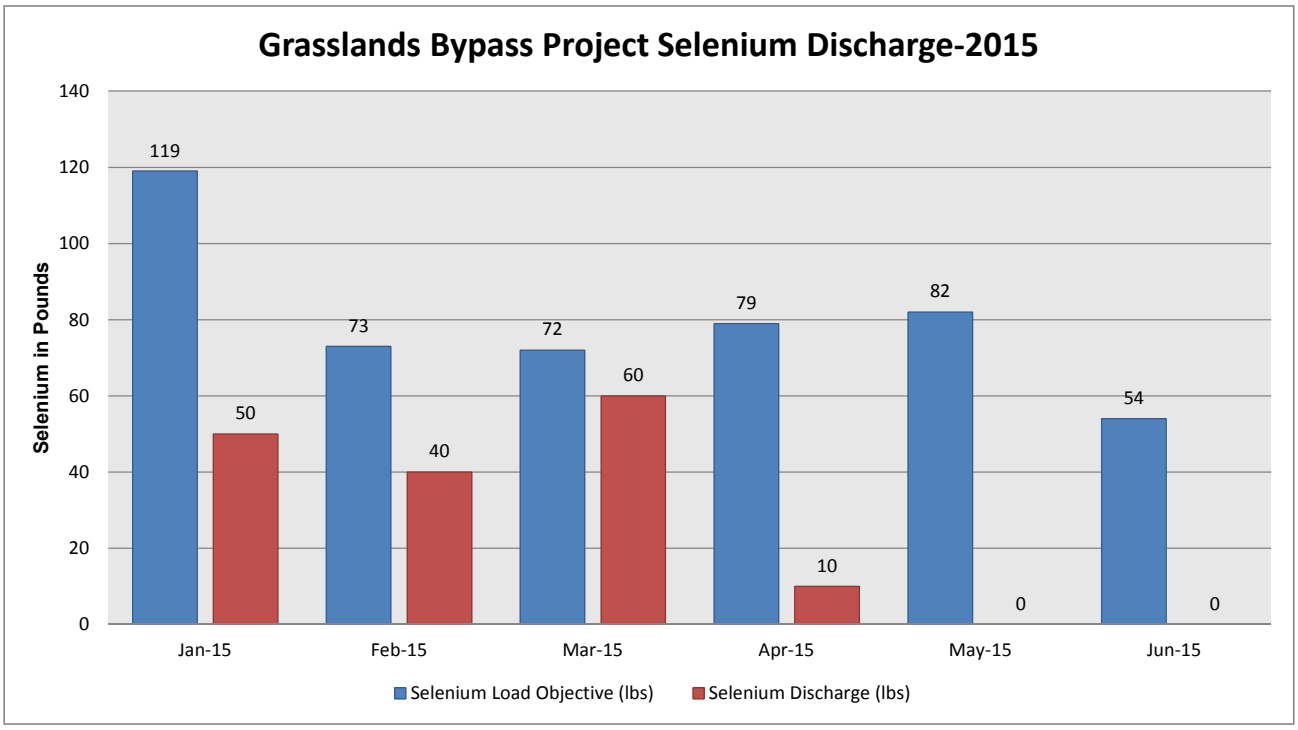

Table 3a. Water monitoring in Mud Slough (north) below San Luis Drain discharge (Station D)
USGS Station Code: 11262900

PARAMETER	Flow	Temperature	Specific Conductance
DATA SOURCE	USGS	USGS	USGS
UNITS	cfs	°C	µS/cm
Jan-01-2015	86	6.1	2920
Jan-02-2015	88	6.5	2760
Jan-03-2015	82	7.0	2790
Jan-04-2015	76	7.5	2700
Jan-05-2015	77	8.1	2600
Jan-06-2015	80	8.8	2510
Jan-07-2015	75	9.4	2470
Jan-08-2015	55	10.1	3100
Jan-09-2015	45	10.9	3100
Jan-10-2015	40	12.0	3100
Jan-11-2015	39	12.8	3040
Jan-12-2015	40	12.7	3050
Jan-13-2015	40	12.5	3230
Jan-14-2015	38	11.6	3270
Jan-15-2015	43	11.4	3140
Jan-16-2015	49	11.3	3010
Jan-17-2015	49	11.5	3000
Jan-18-2015	49	11.8	3030
Jan-19-2015	49	12.1	2940
Jan-20-2015	46	12.1	3060
Jan-21-2015	48	11.8	3420
Jan-22-2015	56	11.6	3310
Jan-23-2015	55	10.7	3670
Jan-24-2015	56	10.5	3660
Jan-25-2015	68	10.2	3930
Jan-26-2015	70	10.1	3590
Jan-27-2015	76	11.2	3370
Jan-28-2015	77	11.5	3690
Jan-29-2015	81	12.4	4680
Jan-30-2015	88	12.8	6110
Jan-31-2015	71	13.0	4670
Feb-01-2015	50	13.2	3630
Feb-02-2015	44	13.2	3430
Feb-03-2015	42	13.8	3370
Feb-04-2015	42	14.4	3510
Feb-05-2015	42	14.4	3580
Feb-06-2015	49	14.2	3660
Feb-07-2015	79	14.9	4380
Feb-08-2015	102	16.2	3720
Feb-09-2015	108	16.3	4410
Feb-10-2015	79	16.0	4150
Feb-11-2015	55	15.5	3340
Feb-12-2015	47	15.4	3240
Feb-13-2015	43	15.9	3210
Feb-14-2015	41	16.4	3220
Feb-15-2015	40	16.7	3320

PARAMETER	Flow	Temperature	Specific Conductance
DATA SOURCE	USGS	USGS	USGS
UNITS	cfs	°C	µS/cm
Feb-16-2015	40	16.8	3340
Feb-17-2015	39	16.8	3360
Feb-18-2015	39	16.6	3390
Feb-19-2015	49	15.8	3050
Feb-20-2015	52	15.4	2980
Feb-21-2015	51	14.8	2990
Feb-22-2015	47	14.0	3040
Feb-23-2015	44	13.2	3080
Feb-24-2015	48	13.1	3460
Feb-25-2015	70	13.7	3390
Feb-26-2015	59	14.6	3450
Feb-27-2015	54	15.2	4390
Feb-28-2015	64	14.9	4790
Mar-01-2015	51	14.3	4040
Mar-02-2015	41	15.2	3660
Mar-03-2015	43	15.1	3350
Mar-04-2015	56	15.4	3560
Mar-05-2015	70	15.8	3950
Mar-06-2015	71	16.5	3980
Mar-07-2015	65	16.6	4480
Mar-08-2015	54	17.2	4120
Mar-09-2015	49	18.0	3420
Mar-10-2015	41	18.6	3480
Mar-11-2015	43	18.7	3360
Mar-12-2015	41	18.2	3420
Mar-13-2015	54	18.8	2810
Mar-14-2015	62	20.2	2840
Mar-15-2015	70	21.1	2670
Mar-16-2015	71	19.8	2650
Mar-17-2015	80	19.4	2720
Mar-18-2015	70	19.1	2800
Mar-19-2015	58	18.9	2890
Mar-20-2015	47	19.1	3130
Mar-21-2015	44	18.7	3320
Mar-22-2015	51	19.6	3850
Mar-23-2015	54	19.4	4740
Mar-24-2015	52	18.7	4750
Mar-25-2015	50	18.3	4500
Mar-26-2015	46	19.2	4350
Mar-27-2015	44	20.8	4270
Mar-28-2015	36	20.8	3740
Mar-29-2015	29	19.8	3680
Mar-30-2015	24	20.2	3850
Mar-31-2015	21	19.8	3920
Apr-01-2015	25	17.5	3610
Apr-02-2015	35	16.1	3300
Apr-03-2015	35	16.1	3220
Apr-04-2015	29	17.5	3250
Apr-05-2015	26	17.1	3390
Apr-06-2015	19	16.1	3550

PARAMETER	Flow	Temperature	Specific Conductance
DATA SOURCE	USGS	USGS	USGS
UNITS	cfs	°C	µS/cm
Apr-07-2015	18	15.8	3580
Apr-08-2015	21	15.4	3420
Apr-09-2015	22	16.9	3700
Apr-10-2015	22	18.2	3760
Apr-11-2015	25	19.3	4400
Apr-12-2015	26	19.1	4160
Apr-13-2015	24	20.0	4100
Apr-14-2015	21	18.5	3960
Apr-15-2015	18	16.6	3990
Apr-16-2015	17	17.3	4150
Apr-17-2015	16	19.2	4000
Apr-18-2015	14	20.3	3980
Apr-19-2015	13	21.2	4260
Apr-20-2015	13	22.0	4080
Apr-21-2015	11	21.0	4130
Apr-22-2015	10	20.0	4070
Apr-23-2015	12	21.0	3160
Apr-24-2015	11	20.6	3320
Apr-25-2015	8	19.9	3560
Apr-26-2015	6	19.4	3760
Apr-27-2015	5	20.9	3990
Apr-28-2015	4	23.1	4260
Apr-29-2015	5	23.0	3710
Apr-30-2015	6	22.4	3440
May-01-2015	18	23.5	2580
May-02-2015	18	24.0	2440
May-03-2015	8	23.2	2740
May-04-2015	4	22.2	3450
May-05-2015	3	21.5	4120
May-06-2015	2	20.8	4010
May-07-2015	2	18.2	4450
May-08-2015	3	19.4	3750
May-09-2015	2	21.4	4050
May-10-2015	1	22.6	4680
May-11-2015	1	22.1	4990
May-12-2015	1	20.8	5070
May-13-2015	0	20.4	5620
May-14-2015	0	19.5	5760
May-15-2015	0	20.3	5890
May-16-2015	0	20.9	6200
May-17-2015	0	20.1	6230
May-18-2015	0	20.9	6230
May-19-2015	0	21.9	6470
May-20-2015	0	21.6	6890
May-21-2015	0	20.4	7020
May-22-2015	0	20.7	7080
May-23-2015	0	21.4	6490
May-24-2015	0	22.4	6860
May-25-2015	0	22.7	7100
May-26-2015	0	22.9	7540

PARAMETER	Flow	Temperature	Specific Conductance
DATA SOURCE	USGS	USGS	USGS
UNITS	cfs	°C	µS/cm
May-27-2015	0	23.3	7610
May-28-2015	0	23.4	7780
May-29-2015	0	24.1	7140
May-30-2015	1	24.1	4600
May-31-2015	0	24.1	5280
Jun-01-2015	0	23.3	6400
Jun-02-2015	0	23.8	7600
Jun-03-2015	0	23.0	8160
Jun-04-2015	0	22.9	8320
Jun-05-2015	0	24.4	8600
Jun-06-2015	0	25.0	8670
Jun-07-2015	0	26.1	8610
Jun-08-2015	0	28.0	8790
Jun-09-2015	0	26.1	8830
Jun-10-2015	0	24.2	9030
Jun-11-2015	0	25.8	8970
Jun-12-2015	0	27.8	9030
Jun-13-2015	0	28.6	9110
Jun-14-2015	0	27.5	9240
Jun-15-2015	0	26.5	9260
Jun-16-2015	0	25.8	9370
Jun-17-2015	0	26.3	9360
Jun-18-2015	0	26.2	9340
Jun-19-2015	0	25.4	9420
Jun-20-2015	0	25.8	9500
Jun-21-2015	0	25.9	9560
Jun-22-2015	0	24.8	9660
Jun-23-2015	0	25.0	9780
Jun-24-2015	0	25.9	9920
Jun-25-2015	0	27.1	10200
Jun-26-2015	0	28.0	10300
Jun-27-2015	0	27.3	10400
Jun-28-2015	0	26.9	10500
Jun-29-2015	0	27.0	10600
Jun-30-2015	0	27.0	10700

NOTES:

USGS data webpage

http://waterdata.usgs.gov/nwis/dv/?site_no=11262900&agency_cd=USGS&referred_module=sw

Data is provisional and subject to change

Low flow at Station D for the months of May and June, 2015.

Table 3b. Monthly averages and totals

PARAMETER	Total Flow	Average Temperature	Average Specific Conductance
DATA SOURCE	Calculated	Calculated	Calculated
UNITS	acre-feet	°C	µS/cm
Jan-15	3750	11	3320

PARAMETER	Flow	Temperature	Specific Conductance
DATA SOURCE	USGS	USGS	USGS
UNITS	cfs	°C	µS/cm
Feb-15	3010	15	3531
Mar-15	3150	18	3623
Apr-15	1030	19	3775
May-15	130	22	5488
Jun-15	10	26	9241

NOTES: Data is provisional and subject to change

Low flow at Station D for the months of May and June, 2015.

Table 3c. Other water qulity monitoring in Mud Slough (north) below San Luis Drain discharge(Station D)

	Physicals							
PARAMETER	**Dissolved Oxygen**	**pH**	**Specific Conductance**	**Temperature**	**Turbidity**	**Total Selenium**	**Total Boron**	**Total Molybdenum**
DATA SOURCE	**USBR**	**USBR**	**USBR**	**USBR**	**USBR**	**USBR**	**USBR**	**USBR**
UNITS	**mg/L**	**units**	**µS/cm**	**°C**	**NTU**	**ug/L**	**mg/L**	**ug/L**
Jan-09-2015	11.6	7.7	3001	11.5	16.6	6.4	3.2	
Jan-13-2015	9.5	7.7	3325	12.1	22.3	5.6	3.9	16
Jan-23-2015	11.1	7.7	3825	10.0	18.6	2.4	5.6	
Jan-30-2015	9.9	8.0	6597	12.3	25.1	10.3	13	
Feb-04-2015	8.4	7.8	3664	14.0	25.2	4.4	5.1	
Feb-13-2015	7.5	7.7	3390	15.6	31.0	3.5	3.8	
Feb-19-2015	7.0	7.7	3178	15.1		2.2	3.2	14
Feb-27-2015	9.8	8.0	4205	14.2	35.1	3.2	6.3	
Mar-06-2015	9.4	8.1	4242	15.0	25.1	10.6	6.6	
Mar-13-2015	8.4	8.0	2922	17.8	22.9	3.0	3.1	
Mar-20-2015				20.5		3.2	3.7	12
Mar-27-2015	9.1	8.1	4361	20.2	42.2	10.8	6.8	
Apr-01-2015	14.7	8.0	3730	16.3	58.6	0.7	3.4	20
Apr-10-2015	15.1	8.2	3975	18.1	48.0	1.2	3.8	
Apr-16-2015	10.2	8.2	4400	17.8	20.4	3.5	5.4	20
Apr-24-2015	9.2	8.0	3754	19.5	40.0	0.4	3.4	
May-01-2015	7.9	8.2	2739	22.7	17.6	0.8	2.6	
May-08-2015	9.8	8.1	4082	17.8	34.4	0.4	3.7	
May-15-2015								
May-21-2015								
May-27-2015								
Jun-04-2015								
Jun-11-2015	3.7	7.9	8911	29.2	22.7	0.4	7.6	
Jun-17-2015	8.2	8.1	9565	25.3	15.6	0.6	7.6	22
Jun-25-2015	10.1	8.2	10456	27.2		0.6	9.3	
Jun-29-2015	8.8	8.2	10989	25.8	10.5	0.6	9.6	22

NOTES: Low flow at Station D for the month of May, no samples taken. Samples collected from ponded water during month of June.

	Nutrients				
PARAMETER	**Nitrates as N (Dissolved)**	**Ammonia as N**	**Total Kjeldahl Nitrogen**	**Total Phosphorous as P**	**Ortho-phosphate as P**
DATA SOURCE	**USBR**	**USBR**	**USBR**	**USBR**	**USBR**
UNITS	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
Jan-13-2015	0.96	0.27	1.90	0.17	0.09
Feb-19-2015	0.35 T	0.23	1.60	0.40	0.33 T
Apr-01-2015	0.12	0.17	2.60	0.51	0.41 U
Apr-16-2015	<0.010	0.17	2.30	0.30	0.024 T
May-21-2015					
May-27-2015					
Jun-17-2015	<0.010	0.06	0.92	0.54	0.49
Jun-29-2015	<0.010	<0.050	0.75	0.86	0.44

NOTES: Low flow at Station D for the month of May, no samples taken. Samples collected from ponded water during month of June.

Table 4. Water qulity monitoring in Mud Slough (north) above San Luis Drain discharge (Station C)

	Physicals							
PARAMETER	**Dissolved Oxygen**	**pH**	**Specific Conductance**	**Temperature**	**Turbidity**	**Total Selenium**	**Total Boron**	**Total Molybdenum**
DATA SOURCE	**USBR**	**USBR**	**USBR**	**USBR**	**USBR**	**USBR**	**USBR**	**USBR**
UNITS	**mg/L**	**units**	**µS/cm**	**°C**	**NTU**	**ug/L**	**mg/L**	**ug/L**
Jan-09-2015								
Jan-13-2015	12.1	7.7	2528	11.9	32.7	< 0.4	2.1	18
Jan-23-2015	13.8	7.7	2346	10.3	11.3	< 0.4	2.1	
Jan-30-2015	7.5	7.7	2622	14.1	25.8	< 0.4	2.2	
Feb-04-2015	7.7	7.7	2706	13.4	25.8	< 0.4	2.2	
Feb-13-2015	8.8	7.7	2674	15.7	29.3	< 0.4	2.4	
Feb-19-2015	9.3	7.7	2670	15.1		< 0.4	2.3	13
Feb-27-2015	8.1	7.8	3097	14.6	53.5	< 0.4	2.4	
Mar-06-2015	8.0	7.9	2755	14.9	32.8	0.45	2.3	
Mar-13-2015	9.3	8.0	2513	18.6	23.7	0.66	2.3	
Mar-20-2015	7.7	7.8	2573	31.3	61.4	< 0.4	2.3	12
Mar-27-2015	8.8	8.1	2928	22.8	63.4	0.45	2.6	
Apr-01-2015	13.8	8.1	3206	18.5	62.5	< 0.4	2.9	
Apr-10-2015	14.2	8.4	3429	18.8	55.8	< 0.4	3.0	
Apr-16-2015								16
Apr-24-2015								
May-01-2015	7.5	8.3	2550	25.1	15.9	0.78	2.6	
May-08-2015								
May-15-2015								
May-21-2015								
May-27-2015								
Jun-04-2015								
Jun-11-2015								
Jun-17-2015								
Jun-25-2015								
Jun-29-2015								

NOTES: Very low flow and heavy vegetation in slough at Station C for the months of May and June 2015, no samples taken.

	Nutrients				
PARAMETER	**Nitrates as N (Dissolved)**	**Ammonia as N**	**Total Kjeldahl Nitrogen**	**Total Phosphorous as P**	**Ortho-phosphate as P**
DATA SOURCE	**USBR**	**USBR**	**USBR**	**USBR**	**USBR**
UNITS	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
Jan-13-2015	0.16	0.27	1.70	0.15	0.16
Feb-19-2015	0.16 T	0.24	1.50	0.51	0.38 T
Apr-01-2015	< 0.010	0.17	3.1 U	0.57	0.43
May-21-2015					
May-27-2015					
Jun-17-2015					
Jun-29-2015					

NOTES: Very low flow and heavy vegetation in slough at Station C for the months of May and June 2015, no samples taken.

Table 5. Water quality monitoring in Mud Slough (north) backwater below San Luis Drain discharge (Station I2)

	Physicals					
PARAMETER	**Dissolved Oxygen**	**pH**	**Specific Conductance**	**Temperature**	**Turbidity**	**Total Selenium**
DATA SOURCE	**USBR**	**USBR**	**USBR**	**USBR**	**USBR**	**USBR**
UNITS	**mg/L**	**units**	**µS/cm**	**°C**	**NTU**	**µg/L**
Jan-09-2015						
Jan-13-2015						
Jan-23-2015						
Jan-30-2015						
Feb-04-2015						
Feb-13-2015						
Feb-19-2015						
Feb-27-2015						
Mar-06-2015						
Mar-13-2015						
Mar-20-2015						
Mar-27-2015						
Apr-01-2015						
Apr-10-2015						
Apr-16-2015						
Apr-24-2015						
May-01-2015						
May-08-2015						
May-15-2015						
May-21-2015						
May-27-2015						
Jun-04-2015						
Jun-11-2015						
Jun-17-2015						
Jun-25-2015						
Jun-29-2015						

NOTES:

Water is only collected when the backwater location is flooded during high flow.

Table 6a. Water monitoring in Salt Slough at Highway 165 (Station F)
USGS Station Code: 11261100

PARAMETER	Flow	Temperature	Specific Conductance
DATA SOURCE	USGS	USGS	USGS
UNITS	cfs	°C	µS/cm
Jan-01-2015	61	6.5	2020
Jan-02-2015	58	7.0	2080
Jan-03-2015	51	7.3	2140
Jan-04-2015	48	8.1	2140
Jan-05-2015	49	8.7	2080
Jan-06-2015	55	9.6	2070
Jan-07-2015	57	9.8	1990
Jan-08-2015	61	10.3	1910
Jan-09-2015	53	10.9	1920
Jan-10-2015	49	12.2	1940
Jan-11-2015	53	12.9	1980
Jan-12-2015	55	12.6	1950
Jan-13-2015	57	12.4	1960
Jan-14-2015	57	11.5	1950
Jan-15-2015	58	11.2	1920
Jan-16-2015	58	11.1	1880
Jan-17-2015	54	11.4	1960
Jan-18-2015	48	11.9	2090
Jan-19-2015	45	12.4	2100
Jan-20-2015	47	12.4	2100
Jan-21-2015	47	12.0	2110
Jan-22-2015	43	11.6	2140
Jan-23-2015	42	10.5	2180
Jan-24-2015	40	10.9	2210
Jan-25-2015	43	10.6	2200
Jan-26-2015	43	10.4	2170
Jan-27-2015	45	12.2	2190
Jan-28-2015	45	12.3	2210
Jan-29-2015	45	13.2	2200
Jan-30-2015	45	13.2	2190
Jan-31-2015	44	13.2	2190
Feb-01-2015	45	13.0	2190
Feb-02-2015	48	13.1	2120
Feb-03-2015	62	13.9	2010
Feb-04-2015	75		
Feb-05-2015	69	13.8	1830
Feb-06-2015	63	13.7	1970
Feb-07-2015	65	15.1	1920
Feb-08-2015	76	16.4	1900
Feb-09-2015	84	16.4	1830
Feb-10-2015	88		

PARAMETER	Flow	Temperature	Specific Conductance
DATA SOURCE	USGS	USGS	USGS
UNITS	cfs	°C	µS/cm
Feb-11-2015	78		
Feb-12-2015	68		
Feb-13-2015	63	15.8	2110
Feb-14-2015	69	16.3	1980
Feb-15-2015	70	16.5	1890
Feb-16-2015	70	16.6	1890
Feb-17-2015	83	16.5	1730
Feb-18-2015	79	16.2	1680
Feb-19-2015	66	15.6	1750
Feb-20-2015	65	15.1	1780
Feb-21-2015	72	14.4	1750
Feb-22-2015	78	13.8	1670
Feb-23-2015	104	13.1	1540
Feb-24-2015	128	12.8	1550
Feb-25-2015	132	12.9	1660
Feb-26-2015	115	13.4	1820
Feb-27-2015	102	14.5	1860
Feb-28-2015	97	13.9	1930
Mar-01-2015	95	13.5	1810
Mar-02-2015	84	14.2	1870
Mar-03-2015	89	13.9	1860
Mar-04-2015	87	14.7	1930
Mar-05-2015	81	15.5	1930
Mar-06-2015	75	15.8	1990
Mar-07-2015	79	16.1	1920
Mar-08-2015	78	16.5	1940
Mar-09-2015	77	17.0	2000
Mar-10-2015	81	17.7	2010
Mar-11-2015	105	17.9	2000
Mar-12-2015	120	17.9	1980
Mar-13-2015	115	18.4	2010
Mar-14-2015	109	19.6	1940
Mar-15-2015	103	20.3	2030
Mar-16-2015	93	19.1	2120
Mar-17-2015	81	18.8	2200
Mar-18-2015	74	18.6	2240
Mar-19-2015	75	18.6	2130
Mar-20-2015	68	18.8	2080
Mar-21-2015	66	18.4	2080
Mar-22-2015	68	19.3	2060
Mar-23-2015	66	18.7	2090
Mar-24-2015	58	18.1	2130
Mar-25-2015	58	17.8	2100
Mar-26-2015	59	19.3	2170

PARAMETER	Flow	Temperature	Specific Conductance
DATA SOURCE	USGS	USGS	USGS
UNITS	cfs	°C	µS/cm
Mar-27-2015	63	20.9	2160
Mar-28-2015	56	20.6	2160
Mar-29-2015	53	19.8	2150
Mar-30-2015	49	20.3	2070
Mar-31-2015	46	19.8	2070
Apr-01-2015	43	17.4	2180
Apr-02-2015	40	16.3	2210
Apr-03-2015	45	16.1	2140
Apr-04-2015	44	17.6	2120
Apr-05-2015	44	16.9	2080
Apr-06-2015	48	15.8	2040
Apr-07-2015	55	15.7	1970
Apr-08-2015	68	15.2	1830
Apr-09-2015	75	16.6	1800
Apr-10-2015	62	17.9	1930
Apr-11-2015	50	19.0	2070
Apr-12-2015	48	19.0	2070
Apr-13-2015	53	20.0	1990
Apr-14-2015	52	18.5	1940
Apr-15-2015	48	16.6	1980
Apr-16-2015	44	17.4	2100
Apr-17-2015	46	19.5	2170
Apr-18-2015	50	20.7	2060
Apr-19-2015	46	21.8	2100
Apr-20-2015	47	22.5	2020
Apr-21-2015	61	21.3	2000
Apr-22-2015	59	20.1	2080
Apr-23-2015	54	20.7	2150
Apr-24-2015	51	19.9	2180
Apr-25-2015	52	19.5	2170
Apr-26-2015	50	18.9	2060
Apr-27-2015	53	19.5	1880
Apr-28-2015	46	22.4	1950
Apr-29-2015	43	23.2	2040
Apr-30-2015	34	22.8	2040
May-01-2015	32	23.5	2010
May-02-2015	28	23.7	2070
May-03-2015	25	22.6	2110
May-04-2015	32	21.5	2020
May-05-2015	36	20.8	1640
May-06-2015	26	19.8	1750
May-07-2015	24	18.0	1940
May-08-2015	28	18.0	1940
May-09-2015	31	20.5	1910

PARAMETER	Flow	Temperature	Specific Conductance
DATA SOURCE	USGS	USGS	USGS
UNITS	cfs	°C	µS/cm
May-10-2015	41	21.9	1670
May-11-2015	45	22.0	1540
May-12-2015	41	20.5	1560
May-13-2015	30	20.5	1660
May-14-2015	28	20.0	1840
May-15-2015	35	19.8	1810
May-16-2015	27	19.9	1900
May-17-2015	25	20.4	2080
May-18-2015	33	20.1	1920
May-19-2015	32	21.0	1790
May-20-2015	27	21.5	1890
May-21-2015	29	20.6	1880
May-22-2015	30	20.2	1760
May-23-2015	32	21.0	1790
May-24-2015	34	21.1	1580
May-25-2015	33	22.6	1560
May-26-2015	31	22.8	1620
May-27-2015	19	22.9	1800
May-28-2015	26	23.7	1870
May-29-2015	25	23.9	1860
May-30-2015	28	24.6	1860
May-31-2015	29	24.8	1760
Jun-01-2015	24	23.6	1730
Jun-02-2015	23	23.9	1810
Jun-03-2015	22	23.5	1770
Jun-04-2015	23	22.0	1820
Jun-05-2015	31	23.7	1760
Jun-06-2015	33	24.8	1930
Jun-07-2015	34	26.0	1960
Jun-08-2015	43	27.7	1780
Jun-09-2015	53	26.2	1580
Jun-10-2015	44	24.6	1580
Jun-11-2015	30	25.1	1590
Jun-12-2015	24	27.9	1520
Jun-13-2015	17	28.5	1600
Jun-14-2015	15	26.8	1730
Jun-15-2015	16	26.5	1760
Jun-16-2015	23	25.7	1690
Jun-17-2015	17	26.6	1580
Jun-18-2015	10	26.8	1700
Jun-19-2015	9	25.2	1770
Jun-20-2015	11	25.8	1750
Jun-21-2015	18	26.0	1610
Jun-22-2015	22	24.7	1570

PARAMETER	Flow	Temperature	Specific Conductance
DATA SOURCE	USGS	USGS	USGS
UNITS	cfs	°C	µS/cm
Jun-23-2015	19	25.2	1650
Jun-24-2015	13	25.8	1560
Jun-25-2015	15	27.8	1530
Jun-26-2015	13	28.6	1460
Jun-27-2015	14	28.0	1440
Jun-28-2015	14	27.4	1430
Jun-29-2015	17	27.5	1430
Jun-30-2015	22	27.4	1450

NOTES:

USGS data webpage

http://waterdata.usgs.gov/nwis/dv/?site_no=11261100&agency_cd=USGS&referred_module=sw

Data is provisional and subject to change

Table 6b. Monthly averages and totals

PARAMETER	Total Flow	Average Temperature	Average Specific Conductance
DATA SOURCE	Calculated	Calculated	Calculated
UNITS	acre-feet	°C	µS/cm
January-15	3090	11	2070
February-15	4390	15	1848
March-15	4780	18	2040
April-15	3000	19	2045
May-15	1870	21	1819
June-15	1330	26	1651

NOTES:

Table 6c. Other water qulity monitoring in Salt Slough at Highway 165 (Station F)

	Physicals							
PARAMETER	**Dissolved Oxygen**	**pH**	**Specific Conductance**	**Temperature**	**Turbidity**	**Total Selenium**	**Total Boron**	**Total Molybdenum**
DATA SOURCE	**USBR**	**USBR**	**USBR**	**USBR**	**USBR**	**USBR**	**USBR**	**USBR**
UNITS	**mg/L**	**units**	**µS/cm**	**°C**	**NTU**	**ug/L**	**mg/L**	**ug/L**
Jan-09-2015	11.2	7.7	1967	10.9	31.0	< 0.4	1.0	
Jan-13-2015	12.2	7.8	1995	10.8	32.8	< 0.4	1.1	11
Jan-23-2015	11.7	7.8	2253	9.7	35.8	< 0.4	1.2	
Jan-30-2015	10.3	7.8	2197	14.3	24.7	< 0.4	1.3	
Feb-04-2015	9.9	7.7	1742	13.2	51.5	< 0.4	0.9	
Feb-13-2015	9.4	7.6	2175	15.5	38.6	< 0.4	1.3	
Feb-19-2015								
Feb-27-2015	8.9	7.6	1891	13.4	40.6	0.42	1.0	
Mar-06-2015	8.7	7.7	2041	15.5	31.3	< 0.4	1.0	
Mar-13-2015	9.6	7.7	2060	18.5	33.2	< 0.4	1.2	
Mar-20-2015	8.3	7.7	2173	20.0	46.3	< 0.4	1.1	11
Mar-27-2015	9.5	7.9	2174	20.5	44.8	< 0.4	1.1	
Apr-01-2015	12.7	8.0	2227	17.0	30.0	< 0.4	1.1	13
Apr-10-2015	16.5	7.9	2020	18.8	35.1	< 0.4	0.9	
Apr-16-2015	9.7	8.1	2215	18.7	34.5	< 0.4	1.2	13
Apr-24-2015	9.9	8.2	2268	19.6	35.1	< 0.4	1.2	
May-01-2015	8.1	8.1	2185	25.8	20.8	< 0.4	0.9	
May-08-2015	10.3	8.1	1997	18.4	35.8	< 0.4	0.9	
May-15-2015	9.6	8.1	1797	20.3	27.6	< 0.4	0.7	
May-21-2015	11.7	8.2	1969	20.4	24.6	< 0.4	0.8	12
May-27-2015	12.3	7.9	1967	23.7	29.7	0.55	0.7	11
Jun-04-2015		7.9	1816	25.9	35.7	< 0.4	0.7	
Jun-11-2015	5.5	8.1	1551	29.3	32.4	< 0.4	0.6	
Jun-17-2015	9.9	8.4	1688	27.8	17.6	< 0.4	0.7	10
Jun-25-2015	9.7	8.4	1785	29.7		< 0.4	0.7	
Jun-29-2015	10.1	8.3	1678	28.0	27.9	< 0.4	0.6	10

NOTES:

	Nutrients				
PARAMETER	**Nitrates as N (Dissolved)**	**Ammonia as N**	**Total Kjeldahl Nitrogen**	**Total Phosphorous as P**	**Ortho-phosphate as P**
DATA SOURCE	**USBR**	**USBR**	**USBR**	**USBR**	**USBR**
UNITS	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
Jan-13-2015	0.50	0.19	0.99	0.08	0.05
Feb-19-2015					
Apr-01-2015	0.34	0.11	0.79	0.13	0.06
Apr-16-2015	0.44	0.10	0.95	0.14	0.070T
May-21-2015	0.36	<0.050 L	0.89 L	0.11	0.040 L
May-27-2015	<0.010	<0.050	0.82	0.18	0.055 H
Jun-17-2015	<0.010	<0.050	0.73	0.17	0.06
Jun-29-2015	<0.010	<0.050	0.71	0.10	0.06

NOTES:

Table 7a. Water quality monitoring in Grassland Wetlands Water Supply Channels
Camp 13 Ditch headworks (Station J)

PARAMETER	Flow	Specific Conductance	Temperature	Total Selenium
DATA SOURCE	GWD	SLDMWA	GWD	SLDMWA
UNITS	cfs	µS/cm	°C	µg/L
P	P	P	P	P

NOTES:
Samples only collected when more than 20 cfs is passing site.
Water passing this site at less than 20 cfs does not reach Grassland Wetlands.

Table 7b. Water quality monitoring in Grassland Wetlands Water Supply Channels
Agatha Canal headworks (Station K2)

PARAMETER	Flow	Specific Conductance	Temperature	Total Selenium
DATA SOURCE	GWD	SLDMWA	GWD	SLDMWA
UNITS	cfs	µS/cm	°C	µg/L
Jan-27-2015	P	1180	P	1.07
Feb-03-2015	P	1180	P	1.07
Feb-10-2015	P	1180	P	1.28
Feb-17-2015	P	2140	P	0.73
Mar-02-2015	P	2160	P	0.59

NOTES:
Samples only collected when more than 20 cfs is passing site.
Water passing this site at less than 20 cfs does not reach Grassland Wetlands.

Table 8a. Water monitoring in the San Joaquin River above Merced River confluence (Station H2)
USGS Station Code: 11273400

PARAMETER	Flow	Temperature	Specific Conductance
DATA SOURCE	USGS	USGS	USGS
UNITS	cfs	°C	µS/cm
Jan-01-2015	241	6.2	
Jan-02-2015	227	6.3	
Jan-03-2015	217	6.6	
Jan-04-2015	216	6.9	
Jan-05-2015	217	7.7	
Jan-06-2015	215	8.4	
Jan-07-2015	214	8.9	
Jan-08-2015	208	9.7	
Jan-09-2015	192	10.3	
Jan-10-2015	181	11.5	
Jan-11-2015	170	12.1	
Jan-12-2015	167	12.1	
Jan-13-2015	168	11.9	
Jan-14-2015	181	11.2	
Jan-15-2015	186	10.8	2650
Jan-16-2015	186	10.7	2640
Jan-17-2015	183	11.2	2590
Jan-18-2015	180	11.5	2690
Jan-19-2015	173	11.9	2780
Jan-20-2015	169	12.0	2830
Jan-21-2015	168 1	11.9	2840
Jan-22-2015	169	11.7	2900
Jan-23-2015	169	10.6	2950
Jan-24-2015	171	10.4	3040
Jan-25-2015	171	10.2	3120
Jan-26-2015	177	10.0	3110
Jan-27-2015	180	11.3	3130
Jan-28-2015	183	11.6	2970
Jan-29-2015	184	12.0	3020
Jan-30-2015	186	12.5	3340
Jan-31-2015	186	12.7	4040
Feb-01-2015	178	12.6	3760
Feb-02-2015	172	12.7	3240
Feb-03-2015	170	13.2	3100
Feb-04-2015	173	13.9	3010
Feb-05-2015	180	14.0	2770
Feb-06-2015	176	13.9	2760
Feb-07-2015	177	15.1	2910
Feb-08-2015	192	15.9	3230
Feb-09-2015	205	16.2	2860
Feb-10-2015	211	15.7	2980
Feb-11-2015	208	15.1	2890
Feb-12-2015	194	15.2	2720
Feb-13-2015	181	15.5	2740
Feb-14-2015	174	16.2	2770
Feb-15-2015	172	16.3	2750

PARAMETER	Flow	Temperature	Specific Conductance
DATA SOURCE	USGS	USGS	USGS
UNITS	cfs	°C	µS/cm
Feb-16-2015	170	16.4	2700
Feb-17-2015	167	16.2	2710
Feb-18-2015	169	16.2	2620
Feb-19-2015	165	15.5	2550
Feb-20-2015	163	15.0	2730
Feb-21-2015	164	14.7	2720
Feb-22-2015	167	14.0	2670
Feb-23-2015	169	12.9	2610
Feb-24-2015	170	13.0	2420
Feb-25-2015	186	13.3	2280
Feb-26-2015	206	13.9	2410
Feb-27-2015	209	14.3	2520
Feb-28-2015	199	14.1	2680
Mar-01-2015	187	14.1	3080
Mar-02-2015	179	14.5	2880
Mar-03-2015	167	14.6	2770
Mar-04-2015	162	14.9	2620
Mar-05-2015	161		
Mar-06-2015	160		
Mar-07-2015	162	16.2	3120
Mar-08-2015	164	16.5	3180
Mar-09-2015	162	17.2	3160
Mar-10-2015	153	17.8	2980
Mar-11-2015	145	17.9	2980
Mar-12-2015	148	18.0	2770
Mar-13-2015	156	18.6	2670
Mar-14-2015	167	19.9	2540
Mar-15-2015	169	20.6	2530
Mar-16-2015	170	19.4	
Mar-17-2015	177	19.4	
Mar-18-2015	179	19.0	2570
Mar-19-2015	175	18.9	2650
Mar-20-2015	163	19.0	2790
Mar-21-2015	155	18.7	2780
Mar-22-2015	149	19.3	2790
Mar-23-2015	149	19.3	3030
Mar-24-2015	148	18.7	3200
Mar-25-2015	146	18.5	3290
Mar-26-2015	152	19.4	3240
Mar-27-2015	155	20.9	3180
Mar-28-2015	159	20.9	2990
Mar-29-2015	149	20.3	2960
Mar-30-2015	139	20.5	3070
Mar-31-2015	128	20.0	3180
Apr-01-2015	125	18.1	3110
Apr-02-2015	126	16.9	3080
Apr-03-2015	131	16.6	2940
Apr-04-2015	128	17.7	2970
Apr-05-2015	122	17.4	2960
Apr-06-2015	121	16.4	2930

PARAMETER	Flow	Temperature	Specific Conductance
DATA SOURCE	USGS	USGS	USGS
UNITS	cfs	°C	µS/cm
Apr-07-2015	114	15.9	3050
Apr-08-2015	119	16.0	2980
Apr-09-2015	129	16.7	2770
Apr-10-2015	137	18.1	2780
Apr-11-2015	132	19.1	2800
Apr-12-2015	126	19.2	3180
Apr-13-2015	119	19.9	3330
Apr-14-2015	114	19.0	3240
Apr-15-2015	109	17.3	3110
Apr-16-2015	102	17.8	3140
Apr-17-2015	94	19.7	3210
Apr-18-2015	91	21.1	3290
Apr-19-2015	92	22.1	2970
Apr-20-2015	91	22.6	3040
Apr-21-2015	86	22.0	3200
Apr-22-2015	88	21.3	2980
Apr-23-2015	89	21.7	2840
Apr-24-2015	89	21.3	2940
Apr-25-2015	85	20.5	2860
Apr-26-2015	96	19.8	2730
Apr-27-2015	105	20.7	2560
Apr-28-2015	95	22.9	2630
Apr-29-2015	89	23.4	2540
Apr-30-2015	87	23.1	2560
May-01-2015	78	23.6	2680
May-02-2015	80	24.4	3030
May-03-2015	86	24.2	2720
May-04-2015	80	23.3	2750
May-05-2015	65	22.7	2940
May-06-2015	60	22.0	2820
May-07-2015	58	19.6	2910
May-08-2015	62	19.0	3030
May-09-2015	59	21.1	2960
May-10-2015	64	22.7	2840
May-11-2015	70	22.9	2360
May-12-2015	75	21.8	2110
May-13-2015	74	21.2	2190
May-14-2015	67	20.1	2340
May-15-2015	61	21.0	2390
May-16-2015	58	21.1	2280
May-17-2015	55	21.1	2300
May-18-2015	50	21.2	2740
May-19-2015	52	21.8	2630
May-20-2015	52	22.7	2270
May-21-2015	48	21.6	2370
May-22-2015	46	21.2	2520
May-23-2015	44	22.6	2540
May-24-2015	42	23.4	2560
May-25-2015	43	24.6	2420
May-26-2015	39	24.4	2550

PARAMETER	Flow	Temperature	Specific Conductance
DATA SOURCE	USGS	USGS	USGS
UNITS	cfs	°C	µS/cm
May-27-2015	37	24.1	3030
May-28-2015	33	24.3	3270
May-29-2015	34	24.8	3580
May-30-2015	35	24.9	3310
May-31-2015	36	25.0	3550
Jun-01-2015	37	24.1	3140
Jun-02-2015	34	24.5	3080
Jun-03-2015	26	24.8	3550
Jun-04-2015	23	24.4	3600
Jun-05-2015	23	25.3	3410
Jun-06-2015	25	26.6	3090
Jun-07-2015	26	27.2	2470
Jun-08-2015	29	29.1	2500
Jun-09-2015	30	27.5	2480
Jun-10-2015	33	25.2	1980
Jun-11-2015	33	26.4	1900
Jun-12-2015	29	28.6	2310
Jun-13-2015	27	29.4	2550
Jun-14-2015	25	28.4	2840
Jun-15-2015	23	26.9	3500
Jun-16-2015	19	26.0	3640
Jun-17-2015	21	26.9	3900
Jun-18-2015	19	26.9	3050
Jun-19-2015	16	25.5	3570
Jun-20-2015	15	26.1	3980
Jun-21-2015	16	25.9	4390
Jun-22-2015	21	24.7	4320
Jun-23-2015	24	25.0	2920
Jun-24-2015	23	26.2	2660
Jun-25-2015	18	28.0	3180
Jun-26-2015	15	29.0	3400
Jun-27-2015	14	28.4	3660
Jun-28-2015	14	27.6	3650
Jun-29-2015	15	27.3	3510
Jun-30-2015	15	27.5	3450

NOTES:
USGS data webpage
http://waterdata.usgs.gov/nwis/dv/?site_no=11273400&agency_cd=USGS&referred_module=sw
Data is provisional and subject to change

Table 8b. Monthly averages and totals

PARAMETER	Total Flow	Average Temperature	Average Specific Conductance
DATA SOURCE	Calculated	Calculated	Calculated
UNITS	acre-feet	°C	µS/cm
Jan-15	11240	10	2979

PARAMETER	Flow	Temperature	Specific Conductance
DATA SOURCE	USGS	USGS	USGS
UNITS	cfs	°C	µS/cm
Feb-15	10050	15	2790
Mar-15	9790	18	2926
Apr-15	6410	19	2957
May-15	3460	23	2709
Jun-15	1360	27	3189

NOTES:

Table 9. Water quality monitoring in the San Joaquin River above Merced River at China Island Refuge (Station R)

	Physicals							
PARAMETER	**Dissolved Oxygen**	**pH**	**Specific Conductance**	**Temperature**	**Turbidity**	**Total Selenium**	**Total Boron**	**Total Molybdenum**
DATA SOURCE	**USBR**	**USBR**	**USBR**	**USBR**	**USBR**	**USBR**	**USBR**	**USBR**
UNITS	**mg/L**	**units**	**µS/cm**	**°C**	**NTU**	**ug/L**	**mg/L**	**ug/L**
Jan-09-2015								
Jan-13-2015	11.5	7.8	2800	12.1	20.2	1.4	2.0	13
Jan-23-2015	12.2	7.8	2957	10.6	21.5	0.9	2.8	
Jan-30-2015								
Feb-04-2015	10.7	7.9	3021	14.3	43.7	1.2	2.5	
Feb-13-2015	9.9	7.8	2813	16.2	49.7	1.1	2.2	
Feb-19-2015	10.4	7.8	2570	15.1		0.9	2.0	10
Feb-27-2015	9.2	7.9	2578	14.9	50.2	0.9	2.1	
Mar-06-2015	10.1	8.0	3177	16.0	57.2	3.51 U	3.3	
Mar-13-2015	8.2	7.8	2667	17.1	65.5	1.1	2.0	
Mar-20-2015						1.0	2.2	11
Mar-27-2015								
Apr-01-2015	14.5	8.0	3292	16.3	28.7	0.8	2.1	13
Apr-10-2015	9.4	8.1	2726	17.4	36.0	0.5	1.7	
Apr-16-2015	9.6	8.1	3100	17.0	23.8	0.8	2.0	14
Apr-24-2015	9.1	8.1	3018	19.7	40.9	< 0.4	1.8	
May-01-2015	7.9	8.1	2829	23.7	31.8	0.42	1.4	
May-08-2015								
May-15-2015	9.5	8.0	2519	20.9	36.3	0.43	0.96	
May-21-2015	10	7.9	2517	18.9	24.8	< 0.4	0.97	12
May-27-2015	141	8.2	3102	22.3	35.3	< 0.4	1.4	13
Jun-04-2015		8.0	3684	21.4	33.0	< 0.4	1.4	
Jun-11-2015	6.70	8.30	2026	28.9	35.5	< 0.4	0.7	
Jun-17-2015	9.40	8.00	3297	24.8	12.2	< 0.4	1.2	13
Jun-25-2015	7.10	8.10	3240	27.4	17.6	< 0.4	1.2	
Jun-29-2015	13.40	8.30	4018	27.2	6.4	< 0.4	1.5	15

NOTES: Low to no discharge from Mud Slough into the San Joaquin River at China Island for the months of May and June, 2015.

	Nutrients				
PARAMETER	**Nitrates as N (Dissolved)**	**Ammonia as N**	**Total Kjeldahl Nitrogen**	**Total Phosphorous as P**	**Ortho-phosphate as P**
DATA SOURCE	**USBR**	**USBR**	**USBR**	**USBR**	**USBR**
UNITS	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
Jan-13-2015	0.38	0.26	1.30	0.11	0.10
Feb-19-2015	0.79 T	0.15	1.40	0.14	0.10 T
Apr-01-2015	0.14	0.10	1.30	0.79	0.19
Apr-16-2015	0.28	0.21	1.40	0.21	0.12 T
May-21-2015	<0.010	<0.050	0.88	0.14	0.064 L
May-27-2015	<0.010	<0.050	0.85	0.17	0.04
Jun-17-2015	<0.010	0.07	0.73	0.15	0.06
Jun-29-2015	<0.010	<0.050	0.48	0.22	0.11

NOTES: Low to no discharge from Mud Slough into the San Joaquin River at China Island for the months of May and June, 2015.

Feb-10-2015	121	15.6	1860
Feb-11-2015	126	15.0	1860
Feb-12-2015	119	15.0	2050
Feb-13-2015	109	15.6	2200
Feb-14-2015	103	16.0	2180
Feb-15-2015	105	16.3	2100
Feb-16-2015	104	16.4	2040
Feb-17-2015	105	16.4	2020
Feb-18-2015	114	16.2	1850
Feb-19-2015	106	15.4	1960
Feb-20-2015	97	15.0	2050
Feb-21-2015	93	14.6	2050
Feb-22-2015	97	13.9	1970
Feb-23-2015	105	13.0	1870
Feb-24-2015	124	12.9	1690
Feb-25-2015	139	13.0	1700
Feb-26-2015	145	13.4	1760
Feb-27-2015	133	14.1	1980
Feb-28-2015	121	14.1	2090
Mar-01-2015	119	13.7	2130
Mar-02-2015	114	14.3	2120
Mar-03-2015	111	14.4	2110
Mar-04-2015	108	14.5	2200
Mar-05-2015	103	15.1	2300
Mar-06-2015	97	15.6	2390
Mar-07-2015	95	15.8	2440
Mar-08-2015	96	16.5	2350
Mar-09-2015	94	17.2	2440
Mar-10-2015	97	17.6	2380
Mar-11-2015	98	18.0	2390
Mar-12-2015	116	17.8	2190
Mar-13-2015	131	18.6	2180
Mar-14-2015	134	19.9	2230
Mar-15-2015	132	20.6	2190
Mar-16-2015	127	19.4	2230
Mar-17-2015	127	19.1	2260
Mar-18-2015	118	19.0	2380
Mar-19-2015	111	18.9	2410
Mar-20-2015	103	19.1	2480
Mar-21-2015	103	18.8	2420
Mar-22-2015	97	19.4	2530
Mar-23-2015	97	19.3	2470
Mar-24-2015	100	18.7	2380
Mar-25-2015	96	18.5	2480
Mar-26-2015	97	19.4	2500
Mar-27-2015	101	20.9	2460
Mar-28-2015	102	20.9	2460
Mar-29-2015	92	20.2	2670
Mar-30-2015	86	20.5	2690

Mar-31-2015	80	20.0	2660
Apr-01-2015	86	18.2	2600
Apr-02-2015	88	17.0	2530
Apr-03-2015	85	16.8	2610
Apr-04-2015	88	17.8	2550
Apr-05-2015	89	17.2	2470
Apr-06-2015	90	16.3	2430
Apr-07-2015	90	16.0	2490
Apr-08-2015	97	15.8	2300
Apr-09-2015	107	16.8	2130
Apr-10-2015	112	17.9	2050
Apr-11-2015	103	18.9	2320
Apr-12-2015	90	19.0	2530
Apr-13-2015	84	19.9	2480
Apr-14-2015	86	19.0	2480
Apr-15-2015	85	17.5	2320
Apr-16-2015	80	17.8	2290
Apr-17-2015	72	19.6	2540
Apr-18-2015	75	20.9	2640
Apr-19-2015	79	21.9	2530
Apr-20-2015	74	22.5	2440
Apr-21-2015	73	21.7	2510
Apr-22-2015	83	20.7	2360
Apr-23-2015	83	21.4	2330
Apr-24-2015	80	21.0	2340
Apr-25-2015	83	20.2	2290
Apr-26-2015	94	19.6	2200
Apr-27-2015	91	20.3	2040
Apr-28-2015	84	22.4	1970
Apr-29-2015	85	23.3	1960
Apr-30-2015	83	23.1	2010
May-01-2015	72	23.5	2270
May-02-2015	70	24.3	2170
May-03-2015	69	23.8	2270
May-04-2015	68	22.8	2240
May-05-2015	64	22.2	2250
May-06-2015	61	21.5	2170
May-07-2015	57	18.9	2460
May-08-2015	61	19.1	2320
May-09-2015	61	20.8	2200
May-10-2015	69	22.3	2010
May-11-2015	78	22.7	1810
May-12-2015	84	21.8	1770
May-13-2015	81	21.4	1810
May-14-2015	70	20.7	2000
May-15-2015	68	20.9	1960
May-16-2015	65	20.9	1800
May-17-2015	56	21.0	1950
May-18-2015	56	21.2	2050

May-19-2015	59	21.8	1880
May-20-2015	56	22.5	1790
May-21-2015	53	21.6	2030
May-22-2015	54	21.3	2040
May-23-2015	52	22.0	2100
May-24-2015	53	22.6	2080
May-25-2015	50	23.7	2130
May-26-2015	45	23.6	2300
May-27-2015	41	23.5	2370
May-28-2015	37	23.6	3010
May-29-2015	42	23.9	2790
May-30-2015	40	24.3	2830
May-31-2015	41	24.5	2690
Jun-01-2015	40	23.8	2460
Jun-02-2015	35	24.0	2650
Jun-03-2015	30	23.7	2840
Jun-04-2015	29	23.6	2780
Jun-05-2015	31	24.7	2740
Jun-06-2015	35	25.6	2240
Jun-07-2015	38	26.5	2140
Jun-08-2015	38	28.1	2200
Jun-09-2015	41	27.0	1900
Jun-10-2015	43	25.0	1690
Jun-11-2015	39	26.0	1760
Jun-12-2015	31	27.8	2270
Jun-13-2015	30	28.5	2570
Jun-14-2015	27	27.4	3050
Jun-15-2015	24	25.7	3150
Jun-16-2015	22	25.5	1900
Jun-17-2015	24	26.4	2380
Jun-18-2015	20	25.6	1570
Jun-19-2015	17	24.8	4500
Jun-20-2015	17	25.2	4650
Jun-21-2015	21	24.8	4390
Jun-22-2015	25	24.6	2940
Jun-23-2015	27	25.0	2520
Jun-24-2015	24	26.0	2910
Jun-25-2015	19	27.8	3650
Jun-26-2015	17	28.1	3380
Jun-27-2015	17	27.2	3550
Jun-28-2015	17	27.0	3450
Jun-29-2015	17	27.0	3490
Jun-30-2015	19	28.0	2910

NOTES:

USGS data webpage

http://waterdata.usgs.gov/nwis/dv/?site_no=11261500&agency_cd=USGS&referred_module=sw

Data is provisional and subject to change

Table 10b. Monthly averages and totals

PARAMETER	Total Flow	Average Temperature	Average Specific Conductance
DATA SOURCE	Calculated	Calculated	Calculated
UNITS	acre-feet	°C	µS/cm
January-15	4980	10	2331
February-15	5820	15	2052
March-15	6510	18	2372
April-15	5160	19	2358
May-15	3640	22	2179
June-15	1610	26	2821

NOTES:

Table 10c. Other water qulity monitoring in the San Joaquin River at Fremont Ford (Station G)

	Physicals							
PARAMETER	**Dissolved Oxygen**	**pH**	**Specific Conductance**	**Temperature**	**Turbidity**	**Total Selenium**	**Total Boron**	**Total Molybdenum**
DATA SOURCE	**USBR**	**USBR**	**USBR**	**USBR**	**USBR**	**USBR**	**USBR**	**USBR**
UNITS	**mg/L**	**units**	**µS/cm**	**°C**	**NTU**	**ug/L**	**mg/L**	**ug/L**
Jan-09-2015	11.8	7.8	2357	10.5	22.9	< 0.4	1.00	
Jan-13-2015	12.7	7.9	2288	12.0	39.8	< 0.4	0.94	9
Jan-23-2015	13.7	7.7	2524	10.4	25.6	< 0.4	1.20	
Jan-30-2015	10.6	7.8	2452	12.8	23.7	< 0.4	1.00	
Feb-04-2015	12.3	8.1	2314	14.1	25.4	< 0.4	1.10	
Feb-13-2015	10.4	7.8	2237	15.7	40.9	< 0.4	1.10	
Feb-19-2015	10.9	7.8	1962	15.2		< 0.4	0.86	9
Feb-27-2015	9.3	7.8	2061	14.7	30.9	< 0.4	1.00	
Mar-06-2015	11.0	7.8	2423	15.4	63.3	< 0.4	1.10	
Mar-13-2015	8.2	7.7	2154	16.5	54.1	< 0.4	1.20	
Mar-20-2015				45.8		< 0.4	1.20	12
Mar-27-2015	9.6	7.9	2206	19.5	27.9	< 0.4	0.94	
Apr-01-2015	14.6	7.9	2636	15.7	26.3	< 0.4	0.99	13
Apr-10-2015	9.6	8.0	1900	16.9	29.6	< 0.4	0.79	
Apr-16-2015	9.2	7.9	2358	15.7	26.3	< 0.4	0.93	12
Apr-24-2015	9.2	8.0	2470	19.3	27.3	< 0.4	1.10	
May-01-2015	7.1	7.9	2436	21.6	38.0	< 0.4	0.84	
May-08-2015	9.2	7.9	2355	17.4	30.2	< 0.4	0.75	
May-15-2015	8.0	7.8	2147	19.7	32.6	< 0.4	0.65	
May-21-2015	9.8	7.8	1536	18.2	23.5	< 0.4	0.74	11
May-27-2015	13.6	7.8	2533	20.6	30.0	< 0.4	0.92	13
Jun-04-2015		7.5	3249	20.1	38.1	< 0.4	1.10	
Jun-11-2015	7.9	7.9	2065	27.0	37.1	< 0.4	0.72	
Jun-17-2015	7.5	7.5	2659	22.9	24.1	< 0.4	0.98	11
Jun-25-2015	13.2	7.6	3999	25.6	22.8	< 0.4	1.40	
Jun-29-2015	12.3	7.6	3548	25.1	12.6	< 0.4	1.20	11

NOTES:

	Nutrients				
PARAMETER	**Nitrates as N (Dissolved)**	**Ammonia as N**	**Total Kjeldahl Nitrogen**	**Total Phosphorous as P**	**Ortho-phosphate as P**
DATA SOURCE	**USBR**	**USBR**	**USBR**	**USBR**	**USBR**
UNITS	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
Jan-13-2015	0.24	0.14	1.10	0.09	0.03
Feb-19-2015	0.93 T	0.14	1.10	0.15	0.042 T
Apr-01-2015	0.15	0.10	0.79	0.13	0.05
Apr-16-2015	0.23	0.14	0.96	0.14	0.063 T
May-21-2015	0.02	<0.050	0.85	0.12	0.030 L
May-27-2015	<0.010	<0.050	0.93	0.18	0.02
Jun-17-2015	<0.010	0.09	0.98	0.17	0.02
Jun-29-2015	<0.010	0.08	0.43	0.16	0.02

NOTES:

Table 11a. Water monitoring in the San Joaquin River at Crows Landling(Station N)
USGS Station Code: 11274550

PARAMETER	Flow	Temperature	Specific Conductance	Total Selenium
DATA SOURCE	USGS	USGS	USGS	USBR
UNITS	cfs	°C	µS/cm	µg/L
Jan-01-2015	482	6.5	1480	
Jan-02-2015	451	6.7	1480	
Jan-03-2015	429	6.8	1480	
Jan-04-2015	418	7.1	1500	
Jan-05-2015	425	7.6	1470	
Jan-06-2015	421	8.0		
Jan-07-2015	425	8.6	1440	
Jan-08-2015	417	9.1	1440	
Jan-09-2015	401	10.0	1450	0.63
Jan-10-2015	377	10.9	1450	0.67
Jan-11-2015	364	11.7	1470	0.87
Jan-12-2015	351	11.9	1480	0.84
Jan-13-2015	349	11.8	1470	0.69
Jan-14-2015	356	11.2	1450	0.66
Jan-15-2015	377	10.8	1420	0.72
Jan-16-2015	376	10.8	1400	0.55
Jan-17-2015	373	11.2	1400	0.67
Jan-18-2015	369	11.4	1390	0.54
Jan-19-2015	364	11.8	1410	0.57
Jan-20-2015	357	11.9	1440	0.53
Jan-21-2015	351	11.9	1460	0.47
Jan-22-2015	355	11.9	1470	0.46
Jan-23-2015	353	10.8	1500	0.48
Jan-24-2015	355	10.7	1520	0.49
Jan-25-2015	361	10.3	1570	0.53
Jan-26-2015	367	10.2	1600	0.56
Jan-27-2015	371	11.0	1620	0.62
Jan-28-2015	375	11.5	1620	0.78
Jan-29-2015	380	12.1	1590	0.77
Jan-30-2015	381	12.1	1670	0.90
Jan-31-2015	380	12.2	1740	1.43
Feb-01-2015	368	12.5	2020	1.69
Feb-02-2015	354	12.5	1930	1.79
Feb-03-2015	345	13.1	1710	0.89
Feb-04-2015	343	13.5	1600	0.62
Feb-05-2015	338	13.9	1590	0.64
Feb-06-2015	352	13.8	1520	0.64
Feb-07-2015	363	14.7	1510	0.67
Feb-08-2015	386	15.8	1570	0.76
Feb-09-2015	414	15.6	1660	1.35
Feb-10-2015	429	15.5	1690	1.06
Feb-11-2015	408	15.0	1810	1.48
Feb-12-2015	384	15.0	1810	1.59
Feb-13-2015	361	15.4	1730	1.18
Feb-14-2015	346	15.9	1730	0.86
Feb-15-2015	337	16.3	1720	0.73
Feb-16-2015	333	16.4	1660	0.68
Feb-17-2015	328	16.2	1660	0.65

Feb-18-2015	326	16.0	1660	0.68
Feb-19-2015	321	15.8	1640	0.65
Feb-20-2015	306	15.4	1660	0.69
Feb-21-2015	305	15.3	1720	0.63
Feb-22-2015	311	14.4	1680	0.60
Feb-23-2015	323	13.3	1620	0.60
Feb-24-2015	320	13.3	1560	0.60
Feb-25-2015	328	13.5	1540	0.54
Feb-26-2015	353	14.0	1520	0.69
Feb-27-2015	376	14.7	1600	0.92
Feb-28-2015	374	14.5	1610	0.66
Mar-01-2015	351	14.1	1680	0.77
Mar-02-2015	335	14.7	1950	1.29
Mar-03-2015	318	14.8	1940	1.25
Mar-04-2015	297	15.1	1880	0.89
Mar-05-2015	286	15.4		0.67
Mar-06-2015	279	15.7	1990	1.07
Mar-07-2015	283	16.0	2270	2.15
Mar-08-2015	284	16.6	2320	2.29
Mar-09-2015	293	17.4	2270	1.76
Mar-10-2015	275	18.0	2270	2.06
Mar-11-2015	264	18.2	2240	1.40
Mar-12-2015	255	18.3	2250	1.00
Mar-13-2015	257	18.8	2170	0.91
Mar-14-2015	267	20.2	2130	0.80
Mar-15-2015	273	21.2	2040	0.81
Mar-16-2015	276	19.8	2010	0.84
Mar-17-2015	267	19.4	1950	0.72
Mar-18-2015	268	19.2	1880	0.76
Mar-19-2015	267	19.1	1890	0.81
Mar-20-2015	255	19.3	2000	0.82
Mar-21-2015	244	18.8	2010	0.80
Mar-22-2015	250	19.5	1980	0.84
Mar-23-2015	239	19.7	2010	0.84
Mar-24-2015	236	19.0	2100	1.29
Mar-25-2015	227	18.9	2230	1.01
Mar-26-2015	224	19.6	2290	2.42
Mar-27-2015	243	20.6	2240	3.18
Mar-28-2015	263	20.8	2260	2.60
Mar-29-2015	268	20.2	2150	1.98
Mar-30-2015	252	20.6	2080	1.35
Mar-31-2015	236	20.3	2000	0.86
Apr-01-2015	227	18.4	1910	0.73
Apr-02-2015	221	17.4	1900	0.61
Apr-03-2015	221	17.1	1920	0.57
Apr-04-2015	218	18.1	1900	0.60
Apr-05-2015	212	17.6	1940	0.55
Apr-06-2015	203	16.8	1970	0.51
Apr-07-2015	191	16.6	1880	0.48
Apr-08-2015	178	16.2	2040	0.44
Apr-09-2015	197	17.2	1980	0.50
Apr-10-2015	218	18.5	1750	0.46
Apr-11-2015	220	19.3	1750	< 0.4
Apr-12-2015	216	19.5	1780	< 0.4
Apr-13-2015	215	20.0	1940	0.61
Apr-14-2015	207	19.0	2030	0.74
Apr-15-2015	199	17.5	2070	0.73
Apr-16-2015	186	17.8	2060	0.71

Apr-17-2015	179	19.9	2060	0.66
Apr-18-2015	164	21.2	2080	0.62
Apr-19-2015	154	22.4	2230	0.70
Apr-20-2015	141	22.9	2080	0.61
Apr-21-2015	138	22.3	2060	0.51
Apr-22-2015	140	22.0	2050	0.49
Apr-23-2015	141	22.2	1990	0.45
Apr-24-2015	159	21.9	1920	< 0.4
Apr-25-2015	153	20.8	1940	0.40
Apr-26-2015	160	20.1	1890	0.40
Apr-27-2015	192	20.4	1660	< 0.4
Apr-28-2015	190	22.8	1490	< 0.4
Apr-29-2015	178	23.5	1560	< 0.4
Apr-30-2015	167			< 0.4
May-01-2015	134			0.42
May-02-2015	112	24.0	2160	< 0.4
May-03-2015	143	24.0	2120	0.41
May-04-2015	155	23.3	1820	< 0.4
May-05-2015	134	22.6	1920	< 0.4
May-06-2015	117	22.5	2060	0.53
May-07-2015	114	19.7	2150	0.46
May-08-2015	131	19.0	2040	0.42
May-09-2015	123	21.2	2130	0.40
May-10-2015	126	22.7	2130	0.41
May-11-2015	139	22.9	1880	0.40
May-12-2015	143	21.9	1700	< 0.4
May-13-2015	152	21.4	1540	< 0.4
May-14-2015	150	20.1	1560	< 0.4
May-15-2015	134	20.0	1680	< 0.4
May-16-2015	122	21.3	1790	< 0.4
May-17-2015	133	21.6	1690	< 0.4
May-18-2015	133	20.8	1540	< 0.4
May-19-2015	120	21.9	1660	< 0.4
May-20-2015	123	22.6	1610	< 0.4
May-21-2015	119	21.7	1480	< 0.4
May-22-2015	112	21.1	1480	< 0.4
May-23-2015	102	22.3	1620	< 0.4
May-24-2015	99	23.4	1570	< 0.4
May-25-2015	110	23.8	1520	< 0.4
May-26-2015	95	23.4	1580	< 0.4
May-27-2015	86	23.6	1640	< 0.4
May-28-2015	73	23.7	1790	< 0.4
May-29-2015	69	23.8	1990	0.44
May-30-2015	74	23.4	1970	< 0.4
May-31-2015	81	23.9	2070	< 0.4
Jun-01-2015	80	23.2	2080	< 0.4
Jun-02-2015	86	23.7	1710	< 0.4
Jun-03-2015	70	24.1	1780	< 0.4
Jun-04-2015	68	23.9	1800	< 0.4
Jun-05-2015	67	24.8	1890	< 0.4
Jun-06-2015	65	25.5	1910	0.49
Jun-07-2015	54	26.1	2020	0.41
Jun-08-2015	46	27.6	2040	0.48
Jun-09-2015	51	26.7	1870	0.42
Jun-10-2015	65	25.1	1840	< 0.4
Jun-11-2015	70	25.0	1630	< 0.4
Jun-12-2015	58	27.5	1560	< 0.4
Jun-13-2015	45	28.8	1620	< 0.4

Jun-14-2015	51	27.6	1740	< 0.4
Jun-15-2015	45	26.3	1860	< 0.4
Jun-16-2015	51	25.4	1980	0.44
Jun-17-2015	44	25.9	2130	0.54
Jun-18-2015	57	26.1	2060	0.45
Jun-19-2015	53	24.5	1970	0.47
Jun-20-2015	48	24.8	1790	0.45
Jun-21-2015	51	25.3	1920	0.48
Jun-22-2015	41	24.0	1810	0.55
Jun-23-2015	42	24.4	2030	0.55
Jun-24-2015	42	25.4	2100	0.47
Jun-25-2015	38	27.0	1890	< 0.4
Jun-26-2015	41	27.4	1660	0.49
Jun-27-2015	35	26.6	1620	0.50
Jun-28-2015	31	26.0	1820	0.73
Jun-29-2015	26	26.0	1790	0.68
Jun-30-2015	31	26.5	1730	0.69

NOTES:

USGS data webpage

http://waterdata.usgs.gov/nwis/dv/?site_no=11274550&agency_cd=USGS&referred_module=sw

Data is provisional and subject to change

Zero discharge from San Luis Drain in May and June 2015

Table 11b. Monthly averages and totals

PARAMETER	Total Flow	Average Temperature	Average Specific Conductance	Average Selenium
DATA SOURCE	Calculated	Calculated	Calculated	Calculated
UNITS	acre-feet	°C	µS/cm	µg/L
Jan-15	23630	10.34	1496	0.67
Feb-15	19500	14.69	1669	0.88
Mar-15	16530	18.36	2083	1.30
Apr-15	11080	19.63	1925	0.57
May-15	7260	22.25	1796	0.43
Jun-15	3080	25.71	1855	0.52

NOTES:

Zero discharge from San Luis Drain in May and June 2015

Table 11c. Other water qulity monitoring in the San Joaquin River at Crows Landing (Station N)

	Physicals							
PARAMETER	**Dissolved Oxygen**	**pH**	**Specific Conductance**	**Temperature**	**Turbidity**	**Total Selenium**	**Total Boron**	**Total Molybdenum**
DATA SOURCE	**USBR**	**USBR**	**USBR**	**USBR**	**USBR**	**USBR**	**USBR**	**USBR**
UNITS	**mg/L**	**units**	**µS/cm**	**°C**	**NTU**	**ug/L**	**mg/L**	**ug/L**
Jan-09-2015	12.0	7.8	1528	10.5	9.4	0.67	1.1	
Jan-13-2015	12.7	7.8	1557	12.0	9.9	0.72	1.1	8
Jan-23-2015	13.5	7.8	1657	10.5	8.2	0.52	1.4	
Jan-30-2015	10.3	7.8	1812	12.5	13.2	0.97	1.6	
Feb-04-2015	11.4	7.9	1752	13.9	12.9	0.66	1.4	
Feb-13-2015	11.2	7.9	1924	16.1	25.7	0.88	1.4	
Feb-19-2015	9.4	7.8	1815	15.8		0.63	1.2	8
Feb-27-2015	9.9	7.9	1861	14.3	28.9	0.71	1.4	
Mar-06-2015	11.8	8.0	2332	15.6	25.0	1.51	1.8	
Mar-13-2015	8.0	7.8	2241	16.6	20.4	0.95	1.6	
Mar-20-2015						0.81	1.6	10
Mar-27-2015	10.1	8.1	2610	19.2	20.7	2.96 U	2.1	
Apr-01-2015	11.9	8.0	2201	15.8	20.8	0.66	1.3	9
Apr-10-2015	8.9	7.9	1999	16.6	25.9	< 0.4	1.1	
Apr-16-2015	9.4	7.9	2289	15.0	17.7	0.66	1.4	9
Apr-24-2015	9.2	8.0	2184	19.8	23.1	< 0.4	1.2	
May-01-2015	7.8	7.8	1980	20.7	26.8	0.51	1.0	
May-08-2015	13.1	8.1	2070	16.2	30.8	0.41	0.94	
May-15-2015	10.9	7.9	1784	17.7	22.7	0.47	0.72	
May-21-2015	9.9	7.9	1529	18.4	21.7	0.53	0.59	6
May-27-2015	13.5	8.0	1745	19.7	20.8	0.55	0.66	7
Jun-04-2015		7.5	1907	19.9	24.1	< 0.4	0.8	
Jun-11-2015	12.1	8.3	1674	24.5	22.9	< 0.4	0.6	
Jun-17-2015	5.0	7.6	2360	21.1	15.7	0.51	1.0	8
Jun-25-2015	6.5	7.5	2011	22.5	15.3	0.43	0.8	
Jun-29-2015	4.3	7.5	1935	22.3	22.3	0.77	0.8	5

NOTES:
Zero discharge from San Luis Drain in May and June 2015

	Nutrients				
PARAMETER	**Nitrates as N (Dissolved)**	**Ammonia as N**	**Total Kjeldahl Nitrogen**	**Total Phosphorous as P**	**Ortho-phosphate as P**
DATA SOURCE	**USBR**	**USBR**	**USBR**	**USBR**	**USBR**
UNITS	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
Jan-13-2015	2.20	0.13	0.77	0.12	0.12
Feb-19-2015	1.3 T	0.09	0.89	0.15	0.073 T
Apr-01-2015	1.00	0.17	1.10	0.18	0.12
Apr-16-2015	1.50	0.07	1.30	0.15	0.092 T
May-21-2015	2.20	< 0.050	0.91	0.16	0.080 L
May-27-2015	0.59	< 0.050	0.80	0.20	0.06
Jun-17-2015	1.70	0.21	0.90	0.12	0.05
Jun-29-2015	1.80	0.33	0.86	0.14	0.08

NOTES:
Zero discharge from San Luis Drain in May and June 2015

Table 12. Summary of fathead minnow (*Pimephales promelas*) larvae survival

LOCATION	Station B	Station C	Station D	Station F	Delta Mendota Canal	Laboratory Control
DATA SOURCE	SLDMWA	SLDMWA	SLDMWA	SLDMWA	SLDMWA	SLDMWA
UNITS	%	%	%	%	%	%
March-15	100.0	92.5	92.5	95.0	100.0	97.5
June-15	0.0	57.5	77.5	97.5	90.0	97.5

Table 13. Summary of fathead minnow (Pimephales promelas) larvae growth in 7-day tests

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
March-15	0.54	0.53	0.51	0.46	0.49	0.53
June-15	0.00	0.36	0.45	0.52	0.46	0.53

Table 14. Summary of Daphnia magna survival in 7-day tests

LOCATION	Station B	Station C	Station D	Station F	Delta Mendota Canal	Laboratory Control
DATA SOURCE	SLDMWA	SLDMWA	SLDMWA	SLDMWA	SLDMWA	SLDMWA
UNITS	%	%	%	%	%	%
March-15	70	80	100	90	90	90
June-15	80	50	80	90	100	70

Table 15. Summary of Daphnia magna reproduction in 7-day tests

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					
March-15	34.10	37.40	46.10	43.20	48.10	41.80
June-15	8.50	39.40	33.10	46.80	32.20	26.20

Table 16. Summary of Selenastrum capricornutum growth in 4-day tests

LOCATION	Station B	Station C	Station D	Station F	Delta Mendota Canal	Laboratory Control
DATA SOURCE	SLDMWA	SLDMWA	SLDMWA	SLDMWA	SLDMWA	SLDMWA
UNITS	10^6 cells/mL	10^6 cells/mL	10^6 cells/mL	10^6 cells/mL	10^6 cells/mL	10^6 cells/mL
March-15	3.24	6.48	4.55	5.29	6.76	1.36
June-15	3.63	4.37	5.31	1.58	4.42	1.83

Table 17. Summary of selenium concentrations in grab water samples collected at study stations for use in laboratory toxicity tests

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
30-Mar-15	32.7	<0.4	3.82	<0.8	<0.4
1-Apr-15	29.8	<0.4	2.20	<0.8	0.44
3-Apr-15	27.6	<0.4	0.98	<0.8	<0.4
8-Jun-15	6.5	<0.4	<0.8	<0.4	<0.4
10-Jun-15	7.0	<0.4	<0.8	<0.4	<0.4
12-Jun-15	7.0	<0.4	<0.8	<0.4	<0.4

Table 18. Summary of total suspended solids concentrations in grab water samples collected at study stations for use in laboratory toxicity tests

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
30-Mar-15	40	57	64	27	<5.0
1-Apr-15	39	41	57	25	8
3-Apr-15	38	53	44	28	6
8-Jun-15	120	12	24	45	6
10-Jun-15	140	33	28	37	<5.0
12-Jun-15	110	12	27	27	<5.0