

# GRASSLAND BYPASS PROJECT MONTHLY DATA REPORT



**2019**

**A Cooperative Effort By:**

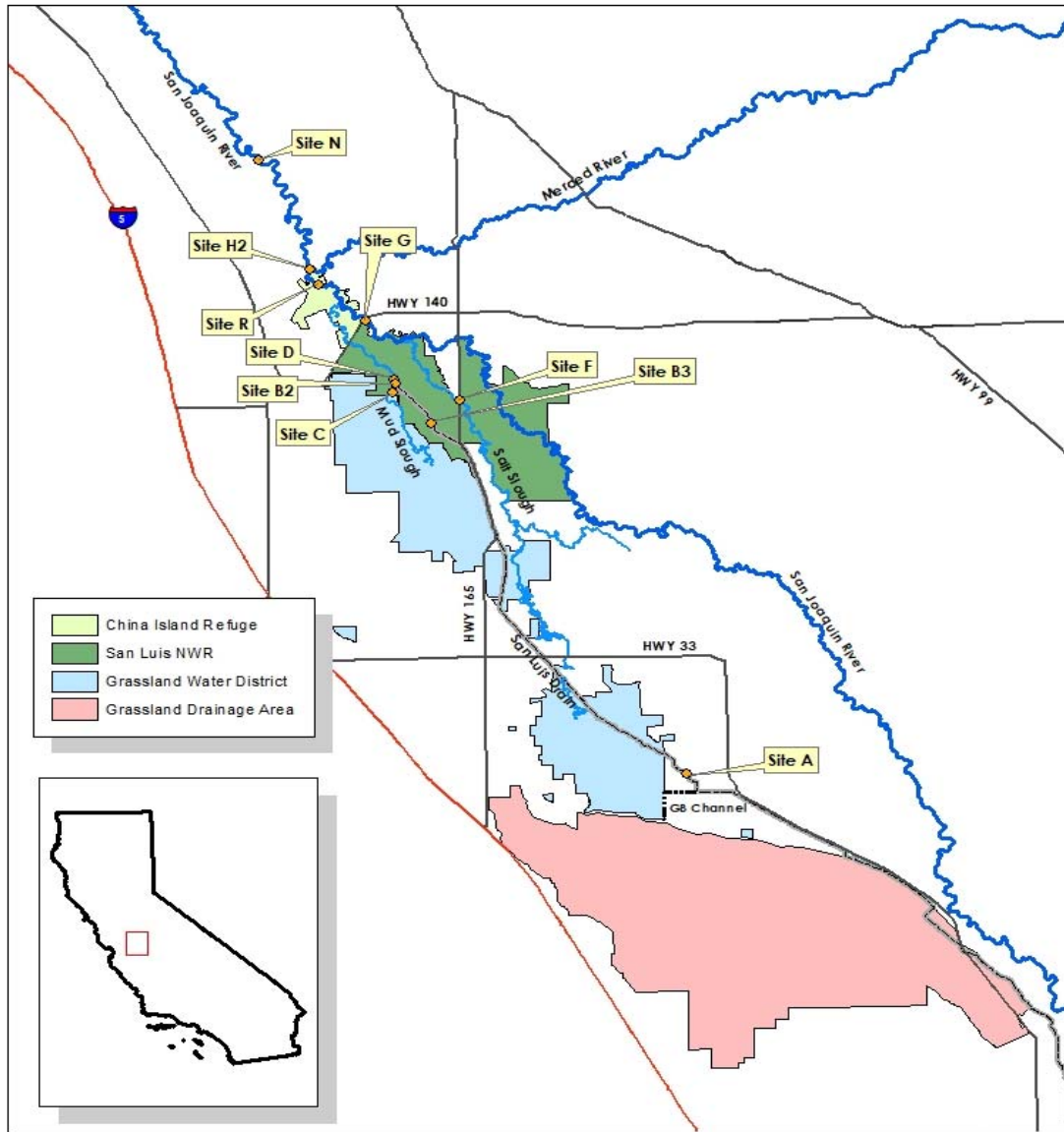
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Central Valley Regional Water Quality Control Board  
United States Fish and Wildlife Service  
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San Luis and Delta-Mendota Water Authority  
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United States Geological Survey  
San Francisco Estuary Institute

## **GRASSLAND BYPASS PROJECT MONTHLY DATA REPORT**

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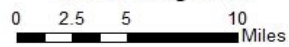
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Figure 1: Map of the Grassland Bypass Project area and sampling locations



### Grassland Bypass Project

Monitoring Sites



Grassland Bypass Project  
NAD 1983 California Zone 10  
U.S. Bureau of Reclamation

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

PARAMETER	Flow	Discharge	Total Selenium	Total Boron	Specific Conductance	Field Grab	Daily Specific Conductance	Daily Salt Load
DATA SOURCE	SLDMWA	SLDMWA	SLDMWA	SLDMWA	SLDMWA	SLDMWA	Estimated	Calculated
UNITS	cfs	ac ft	mg/L	mg/L	microm	microm	microm	tons
Jan-01-2019	0.2	0.3	0.0390	12.4	7,470	7,750	7,470	2.5
Jan-02-2019	0.1	0.2	0.0390	12.4	7,470	7,750	7,470	1.5
Jan-03-2019	0.1	0.1	0.0328	15.1	8,385	7,750	8,385	1.2
Jan-04-2019	0.2	0.3	0.0328	15.1	8,385	7,750	8,385	2.6
Jan-05-2019	1.5	3.0	0.0328	15.1	8,385	7,750	8,385	25.6
Jan-06-2019	8.1	16.0	0.0328	15.1	8,385	8,675	8,385	134.9
Jan-07-2019	7.5	14.8	0.0328	15.1	8,385	8,675	8,385	124.7
Jan-08-2019	2.4	4.9	0.0328	15.1	8,385	8,675	8,385	41.0
Jan-09-2019	0.3	0.5	0.0230	17.7	9,300	8,675	9,300	4.8
Jan-10-2019	0.1	0.1	0.0230	17.7	9,300	8,675	9,300	1.3
Jan-11-2019	0.0	0.1	0.0230	17.7	9,300	8,675	9,300	0.8
Jan-12-2019	0.0	0.1	0.0230	17.7	9,300	9,600	9,300	0.7
Jan-13-2019	0.0	0.1	0.0230	17.7	9,300	9,600	9,300	0.7
Jan-14-2019	0.0	0.1	0.0230	17.7	9,300	9,600	9,300	0.9
Jan-15-2019	13.0	25.8	0.0230	17.7	9,300	9,600	9,300	241.1
Jan-16-2019	50.4	99.9	0.0299	13.9	7,180	9,600	7,180	721.1
Jan-17-2019	78.5	155.8	0.0299	13.9	7,180	9,600	7,180	1,124.8
Jan-18-2019	17.1	33.9	0.0299	13.9	7,180	9,600	7,180	244.5
Jan-19-2019	0.5	1.0	0.0299	13.9	7,180	7,410	7,180	7.2
Jan-20-2019	0.3	0.7	0.0299	13.9	7,180	7,410	7,180	4.9
Jan-21-2019	3.4	6.8	0.0299	13.9	7,180	7,410	7,180	49.2
Jan-22-2019	14.5	28.7	0.0299	13.9	7,180	7,410	7,180	207.2
Jan-23-2019	0.8	1.5	0.0149	15.2	7,610	7,410	7,610	11.6
Jan-24-2019	0.4	0.7	0.0149	15.2	7,610	7,410	7,610	5.7
Jan-25-2019	0.3	0.6	0.0149	15.2	7,610	7,410	7,610	4.7
Jan-26-2019	0.3	0.6	0.0149	15.2	7,610	7,780	7,610	4.7
Jan-27-2019	0.3	0.6	0.0149	15.2	7,610	7,780	7,610	4.7
Jan-28-2019	0.3	0.6	0.0149	15.2	7,610	7,780	7,610	4.7
Jan-29-2019	7.8	15.4	0.0149	15.2	7,610	7,780	7,610	117.8
Jan-30-2019	31.9	63.2	0.0133	13.1	6,630	7,780	6,630	421.3
Jan-31-2019	46.2	91.7	0.0133	13.1	6,630	7,780	6,630	611.6
Feb-01-2019	54.2	107.6	0.0133	13.1	6,630	7,780	6,630	717.3
Feb-02-2019	49.3	97.7	0.0133	13.1	6,630	6,370	6,630	651.5
Feb-03-2019	40.4	80.1	0.0133	13.1	6,630	6,370	6,630	534.4
Feb-04-2019	59.6	118.2	0.0133	13.1	6,630	6,370	6,630	788.3
Feb-05-2019	69.2	137.3	0.0133	13.1	6,630	6,370	6,630	915.3
Feb-06-2019	24.6	48.8	0.0203	11.5	6,390	6,370	6,390	313.5
Feb-07-2019	0.8	1.5	0.0203	11.5	6,390	6,370	6,390	9.7
Feb-08-2019	0.5	0.9	0.0203	11.5	6,390	6,370	6,390	5.8
Feb-09-2019	22.5	44.5	0.0203	11.5	6,390	6,125	6,390	286.2
Feb-10-2019	57.1	113.2	0.0203	11.5	6,390	6,125	6,390	727.2
Feb-11-2019	47.5	94.1	0.0203	11.5	6,390	6,125	6,390	604.8
Feb-12-2019	26.4	52.4	0.0203	11.5	6,390	6,125	6,390	336.5
Feb-13-2019	55.8	110.8	0.0218	10.9	5,780	6,125	5,780	643.8
Feb-14-2019	22.0	43.5	0.0218	10.9	5,780	6,125	5,780	253.1
Feb-15-2019	0.1	0.2	0.0218	10.9	5,780	6,125	5,780	1.0
Feb-16-2019	0.0	0.0	0.0218	10.9	5,780	5,539	5,780	0.2
Feb-17-2019	0.0	0.0	0.0218	10.9	5,780	5,539	5,780	0.2
Feb-18-2019	0.0	0.0	0.0218	10.9	5,780	5,539	5,780	0.1
Feb-19-2019	0.0	0.0	0.0218	10.9	5,780	5,539	5,780	0.1
Feb-20-2019	0.0	0.0	0.0203	11.4	5,940	5,539	5,940	0.0
Feb-21-2019	0.0	0.0	0.0203	11.4	5,940	5,539	5,940	0.1
Feb-22-2019	0.0	0.0	0.0203	11.4	5,940	5,539	5,940	0.1
Feb-23-2019	0.0	0.0	0.0203	11.4	5,940	5,687	5,940	0.1
Feb-24-2019	0.0	0.1	0.0203	11.4	5,940	5,687	5,940	0.4
Feb-25-2019	0.1	0.2	0.0203	11.4	5,940	5,687	5,940	1.2
Feb-26-2019	0.1	0.3	0.0203	11.4	5,940	5,687	5,940	1.6
Feb-27-2019	0.1	0.1	0.0261	11.2	5,950	5,687	5,950	0.8
Feb-28-2019	0.2	0.3	0.0261	11.2	5,950	5,687	5,950	1.8
Mar-01-2019	15.0	29.8	0.0261	11.2	5,950	5,700	5,950	178.3
Mar-02-2019	56.4	111.9	0.0261	11.2	5,950	5,700	5,950	669.6
Mar-03-2019	95.0	188.4	0.0261	11.2	5,950	5,700	5,950	1,127.3
Mar-04-2019	83.4	165.5	0.0261	11.2	5,950	5,700	5,950	990.4
Mar-05-2019	54.2	107.6	0.0131	18.8	9,770	5,700	9,770	1,057.1
Mar-06-2019	26.9	53.4	0.0131	18.8	9,770	5,700	9,770	525.0
Mar-07-2019	0.5	1.1	0.0131	18.8	9,770	5,700	9,770	10.6
Mar-08-2019	1.9	3.7	0.0131	18.8	9,770	5,700	9,770	36.2
Mar-09-2019	7.6	15.2	0.0131	18.8	9,770	9,439	9,770	149.0
Mar-10-2019	9.6	19.1	0.0131	18.8	9,770	9,439	9,770	187.7
Mar-11-2019	8.9	17.6	0.0131	18.8	9,770	9,439	9,770	172.9
Mar-12-2019	5.2	10.3	0.0131	18.8	9,770	9,439	9,770	100.9
Mar-13-2019	0.3	0.5	0.0200	14.0	7,900	9,439	7,900	4.3
Mar-14-2019	0.2	0.4	0.0200	14.0	7,900	9,439	7,900	3.1
Mar-15-2019	0.1	0.3	0.0200	14.0	7,900	9,439	7,900	2.3
Mar-16-2019	0.1	0.2	0.0200	14.0	7,900	7,649	7,900	1.7
Mar-17-2019	0.1	0.2	0.0200	14.0	7,900	7,649	7,900	1.7
Mar-18-2019	0.1	0.2	0.0200	14.0	7,900	7,649	7,900	1.7
Mar-19-2019	0.1	0.1	0.0200	14.0	7,900	7,649	7,900	1.1
Mar-20-2019	0.0	0.0	0.0163	20.1	10,200	7,649	10,200	0.1
Mar-21-2019	0.0	0.0	0.0163	20.1	10,200	7,649	10,200	0.3
Mar-22-2019	3.9	7.7	0.0163	20.1	10,200	7,649	10,200	78.6
Mar-23-2019	13.1	26.0	0.0163	20.1	10,200	9,920	10,200	266.7
Mar-24-2019	13.2	26.2	0.0163	20.1	10,200	9,920	10,200	269.2
Mar-25-2019	4.0	8.0	0.0163	20.1	10,200	9,920	10,200	82.2
Mar-26-2019	0.2	0.4	0.0163	20.1	10,200	9,920	10,200	3.8
Mar-27-2019	0.0	0.0	0.0138	22.5	10,600	9,920	10,600	0.5
Mar-28-2019	0.0	0.0	0.0138	22.5	10,600	9,920	10,600	0.1

PARAMETER	Flow	Discharge	Total Selenium	Total Boron	Specific Conductance	Field Grab	Daily Specific Conductance	Daily Salt Load
DATA SOURCE	SLDMWA	SLDMWA	SLDMWA	SLDMWA	SLDMWA	SLDMWA	Estimated	Calculated
UNITS	cfs	ac ft	mg/L	mg/L	microm	microm	microm	tons
Mar-29-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Mar-30-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Mar-31-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Apr-01-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Apr-02-2019	0.0	0.0	0.0138	22.5	10,600	10,370	10,600	0.1
Apr-03-2019	0.0	0.0	0.0104	22.9	10,900	10,370	10,900	0.2
Apr-04-2019	0.1	0.1	0.0104	22.9	10,900	10,370	10,900	1.3
Apr-05-2019	0.1	0.2	0.0104	22.9	10,900	10,370	10,900	2.4
Apr-06-2019	0.1	0.2	0.0104	22.9	10,900	10,650	10,900	2.3
Apr-07-2019	0.1	0.2	0.0104	22.9	10,900	10,650	10,900	2.2
Apr-08-2019	0.0	0.1	0.0104	22.9	10,900	10,650	10,900	0.7
Apr-09-2019	0.0	0.0	0.0104	22.9	10,900	10,650	10,900	0.3
Apr-10-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Apr-11-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Apr-12-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Apr-13-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Apr-14-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Apr-15-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Apr-16-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Apr-17-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Apr-18-2019	0.0	0.0	0.0084	14.8	10,435	11,040	10,435	0.1
Apr-19-2019	0.0	0.0	0.0084	14.8	10,435	11,040	10,435	0.2
Apr-20-2019	0.0	0.0	0.0084	14.8	10,435	11,160	10,435	0.3
Apr-21-2019	0.0	0.0	0.0084	14.8	10,435	11,160	10,435	0.0
Apr-22-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Apr-23-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Apr-24-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Apr-25-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Apr-26-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Apr-27-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Apr-28-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Apr-29-2019	0.0	0.0	0.0084	14.8	10,435	11,090	10,435	0.1
Apr-30-2019	0.1	0.2	0.0084	14.8	10,435	11,090	10,435	2.5
May-01-2019	0.0	0.0	0.0084	6.7	9,970	11,090	9,970	0.3
May-02-2019	0.0	0.0	0.0084	6.7	9,970	11,090	9,970	0.3
May-03-2019	0.0	0.0	0.0084	6.7	9,970	10,434	9,970	0.3
May-04-2019	0.0	0.0	0.0084	6.7	9,970	9,778	9,970	0.3
May-05-2019	0.0	0.0	0.0084	6.7	9,970	9,778	9,970	0.3
May-06-2019	0.0	0.0	0.0084	6.7	9,970	9,778	9,970	0.3
May-07-2019	0.0	0.1	0.0084	6.7	9,970	9,778	9,970	0.8
May-08-2019	0.0	0.1	0.0088	21.9	9,870	9,778	9,870	0.8
May-09-2019	0.0	0.1	0.0088	21.9	9,870	9,778	9,870	0.8
May-10-2019	0.0	0.1	0.0088	21.9	9,870	9,778	9,870	0.8
May-11-2019	0.0	0.0	0.0088	21.9	9,870	9,749	9,870	0.3
May-12-2019	0.0	0.0	0.0088	21.9	9,870	9,720	9,870	0.3
May-13-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
May-14-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
May-15-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
May-16-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
May-17-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
May-18-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
May-19-2019	22.3	44.3	0.0315	12.0	7,180	6,895	7,180	319.7
May-20-2019	53.1	105.4	0.0315	12.0	7,180	6,895	7,180	761.1
May-21-2019	37.3	74.0	0.0315	12.0	7,180	6,895	7,180	534.2
May-22-2019	18.3	36.3	0.0243	15.3	8,210	6,895	8,210	299.4
May-23-2019	0.6	1.2	0.0243	15.3	8,210	6,895	8,210	9.7
May-24-2019	0.4	0.8	0.0243	15.3	8,210	6,895	8,210	6.3
May-25-2019	0.2	0.4	0.0243	15.3	8,210	7,969	8,210	3.4
May-26-2019	0.1	0.2	0.0243	15.3	8,210	7,969	8,210	1.4
May-27-2019	0.1	0.1	0.0243	15.3	8,210	7,969	8,210	0.8
May-28-2019	0.1	0.2	0.0243	15.3	8,210	7,969	8,210	1.5
May-29-2019	14.4	28.6	0.0381	13.8	7,470	7,969	7,470	214.9
May-30-2019	20.4	40.4	0.0381	13.8	7,470	7,969	7,470	303.5
May-31-2019	19.2	38.2	0.0381	13.8	7,470	7,969	7,470	286.6
Jun-01-2019	27.8	55.2	0.0381	13.8	7,470	7,270	7,470	414.9
Jun-02-2019	6.5	12.9	0.0381	13.8	7,470	7,270	7,470	97.0
Jun-03-2019	2.4	4.8	0.0381	13.8	7,470	7,270	7,470	36.3
Jun-04-2019	1.0	2.1	0.0381	13.8	7,470	7,270	7,470	15.6
Jun-05-2019	0.4	0.7	0.0366	15.5	7,840	7,270	7,840	5.8
Jun-06-2019	0.0	0.0	0.0366	15.5	7,840	7,270	7,840	0.2
Jun-07-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Jun-08-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Jun-09-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Jun-10-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Jun-11-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Jun-12-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Jun-13-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Jun-14-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Jun-15-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Jun-16-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Jun-17-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Jun-18-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Jun-19-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Jun-20-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Jun-21-2019	0.0	0.1	0.0192	20.1	10,000	8,825	10,000	0.8
Jun-22-2019	0.0	0.0	0.0192	20.1	10,000	9,900	10,000	0.3
Jun-23-2019	0.0	0.0	0.0192	20.1	10,000	9,900	10,000	0.3
Jun-24-2019	0.0	0.0	0.0192	20.1	10,000	9,900	10,000	0.3

PARAMETER	Flow	Discharge	Total Selenium	Total Boron	Specific Conductance	Field Grab	Daily Specific Conductance	Daily Salt Load
DATA SOURCE	SLDMWA	SLDMWA	SLDMWA	SLDMWA	SLDMWA	SLDMWA	Estimated	Calculated
UNITS	cfs	ac ft	mg/L	mg/L	microm	microm	microm	tons
Jun-25-2019	0.0	0.1	0.0192	20.1	10,000	9,900	10,000	0.8
Jun-26-2019	0.0	0.0	0.0131	25.8	10,400	9,900	10,400	0.3
Jun-27-2019	0.0	0.0	0.0131	25.8	10,400	9,900	10,400	0.3
Jun-28-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Jun-29-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Jun-30-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Jul-01-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Jul-02-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Jul-03-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Jul-04-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Jul-05-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Jul-06-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Jul-07-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Jul-08-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Jul-09-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Jul-10-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Jul-11-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Jul-12-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Jul-13-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Jul-14-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Jul-15-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Jul-16-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Jul-17-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Jul-18-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Jul-19-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Jul-20-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Jul-21-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Jul-22-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Jul-23-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Jul-24-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Jul-25-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Jul-26-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Jul-27-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Jul-28-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Jul-29-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Jul-30-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Jul-31-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Aug-01-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Aug-02-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Aug-03-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Aug-04-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Aug-05-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Aug-06-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Aug-07-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Aug-08-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Aug-09-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Aug-10-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Aug-11-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Aug-12-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Aug-13-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Aug-14-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Aug-15-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Aug-16-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Aug-17-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Aug-18-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Aug-19-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Aug-20-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Aug-21-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Aug-22-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Aug-23-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Aug-24-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Aug-25-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Aug-26-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Aug-27-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Aug-28-2019	0.0	0.1	0.0067	29.0	0	13,960	0	0.0
Aug-29-2019	0.0	0.0	0.0067	29.0	0	13,960	0	0.0
Aug-30-2019	0.0	0.1	0.0067	29.0	0	13,960	0	0.0
Aug-31-2019	0.0	0.1	0.0067	29.0	0	13,030	0	0.0
Sep-01-2019	0.0	0.1	0.0067	29.0	0	13,030	0	0.0
Sep-02-2019	0.0	0.1	0.0067	29.0	0	13,030	0	0.0
Sep-03-2019	0.0	0.1	0.0064	29.0	13,300	13,030	13,300	1.0
Sep-04-2019	0.1	0.1	0.0056	32.8	0	13,030	0	0.0
Sep-05-2019	0.1	0.1	0.0056	32.8	0	13,030	0	0.0
Sep-06-2019	0.1	0.1	0.0056	32.8	0	13,030	0	0.0
Sep-07-2019	0.1	0.1	0.0056	32.8	0	13,835	0	0.0
Sep-08-2019	0.0	0.1	0.0056	32.8	0	13,835	0	0.0
Sep-09-2019	0.0	0.1	0.0056	32.8	0	13,835	0	0.0
Sep-10-2019	0.0	0.1	0.0049	32.8	0	13,835	0	0.0
Sep-11-2019	0.0	0.0	0.0048	32.8	0	13,835	0	0.0
Sep-12-2019	0.0	0.0	0.0048	32.8	0	13,835	0	0.0
Sep-13-2019	0.1	0.1	0.0048	32.8	0	13,835	0	0.0
Sep-14-2019	0.0	0.1	0.0048	32.8	0	14,640	0	0.0
Sep-15-2019	0.0	0.1	0.0048	32.8	0	14,640	0	0.0
Sep-16-2019	0.0	0.0	0.0048	32.8	0	14,640	0	0.0
Sep-17-2019	0.0	0.1	0.0047	36.6	0	14,640	0	0.0
Sep-18-2019	0.0	0.0	0.0045	36.6	0	14,640	0	0.0
Sep-19-2019	0.0	0.0	0.0045	36.6	0	14,640	0	0.0
Sep-20-2019	0.0	0.0	0.0045	36.6	0	14,640	0	0.0

PARAMETER	Flow	Discharge	Total Selenium	Total Boron	Specific Conductance	Field Grab	Daily Specific Conductance	Daily Salt Load
DATA SOURCE	SLDMWA	SLDMWA	SLDMWA	SLDMWA	SLDMWA	SLDMWA	Estimated	Calculated
UNITS	cfs	ac ft	mg/L	mg/L	microm	microm	microm	tons
Sep-21-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Sep-22-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Sep-23-2019	0.0	0.0	0.0045	36.6	0	12,670	0	0.0
Sep-24-2019	0.0	0.0	0.0045	36.6	0	12,670	0	0.0
Sep-25-2019	0.1	0.1	0.0045	36.6	0	12,670	0	0.0
Sep-26-2019	0.1	0.2	0.0045	36.6	0	12,670	0	0.0
Sep-27-2019	0.1	0.1	0.0045	36.6	0	12,670	0	0.0
Sep-28-2019	0.1	0.1	0.0045	36.6	0	12,670	0	0.0
Sep-29-2019	0.0	0.1	0.0045	36.6	0	0	0	0.0
Sep-30-2019	0.0	0.1	0.0045	36.6	0	0	0	0.0
Oct-01-2019	0.0	0.1	0.0042	36.6	14,700	11,340	14,700	1.1
Oct-02-2019	0.0	0.1	0.0038	26.7	11,400	11,340	11,400	0.9
Oct-03-2019	0.0	0.1	0.0038	26.7	11,400	11,340	11,400	0.9
Oct-04-2019	0.0	0.0	0.0038	26.7	11,400	11,340	11,400	0.3
Oct-05-2019	0.0	0.0	0.0038	26.7	11,400	11,340	11,400	0.3
Oct-06-2019	0.0	0.0	0.0038	26.7	11,400	11,340	11,400	0.3
Oct-07-2019	0.0	0.1	0.0038	26.7	11,400	11,340	11,400	0.9
Oct-08-2019	0.0	0.0	0.0033	26.7	11,400	11,340	11,400	0.3
Oct-09-2019	0.0	0.1	0.0033	24.1	10,300	11,340	10,300	0.8
Oct-10-2019	0.0	0.0	0.0033	24.1	10,300	11,340	10,300	0.3
Oct-11-2019	0.0	0.1	0.0033	24.1	10,300	11,340	10,300	0.8
Oct-12-2019	0.2	0.3	0.0033	24.1	10,300	10,210	10,300	3.2
Oct-13-2019	0.1	0.2	0.0033	24.1	10,300	10,210	10,300	2.3
Oct-14-2019	0.1	0.2	0.0033	24.1	10,300	10,210	10,300	2.3
Oct-15-2019	0.1	0.2	0.0033	24.1	10,300	10,210	10,300	2.3
Oct-16-2019	0.1	0.2	0.0036	18.3	8,560	10,210	8,560	1.9
Oct-17-2019	0.1	0.2	0.0036	18.3	8,560	10,210	8,560	1.9
Oct-18-2019	0.1	0.2	0.0036	18.3	8,560	10,210	8,560	1.9
Oct-19-2019	0.1	0.2	0.0036	18.3	8,560	9,196	8,560	1.9
Oct-20-2019	0.0	0.1	0.0036	18.3	8,560	9,196	8,560	0.7
Oct-21-2019	0.0	0.1	0.0036	18.3	8,560	9,196	8,560	0.7
Oct-22-2019	0.1	0.1	0.0039	18.3	8,560	9,196	8,560	1.2
Oct-23-2019	0.0	0.0	0.0037	20.5	9,240	9,196	9,240	0.3
Oct-24-2019	0.0	0.0	0.0037	20.5	9,240	9,196	9,240	0.3
Oct-25-2019	0.0	0.0	0.0037	20.5	9,240	9,196	9,240	0.3
Oct-26-2019	0.0	0.0	0.0037	20.5	9,240	9,196	9,240	0.3
Oct-27-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Oct-28-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Oct-29-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Oct-30-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Oct-31-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Nov-01-2019	0.0	0.0	0.0033	17.1	7,560	7,394	7,560	0.2
Nov-02-2019	0.0	0.1	0.0033	17.1	7,560	7,394	7,560	0.6
Nov-03-2019	0.0	0.0	0.0033	17.1	7,560	7,394	7,560	0.2
Nov-04-2019	0.0	0.0	0.0033	17.1	7,560	7,394	7,560	0.2
Nov-05-2019	0.0	0.0	0.0030	17.1	7,560	7,394	7,560	0.2
Nov-06-2019	0.0	0.0	0.0032	17.2	7,830	7,394	7,830	0.2
Nov-07-2019	0.0	0.0	0.0032	17.2	7,830	7,394	7,830	0.2
Nov-08-2019	0.1	0.1	0.0032	17.2	7,830	7,394	7,830	1.1
Nov-09-2019	0.1	0.2	0.0032	17.2	7,830	7,650	7,830	1.7
Nov-10-2019	0.1	0.1	0.0032	17.2	7,830	7,650	7,830	1.1
Nov-11-2019	0.1	0.1	0.0032	17.2	7,830	7,650	7,830	1.1
Nov-12-2019	0.1	0.1	0.0034	17.2	7,830	7,650	7,830	1.1
Nov-13-2019	0.0	0.0	0.0117	17.5	8,355	7,650	8,355	0.2
Nov-14-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Nov-15-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Nov-16-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Nov-17-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Nov-18-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Nov-19-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Nov-20-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Nov-21-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Nov-22-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Nov-23-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Nov-24-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Nov-25-2019	0.0	0.0	0.0117	17.8	8,880	7,190	8,880	0.2
Nov-26-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Nov-27-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Nov-28-2019	0.0	0.0	NA	NA	NA	NA	NA	0.0
Nov-29-2019	0.0	0.0	0.0117	17.8	8,880	7,190	8,880	0.2
Nov-30-2019	0.0	0.1	0.0117	17.8	8,880	7,190	8,880	0.7
Dec-01-2019	0.1	0.2	0.0117	17.8	8,880	7,190	8,880	1.9
Dec-02-2019	92.5	183.6	0.0117	17.8	8,880	7,190	8,880	1,639.3
Dec-03-2019	90.7	179.9	0.0199	17.8	8,880	7,190	8,880	1,606.6
Dec-04-2019	45.9	91.1	0.0213	14.4	7,480	7,190	7,480	685.0
Dec-05-2019	84.0	166.7	0.0213	14.4	7,480	7,190	7,480	1,254.0
Dec-06-2019	53.9	107.0	0.0213	14.4	7,480	7,190	7,480	804.8
Dec-07-2019	27.8	55.2	0.0213	14.4	7,480	7,190	7,480	415.5
Dec-08-2019	25.4	50.4	0.0213	14.4	7,480	7,190	7,480	379.1
Dec-09-2019	32.5	64.5	0.0213	14.4	7,480	7,190	7,480	485.1
Dec-10-2019	4.6	9.2	0.0213	14.4	7,480	7,190	7,480	68.9
Dec-11-2019	3.8	7.5	0.0227	14.4	7,480	7,190	7,480	56.1
Dec-12-2019	10.3	20.5	0.0236	14.1	7,480	7,190	7,480	154.3
Dec-13-2019	12.8	25.4	0.0236	14.1	7,480	7,190	7,480	190.9
Dec-14-2019	12.8	25.4	0.0236	14.1	7,480	7,190	7,480	190.9
Dec-15-2019	10.9	21.7	0.0236	14.1	7,480	7,190	7,480	163.2
Dec-16-2019	9.8	19.4	0.0236	14.1	7,480	7,190	7,480	145.6
Dec-17-2019	8.6	17.1	0.0245	14.1	7,480	6,981	7,480	128.7

PARAMETER	Flow	Discharge	Total Selenium	Total Boron	Specific Conductance	Field Grab	Daily Specific Conductance	Daily Salt Load
DATA SOURCE	SLDMWA	SLDMWA	SLDMWA	SLDMWA	SLDMWA	SLDMWA	Estimated	Calculated
UNITS	cfs	ac ft	mg/L	mg/L	microm	microm	microm	tons
Dec-18-2019	7.0	13.9	0.0260	12.2	7,160	7,019	7,160	100.3
Dec-19-2019	7.5	15.0	0.0260	12.2	7,160	7,019	7,160	107.7
Dec-20-2019	8.1	16.0	0.0260	12.2	7,160	7,019	7,160	115.4
Dec-21-2019	7.0	13.9	0.0260	12.2	7,160	7,019	7,160	100.3
Dec-22-2019	6.8	13.4	0.0260	12.2	7,160	7,019	7,160	96.6
Dec-23-2019	6.3	12.4	0.0274	12.2	7,160	7,057	7,160	89.4
Dec-24-2019	17.8	35.4	0.0221	16.8	8,730	7,864	8,730	310.7
Dec-25-2019	9.2	18.2	0.0221	16.8	8,730	7,864	8,730	159.9
Dec-26-2019	5.8	11.5	0.0221	16.8	8,730	7,864	8,730	100.5
Dec-27-2019	24.2	48.0	0.0221	16.8	8,730	7,864	8,730	421.7
Dec-28-2019	21.1	41.9	0.0221	16.8	8,730	7,864	8,730	368.0
Dec-29-2019	12.8	25.4	0.0221	16.8	8,730	7,864	8,730	222.8
Dec-30-2019	11.5	22.9	0.0221	16.8	8,730	7,864	8,730	201.0
Dec-31-2019	12.5	24.7	0.0168	16.8	8,730	8,671	8,730	217.3

NOTES: See Table 14 for explanation of footnotes and agency abbreviations

Table 1b. Monthly averages and totals

PARAMETER	Total Flow	Discharge	Average Selenium Concentration	Average Boron	Average Specific Conductance (*)	Average Field Grab	Average Daily Specific Conductance	Salt Load	Salt Load Objective (Wet Year)**
DATA SOURCE	Calculated	Calculated	Calculated	Calculated	Calculated	Calculated	Calculated	Calculated	UA3
UNITS	cfs	acre-feet	mg/L	mg/L	microm	microm	microm	tons	tons
Jan-19	9.5	567.8	0.0246	15.2	7,989	8,293	7,989	4,128	12,396
Feb-19	18.9	1,051.9	0.0198	11.6	6,136	6,005	6,136	6,795	19,618
Mar-19	12.9	793.9	0.0175	17.1	8,924	8,093	8,924	5,922	23,241
Apr-19	0.0	1.2	0.0098	19.4	10,679	10,761	10,679	13	17,104
May-19	6.0	370.4	0.0192	13.6	8,822	8,707	8,822	2,748	16,762
Jun-19	1.3	76.1	0.0268	18.3	8,951	8,603	8,951	573	17,339
Jul-19	0.0	0.0	N/A	N/A	N/A	N/A	N/A	0	17,521
Aug-19	0.0	0.3	0.0067	29.0	0	13,728	0	0	15,549
Sep-19	0.0	2.4	0.0050	34.0	475	12,626	475	1	8,214
Oct-19	0.0	2.8	0.0036	23.2	10,134	10,376	10,134	28	6,308
Nov-19	0.0	1.2	0.0054	17.3	7,975	7,436	7,975	9	6,555
Dec-19	22.1	1,357.3	0.0221	14.9	7,876	7,351	7,876	10,982	7,240
<b>Calendar Year Totals/Avgs:</b>		4,225	0.015	19.4	7,087	9,271	7,087	31,198	47,400

NOTES: \* Flow-weighted concentrations

\*\* Discharge may occur during any month(s) of the year, as long as such discharge does not exceed the applicable monthly TMML salt load value and the cumulative monthly discharges do not exceed the annual salt load value.



**Table 2a. Water quality 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)	Discharge (B2)	Total Selenium (B3)	Boron (B3)	Specific Conductance (B2)	Daily Selenium	Selenium Load
DATA SOURCE	SLDMWA	SLDMWA	SLDMWA	SLDMWA	SLDMWA	Estimated	Calculated
UNITS	cfs	ac ft	mg/L	mg/L	microm	mg/L	lbs
Jan-01-2019	21.5	42.7	0.0138	7.5	4,900.0	0.0138	1.6
Jan-02-2019	19.8	39.4	0.0084	5.4	3,840.0	0.0084	0.9
Jan-03-2019	18.4	36.5	0.0058	4.3	3,160.0	0.0058	0.6
Jan-04-2019	18.5	36.8	0.0040	3.6	2,810.0	0.0040	0.4
Jan-05-2019	19.8	39.2	0.0028	3.3	2,650.0	0.0028	0.3
Jan-06-2019	21.5	42.7	0.0021	3.1	2,600.0	0.0021	0.2
Jan-07-2019	20.7	41.1	0.0021	3.0	2,590.0	0.0021	0.2
Jan-08-2019	24.4	48.5	0.0039	3.9	2,990.0	0.0039	0.5
Jan-09-2019	25.5	50.6	0.0033	4.3	3,140.0	0.0033	0.5
Jan-10-2019	22.3	44.2	0.0057	4.6	3,510.0	0.0057	0.7
Jan-11-2019	39.6	78.6	0.0024	3.6	2,910.0	0.0024	0.5
Jan-12-2019	22.9	45.5	0.0021	3.1	2,590.0	0.0021	0.3
Jan-13-2019	21.0	41.6	0.0022	3.0	2,560.0	0.0022	0.2
Jan-14-2019	19.3	38.3	0.0021	2.9	2,430.0	0.0021	0.2
Jan-15-2019	22.7	45.0	0.0026	3.6	2,760.0	0.0026	0.3
Jan-16-2019	39.2	77.7	0.0020	3.5	2,770.0	0.0020	0.4
Jan-17-2019	97.4	193.1	0.0088	9.6	5,700.0	0.0088	4.6
Jan-18-2019	125.6	249.1	0.0235	14.1	7,660.0	0.0235	15.9
Jan-19-2019	79.5	157.6	0.0143	15.6	7,830.0	0.0143	6.1
Jan-20-2019	49.5	98.2	0.0132	12.6	6,600.0	0.0132	3.5
Jan-21-2019	41.6	82.5	0.0089	10.1	5,550.0	0.0089	2.0
Jan-22-2019	32.8	65.0	0.0052	7.3	4,330.0	0.0052	0.9
Jan-23-2019	31.3	62.1	0.0032	5.3	3,460.0	0.0032	0.5
Jan-24-2019	24.5	48.6	0.0029	5.2	3,450.0	0.0029	0.4
Jan-25-2019	21.2	42.1	0.0053	8.7	5,100.0	0.0053	0.6
Jan-26-2019	21.0	41.7	0.0084	7.1	4,400.0	0.0084	0.9
Jan-27-2019	21.0	41.6	0.0061	5.0	3,440.0	0.0061	0.7
Jan-28-2019	21.1	41.9	0.0043	4.1	3,040.0	0.0043	0.5
Jan-29-2019	21.3	42.3	0.0032	3.9	2,910.0	0.0032	0.4
Jan-30-2019	26.2	52.1	0.0025	3.8	2,480.0	0.0025	0.4
Jan-31-2019	49.7	98.5	0.0040	6.2	4,110.0	0.0040	1.1
Feb-01-2019	73.8	146.4	0.0195	12.1	6,810.0	0.0195	7.8
Feb-02-2019	76.0	150.7	0.0149	13.7	7,060.0	0.0149	6.1
Feb-03-2019	66.3	131.6	0.0167	11.2	6,180.0	0.0167	6.0
Feb-04-2019	63.7	126.4	0.0150	10.8	6,050.0	0.0150	5.2
Feb-05-2019	80.7	160.0	0.0156	11.5	6,260.0	0.0156	6.8
Feb-06-2019	82.6	163.9	0.0131	13.3	6,780.0	0.0131	5.8
Feb-07-2019	48.8	96.9	0.0143	11.3	5,890.0	0.0143	3.8
Feb-08-2019	27.3	54.1	0.0142	9.0	5,060.0	0.0142	2.1
Feb-09-2019	25.4	50.4	0.0077	5.8	3,720.0	0.0077	1.1
Feb-10-2019	43.3	85.9	0.0049	3.4	3,160.0	0.0049	1.2
Feb-11-2019	71.1	141.1	0.0163	11.4	6,380.0	0.0163	6.3
Feb-12-2019	61.6	122.3	0.0130	11.6	6,080.0	0.0130	4.3
Feb-13-2019	48.2	95.7	0.0126	10.1	5,600.0	0.0126	3.3
Feb-14-2019	38.3	76.0	0.0118	8.2	4,930.0	0.0118	2.4
Feb-15-2019	35.1	69.7	0.0105	7.1	4,530.0	0.0105	2.0
Feb-16-2019	34.3	68.1	0.0082	5.3	3,680.0	0.0082	1.5
Feb-17-2019	35.0	69.3	0.0072	4.2	3,140.0	0.0072	1.4
Feb-18-2019	33.9	67.2	0.0046	3.8	2,950.0	0.0046	0.8
Feb-19-2019	34.3	68.1	0.0029	3.8	3,000.0	0.0029	0.5
Feb-20-2019	28.7	56.9	0.0024	3.8	3,040.0	0.0024	0.4
Feb-21-2019	21.3	42.2	0.0024	3.8	3,040.0	0.0024	0.3
Feb-22-2019	23.7	46.9	0.0022	3.9	3,100.0	0.0022	0.3
Feb-23-2019	22.9	45.4	0.0019	3.7	3,060.0	0.0019	0.2
Feb-24-2019	22.5	44.7	0.0021	3.6	2,940.0	0.0021	0.3
Feb-25-2019	22.5	44.6	0.0023	3.6	3,010.0	0.0023	0.3
Feb-26-2019	21.3	42.3	0.0021	3.6	2,970.0	0.0021	0.2
Feb-27-2019	19.8	39.3	0.0024	3.6	2,990.0	0.0024	0.3
Feb-28-2019	18.1	35.8	0.0021	3.6	2,910.0	0.0021	0.2
Mar-01-2019	18.4	36.6	0.0022	3.6	2,920.0	0.0022	0.2
Mar-02-2019	27.1	53.7	0.0023	3.6	2,970.0	0.0023	0.3
Mar-03-2019	71.8	142.4	0.0131	11.2	6,500.0	0.0131	5.1
Mar-04-2019	106.1	210.4	0.0173	16.1	7,760.0	0.0173	9.9
Mar-05-2019	97.3	192.9	0.0215	11.4	5,920.0	0.0215	11.3
Mar-06-2019	82.2	163.0	0.0223	9.1	5,140.0	0.0223	9.9
Mar-07-2019	55.1	109.2	0.0237	8.7	5,110.0	0.0237	7.0
Mar-08-2019	32.8	65.1	0.0221	7.2	4,600.0	0.0221	3.9
Mar-09-2019	31.2	61.8	0.0149	5.5	3,840.0	0.0149	2.5
Mar-10-2019	35.5	70.4	0.0092	4.4	3,340.0	0.0092	1.8
Mar-11-2019	36.8	73.1	0.0069	4.7	3,550.0	0.0069	1.4
Mar-12-2019	37.1	73.6	0.0123	5.8	4,060.0	0.0123	2.5
Mar-13-2019	31.1	61.7	0.0101	8.5	5,300.0	0.0101	1.7
Mar-14-2019	26.3	52.1	0.0079	8.5	5,120.0	0.0079	1.1
Mar-15-2019	20.9	41.4	0.0061	7.8	4,700.0	0.0061	0.7
Mar-16-2019	20.2	40.0	0.0046	6.4	4,180.0	0.0046	0.5
Mar-17-2019	19.4	38.4	0.0036	5.3	3,740.0	0.0036	0.4
Mar-18-2019	18.9	37.5	0.0034	4.7	3,470.0	0.0034	0.3
Mar-19-2019	18.6	36.8	0.0032	4.2	3,240.0	0.0032	0.3
Mar-20-2019	18.8	37.2	0.0025	3.9	3,140.0	0.0025	0.3

PARAMETER	Flow (B2)	Discharge (B2)	Total Selenium (B3)	Boron (B3)	Specific Conductance (B2)	Daily Selenium	Selenium Load
DATA SOURCE	SLDMWA	SLDMWA	SLDMWA	SLDMWA	SLDMWA	Estimated	Calculated
UNITS	cfs	ac ft	mg/L	mg/L	microm	mg/L	lbs
Mar-21-2019	18.1	35.9	0.0017	3.8	3,110.0	0.0017	0.2
Mar-22-2019	18.3	36.3	0.0023	3.8	3,080.0	0.0023	0.2
Mar-23-2019	19.8	39.4	0.0020	3.6	2,990.0	0.0020	0.2
Mar-24-2019	28.7	56.9	0.0021	3.9	3,190.0	0.0021	0.3
Mar-25-2019	29.3	58.1	0.0040	6.2	4,380.0	0.0040	0.6
Mar-26-2019	23.2	46.1	0.0106	11.2	6,440.0	0.0106	1.3
Mar-27-2019	18.7	37.2	0.0081	9.7	5,520.0	0.0081	0.8
Mar-28-2019	16.9	33.6	0.0063	8.3	5,010.0	0.0063	0.6
Mar-29-2019	16.0	31.6	0.0048	7.3	4,520.0	0.0048	0.4
Mar-30-2019	15.3	30.3	0.0000	NA	NA	0.0045	0.4
Mar-31-2019	14.8	29.4	0.0043	6.2	4,070.0	0.0043	0.3
Apr-01-2019	13.9	27.5	0.0036	5.4	3,770.0	0.0036	0.3
Apr-02-2019	12.5	24.8	0.0033	NA	NA	0.0033	0.2
Apr-03-2019	11.4	22.6	0.0029	NA	NA	0.0029	0.2
Apr-04-2019	10.7	21.2	0.0028	NA	NA	0.0028	0.2
Apr-05-2019	9.9	19.7	0.0028	NA	NA	0.0028	0.1
Apr-06-2019	9.6	19.1	0.0028	NA	NA	0.0028	0.1
Apr-07-2019	9.1	18.1	0.0027	NA	NA	0.0027	0.1
Apr-08-2019	8.8	17.5	0.0028	NA	NA	0.0028	0.1
Apr-09-2019	7.9	15.6	0.0029	NA	NA	0.0029	0.1
Apr-10-2019	7.5	14.8	0.0029	NA	NA	0.0029	0.1
Apr-11-2019	8.1	16.2	0.0028	NA	NA	0.0028	0.1
Apr-12-2019	7.3	14.6	0.0029	NA	NA	0.0029	0.1
Apr-13-2019	7.6	15.2	0.0028	NA	NA	0.0028	0.1
Apr-14-2019	7.3	14.6	0.0031	NA	NA	0.0031	0.1
Apr-15-2019	7.0	13.9	0.0029	NA	NA	0.0029	0.1
Apr-16-2019	6.7	13.4	0.0030	NA	NA	0.0030	0.1
Apr-17-2019	6.5	12.9	0.0031	NA	NA	0.0031	0.1
Apr-18-2019	6.6	13.2	0.0029	NA	NA	0.0029	0.1
Apr-19-2019	6.5	13.0	0.0031	NA	NA	0.0031	0.1
Apr-20-2019	6.4	12.8	0.0030	NA	NA	0.0030	0.1
Apr-21-2019	6.3	12.5	0.0032	NA	NA	0.0032	0.1
Apr-22-2019	6.3	12.6	0.0033	NA	NA	0.0033	0.1
Apr-23-2019	6.3	12.6	0.0033	NA	NA	0.0033	0.1
Apr-24-2019	6.1	12.2	0.0033	NA	NA	0.0033	0.1
Apr-25-2019	6.0	11.9	0.0033	NA	NA	0.0033	0.1
Apr-26-2019	5.9	11.6	0.0033	NA	NA	0.0033	0.1
Apr-27-2019	5.8	11.5	0.0034	NA	NA	0.0034	0.1
Apr-28-2019	5.6	11.1	0.0034	NA	NA	0.0034	0.1
Apr-29-2019	5.4	10.7	0.0035	NA	NA	0.0035	0.1
Apr-30-2019	5.5	10.8	0.0036	3.4	2,940.0	0.0036	0.1
May-01-2019	3.9	7.7	0.0035	3.4	2,910.0	0.0035	0.1
May-02-2019	3.9	7.7	0.0035	3.3	2,860.0	0.0035	0.1
May-03-2019	3.9	7.7	0.0035	3.2	2,820.0	0.0035	0.1
May-04-2019	3.9	7.7	0.0036	3.2	2,790.0	0.0036	0.1
May-05-2019	3.9	7.7	0.0035	3.0	2,730.0	0.0035	0.1
May-06-2019	3.9	7.7	0.0036	3.1	2,720.0	0.0036	0.1
May-07-2019	3.9	7.7	0.0034	3.7	2,990.0	0.0034	0.1
May-08-2019	3.9	7.7	0.0035	3.7	2,990.0	0.0035	0.1
May-09-2019	3.9	7.7	0.0036	3.8	2,990.0	0.0036	0.1
May-10-2019	3.9	7.7	0.0035	3.8	2,990.0	0.0035	0.1
May-11-2019	3.9	7.7	0.0034	3.7	2,990.0	0.0034	0.1
May-12-2019	2.4	4.7	0.0034	3.7	2,990.0	0.0034	0.0
May-13-2019	3.9	7.7	0.0035	3.7	2,990.0	0.0035	0.1
May-14-2019	3.9	7.7	0.0031	4.0	3,550.0	0.0031	0.1
May-15-2019	3.9	7.7	0.0030	4.1	3,660.0	0.0030	0.1
May-16-2019	4.2	8.3	0.0034	4.1	3,620.0	0.0034	0.1
May-17-2019	4.2	8.3	0.0030	4.0	3,580.0	0.0030	0.1
May-18-2019	3.9	7.7	0.0033	3.9	3,470.0	0.0033	0.1
May-19-2019	5.6	11.0	0.0032	3.6	3,290.0	0.0032	0.1
May-20-2019	7.7	15.3	0.0035	3.5	3,170.0	0.0035	0.1
May-21-2019	68.7	136.2	0.0097	9.7	6,650.0	0.0097	3.6
May-22-2019	39.9	79.1	0.0193	15.6	8,960.0	0.0193	4.1
May-23-2019	21.4	42.5	0.0189	15.7	8,890.0	0.0189	2.2
May-24-2019	12.1	24.0	0.0187	15.2	8,390.0	0.0187	1.2
May-25-2019	6.7	13.3	0.0187	13.8	7,680.0	0.0187	0.7
May-26-2019	5.6	11.0	0.0193	12.2	7,010.0	0.0193	0.6
May-27-2019	5.9	11.8	0.0164	10.4	6,230.0	0.0164	0.5
May-28-2019	5.6	11.0	0.0123	9.7	5,440.0	0.0123	0.4
May-29-2019	5.9	11.8	0.0100	8.6	4,870.0	0.0100	0.3
May-30-2019	5.9	11.8	0.0091	7.4	4,510.0	0.0091	0.3
May-31-2019	8.7	17.2	0.0085	6.5	4,060.0	0.0085	0.4
Jun-01-2019	25.2	50.0	0.0087	10.0	6,270.0	0.0087	1.2
Jun-02-2019	31.0	61.5	0.0281	12.2	6,700.0	0.0281	4.7
Jun-03-2019	21.2	42.0	0.0341	11.5	4,400.0	0.0341	3.9
Jun-04-2019	13.8	27.4	0.0358	11.6	6,390.0	0.0358	2.7
Jun-05-2019	7.1	14.0	0.0304	11.3	6,190.0	0.0304	1.2
Jun-06-2019	5.6	11.0	0.0253	10.9	6,100.0	0.0253	0.8
Jun-07-2019	4.5	9.0	0.0202	10.8	6,040.0	0.0202	0.5
Jun-08-2019	4.2	8.3	0.0158	10.6	5,960.0	0.0158	0.4
Jun-09-2019	3.6	7.0	0.0129	10.2	5,780.0	0.0129	0.2

PARAMETER	Flow (B2)	Discharge (B2)	Total Selenium (B3)	Boron (B3)	Specific Conductance (B2)	Daily Selenium	Selenium Load
DATA SOURCE	SLDMWA	SLDMWA	SLDMWA	SLDMWA	SLDMWA	Estimated	Calculated
UNITS	cfs	ac ft	mg/L	mg/L	microm	mg/L	lbs
Jun-10-2019	3.6	7.0	0.0117	9.4	5,410.0	0.0117	0.2
Jun-11-2019	3.2	6.4	0.0116	9.3	5,240.0	0.0116	0.2
Jun-12-2019	3.2	6.4	0.0095	8.5	4,820.0	0.0095	0.2
Jun-13-2019	2.9	5.8	0.0079	8.0	4,500.0	0.0079	0.1
Jun-14-2019	2.9	5.8	0.0068	7.4	4,270.0	0.0068	0.1
Jun-15-2019	2.9	5.8	0.0071	6.4	4,010.0	0.0071	0.1
Jun-16-2019	2.9	5.8	0.0074	5.9	3,780.0	0.0074	0.1
Jun-17-2019	3.2	6.4	0.0073	5.4	3,530.0	0.0073	0.1
Jun-18-2019	2.9	5.8	0.0077	5.1	3,440.0	0.0077	0.1
Jun-19-2019	2.9	5.8	0.0072	4.7	3,240.0	0.0072	0.1
Jun-20-2019	2.9	5.8	0.0068	4.6	3,210.0	0.0068	0.1
Jun-21-2019	2.6	5.2	0.0064	4.7	3,160.0	0.0064	0.1
Jun-22-2019	2.9	5.8	0.0066	4.5	3,120.0	0.0066	0.1
Jun-23-2019	2.9	5.8	0.0068	4.3	3,060.0	0.0068	0.1
Jun-24-2019	2.6	5.2	0.0070	4.1	2,900.0	0.0070	0.1
Jun-25-2019	2.6	5.2	0.0069	4.8	2,990.0	0.0069	0.1
Jun-26-2019	2.6	5.2	0.0068	4.4	2,900.0	0.0068	0.1
Jun-27-2019	1.8	3.6	0.0065	4.0	2,850.0	0.0065	0.1
Jun-28-2019	2.6	5.2	0.0071	3.9	2,780.0	0.0071	0.1
Jun-29-2019	2.4	4.7	0.0070	3.9	2,690.0	0.0070	0.1
Jun-30-2019	2.4	4.7	0.0067	3.8	2,670.0	0.0067	0.1
Jul-01-2019	2.4	4.7	0.0069	3.7	2,640.0	0.0069	0.1
Jul-02-2019	2.1	4.1	0.0067	3.8	2,680.0	0.0067	0.1
Jul-03-2019	2.1	4.1	0.0063	3.0	2,580.0	0.0063	0.1
Jul-04-2019	2.1	4.1	0.0063	3.6	2,510.0	0.0063	0.1
Jul-05-2019	1.8	3.6	0.0065	2.8	2,440.0	0.0065	0.1
Jul-06-2019	1.8	3.6	0.0062	2.5	2,380.0	0.0062	0.1
Jul-07-2019	1.8	3.6	0.0061	2.2	2,300.0	0.0061	0.1
Jul-08-2019	1.8	3.6	0.0062	2.5	2,240.0	0.0062	0.1
Jul-09-2019	1.8	3.6	0.0068	2.8	2,260.0	0.0068	0.1
Jul-10-2019	1.8	3.6	0.0070	2.6	2,190.0	0.0070	0.1
Jul-11-2019	2.1	4.1	0.0071	2.7	2,160.0	0.0071	0.1
Jul-12-2019	2.1	4.1	0.0069	2.6	2,120.0	0.0069	0.1
Jul-13-2019	2.1	4.1	0.0064	2.5	2,100.0	0.0064	0.1
Jul-14-2019	2.1	4.1	0.0065	2.6	2,110.0	0.0065	0.1
Jul-15-2019	1.8	3.6	0.0063	2.6	2,280.0	0.0063	0.1
Jul-16-2019	1.5	3.1	0.0058	2.8	2,620.0	0.0058	0.0
Jul-17-2019	1.5	3.1	0.0053	2.9	2,870.0	0.0053	0.0
Jul-18-2019	1.3	2.6	0.0052	3.0	2,920.0	0.0052	0.0
Jul-19-2019	1.3	2.6	0.0049	3.0	2,920.0	0.0049	0.0
Jul-20-2019	1.5	3.1	0.0051	3.1	2,920.0	0.0051	0.0
Jul-21-2019	1.5	3.1	0.0056	3.1	2,870.0	0.0056	0.0
Jul-22-2019	1.5	3.1	0.0054	3.1	2,820.0	0.0054	0.0
Jul-23-2019	1.5	3.1	0.0058	2.9	2,670.0	0.0058	0.0
Jul-24-2019	1.5	3.1	0.0058	2.8	2,570.0	0.0058	0.0
Jul-25-2019	1.3	2.6	0.0058	2.7	2,520.0	0.0058	0.0
Jul-26-2019	1.3	2.6	0.0058	2.6	2,440.0	0.0058	0.0
Jul-27-2019	1.3	2.6	0.0056	2.6	2,400.0	0.0056	0.0
Jul-28-2019	2.4	4.7	0.0057	2.6	2,320.0	0.0057	0.1
Jul-29-2019	2.1	4.1	0.0063	2.4	2,230.0	0.0063	0.1
Jul-30-2019	1.5	3.1	0.0058	2.7	2,490.0	0.0058	0.0
Jul-31-2019	1.8	3.6	0.0062	2.4	2,230.0	0.0062	0.1
Aug-01-2019	2.4	4.7	0.0053	2.6	2,320.0	0.0053	0.1
Aug-02-2019	2.6	5.2	0.0055	2.6	2,380.0	0.0055	0.1
Aug-03-2019	2.6	5.2	0.0056	3.8	3,210.0	0.0056	0.1
Aug-04-2019	2.6	5.2	0.0058	4.9	3,950.0	0.0058	0.1
Aug-05-2019	2.6	5.2	0.0059	4.8	3,910.0	0.0059	0.1
Aug-06-2019	2.9	5.8	0.0056	4.3	3,810.0	0.0056	0.1
Aug-07-2019	2.6	5.2	0.0053	4.6	3,780.0	0.0053	0.1
Aug-08-2019	2.6	5.2	0.0057	4.2	3,810.0	0.0057	0.1
Aug-09-2019	2.4	4.7	0.0052	20.2	3,780.0	0.0052	0.1
Aug-10-2019	2.1	4.1	0.0059	4.6	3,800.0	0.0059	0.1
Aug-11-2019	2.4	4.7	0.0056	4.3	3,810.0	0.0056	0.1
Aug-12-2019	2.4	4.7	0.0051	4.6	3,780.0	0.0051	0.1
Aug-13-2019	2.4	4.7	0.0056	4.7	3,930.0	0.0056	0.1
Aug-14-2019	2.4	4.7	0.0053	4.7	3,750.0	0.0053	0.1
Aug-15-2019	2.4	4.7	0.0051	4.4	3,560.0	0.0051	0.1
Aug-16-2019	2.1	4.1	0.0050	4.3	3,500.0	0.0050	0.1
Aug-17-2019	2.4	4.7	0.0051	4.4	3,440.0	0.0051	0.1
Aug-18-2019	2.6	5.2	0.0052	4.3	3,380.0	0.0052	0.1
Aug-19-2019	3.2	6.4	0.0061	6.1	3,760.0	0.0061	0.1
Aug-20-2019	4.5	9.0	0.0061	5.6	4,320.0	0.0061	0.1
Aug-21-2019	4.9	9.7	0.0064	6.9	5,080.0	0.0064	0.2
Aug-22-2019	5.2	10.3	0.0061	7.0	5,140.0	0.0061	0.2
Aug-23-2019	5.9	11.8	0.0056	6.0	4,550.0	0.0056	0.2
Aug-24-2019	6.3	12.5	0.0054	5.4	4,160.0	0.0054	0.2
Aug-25-2019	6.7	13.3	0.0051	4.9	3,790.0	0.0051	0.2
Aug-26-2019	7.1	14.0	0.0054	4.7	3,610.0	0.0054	0.2
Aug-27-2019	7.5	14.8	0.0055	4.6	3,550.0	0.0055	0.2
Aug-28-2019	9.1	18.1	0.0053	4.7	3,580.0	0.0053	0.3
Aug-29-2019	9.6	18.9	0.0051	4.7	3,640.0	0.0051	0.3

PARAMETER	Flow (B2)	Discharge (B2)	Total Selenium (B3)	Boron (B3)	Specific Conductance (B2)	Daily Selenium	Selenium Load
DATA SOURCE	SLDMWA	SLDMWA	SLDMWA	SLDMWA	SLDMWA	Estimated	Calculated
UNITS	cfs	ac ft	mg/L	mg/L	microm	mg/L	lbs
Aug-30-2019	12.1	24.0	0.0050	4.8	3,630.0	0.0050	0.3
Aug-31-2019	13.2	26.2	0.0046	4.4	3,520.0	0.0046	0.3
Sep-01-2019	14.4	28.5	0.0046	4.4	3,430.0	0.0046	0.4
Sep-02-2019	15.5	30.8	0.0043	4.3	3,350.0	0.0043	0.4
Sep-03-2019	15.5	30.8	0.0041	NA	NA	0.0041	0.3
Sep-04-2019	16.1	32.0	0.0041	NA	NA	0.0041	0.4
Sep-05-2019	19.9	39.4	0.0042	NA	NA	0.0042	0.4
Sep-06-2019	15.5	30.8	0.0039	NA	NA	0.0039	0.3
Sep-07-2019	16.1	32.0	0.0038	NA	NA	0.0038	0.3
Sep-08-2019	17.8	35.4	0.0037	NA	NA	0.0037	0.4
Sep-09-2019	18.6	36.9	0.0037	NA	NA	0.0037	0.4
Sep-10-2019	18.0	35.6	0.0033	NA	NA	0.0033	0.3
Sep-11-2019	15.0	29.7	0.0033	NA	NA	0.0033	0.3
Sep-12-2019	15.5	30.8	0.0034	NA	NA	0.0034	0.3
Sep-13-2019	17.3	34.2	0.0035	NA	NA	0.0035	0.3
Sep-14-2019	18.6	36.9	0.0035	NA	NA	0.0035	0.3
Sep-15-2019	18.6	36.9	0.0037	NA	NA	0.0037	0.4
Sep-16-2019	18.6	36.9	0.0033	NA	NA	0.0033	0.3
Sep-17-2019	19.9	39.4	0.0032	3.0	2,440.0	0.0032	0.3
Sep-18-2019	16.1	32.0	0.0033	3.1	2,410.0	0.0033	0.3
Sep-19-2019	16.1	32.0	0.0032	2.9	2,380.0	0.0032	0.3
Sep-20-2019	16.7	33.1	0.0032	2.9	2,370.0	0.0032	0.3
Sep-21-2019	16.7	33.1	0.0030	2.8	2,340.0	0.0030	0.3
Sep-22-2019	16.7	33.1	0.0032	2.8	2,400.0	0.0032	0.3
Sep-23-2019	16.7	33.1	0.0030	2.8	2,400.0	0.0030	0.3
Sep-24-2019	17.3	34.2	0.0032	2.8	2,380.0	0.0032	0.3
Sep-25-2019	17.8	35.4	0.0029	2.8	2,310.0	0.0029	0.3
Sep-26-2019	18.6	36.9	0.0030	2.9	2,390.0	0.0030	0.3
Sep-27-2019	18.6	36.9	0.0029	2.8	2,370.0	0.0029	0.3
Sep-28-2019	19.2	38.1	0.0025	2.7	2,320.0	0.0025	0.3
Sep-29-2019	20.5	40.7	0.0026	2.8	2,340.0	0.0026	0.3
Sep-30-2019	21.8	43.3	0.0026	2.7	2,360.0	0.0026	0.3
Oct-01-2019	22.5	44.6	0.0023	2.9	2,290.0	0.0023	0.3
Oct-02-2019	23.2	45.9	0.0024	2.8	2,350.0	0.0024	0.3
Oct-03-2019	23.2	45.9	0.0025	2.8	2,360.0	0.0025	0.3
Oct-04-2019	22.5	44.6	0.0024	2.9	2,430.0	0.0024	0.3
Oct-05-2019	22.5	44.6	0.0023	2.8	2,350.0	0.0023	0.3
Oct-06-2019	19.9	39.4	0.0025	2.8	2,340.0	0.0025	0.3
Oct-07-2019	21.8	43.3	0.0029	2.8	2,430.0	0.0029	0.3
Oct-08-2019	22.5	44.6	0.0021	2.9	2,350.0	0.0021	0.3
Oct-09-2019	22.5	44.6	0.0022	2.8	2,320.0	0.0022	0.3
Oct-10-2019	24.5	48.6	0.0023	3.0	2,430.0	0.0023	0.3
Oct-11-2019	28.1	55.6	0.0020	3.0	2,440.0	0.0020	0.3
Oct-12-2019	27.3	54.2	0.0018	2.9	2,370.0	0.0018	0.3
Oct-13-2019	28.1	55.6	0.0019	2.7	2,350.0	0.0019	0.3
Oct-14-2019	28.1	55.6	0.0021	2.7	2,370.0	0.0021	0.3
Oct-15-2019	28.8	57.1	0.0018	2.7	2,320.0	0.0018	0.3
Oct-16-2019	18.0	35.6	0.0020	2.6	2,220.0	0.0020	0.2
Oct-17-2019	19.9	39.4	0.0020	2.6	2,270.0	0.0020	0.2
Oct-18-2019	23.2	45.9	0.0018	2.5	2,220.0	0.0018	0.2
Oct-19-2019	21.8	43.3	0.0019	2.5	2,270.0	0.0019	0.2
Oct-20-2019	21.8	43.3	0.0020	2.7	2,310.0	0.0020	0.2
Oct-21-2019	23.2	45.9	0.0020	2.6	2,290.0	0.0020	0.2
Oct-22-2019	22.5	44.6	0.0020	2.6	2,210.0	0.0020	0.2
Oct-23-2019	18.6	36.9	0.0021	2.5	2,210.0	0.0021	0.2
Oct-24-2019	19.2	38.1	0.0020	2.6	2,230.0	0.0020	0.2
Oct-25-2019	18.6	36.9	0.0019	2.6	2,260.0	0.0019	0.2
Oct-26-2019	18.6	36.9	0.0020	2.6	2,230.0	0.0020	0.2
Oct-27-2019	18.6	36.9	0.0021	2.7	2,290.0	0.0021	0.2
Oct-28-2019	19.2	38.1	0.0019	2.7	2,290.0	0.0019	0.2
Oct-29-2019	19.2	38.1	0.0014	3.0	2,230.0	0.0014	0.1
Oct-30-2019	21.8	43.3	0.0015	2.9	2,240.0	0.0015	0.2
Oct-31-2019	23.2	45.9	0.0016	2.9	2,260.0	0.0016	0.2
Nov-01-2019	23.2	45.9	0.0017	2.8	2,270.0	0.0017	0.2
Nov-02-2019	23.2	45.9	0.0016	2.8	2,240.0	0.0016	0.2
Nov-03-2019	23.2	45.9	0.0015	2.9	2,300.0	0.0015	0.2
Nov-04-2019	21.8	43.3	0.0016	3.0	2,300.0	0.0016	0.2
Nov-05-2019	21.2	42.0	0.0018	2.8	2,220.0	0.0018	0.2
Nov-06-2019	18.6	36.9	0.0020	2.8	2,240.0	0.0020	0.2
Nov-07-2019	18.6	36.9	0.0021	2.7	2,230.0	0.0021	0.2
Nov-08-2019	19.2	38.1	0.0019	2.7	2,240.0	0.0019	0.2
Nov-09-2019	19.2	38.1	0.0021	2.7	2,250.0	0.0021	0.2
Nov-10-2019	19.9	39.4	0.0020	2.7	2,270.0	0.0020	0.2
Nov-11-2019	20.5	40.7	0.0020	2.8	2,290.0	0.0020	0.2
Nov-12-2019	20.5	40.7	0.0016	NA	2,200.0	0.0016	0.2
Nov-13-2019	20.5	40.7	0.0016	NA	2,220.0	0.0016	0.2
Nov-14-2019	21.2	42.0	0.0017	NA	2,230.0	0.0017	0.2
Nov-15-2019	21.2	42.0	0.0018	NA	2,220.0	0.0018	0.2
Nov-16-2019	21.2	42.0	0.0017	NA	2,220.0	0.0017	0.2
Nov-17-2019	21.2	42.0	0.0017	NA	2,240.0	0.0017	0.2
Nov-18-2019	21.2	42.0	0.0015	NA	2,250.0	0.0015	0.2

PARAMETER	Flow (B2)	Discharge (B2)	Total Selenium (B3)	Boron (B3)	Specific Conductance (B2)	Daily Selenium	Selenium Load
DATA SOURCE	SLDMWA	SLDMWA	SLDMWA	SLDMWA	SLDMWA	Estimated	Calculated
UNITS	cfs	ac ft	mg/L	mg/L	microm	mg/L	lbs
Nov-19-2019	21.8	43.3	0.0017	2.7	2,180.0	0.0017	0.2
Nov-20-2019	21.2	42.0	0.0015	2.7	2,180.0	0.0015	0.2
Nov-21-2019	20.5	40.7	0.0016	2.7	2,190.0	0.0016	0.2
Nov-22-2019	19.9	39.4	0.0014	2.7	2,220.0	0.0014	0.2
Nov-23-2019	19.9	39.4	0.0015	2.7	2,230.0	0.0015	0.2
Nov-24-2019	19.9	39.4	0.0016	2.7	2,240.0	0.0016	0.2
Nov-25-2019	19.9	39.4	0.0015	2.7	2,230.0	0.0015	0.2
Nov-26-2019	19.2	38.1	0.0013	2.6	2,260.0	0.0013	0.1
Nov-27-2019	21.2	42.0	0.0013	2.7	2,330.0	0.0013	0.2
Nov-28-2019	21.2	42.0	0.0013	2.7	2,310.0	0.0013	0.1
Nov-29-2019	21.2	42.0	0.0013	2.7	2,330.0	0.0013	0.2
Nov-30-2019	20.5	40.7	0.0016	2.6	2,300.0	0.0016	0.2
Dec-01-2019	21.2	42.0	0.0021	2.5	2,040.0	0.0021	0.2
Dec-02-2019	28.1	55.6	0.0052	5.7	3,780.0	0.0052	0.8
Dec-03-2019	106.7	211.6	0.0173	16.7	8,760.0	0.0173	10.0
Dec-04-2019	103.4	205.1	0.0176	15.7	8,000.0	0.0176	9.8
Dec-05-2019	72.5	143.7	0.0171	15.0	7,570.0	0.0171	6.7
Dec-06-2019	100.0	198.4	0.0117	13.4	6,940.0	0.0117	6.3
Dec-07-2019	77.5	153.8	0.0153	10.8	5,800.0	0.0153	6.4
Dec-08-2019	51.6	102.4	0.0180	9.2	5,040.0	0.0180	5.0
Dec-09-2019	49.8	98.9	0.0173	7.5	4,590.0	0.0173	4.6
Dec-10-2019	51.6	102.4	0.0173	9.2	5,150.0	0.0173	4.8
Dec-11-2019	31.8	63.0	0.0127	9.2	5,280.0	0.0127	2.2
Dec-12-2019	24.5	48.6	0.0094	7.7	4,630.0	0.0094	1.2
Dec-13-2019	26.6	52.8	0.0133	6.2	3,880.0	0.0133	1.9
Dec-14-2019	28.8	57.1	0.0072	5.9	3,880.0	0.0072	1.1
Dec-15-2019	27.3	54.2	0.0176	6.4	4,310.0	0.0176	2.6
Dec-16-2019	25.9	51.4	0.0180	6.6	4,390.0	0.0180	2.5
Dec-17-2019	24.5	48.6	0.0122	7.5	4,520.0	0.0122	1.6
Dec-18-2019	23.2	45.9	0.0129	7.5	4,490.0	0.0129	1.6
Dec-19-2019	21.8	43.3	0.0096	7.2	4,350.0	0.0096	1.1
Dec-20-2019	21.2	42.0	0.0117	6.8	4,180.0	0.0117	1.3
Dec-21-2019	21.8	43.3	0.0084	6.4	4,050.0	0.0084	1.0
Dec-22-2019	21.8	43.3	0.0075	6.3	4,050.0	0.0075	0.9
Dec-23-2019	22.5	44.6	0.0083	6.8	4,270.0	0.0083	1.0
Dec-24-2019	21.8	43.3	0.0160	6.6	4,280.0	0.0160	1.9
Dec-25-2019	29.5	58.5	0.0141	6.4	4,180.0	0.0141	2.2
Dec-26-2019	23.8	47.3	0.0116	6.8	4,400.0	0.0116	1.5
Dec-27-2019	23.8	47.3	0.0133	8.2	4,920.0	0.0133	1.7
Dec-28-2019	34.1	67.5	0.0128	8.0	4,990.0	0.0128	2.3
Dec-29-2019	34.8	69.1	0.0154	11.1	6,220.0	0.0154	2.9
Dec-30-2019	27.3	54.2	0.0154	NA	NA	0.0154	2.3
Dec-31-2019	27.3	54.2	0.0067	8.0	4,920.0	0.0067	1.0

NOTES: See Table 14 for explanation of footnotes and agency abbreviations

Table 2b. Monthly averages and totals

PARAMETER	Total Flow	Discharge	Average Selenium Concentration	Average Boron	Average Specific Conductance (*)	Average Daily Selenium (*)	Selenium Load (**)	Selenium Load Objective (Wet Year)***
DATA SOURCE	Calculated	Calculated	Calculated	Calculated	Calculated	Calculated	Calculated	UA3
UNITS	cfs	acre-feet	mg/L	mg/L	microm	mg/L	lbs	lbs
Jan-19	1,041	2,065	0.0058	5.8	3,815	0.0058	46	211
Feb-19	1,181	2,342	0.0087	7.2	4,440	0.0087	71	488
Mar-19	1,025	2,032	0.0085	6.8	4,364	0.0084	66	488
Apr-19	231	458	0.0031	4.4	3,355	0.0031	4	506
May-19	268	533	0.0074	6.4	4,348	0.0074	16	512
Jun-19	176	348	0.0123	7.2	4,280	0.0123	18	354
Jul-19	55	108	0.0061	2.8	2,477	0.0061	2	356
Aug-19	140	277	0.0055	5.2	3,749	0.0055	4	366
Sep-19	524	1,038	0.0035	1.6	1,333	0.0034	10	332
Oct-19	692	1,373	0.0020	2.7	2,307	0.0020	8	328
Nov-19	621	1,232	0.0016	2.1	2,248	0.0016	5	328
Dec-19	1,207	2,393	0.0122	8.1	4,770	0.0127	91	211
<b>Calendar Year Totals/Avgs:</b>		14,199	0.0064	5.0	3,457	0.0064	340	600

NOTES: \* Flow-weighted average concentration

\*\* Selenium load calculated from SLDMWA selenium measurements.

\*\*\* Discharge may occur during any month(s) of the year, as long as such discharge does not exceed the applicable monthly TMML selenium load value and the cumulative monthly discharges do not exceed the annual selenium load value.

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

PARAMETER	Physicals					Total Selenium	Total Boron	Total Molybdenum
	Dissolved Oxygen	pH	Specific Conductance	Temperature	Turbidity			
DATA SOURCE	USBR	USBR	USBR	USBR	USBR	USBR	USBR	USBR
UNITS	mg/L	units	µS/cm	°C	NTU	µg/L	mg/L	µg/L
Jan-04-2019	21.1	8.2	2,730	9.0	7.8	3.7	3.7	
Jan-11-2019	5.8	7.9	2,508	13.0	5.7	2.0	3.2	
Jan-18-2019	4.4	7.9	7,982	12.7	26.9	21.7 U	15 U	
Jan-24-2019	14.5	7.9	3,192	11.9	13.2	3.1	5.4 U	
Jan-29-2019	16.1	7.9	2,884	13.8	15.0	3.1	4.1	49
Feb-05-2019	10.5	7.9	5,793	10.8	47.8	13.3 U	13 U	
Feb-12-2019	14.2	7.8	5,985	10.4	39.8	13.1 U	14 U	
Feb-21-2019	21.0	8.2	2,918	11.5	20.3	2.3	3.7	
Feb-28-2019	9.8	8.0	2,831	14.7	10.3	2.2	3.4	51
Mar-07-2019	16.7	7.9	4,971	15.0	30.5	22 U	8.7 U	
Mar-12-2019	21.4	8.3	3,870	15.1	17.4	6.3	5.2	
Mar-21-2019	12.4	8.2	3,014	16.9	23.3	3.0	3.5	
Mar-26-2019	12.7	8.4	5,357	19.4	20.0	9.2	8.9 U	42
Apr-04-2019	10.5	8.2	3,175	18.4	7.5	2.5	3.9	
Apr-11-2019	10.6	8.3	3,118	16.2	19.0	3.0	3.9	
Apr-18-2019	11.5	8.3	3,180	22.8	7.1	3.2	3.7	
Apr-25-2019	11.4	8.2	2,999	26.3	6.1	3.5	3.4	
Apr-30-2019	14.3	8.4	2,905	22.1	10.4	3.5	3.5	56
May-08-2019	15.6	8.3	2,644	23.7	7.8	3.4	3.0	
May-15-2019	11.8	7.9	3,601	20.6	1.7	3.2	4.2	
May-21-2019	14.0	8.2	3,475	18.7	16.2	3.2	4.2	
May-29-2019	17.2	9.2	5,796	22.7	21.9	13.7	11.0	35
Jun-03-2019	14.6	8.7	6,242	25.8	28.0	31.5 U	11.0	
Jun-14-2019	11.2	8.4	5,143	27.5	7.5	8.9	9.9	
Jun-18-2019	11.3	8.6	3,993	27.7	9.0	6.1	7.2	
Jun-24-2019	11.6	8.6	3,163	27.3	10.4	6.0	4.8	44
Jul-02-2019	13.3	8.9	2,732	25.3	13.4	6.2	3.7	
Jul-11-2019	12.0	8.8	2,345	26.9	12.5	5.6	2.9	
Jul-18-2019	12.7	8.7	2,082	28.1	13.5	5.4	2.5	
Jul-24-2019	9.6	8.6	2,835	26.7	18.2	4.6	2.9	
Jul-29-2019	12.3	9.1	2,484	27.3	42.1	4.3	2.8	49 V
Aug-09-2019	10.2	8.6	3,540	26.1	12.7	5.5	4.3	
Aug-13-2019	10.6	8.7	3,704	24.9	16.0	5.0	4.4	
Aug-21-2019	11.5	8.7	3,620	25.4	19.2	5.6	4.1	
Aug-29-2019	17.0	8.3	3,361	26.9	22.6	4.6	4.2	65
Sep-06-2019	12.6	8.1	3,046	27.0	16.9	3.6	3.6	
Sep-10-2019	10.9	8.0	2,832	23.1	16.0	3.3	3.1	
Sep-20-2019	15.7	8.3	2,336	21.0	20.0	3.0	2.5	
Sep-25-2019	12.3	8.2	2,271	24.8	12.3	2.8	2.3	46
Oct-02-2019	13.9	8.0	2,252	18.6	16.7	2.1	2.4	
Oct-09-2019	11.5	8.3	2,337	18.1	15.8	2.3	2.6	
Oct-16-2019	12.5	7.7	2,214	17.1	19.4	1.9	2.5	
Oct-23-2019	8.5	7.7	2,188	16.4	54.0	1.6	2.3	
Oct-30-2019	4.9	7.5	2,208	10.5	34.0	1.5	2.4	34
Nov-06-2019	11.9	7.6	2,193	14.3	42.6	1.6	2.3	
Nov-15-2019	12.6	7.5	2,184	13.5	50.2	1.6	2.5	
Nov-19-2019	12.9	7.5	2,187	14.1	55.9	1.7	2.4	
Nov-26-2019	8.8	7.6	2,210	7.6	NA	1.4	2.2	33
Dec-03-2019	10.5	7.3	8,608	9.1	158.0	20.2 U	17 U	
Dec-12-2019	10.4	7.3	4,755	12.4	96.7	10.2	7.9	
Dec-19-2019	NA	NA	NA	NA	69.8	9.3	7.9	
Dec-23-2019	13.2	7.6	3,992	9.9	29.0	7.3	6.0	
Dec-30-2019	14.1	7.7	6,566	9.3	32.1	15.5	12.0	24

NOTES: Samples only taken when flow is passing site B  
See Table 14 for explanation of footnotes and agency abbreviations

PARAMETER	Nutrients	
	Nitrate as N (Dissolved)	Ammonia as N
UNITS	mg/L	mg/L
Jan-29-2019	0.090 L	0.16
Feb-28-2019	<0.010	<0.050
Mar-26-2019	0.22	0.062 L,V
Apr-30-2019	<0.030	0.081
May-29-2019	<0.030	0.19
Jun-24-2019	<0.030	0.13
Jul-29-2019	<0.030	0.22
Aug-29-2019	<0.030	0.12
Sep-25-2019	<0.030	0.079
Oct-30-2019	<0.030	0.088
Nov-26-2019	<0.030	<0.17 L,V
Dec-30-2019	2.5 U	0.19 L

NOTES:

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

PARAMETER	Pesticides							
	Copper	Bifenthrin	Carbaryl	Chlorpyrifos	Cyfluthrin	Cypermethrin	Diazinon	Dimethoate
UNITS	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Jan-24-2019	0.99							
Feb-05-2019								<0.10
May-21-2019	1.4		<0.07				<0.02	<0.10
Jun-03-2019	2.1	<0.02	<0.07	<0.015	<0.03	<0.05		<0.10

NOTES: '<' value provided for pesticides is the PQL

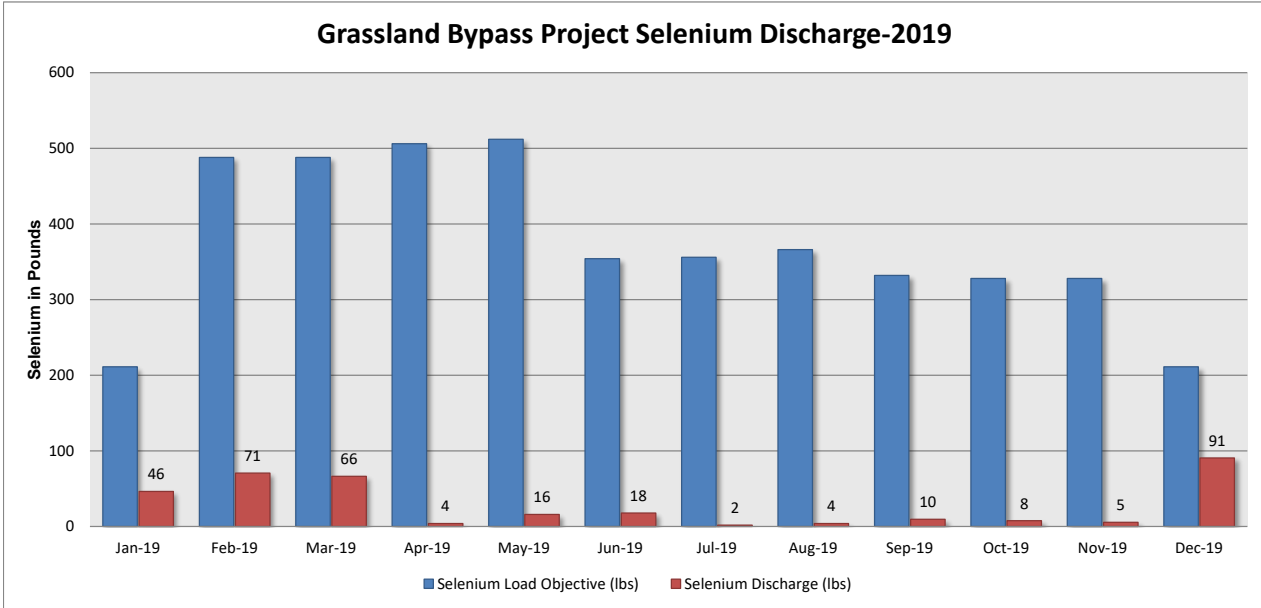
PARAMETER	Pesticides							
	Diuron	Esfenvalerate	Glyphosate	Hexazinone	Imidacloprid	Lambda-Cyhalothrin	Linuron	Malathion
UNITS	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Jan-24-2019	<0.40	<0.02	<5.0					
Feb-05-2019	<0.40		<5.0					<0.10
May-21-2019		<0.02	<5.0		<1.0	<0.02	<0.40	<0.10
Jun-03-2019		<0.02	<5.0 T		<1.0	<0.02		
Dec-03-2019	<0.40		11	<0.50				

NOTES: '<' value provided for pesticides is the PQL

PARAMETER	Pesticides					
	Methomyl	Oxyfluorfen	Permethrin	Prowl (Pendimethalin)	Trifluralin	2,4 DB
UNITS	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Jan-24-2019		<0.05		<0.1		
Feb-05-2019		0.032		<0.1		
May-21-2019	<0.07		<0.02		<0.05	<1.0
Jun-03-2019	<0.07		<0.02		<0.05	
Dec-03-2019		<0.05		<0.1		<1.0

NOTES: '<' value provided for pesticides is the PQL

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





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

<b>PARAMETER</b>	<b>Flow</b>	<b>Temperature</b>	<b>Specific Conductance</b>
<b>DATA SOURCE</b>	<b>USGS</b>	<b>USGS</b>	<b>USGS</b>
<b>UNITS</b>	<b>cfs</b>	<b>°C</b>	<b>µS/cm</b>
Jan-01-2019	83	8.0	3,310
Jan-02-2019	80	7.9	3,180
Jan-03-2019	79	8.2	2,950
Jan-04-2019	79	8.8	2,780
Jan-05-2019	80	8.9	2,670
Jan-06-2019	93	9.1	2,440
Jan-07-2019	128	10.6	2,190
Jan-08-2019	127	11.8	2,300
Jan-09-2019	125	12.5	2,240
Jan-10-2019	126	12.8	2,210
Jan-11-2019	123	12.6	2,170
Jan-12-2019	123	12.0	2,280
Jan-13-2019	119	11.8	2,080
Jan-14-2019	118	11.5	1,890
Jan-15-2019	147	10.7	1,700
Jan-16-2019	168	11.1	1,660
Jan-17-2019	203	12.5	1,950
Jan-18-2019	223	12.9	3,760
Jan-19-2019	191	13.6	3,190
Jan-20-2019	156	13.9	2,760
Jan-21-2019	139	13.0	2,700
Jan-22-2019	124	11.3	2,740
Jan-23-2019	113	11.2	2,700
Jan-24-2019	104	11.7	2,510
Jan-25-2019	98	12.0	2,550
Jan-26-2019	91	12.2	2,960
Jan-27-2019	87	12.9	2,840
Jan-28-2019	83	13.4	2,720
Jan-29-2019	77	13.8	2,810
Jan-30-2019	78	14.2	2,730
Jan-31-2019	99	15.3	2,660
Feb-01-2019	120	14.6	3,960
Feb-02-2019	145	13.9	3,920
Feb-03-2019	148	13.0	3,300
Feb-04-2019	156	12.4	2,720
Feb-05-2019	181	11.1	2,940
Feb-06-2019	197	10.4	3,440
Feb-07-2019	188	10.3	2,640
Feb-08-2019	168	10.8	2,140
Feb-09-2019	151	11.6	1,960
Feb-10-2019	159	11.5	1,970
Feb-11-2019	184	11.3	2,390
Feb-12-2019	186	10.5	2,630
Feb-13-2019	207	10.4	2,350
Feb-14-2019	211	12.6	2,040

<b>PARAMETER</b>	<b>Flow</b>	<b>Temperature</b>	<b>Specific Conductance</b>
<b>DATA SOURCE</b>	<b>USGS</b>	<b>USGS</b>	<b>USGS</b>
<b>UNITS</b>	<b>cfs</b>	<b>°C</b>	<b>µS/cm</b>
Feb-15-2019	203	12.7	1,940
Feb-16-2019	263	11.7	1,710
Feb-17-2019	334	11.0	1,310
Feb-18-2019	346	10.4	1,290
Feb-19-2019	335	9.9	1,280
Feb-20-2019	281	10.7	1,650
Feb-21-2019	240	10.8	2,000
Feb-22-2019	226	9.6	2,030
Feb-23-2019	229	10.2	1,780
Feb-24-2019	238	11.5	1,440
Feb-25-2019	238	12.7	1,350
Feb-26-2019	248	13.1	1,290
Feb-27-2019	248	13.2	1,290
Feb-28-2019	235	14.0	1,270
Mar-01-2019	223	14.0	1,330
Mar-02-2019	212	14.6	1,540
Mar-03-2019	229	15.7	2,340
Mar-04-2019	247	16.2	3,970
Mar-05-2019	235	15.4	3,180
Mar-06-2019	214	14.2	2,640
Mar-07-2019	192	14.6	2,360
Mar-08-2019	188	14.4	2,040
Mar-09-2019	202	13.6	1,860
Mar-10-2019	221	13.4	1,820
Mar-11-2019	222	14.0	1,720
Mar-12-2019	213	14.3	1,800
Mar-13-2019	205	13.1	1,840
Mar-14-2019	202	13.1	1,950
Mar-15-2019	190	14.5	1,920
Mar-16-2019	193	15.6	1,670
Mar-17-2019	191	16.7	1,590
Mar-18-2019	195	17.8	1,520
Mar-19-2019	214	18.2	1,620
Mar-20-2019	217	17.2	1,550
Mar-21-2019	234	16.7	1,480
Mar-22-2019	256	16.2	1,520
Mar-23-2019	278	16.5	1,540
Mar-24-2019	276	16.4	1,570
Mar-25-2019	276	16.8	1,610
Mar-26-2019	272	17.6	1,760
Mar-27-2019	249	18.2	1,890
Mar-28-2019	242	17.4	1,810
Mar-29-2019	230	17.1	1,690
Mar-30-2019	217	17.2	1,650
Mar-31-2019	203	17.8	1,580
Apr-01-2019	201	18.5	1,640
Apr-02-2019	182	19.0	NA

<b>PARAMETER</b>	<b>Flow</b>	<b>Temperature</b>	<b>Specific Conductance</b>
<b>DATA SOURCE</b>	<b>USGS</b>	<b>USGS</b>	<b>USGS</b>
<b>UNITS</b>	<b>cfs</b>	<b>°C</b>	<b>µS/cm</b>
Apr-03-2019	177	18.9	NA
Apr-04-2019	151	18.8	NA
Apr-05-2019	121	17.8	2,030
Apr-06-2019	92	18.7	2,130
Apr-07-2019	73	20.4	2,250
Apr-08-2019	58	21.3	2,440
Apr-09-2019	59	20.4	2,390
Apr-10-2019	61	17.5	2,290
Apr-11-2019	58	16.4	2,330
Apr-12-2019	46	16.8	2,490
Apr-13-2019	37	18.5	2,720
Apr-14-2019	36	20.2	2,740
Apr-15-2019	35	20.1	2,780
Apr-16-2019	30	19.2	3,060
Apr-17-2019	35	19.2	2,830
Apr-18-2019	41	21.1	2,220
Apr-19-2019	49	22.7	2,160
Apr-20-2019	59	22.4	1,380
Apr-21-2019	61	20.5	1,230
Apr-22-2019	62	20.3	1,090
Apr-23-2019	62	21.4	996
Apr-24-2019	57	23.3	1,150
Apr-25-2019	53	24.9	1,200
Apr-26-2019	38	24.8	1,540
Apr-27-2019	40	24.2	1,370
Apr-28-2019	42	23.1	1,240
Apr-29-2019	39	22.5	1,380
Apr-30-2019	26	21.3	1,950
May-01-2019	25	21.2	2,140
May-02-2019	18	21.5	3,400
May-03-2019	19	21.9	3,280
May-04-2019	27	22.0	1,750
May-05-2019	33	21.9	1,310
May-06-2019	28	NA	NA
May-07-2019	29	NA	NA
May-08-2019	27	NA	NA
May-09-2019	33	22.8	1,270
May-10-2019	33	22.3	1,430
May-11-2019	47	23.1	1,240
May-12-2019	52	23.6	1,090
May-13-2019	50	23.3	1,160
May-14-2019	56	22.2	1,160
May-15-2019	58	20.9	1,200
May-16-2019	57	19.6	1,240
May-17-2019	48	19.5	1,400
May-18-2019	44	18.2	1,510
May-19-2019	50	17.5	1,450

<b>PARAMETER</b>	<b>Flow</b>	<b>Temperature</b>	<b>Specific Conductance</b>
<b>DATA SOURCE</b>	<b>USGS</b>	<b>USGS</b>	<b>USGS</b>
<b>UNITS</b>	<b>cfs</b>	<b>°C</b>	<b>µS/cm</b>
May-20-2019	52	18.8	1,690
May-21-2019	84	19.3	2,620
May-22-2019	84	19.6	3,910
May-23-2019	50	20.4	3,930
May-24-2019	46	21.4	3,160
May-25-2019	39	22.0	3,130
May-26-2019	37	19.1	3,080
May-27-2019	55	18.9	2,200
May-28-2019	92	20.2	1,770
May-29-2019	88	22.2	1,620
May-30-2019	66	24.0	1,640
May-31-2019	58	24.7	1,720
Jun-01-2019	59	25.4	NA
Jun-02-2019	59	25.7	NA
Jun-03-2019	57	25.7	NA
Jun-04-2019	54	26.7	NA
Jun-05-2019	52	27.7	NA
Jun-06-2019	50	27.7	2,110
Jun-07-2019	50	24.8	2,180
Jun-08-2019	53	22.0	2,190
Jun-09-2019	56	23.0	2,130
Jun-10-2019	63	25.4	1,820
Jun-11-2019	70	27.3	1,680
Jun-12-2019	79	28.7	1,570
Jun-13-2019	76	27.8	1,510
Jun-14-2019	70	26.9	1,390
Jun-15-2019	43	NA	NA
Jun-16-2019	30	NA	NA
Jun-17-2019	37	NA	NA
Jun-18-2019	52	NA	NA
Jun-19-2019	68	NA	NA
Jun-20-2019	79	27.1	2,690
Jun-21-2019	83	25.2	2,550
Jun-22-2019	80	24.1	2,640
Jun-23-2019	57	25.3	2,850
Jun-24-2019	18	26.7	3,000
Jun-25-2019	13	25.9	2,220
Jun-26-2019	14	25.2	1,630
Jun-27-2019	8	23.5	2,750
Jun-28-2019	7	22.2	3,190
Jun-29-2019	7	23.3	3,430
Jun-30-2019	8	24.5	2,560
Jul-01-2019	10	24.7	1,790
Jul-02-2019	9	24.6	2,000
Jul-03-2019	7	25.2	2,490
Jul-04-2019	6	25.4	3,120
Jul-05-2019	5	26.4	3,710

<b>PARAMETER</b>	<b>Flow</b>	<b>Temperature</b>	<b>Specific Conductance</b>
<b>DATA SOURCE</b>	<b>USGS</b>	<b>USGS</b>	<b>USGS</b>
<b>UNITS</b>	<b>cfs</b>	<b>°C</b>	<b>µS/cm</b>
Jul-06-2019	5	26.4	3,790
Jul-07-2019	5	25.8	3,680
Jul-08-2019	8	25.1	2,210
Jul-09-2019	9	25.1	1,510
Jul-10-2019	10	25.9	1,490
Jul-11-2019	11	26.5	1,570
Jul-12-2019	8	26.7	1,940
Jul-13-2019	6	27.4	2,540
Jul-14-2019	5	27.5	3,190
Jul-15-2019	5	27.0	3,530
Jul-16-2019	5	27.1	3,630
Jul-17-2019	5	26.5	3,700
Jul-18-2019	6	26.7	2,940
Jul-19-2019	7	26.8	2,420
Jul-20-2019	7	26.7	2,260
Jul-21-2019	9	27.1	1,820
Jul-22-2019	9	28.4	1,700
Jul-23-2019	10	28.4	1,600
Jul-24-2019	10	27.5	1,570
Jul-25-2019	13	27.8	1,300
Jul-26-2019	10	27.9	1,590
Jul-27-2019	9	27.5	1,920
Jul-28-2019	9	28.3	1,920
Jul-29-2019	9	28.3	1,850
Jul-30-2019	9	26.4	1,940
Jul-31-2019	8	26.2	2,170
Aug-01-2019	9	26.6	2,130
Aug-02-2019	11	26.5	1,500
Aug-03-2019	13	27.4	1,370
Aug-04-2019	14	27.7	1,340
Aug-05-2019	14	26.1	1,270
Aug-06-2019	14	27.4	1,360
Aug-07-2019	13	27.1	1,620
Aug-08-2019	13	26.1	1,850
Aug-09-2019	11	25.3	2,260
Aug-10-2019	9	25.8	2,680
Aug-11-2019	15	25.0	1,710
Aug-12-2019	15	25.7	1,490
Aug-13-2019	15	26.6	1,500
Aug-14-2019	15	27.0	1,660
Aug-15-2019	14	27.9	1,970
Aug-16-2019	13	28.3	2,120
Aug-17-2019	11	27.2	2,730
Aug-18-2019	11	25.7	3,060
Aug-19-2019	14	25.2	2,750
Aug-20-2019	15	25.5	2,930
Aug-21-2019	28	25.5	2,140

<b>PARAMETER</b>	<b>Flow</b>	<b>Temperature</b>	<b>Specific Conductance</b>
<b>DATA SOURCE</b>	<b>USGS</b>	<b>USGS</b>	<b>USGS</b>
<b>UNITS</b>	<b>cfs</b>	<b>°C</b>	<b>µS/cm</b>
Aug-22-2019	37	26.4	1,550
Aug-23-2019	38	27.5	1,640
Aug-24-2019	36	27.7	1,640
Aug-25-2019	35	27.8	1,530
Aug-26-2019	29	27.9	1,790
Aug-27-2019	21	27.3	2,570
Aug-28-2019	27	27.2	1,800
Aug-29-2019	28	26.8	1,740
Aug-30-2019	38	26.3	1,440
Aug-31-2019	47	26.2	1,140
Sep-01-2019	43	26.4	1,230
Sep-02-2019	38	26.6	1,320
Sep-03-2019	32	26.3	1,430
Sep-04-2019	27	26.3	1,890
Sep-05-2019	31	26.4	2,100
Sep-06-2019	31	25.9	1,840
Sep-07-2019	31	24.8	1,460
Sep-08-2019	28	23.8	1,520
Sep-09-2019	28	23.6	1,510
Sep-10-2019	28	23.1	1,440
Sep-11-2019	23	22.9	1,640
Sep-12-2019	23	23.4	1,710
Sep-13-2019	22	24.0	1,760
Sep-14-2019	22	24.9	1,760
Sep-15-2019	23	24.4	1,740
Sep-16-2019	25	22.9	1,650
Sep-17-2019	32	22.0	1,270
Sep-18-2019	25	22.0	1,550
Sep-19-2019	22	21.8	1,830
Sep-20-2019	21	21.3	1,920
Sep-21-2019	21	21.4	2,060
Sep-22-2019	23	22.2	1,910
Sep-23-2019	25	22.5	1,780
Sep-24-2019	26	22.7	1,650
Sep-25-2019	30	23.5	1,470
Sep-26-2019	30	24.4	1,450
Sep-27-2019	28	23.9	1,560
Sep-28-2019	29	21.1	1,700
Sep-29-2019	32	18.9	1,670
Sep-30-2019	35	18.4	1,550
Oct-01-2019	34	17.8	1,570
Oct-02-2019	33	17.7	1,640
Oct-03-2019	33	18.4	1,690
Oct-04-2019	33	18.2	1,690
Oct-05-2019	31	17.8	1,650
Oct-06-2019	34	18.5	1,610
Oct-07-2019	36	19.6	1,560

<b>PARAMETER</b>	<b>Flow</b>	<b>Temperature</b>	<b>Specific Conductance</b>
<b>DATA SOURCE</b>	<b>USGS</b>	<b>USGS</b>	<b>USGS</b>
<b>UNITS</b>	<b>cfs</b>	<b>°C</b>	<b>µS/cm</b>
Oct-08-2019	38	20.1	1,560
Oct-09-2019	47	18.7	1,370
Oct-10-2019	59	15.9	1,240
Oct-11-2019	53	16.6	1,330
Oct-12-2019	52	17.2	1,450
Oct-13-2019	61	17.8	1,430
Oct-14-2019	68	18.0	1,430
Oct-15-2019	73	18.1	1,380
Oct-16-2019	78	17.8	1,370
Oct-17-2019	96	18.1	1,320
Oct-18-2019	113	17.7	1,270
Oct-19-2019	125	17.8	1,220
Oct-20-2019	147	17.9	1,170
Oct-21-2019	171	18.0	1,160
Oct-22-2019	185	18.5	1,050
Oct-23-2019	165	18.7	1,100
Oct-24-2019	152	18.9	1,140
Oct-25-2019	133	19.0	1,180
Oct-26-2019	125	18.8	1,210
Oct-27-2019	119	15.7	1,220
Oct-28-2019	114	13.8	1,260
Oct-29-2019	108	13.7	1,320
Oct-30-2019	105	13.2	1,350
Oct-31-2019	105	13.4	1,340
Nov-01-2019	105	13.5	1,350
Nov-02-2019	110	13.8	1,310
Nov-03-2019	113	14.1	1,300
Nov-04-2019	115	14.6	1,300
Nov-05-2019	118	15.1	1,300
Nov-06-2019	119	15.5	1,290
Nov-07-2019	124	15.8	1,260
Nov-08-2019	125	16.0	1,270
Nov-09-2019	126	16.0	1,290
Nov-10-2019	131	15.9	1,280
Nov-11-2019	133	15.9	1,270
Nov-12-2019	134	15.9	1,250
Nov-13-2019	139	15.9	1,220
Nov-14-2019	144	16.2	1,220
Nov-15-2019	146	15.9	1,200
Nov-16-2019	147	15.5	1,210
Nov-17-2019	147	15.4	1,220
Nov-18-2019	152	15.5	1,220
Nov-19-2019	148	15.6	1,250
Nov-20-2019	144	14.9	1,250
Nov-21-2019	140	13.9	1,270
Nov-22-2019	134	13.6	1,290
Nov-23-2019	131	13.6	1,320

PARAMETER	Flow	Temperature	Specific Conductance
DATA SOURCE	USGS	USGS	USGS
UNITS	cfs	°C	µS/cm
Nov-24-2019	128	13.4	1,360
Nov-25-2019	125	NA	NA
Nov-26-2019	123	10.2	1,320
Nov-27-2019	129	10.0	1,340
Nov-28-2019	138	9.7	1,320
Nov-29-2019	140	10.0	1,330
Nov-30-2019	145	9.3	1,330
Dec-01-2019	181	9.0	1,250
Dec-02-2019	283	10.0	1,210
Dec-03-2019	370	10.6	2,450
Dec-04-2019	419	11.1	2,220
Dec-05-2019	465	11.8	1,880
Dec-06-2019	472	12.5	1,860
Dec-07-2019	445	13.4	1,560
Dec-08-2019	418	13.7	1,410
Dec-09-2019	387	13.1	1,480
Dec-10-2019	365	12.7	1,370
Dec-11-2019	335	12.6	1,390
Dec-12-2019	311	12.9	1,420
Dec-13-2019	301	13.9	1,350
Dec-14-2019	276	14.1	1,390
Dec-15-2019	249	12.9	1,560
Dec-16-2019	219	11.8	1,670
Dec-17-2019	187	11.0	1,800
Dec-18-2019	164	10.8	1,950
Dec-19-2019	132	11.4	2,130
Dec-20-2019	110	11.6	2,320
Dec-21-2019	105	11.5	2,360
Dec-22-2019	122	11.1	2,020
Dec-23-2019	130	11.3	1,930
Dec-24-2019	126	10.8	2,070
Dec-25-2019	133	11.0	2,030
Dec-26-2019	133	10.8	1,870
Dec-27-2019	139	9.8	1,900
Dec-28-2019	144	9.3	2,120
Dec-29-2019	139	9.5	2,090
Dec-30-2019	135	10.4	2,320
Dec-31-2019	136	10.3	2,500

**NOTES:** See Table 14 for explanation of footnotes and agency abbreviations

USGS data webpage

[http://waterdata.usgs.gov/nwis/dv/?site\\_no=11262900&agency\\_cd=USGS&referred\\_module=sw](http://waterdata.usgs.gov/nwis/dv/?site_no=11262900&agency_cd=USGS&referred_module=sw)



**Table 3b. Monthly averages and totals**

<b>PARAMETER</b>	<b>Total Flow</b>	<b>Average Temperature</b>	<b>Average Specific Conductance</b>
<b>DATA SOURCE</b>	<b>Calculated</b>	<b>Calculated</b>	<b>Calculated</b>
<b>UNITS</b>	<b>acre-feet</b>	<b>°C</b>	<b>µS/cm</b>
Jan-19	7,260	11.7	2,569
Feb-19	12,030	11.6	2,144
Mar-19	13,760	15.8	1,883
Apr-19	4,130	20.5	1,964
May-19	2,940	21.1	2,018
Jun-19	2,880	25.5	2,305
Jul-19	480	26.7	2,351
Aug-19	1,230	26.7	1,880
Sep-19	1,650	23.4	1,646
Oct-19	5,400	17.5	1,364
Nov-19	7,840	14.2	1,281
Dec-19	14,940	11.5	1,835

**NOTES:**

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

PARAMETER	Physicals					Total Selenium	Total Boron	Total Molybdenum	Total Organic Carbon
	Dissolved Oxygen	pH	Specific Conductance	Temperature	Turbidity				
	USBR	USBR	USBR	USBR	USBR				
DATA SOURCE	USBR	USBR	USBR	USBR	USBR	USBR	USBR	USBR	USBR
UNITS	mg/L	units	µS/cm	°C	NTU	µg/L	mg/L	µg/L	mg/L
Jan-04-2019	17.6	7.9	2,769	8.6	9.3	1.4	2.5		10
Jan-11-2019	5.3	7.5	2,157	12.9	16.3	0.6	1.9		12
Jan-18-2019	7.2	7.7	4,462	12.9	27.1	8.53 U	7.2 U		12
Jan-24-2019	14.9	7.7	2,538	11.5	17.0	1.0	2.6		11
Jan-29-2019	16.0	7.7	2,752	13.2	17.7	1.4	2.7	21	11
Feb-05-2019	10.5	7.8	3,624	10.1	30.8	5.95 U	5.8		12 H
Feb-12-2019	15.2	7.6	3,356	10.2	26.4	4.63 U	5.7		12 H
Feb-21-2019	17.7	7.5	2,107	10.7	25.9	0.7	1.7		12
Feb-28-2019	9.3	7.7	1,342	13.7	55.8	0.6	1.2	9	10
Mar-07-2019	15.6	7.7	2,419	14.9	51.9	5.36 U	2.9		9
Mar-12-2019	15.7	7.8	1,893	14.2	38.8	1.3	1.7		11
Mar-21-2019	11.2	7.7	1,571	16.4	58.4	0.7	1.4		12 L
Mar-26-2019	9.8	7.6	1,855	16.8	81.5	1.1	1.8	8	12 L
Apr-04-2019	8.3	7.7	1,954	18.0	55.6	0.5	1.7		14 L
Apr-11-2019	10.2	8.2	2,187	16.6	50.2	1.0	2.0		12 L
Apr-18-2019	9.7	7.9	2,035	21.2	46.8	1.2	2.2		9.0 L
Apr-25-2019	11.3	8.0	1,156	25.4	72.0	0.8	1.0		5.2 L
Apr-30-2019	12.4	7.9	2,040	21.7	43.2	1.1	1.8	15	7
May-08-2019	14.4	8.1	1,675	23.3	49.0	1.0	1.3		6
May-15-2019	11.6	7.6	1,254	20.1	41.1	0.6	1.0		5.9 T
May-21-2019	12.2	7.9	2,446	18.5	29.1	1.7	2.6		7
May-29-2019	10.8	7.8	1,661	21.4	26.1	1.9	2.1	11	9
Jun-03-2019	9.8	7.1	1,746	24.7	26.0	5.07 U	2.1		8
Jun-14-2019	11.3	7.3	1,049	26.1	83.9	1.0	1.2		5
Jun-18-2019	10.4	7.5	2,698	26.5	22.6	1.7	3.0		9
Jun-24-2019	10.2	7.6	2,937	25.8	42.5	1.8	2.7	21	7.9 T
Jul-02-2019	12.6	8.3	2,029	24.0	40.2	1.6	1.9		7
Jul-11-2019	12.0	8.6	1,547	27.1	39.4	1.4	1.3		7.8 T
Jul-18-2019	10.4	8.1	2,576	26.0	29.0	1.7	2.1		10
Jul-24-2019	9.7	8.2	1,520	26.3	53.0	1.3	1.4		6
Jul-29-2019	9.6	8.4	1,838	28.0	64.2	1.5	1.7	22 V	7
Aug-09-2019	10.6	8.3	2,220	24.3	57.9	2.2	2.3		9.9 T
Aug-13-2019	9.9	8.2	1,495	25.0	82.7	1.6	1.8		8
Aug-21-2019	9.6	8.2	1,587	25.2	66.5	1.7	1.4		7
Aug-29-2019	9.8	7.9	1,734	25.9	96.2	1.7	1.7	26	8
Sep-06-2019	9.2	7.8	1,835	25.8	62.5	1.5	1.6		6
Sep-10-2019	8.2	7.7	1,424	21.8	55.5	1.4	1.3		5
Sep-20-2019	11.9	8.1	2,092	20.2	24.8	2.1	2.0		8
Sep-25-2019	9.0	7.9	1,492	23.5	43.8	1.4	1.3	23	9
Oct-02-2019	13.0	7.6	1,629	17.7	28.7	1.1	1.6		10
Oct-09-2019	10.0	7.7	1,244	17.5	41.6	0.8	1.0		9
Oct-16-2019	8.0	7.3	1,128	17.7	24.4	0.5	1.0		14
Oct-23-2019	7.2	7.3	959	16.8	18.1	0.5	0.7		14
Oct-30-2019	6.1	7.4	1,345	11.0	10.4	0.5	1.1	11	11
Nov-06-2019	10.6	7.4	1,290	14.3	15.1	0.4	1.0		11
Nov-15-2019	11.5	7.4	1,221	14.5	14.0	<0.4	1.0		11
Nov-19-2019	11.3	7.4	1,291	15.0	13.7	0.5	1.1		12
Nov-26-2019	10.2	7.3	1,444	8.6	NA	0.5	1.1	10	11
Dec-03-2019	10.7	7.6	3,158	8.9	68.5	5.66 U	4.9 U		15
Dec-12-2019	9.9	7.7	1,497	11.2	23.9	1.3	1.6		12 T
Dec-19-2019	NA	NA	NA	NA	19.2	1.8	2.2		11
Dec-23-2019	11.6	7.4	2,086	9.8	23.5	1.5	2.0		12
Dec-30-2019	12.8	7.5	2,620	9.0	16.1	3.2	3.2	10	11

NOTES: See Table 14 for explanation of footnotes and agency abbreviations

PARAMETER	Nutrients	
	Nitrate as N (Dissolved)	Ammonia as N
	UNITS	mg/L
Jan-29-2019	0.14 L	0.17
Feb-28-2019	0.56	0.44 U
Mar-26-2019	0.41	0.28 L,V
Apr-30-2019	0.20	0.13
May-29-2019	0.19	0.13
Jun-24-2019	<0.030	0.16
Jul-29-2019	<0.030	0.15
Aug-29-2019	<0.030	0.13
Sep-25-2019	<0.030	0.099
Oct-30-2019	<0.030	0.24
Nov-26-2019	0.032	0.27 L,V
Dec-30-2019	0.64 U	0.15 L

NOTES:

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

PARAMETER	Pesticides							
	Copper	Bifenthrin	Carbaryl	Chlorpyrifos	Cyfluthrin	Cypermethrin	Diazinon	Dimethoate
UNITS	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Jan-24-2019	1.20							
Feb-05-2019								<0.10
May-21-2019	2.10		<0.07				<0.02	<0.10
Jun-03-2019	1.50	<0.02	<0.07	<0.015	<0.03	<0.05		<0.10

NOTES: '<' value provided for pesticides is the PQL

PARAMETER	Pesticides							
	Diuron	Esfenvalerate	Glyphosate	Hexazinone	Imidacloprid	Lambda-Cyhalothrin	Linuron	Malathion
UNITS	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Jan-24-2019	<0.40	<0.02	<5.0					
Feb-05-2019	<0.40		<5.0					<0.10
May-21-2019		<0.02	<5.0		<1.0	<0.02	<0.40	<0.10
Jun-03-2019		<0.02	<5.0 T		<1.0	<0.02		
Dec-03-2019	<0.40		4.8	<0.50				

NOTES: '<' value provided for pesticides is the PQL

PARAMETER	Pesticides					
	Methomyl	Oxyfluorfen	Permethrin	Prowl (Pendimethalin)	Trifluralin	2,4 DB
UNITS	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Jan-24-2019		<0.05		<0.1		
Feb-05-2019		<0.05		<0.1		<1.0
May-21-2019	<0.07		<0.02		<0.05	
Jun-03-2019	<0.07		<0.02			
Dec-03-2019		<0.05		<0.1		<1.0

NOTES: '<' value provided for pesticides is the PQL

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

Physicals						Total Selenium	Total Boron
PARAMETER	Dissolved Oxygen	pH	Specific Conductance	Temperature	Turbidity		
DATA SOURCE	USBR	USBR	USBR	USBR	USBR	USBR	USBR
UNITS	mg/L	units	µS/cm	°C	NTU	µg/L	mg/L
Jan-04-2019	18.5	7.9	2,538	9.6	8.8	<0.4	1.8
Jan-11-2019	5.5	7.5	2,012	12.5	14.3	<0.4	1.6
Jan-18-2019	NA	NA	NA	NA	NA	NA	NA
Jan-24-2019	14.9	7.8	2,201	11.8	12.8	<0.4	1.7
Jan-29-2019	16.2	7.7	2,473	13.3	11.3	<0.4	1.9
Feb-05-2019	12.4	7.9	2,019	10.0	16.3	<0.4	1.6
Feb-12-2019	14.8	7.8	1,963	10.0	17.7	0.4	1.6
Feb-21-2019	NA	NA	NA	NA	NA	NA	NA
Feb-28-2019	9.9	8.0	1,137	13.3	52.2	0.5	1.0
Mar-07-2019	16.5	7.9	1,558	14.8	54.4	0.7	1.1
Mar-12-2019	16.6	7.9	1,534	14.7	34.2	0.6	1.2
Mar-21-2019	12.9	8.0	1,449	16.2	65.3	0.6	1.2
Mar-26-2019	13.1	8.2	2,140	19.5	13.3	1.01 U	1.6
Apr-04-2019	8.4	7.9	1,775	18.2	73.8	<0.4	1.5
Apr-11-2019	10.7	8.4	1,949	16.4	52.5	0.8	1.8
Apr-18-2019	10.0	8.1	1,635	21.8	67.9	1.01 U	1.7
Apr-25-2019	12.8	8.3	862	25.5	73.9	0.6	0.7
Apr-30-2019	14.2	8.2	1,388	22.6	46.0	0.6	1.2
May-08-2019	16.0	8.3	1,121	24.2	40.9	0.6	0.8
May-15-2019	10.8	7.6	1,033	20.0	39.1	0.4	0.7
May-21-2019	12.9	8.0	1,196	19.4	39.0	0.4	0.9
May-29-2019	11.3	7.8	1,105	21.7	27.8	0.5	1.0
Jun-03-2019	8.6	7.5	1,064	27.0	6.4	0.6	0.9
Jun-14-2019	11.9	8.0	980	25.9	146.0	0.6	1.0
Jun-18-2019	12.4	8.1	1,834	27.9	29.8	0.5	1.6
Jun-24-2019	14.4	8.7	1,945	29.6	60.5	0.6	1.5
Jul-02-2019	13.8	8.6	1,363	26.4	24.3	0.8	1.2
Jul-11-2019	12.9	8.6	1,152	27.9	54.0	0.8	0.9
Jul-18-2019	13.9	8.5	1,761	28.0	41.7	0.6	1.3
Jul-24-2019	11.7	8.9	1,015	28.4	47.0	0.8	1.0
Jul-29-2019	11.4	8.6	1,171	30.6	32.5	0.5	0.9
Aug-09-2019	15.9	8.9	1,514	25.6	38.5	0.8	1.3
Aug-13-2019	11.8	8.7	912	27.6	68.3	1.1	1.1
Aug-21-2019	9.6	8.3	1,144	25.3	116.0	0.8	0.8
Aug-29-2019	11.3	8.0	638	27.1	43.0	<0.4	0.3
Sep-06-2019	8.8	7.9	1,189	26.3	63.2	0.5	0.7
Sep-10-2019	8.8	7.8	569	22.9	50.0	0.5	0.3
Sep-20-2019	13.2	8.0	1,455	21.7	19.8	<0.4	0.9
Sep-25-2019	NA	NA	NA	NA	NA	NA	NA
Oct-02-2019	12.4	7.6	1,051	18.5	21.7	<0.4	0.7
Oct-09-2019	9.2	7.6	853	17.1	45.6	<0.4	0.6
Oct-16-2019	8.7	7.3	863	16.9	23.8	<0.4	0.6
Oct-23-2019	7.1	7.7	794	16.7	15.6	<0.4	0.5
Oct-30-2019	7.2	7.6	1,090	10.6	7.6	<0.4	0.7
Nov-06-2019	10.0	7.7	1,067	14.1	11.8	<0.4	0.7
Nov-15-2019	11.1	7.7	1,041	14.2	11.1	<0.4	0.8
Nov-19-2019	10.4	7.6	1,129	14.8	8.3	<0.4	0.8
Nov-26-2019	10.2	7.5	1,224	8.7	NA	<0.4	0.8
Dec-03-2019	NA	NA	NA	NA	NA	NA	NA
Dec-12-2019	NA	NA	NA	NA	NA	NA	NA
Dec-19-2019	NA	NA	NA	NA	10.3	<0.4	1.2
Dec-23-2019	NA	NA	NA	NA	NA	NA	NA
Dec-30-2019	NA	NA	NA	NA	NA	NA	NA

NOTES: See Table 14 for explanation of footnotes and agency abbreviations

**Table 5a. Water quality monitoring in Salt Slough at Highway 165 (Station F)  
USGS Station Code: 11261100**

<b>PARAMETER</b>	<b>Flow</b>	<b>Temperature</b>	<b>Specific Conductance</b>
<b>DATA SOURCE</b>	<b>USGS</b>	<b>USGS</b>	<b>USGS</b>
<b>UNITS</b>	<b>cfs</b>	<b>°C</b>	<b>µS/cm</b>
Jan-01-2019	112	7.7	1,920
Jan-02-2019	112	7.5	1,950
Jan-03-2019	110	7.7	1,950
Jan-04-2019	109	8.2	1,960
Jan-05-2019	108	8.3	1,970
Jan-06-2019	112	8.6	1,930
Jan-07-2019	120	10.3	1,860
Jan-08-2019	111	11.7	1,850
Jan-09-2019	106	12.4	1,860
Jan-10-2019	106	12.6	1,900
Jan-11-2019	108	12.3	1,930
Jan-12-2019	111	11.9	1,890
Jan-13-2019	117	11.4	1,840
Jan-14-2019	120	11.0	1,790
Jan-15-2019	124	10.5	1,800
Jan-16-2019	133	11.0	1,750
Jan-17-2019	143	11.9	1,640
Jan-18-2019	149	12.5	1,700
Jan-19-2019	155	13.0	1,820
Jan-20-2019	153	13.2	1,900
Jan-21-2019	137	12.4	1,910
Jan-22-2019	127	10.9	1,890
Jan-23-2019	119	10.8	2,000
Jan-24-2019	118	11.0	1,950
Jan-25-2019	127	10.9	1,840
Jan-26-2019	132	10.8	1,700
Jan-27-2019	137	11.4	1,560
Jan-28-2019	136	11.9	1,630
Jan-29-2019	141	12.3	1,580
Jan-30-2019	141	12.6	1,590
Jan-31-2019	133	13.7	1,640
Feb-01-2019	135	13.4	1,550
Feb-02-2019	146	13.2	1,470
Feb-03-2019	160	12.6	1,480
Feb-04-2019	173	11.9	1,470
Feb-05-2019	200	10.8	1,460
Feb-06-2019	250	9.9	1,440
Feb-07-2019	261	9.3	1,540
Feb-08-2019	243	9.3	1,630
Feb-09-2019	220	10.3	1,680
Feb-10-2019	214	10.6	1,670
Feb-11-2019	223	10.3	1,660

<b>PARAMETER</b>	<b>Flow</b>	<b>Temperature</b>	<b>Specific Conductance</b>
<b>DATA SOURCE</b>	<b>USGS</b>	<b>USGS</b>	<b>USGS</b>
<b>UNITS</b>	<b>cfs</b>	<b>°C</b>	<b>µS/cm</b>
Feb-12-2019	249	9.5	1,650
Feb-13-2019	252	9.8	1,640
Feb-14-2019	249	11.7	1,590
Feb-15-2019	258	11.8	1,530
Feb-16-2019	279	11.4	1,520
Feb-17-2019	301	11.0	1,520
Feb-18-2019	314	10.3	1,540
Feb-19-2019	320	9.9	1,540
Feb-20-2019	316	10.0	1,570
Feb-21-2019	309	9.9	1,610
Feb-22-2019	299	9.4	1,640
Feb-23-2019	290	9.6	1,630
Feb-24-2019	283	10.3	1,440
Feb-25-2019	279	11.4	1,340
Feb-26-2019	276	12.2	1,320
Feb-27-2019	277	12.8	1,240
Feb-28-2019	276	13.5	1,330
Mar-01-2019	271	13.5	1,480
Mar-02-2019	265	14.0	1,510
Mar-03-2019	259	14.8	1,520
Mar-04-2019	262	15.2	1,510
Mar-05-2019	272	14.8	1,440
Mar-06-2019	281	14.1	1,350
Mar-07-2019	285	14.3	1,380
Mar-08-2019	287	14.0	1,430
Mar-09-2019	293	13.3	1,450
Mar-10-2019	303	12.9	1,450
Mar-11-2019	291	13.1	1,500
Mar-12-2019	276	13.3	1,520
Mar-13-2019	263	12.8	1,500
Mar-14-2019	252	12.9	1,450
Mar-15-2019	248	13.4	1,440
Mar-16-2019	246	14.2	1,480
Mar-17-2019	241	15.3	1,440
Mar-18-2019	239	16.6	1,460
Mar-19-2019	239	17.2	1,490
Mar-20-2019	242	16.9	1,470
Mar-21-2019	244	16.5	1,430
Mar-22-2019	247	15.9	1,410
Mar-23-2019	257	16.1	1,380
Mar-24-2019	271	15.9	1,360
Mar-25-2019	281	16.1	1,350
Mar-26-2019	286	16.8	1,340
Mar-27-2019	287	17.3	1,330

<b>PARAMETER</b>	<b>Flow</b>	<b>Temperature</b>	<b>Specific Conductance</b>
<b>DATA SOURCE</b>	<b>USGS</b>	<b>USGS</b>	<b>USGS</b>
<b>UNITS</b>	<b>cfs</b>	<b>°C</b>	<b>µS/cm</b>
Mar-28-2019	286	17.0	1,360
Mar-29-2019	284	16.8	1,390
Mar-30-2019	285	16.6	1,390
Mar-31-2019	284	17.0	1,400
Apr-01-2019	282	17.3	1,400
Apr-02-2019	280	17.9	1,380
Apr-03-2019	274	18.0	1,390
Apr-04-2019	259	17.6	1,450
Apr-05-2019	241	16.9	1,440
Apr-06-2019	224	17.3	1,410
Apr-07-2019	214	18.2	1,400
Apr-08-2019	206	19.3	1,300
Apr-09-2019	205	19.2	1,260
Apr-10-2019	199	17.2	1,250
Apr-11-2019	189	16.3	1,280
Apr-12-2019	182	16.0	1,280
Apr-13-2019	168	17.2	1,360
Apr-14-2019	156	18.9	1,430
Apr-15-2019	150	18.9	1,370
Apr-16-2019	149	18.2	1,310
Apr-17-2019	155	18.3	1,240
Apr-18-2019	160	19.6	1,210
Apr-19-2019	163	21.1	1,220
Apr-20-2019	167	20.8	1,110
Apr-21-2019	174	19.1	1,050
Apr-22-2019	176	19.0	1,040
Apr-23-2019	176	19.9	974
Apr-24-2019	170	21.7	1,050
Apr-25-2019	160	23.4	1,230
Apr-26-2019	158	23.7	1,290
Apr-27-2019	159	22.9	1,310
Apr-28-2019	157	21.6	1,260
Apr-29-2019	153	20.8	1,130
Apr-30-2019	150	19.9	1,110
May-01-2019	148	19.5	1,110
May-02-2019	140	20.0	1,210
May-03-2019	138	20.8	1,200
May-04-2019	137	21.2	1,220
May-05-2019	139	20.7	1,130
May-06-2019	144	20.3	1,090
May-07-2019	147	19.9	1,050
May-08-2019	141	20.8	1,170
May-09-2019	135	21.6	1,160
May-10-2019	137	21.2	1,050

<b>PARAMETER</b>	<b>Flow</b>	<b>Temperature</b>	<b>Specific Conductance</b>
<b>DATA SOURCE</b>	<b>USGS</b>	<b>USGS</b>	<b>USGS</b>
<b>UNITS</b>	<b>cfs</b>	<b>°C</b>	<b>µS/cm</b>
May-11-2019	138	21.9	1,080
May-12-2019	140	22.5	1,010
May-13-2019	138	22.4	1,050
May-14-2019	135	21.6	1,050
May-15-2019	130	20.4	1,150
May-16-2019	123	19.0	1,180
May-17-2019	135	18.4	1,190
May-18-2019	152	17.5	1,030
May-19-2019	163	17.0	1,000
May-20-2019	173	17.3	954
May-21-2019	188	17.8	883
May-22-2019	200	18.2	813
May-23-2019	208	18.9	822
May-24-2019	212	19.6	856
May-25-2019	205	20.3	922
May-26-2019	194	18.8	926
May-27-2019	192	18.0	925
May-28-2019	182	18.6	961
May-29-2019	158	20.6	996
May-30-2019	130	22.3	1,110
May-31-2019	114	23.2	1,270
Jun-01-2019	114	23.9	1,200
Jun-02-2019	112	24.4	1,180
Jun-03-2019	111	24.6	1,020
Jun-04-2019	111	25.4	912
Jun-05-2019	110	26.5	923
Jun-06-2019	108	26.5	897
Jun-07-2019	103	23.8	962
Jun-08-2019	93	21.1	844
Jun-09-2019	82	21.9	845
Jun-10-2019	86	24.1	891
Jun-11-2019	109	26.0	769
Jun-12-2019	131	27.4	759
Jun-13-2019	147	26.7	837
Jun-14-2019	155	25.5	816
Jun-15-2019	164	24.7	883
Jun-16-2019	184	24.2	860
Jun-17-2019	205	24.7	762
Jun-18-2019	224	25.6	711
Jun-19-2019	237	26.0	736
Jun-20-2019	239	25.6	745
Jun-21-2019	237	23.9	740
Jun-22-2019	228	23.1	774
Jun-23-2019	199	24.0	809



<b>PARAMETER</b>	<b>Flow</b>	<b>Temperature</b>	<b>Specific Conductance</b>
<b>DATA SOURCE</b>	<b>USGS</b>	<b>USGS</b>	<b>USGS</b>
<b>UNITS</b>	<b>cfs</b>	<b>°C</b>	<b>µS/cm</b>
Jun-24-2019	166	25.0	777
Jun-25-2019	153	24.9	737
Jun-26-2019	140	24.2	731
Jun-27-2019	115	23.1	820
Jun-28-2019	98	22.0	944
Jun-29-2019	101	22.1	875
Jun-30-2019	107	23.1	715
Jul-01-2019	114	23.6	645
Jul-02-2019	121	23.5	644
Jul-03-2019	123	23.6	683
Jul-04-2019	115	23.6	734
Jul-05-2019	107	24.5	703
Jul-06-2019	104	25.0	704
Jul-07-2019	104	24.5	681
Jul-08-2019	109	23.6	704
Jul-09-2019	124	23.1	631
Jul-10-2019	133	23.6	597
Jul-11-2019	133	24.5	575
Jul-12-2019	129	25.1	622
Jul-13-2019	119	25.8	638
Jul-14-2019	103	26.2	702
Jul-15-2019	92	25.9	761
Jul-16-2019	89	25.8	757
Jul-17-2019	90	25.3	702
Jul-18-2019	91	25.1	679
Jul-19-2019	101	24.9	645
Jul-20-2019	118	24.5	598
Jul-21-2019	132	24.6	631
Jul-22-2019	136	25.4	627
Jul-23-2019	128	26.2	614
Jul-24-2019	117	26.0	577
Jul-25-2019	110	26.3	569
Jul-26-2019	105	26.3	581
Jul-27-2019	103	26.0	593
Jul-28-2019	104	26.5	562
Jul-29-2019	95	26.6	606
Jul-30-2019	89	25.4	685
Jul-31-2019	87	24.5	692
Aug-01-2019	87	24.5	716
Aug-02-2019	93	24.5	695
Aug-03-2019	100	24.8	670
Aug-04-2019	107	25.4	670
Aug-05-2019	116	25.1	658
Aug-06-2019	131	25.3	636

<b>PARAMETER</b>	<b>Flow</b>	<b>Temperature</b>	<b>Specific Conductance</b>
<b>DATA SOURCE</b>	<b>USGS</b>	<b>USGS</b>	<b>USGS</b>
<b>UNITS</b>	<b>cfs</b>	<b>°C</b>	<b>µS/cm</b>
Aug-07-2019	139	25.3	620
Aug-08-2019	139	24.7	612
Aug-09-2019	142	23.9	608
Aug-10-2019	145	23.7	582
Aug-11-2019	140	23.2	553
Aug-12-2019	128	23.4	563
Aug-13-2019	117	23.9	556
Aug-14-2019	109	24.5	590
Aug-15-2019	108	25.3	648
Aug-16-2019	108	25.8	617
Aug-17-2019	111	25.2	597
Aug-18-2019	114	23.8	567
Aug-19-2019	114	22.9	569
Aug-20-2019	105	22.6	609
Aug-21-2019	99	22.5	635
Aug-22-2019	98	23.4	599
Aug-23-2019	100	24.6	582
Aug-24-2019	101	25.0	592
Aug-25-2019	97	25.2	606
Aug-26-2019	91	25.1	648
Aug-27-2019	89	24.9	688
Aug-28-2019	88	24.9	698
Aug-29-2019	89	24.6	710
Aug-30-2019	94	24.1	709
Aug-31-2019	96	23.7	690
Sep-01-2019	96	23.7	710
Sep-02-2019	99	24.0	703
Sep-03-2019	108	23.8	683
Sep-04-2019	111	24.0	688
Sep-05-2019	107	24.0	712
Sep-06-2019	100	23.7	714
Sep-07-2019	95	22.9	744
Sep-08-2019	99	22.0	732
Sep-09-2019	100	21.4	687
Sep-10-2019	96	20.9	701
Sep-11-2019	86	20.5	726
Sep-12-2019	75	20.6	804
Sep-13-2019	68	20.9	882
Sep-14-2019	63	21.3	920
Sep-15-2019	60	21.3	937
Sep-16-2019	64	20.8	994
Sep-17-2019	67	20.0	998
Sep-18-2019	76	19.5	849
Sep-19-2019	78	19.3	720

<b>PARAMETER</b>	<b>Flow</b>	<b>Temperature</b>	<b>Specific Conductance</b>
<b>DATA SOURCE</b>	<b>USGS</b>	<b>USGS</b>	<b>USGS</b>
<b>UNITS</b>	<b>cfs</b>	<b>°C</b>	<b>µS/cm</b>
Sep-20-2019	71	19.0	783
Sep-21-2019	64	18.8	861
Sep-22-2019	63	19.0	901
Sep-23-2019	64	19.4	928
Sep-24-2019	66	19.9	881
Sep-25-2019	68	20.5	820
Sep-26-2019	69	21.1	745
Sep-27-2019	68	21.1	736
Sep-28-2019	66	19.8	756
Sep-29-2019	66	18.2	759
Sep-30-2019	67	16.9	727
Oct-01-2019	63	15.8	699
Oct-02-2019	63	15.3	673
Oct-03-2019	66	15.3	673
Oct-04-2019	67	15.2	720
Oct-05-2019	69	15.2	725
Oct-06-2019	71	15.5	684
Oct-07-2019	71	16.1	691
Oct-08-2019	73	16.5	707
Oct-09-2019	76	16.3	718
Oct-10-2019	78	15.4	713
Oct-11-2019	80	15.1	689
Oct-12-2019	84	14.8	676
Oct-13-2019	86	14.6	679
Oct-14-2019	86	14.7	720
Oct-15-2019	82	14.8	764
Oct-16-2019	83	14.9	794
Oct-17-2019	81	15.3	813
Oct-18-2019	78	15.2	851
Oct-19-2019	79	15.1	902
Oct-20-2019	80	15.3	919
Oct-21-2019	78	15.4	937
Oct-22-2019	80	15.5	969
Oct-23-2019	84	15.7	976
Oct-24-2019	88	15.7	962
Oct-25-2019	92	15.8	950
Oct-26-2019	98	15.7	958
Oct-27-2019	101	14.4	994
Oct-28-2019	101	13.4	1,020
Oct-29-2019	102	12.4	1,020
Oct-30-2019	100	11.6	1,020
Oct-31-2019	102	11.1	1,030
Nov-01-2019	107	10.8	1,010
Nov-02-2019	106	10.7	1,010

<b>PARAMETER</b>	<b>Flow</b>	<b>Temperature</b>	<b>Specific Conductance</b>
<b>DATA SOURCE</b>	<b>USGS</b>	<b>USGS</b>	<b>USGS</b>
<b>UNITS</b>	<b>cfs</b>	<b>°C</b>	<b>µS/cm</b>
Nov-03-2019	99	10.6	1,060
Nov-04-2019	97	10.9	1,090
Nov-05-2019	98	11.2	1,100
Nov-06-2019	97	11.6	1,100
Nov-07-2019	96	11.9	1,100
Nov-08-2019	100	12.2	1,080
Nov-09-2019	103	12.5	1,050
Nov-10-2019	100	12.5	1,040
Nov-11-2019	100	12.5	1,080
Nov-12-2019	100	12.6	1,100
Nov-13-2019	99	12.7	1,090
Nov-14-2019	102	13.0	1,070
Nov-15-2019	104	13.2	1,080
Nov-16-2019	103	13.1	1,100
Nov-17-2019	107	13.0	1,070
Nov-18-2019	113	12.8	1,030
Nov-19-2019	115	12.8	1,000
Nov-20-2019	120	12.7	1,000
Nov-21-2019	121	12.4	979
Nov-22-2019	120	12.0	986
Nov-23-2019	120	11.7	1,020
Nov-24-2019	119	11.3	1,040
Nov-25-2019	121	10.6	1,060
Nov-26-2019	124	9.8	1,070
Nov-27-2019	122	9.6	1,070
Nov-28-2019	126	9.2	1,080
Nov-29-2019	125	9.1	1,090
Nov-30-2019	130	8.5	1,080
Dec-01-2019	141	8.6	1,050
Dec-02-2019	161	9.2	1,060
Dec-03-2019	187	9.8	1,120
Dec-04-2019	220	10.3	937
Dec-05-2019	248	10.8	894
Dec-06-2019	267	11.2	888
Dec-07-2019	281	12.0	932
Dec-08-2019	292	12.6	913
Dec-09-2019	295	12.5	910
Dec-10-2019	294	12.2	926
Dec-11-2019	290	12.2	942
Dec-12-2019	281	12.4	969
Dec-13-2019	272	12.7	1,010
Dec-14-2019	261	12.8	1,030
Dec-15-2019	248	12.1	1,070
Dec-16-2019	234	11.3	1,140

<b>PARAMETER</b>	<b>Flow</b>	<b>Temperature</b>	<b>Specific Conductance</b>
<b>DATA SOURCE</b>	<b>USGS</b>	<b>USGS</b>	<b>USGS</b>
<b>UNITS</b>	<b>cfs</b>	<b>°C</b>	<b>µS/cm</b>
Dec-17-2019	221	10.5	1,200
Dec-18-2019	209	10.0	1,280
Dec-19-2019	196	10.0	1,370
Dec-20-2019	186	9.8	1,430
Dec-21-2019	176	9.7	1,410
Dec-22-2019	168	9.8	1,450
Dec-23-2019	162	10.2	1,490
Dec-24-2019	157	9.7	1,550
Dec-25-2019	152	9.7	1,570
Dec-26-2019	149	9.7	1,610
Dec-27-2019	148	9.0	1,620
Dec-28-2019	147	8.4	1,610
Dec-29-2019	140	8.3	1,650
Dec-30-2019	130	9.0	1,700
Dec-31-2019	127	8.9	1,750

**NOTES:** See Table 14 for explanation of footnotes and agency abbreviations

USGS data webpage

[http://waterdata.usgs.gov/nwis/dv/?site\\_no=11261100&agency\\_cd=USGS&referred\\_module=sw](http://waterdata.usgs.gov/nwis/dv/?site_no=11261100&agency_cd=USGS&referred_module=sw)

**Table 5b. Monthly averages and totals**

<b>PARAMETER</b>	<b>Total Flow</b>	<b>Average Temperature</b>	<b>Average Specific Conductance</b>
<b>DATA SOURCE</b>	<b>Calculated</b>	<b>Calculated</b>	<b>Calculated</b>
<b>UNITS</b>	<b>acre-feet</b>	<b>°C</b>	<b>µS/cm</b>
Jan-19	7,670	11.0	1,823
Feb-19	13,990	10.9	1,525
Mar-19	16,520	15.1	1,433
Apr-19	11,220	19.2	1,264
May-19	9,550	20.0	1,051
Jun-19	8,670	24.5	849
Jul-19	6,790	25.0	650
Aug-19	6,730	24.4	629
Sep-19	4,710	20.9	793
Oct-19	5,040	14.9	827
Nov-19	6,530	11.6	1,058
Dec-19	12,770	10.5	1,241

**NOTES:**

**Table 5c. Other water quality monitoring in Salt Slough at Highway 165 (Station F)**

PARAMETER	Physicals					Total Selenium	Total Boron
	Dissolved Oxygen	pH	Specific Conductance	Temperature	Turbidity		
DATA SOURCE	USBR	USBR	USBR	USBR	USBR	USBR	USBR
UNITS	mg/L	units	µS/cm	°C	NTU	µg/L	mg/L
Jan-04-2019	19.5	7.9	1,896	8.7	51.5	<0.4	0.9
Jan-11-2019	5.4	7.6	1,786	12.8	57.8	<0.4	0.9
Jan-18-2019	13.5	7.7	1,607	12.7	64.7	0.5	0.9
Jan-24-2019	14.2	7.6	1,837	11.8	32.2	<0.4	1.0
Jan-29-2019	16.1	7.7	1,564	12.8	34.3	<0.4	0.8
Feb-05-2019	11.7	7.7	1,478	10.7	41.1	<0.4	0.8
Feb-12-2019	15.2	7.8	1,614	9.6	22.6	<0.4	0.8
Feb-21-2019	18.8	7.4	1,641	10.1	15.5	<0.4	0.9
Feb-28-2019	9.4	7.4	1,260	13.5	20.6	0.4	0.8
Mar-07-2019	14.8	7.4	1,338	14.8	19.4	0.5	0.8
Mar-12-2019	20.3	8.0	1,541	13.9	17.8	<0.4	0.9
Mar-21-2019	10.6	7.6	1,514	17.1	17.6	0.6	1.2
Mar-26-2019	10.0	7.7	1,372	17.0	14.7	<0.4	1.0
Apr-04-2019	8.7	7.8	1,515	17.5	18.7	<0.4	0.9
Apr-11-2019	10.4	7.8	1,471	16.3	27.2	0.4	0.7
Apr-18-2019	9.8	7.9	1,399	20.0	34.6	<0.4	0.6
Apr-25-2019	10.5	7.4	1,331	23.2	31.6	<0.4	0.7
Apr-30-2019	10.9	7.7	1,172	20.4	49.3	<0.4	0.6
May-08-2019	13.4	7.7	1,266	21.2	47.6	<0.4	0.6
May-15-2019	10.5	7.7	1,278	20.0	55.9	<0.4	0.5
May-21-2019	10.7	7.5	936	17.8	49.8	<0.4	0.4
May-29-2019	12.1	8.0	1,027	20.5	22.7	<0.4	0.3
Jun-03-2019	12.2	8.0	1,010	24.2	21.5	<0.4	0.4
Jun-14-2019	10.2	7.4	853	25.2	62.3	<0.4	0.3
Jun-18-2019	9.1	7.6	669	25.6	60.9	<0.4	0.3
Jun-24-2019	10.2	7.9	693	25.1	69.8	<0.4	0.3
Jul-02-2019	8.9	8.0	644	23.5	91.7	<0.4	0.2
Jul-11-2019	8.6	7.8	568	24.8	62.9	<0.4	0.2
Jul-18-2019	8.7	7.8	678	25.6	66.7	<0.4	0.2
Jul-24-2019	8.7	7.7	609	26.0	42.7	<0.4	0.3
Jul-29-2019	8.6	7.8	621	26.9	39.2	<0.4	0.2
Aug-09-2019	8.9	7.7	645	24.1	29.1	<0.4	0.4
Aug-13-2019	8.3	7.6	582	24.0	34.5	<0.4	0.3
Aug-21-2019	8.9	7.7	667	22.9	30.1	<0.4	0.2
Aug-29-2019	9.3	7.7	727	24.6	20.8	<0.4	0.2
Sep-06-2019	7.7	7.6	726	23.6	20.2	<0.4	0.3
Sep-10-2019	6.8	7.7	700	20.6	19.0	<0.4	0.3
Sep-20-2019	11.2	7.8	777	19.2	13.7	<0.4	0.3
Sep-25-2019	NA	NA	NA	NA	NA	NA	NA
Oct-02-2019	11.5	7.3	642	15.1	14.6	<0.4	0.3
Oct-09-2019	10.2	7.8	692	15.8	26.6	<0.4	0.3
Oct-16-2019	11.6	7.7	788	14.6	31.2	<0.4	0.4
Oct-23-2019	7.7	7.2	962	14.4	25.8	<0.4	0.5
Oct-30-2019	6.5	6.8	1,024	10.2	25.8	<0.4	0.5
Nov-06-2019	10.1	6.9	1,106	11.5	15.3	<0.4	0.5
Nov-15-2019	10.5	7.1	1,087	12.2	22.6	<0.4	0.5
Nov-19-2019	10.5	6.8	1,008	12.5	30.2	<0.4	0.6
Nov-26-2019	10.0	7.1	1,132	8.8	NA	<0.4	0.5
Dec-03-2019	8.7	7.0	1,176	8.7	22.3	<0.4	0.5
Dec-12-2019	6.8	7.0	997	11.2	10.2	0.4	0.6
Dec-19-2019	NA	7.2	1,420	8.6	7.3	<0.4	0.7
Dec-23-2019	9.5	7.6	1,554	8.9	12.1	<0.4	0.7
Dec-30-2019	11.4	7.4	1,754	8.1	9.6	<0.4	0.9

NOTES: See Table 14 for explanation of footnotes and agency abbreviations

**Table 6a. Water quality monitoring in the San Joaquin River above Merced River confluence (Station H2)  
USGS Station Code: 11273400**

PARAMETER	Flow	Temperature	Specific Conductance	Dissolved Oxygen	pH	Turbidity
DATA SOURCE	USGS	USGS	USGS	USGS	USGS	USGS
UNITS	cfs	°C	µS/cm	mg/L	units	NTU
Jan-01-2019	375	7.4	1,780	10.6	8.1	NA
Jan-02-2019	374	7.2	1,800	10.7	8.1	NA
Jan-03-2019	368	7.3	1,750	10.8	8.0	NA
Jan-04-2019	369	7.5	1,650	10.8	8.0	NA
Jan-05-2019	355	7.5	1,690	10.5	8.0	NA
Jan-06-2019	366	7.9	1,620	10.4	8.0	NA
Jan-07-2019	410	9.4	1,550	10.2	8.1	NA
Jan-08-2019	475	10.2	1,400	9.8	8.0	NA
Jan-09-2019	589	10.7	1,070	9.5	8.0	NA
Jan-10-2019	603	11.5	1,050	8.6	7.9	NA
Jan-11-2019	555	11.8	1,180	8.2	7.8	NA
Jan-12-2019	530	11.5	1,200	8.6	7.8	NA
Jan-13-2019	532	11.2	1,220	8.9	7.9	NA
Jan-14-2019	522	10.9	1,270	8.9	7.9	NA
Jan-15-2019	547	10.4	1,300	9.0	7.9	NA
Jan-16-2019	625	10.6	1,280	9.0	7.9	NA
Jan-17-2019	707	11.5	1,290	8.9	7.9	NA
Jan-18-2019	837	12.0	1,220	8.7	7.9	NA
Jan-19-2019	1,220	12.6	1,160	8.3	7.8	NA
Jan-20-2019	1,440	12.8	959	7.7	7.7	NA
Jan-21-2019	1,320	12.8	990	7.6	7.7	NA
Jan-22-2019	1,070	11.6	1,070	8.1	7.8	NA
Jan-23-2019	874	10.9	1,150	8.6	7.9	NA
Jan-24-2019	753	10.7	1,220	8.9	7.9	NA
Jan-25-2019	660	10.9	1,270	8.5	7.9	NA
Jan-26-2019	606	11.0	1,330	8.8	7.9	NA
Jan-27-2019	570	11.5	1,430	8.9	7.9	NA
Jan-28-2019	542	11.9	1,420	8.9	7.9	NA
Jan-29-2019	519	12.3	1,440	8.9	7.9	NA
Jan-30-2019	504	12.7	1,440	8.9	7.9	NA
Jan-31-2019	500	13.7	1,440	8.9	7.9	NA
Feb-01-2019	503	13.4	1,500	8.7	8.0	NA
Feb-02-2019	562	13.3	1,840	8.8	8.0	NA
Feb-03-2019	669	12.9	1,910	9.0	8.0	NA
Feb-04-2019	1,080	12.2	1,520	9.1	8.1	NA
Feb-05-2019	1,520	11.2	966	8.8	7.9	NA
Feb-06-2019	2,280	9.8	652	8.6	7.7	NA
Feb-07-2019	NA	9.4	652	8.8	7.7	NA
Feb-08-2019	NA	9.4	632	8.7	7.7	NA
Feb-09-2019	NA	9.8	704	8.6	7.7	NA
Feb-10-2019	2,460	10.2	738	8.7	7.8	NA
Feb-11-2019	2,370	10.4	701	9.0	7.8	NA
Feb-12-2019	NA	9.8	590	9.1	7.6	31.6
Feb-13-2019	NA	9.6	638	9.1	7.5	26.6
Feb-14-2019	NA	10.9	739	9.2	7.6	20.8
Feb-15-2019	NA	11.8	663	8.8	7.6	17.8
Feb-16-2019	NA	11.8	546	8.4	7.5	18.8
Feb-17-2019	NA	11.3	481	8.1	7.4	26.5
Feb-18-2019	NA	10.4	517	8.0	7.4	29.6
Feb-19-2019	NA	9.9	523	8.3	7.4	23.5
Feb-20-2019	NA	10.1	498	8.1	7.4	20.2
Feb-21-2019	NA	10.3	488	8.0	7.4	17.9
Feb-22-2019	NA	9.5	503	8.6	7.5	15.6
Feb-23-2019	NA	9.7	534	8.7	7.5	13.5
Feb-24-2019	NA	10.5	551	8.8	7.5	12.2
Feb-25-2019	NA	11.5	576	8.9	7.5	11.4
Feb-26-2019	NA	11.9	572	8.5	7.5	11.6
Feb-27-2019	NA	12.4	570	8.6	7.5	11.7
Feb-28-2019	NA	13.0	578	8.5	7.6	11.5
Mar-01-2019	NA	13.2	585	8.4	7.6	10.9
Mar-02-2019	NA	13.7	629	8.1	7.6	10.9
Mar-03-2019	NA	14.8	730	7.9	7.6	13.3
Mar-04-2019	NA	15.5	756	8.0	7.6	14.2
Mar-05-2019	NA	15.4	906	7.7	7.6	14.5
Mar-06-2019	NA	14.8	879	7.9	7.6	15.5
Mar-07-2019	NA	14.2	746	8.1	7.6	15.6
Mar-08-2019	NA	14.3	679	8.0	7.6	16.7
Mar-09-2019	NA	13.8	580	8.0	7.6	18.1
Mar-10-2019	NA	13.4	500	7.9	7.5	21.6
Mar-11-2019	NA	13.5	573	8.2	7.5	16.5



PARAMETER	Flow	Temperature	Specific Conductance	Dissolved Oxygen	pH	Turbidity
DATA SOURCE	USGS	USGS	USGS	USGS	USGS	USGS
UNITS	cfs	°C	µS/cm	mg/L	units	NTU
Mar-12-2019	NA	14.0	661	8.4	7.6	14.5
Mar-13-2019	NA	13.4	723	8.7	7.7	17.1
Mar-14-2019	NA	13.3	796	8.9	7.8	17.7
Mar-15-2019	2,200	13.8	861	9.0	7.8	18.1
Mar-16-2019	2,040	14.9	933	8.7	7.8	19.1
Mar-17-2019	1,870	15.6	932	8.5	7.7	16.5
Mar-18-2019	1,840	16.4	928	8.4	7.7	15.9
Mar-19-2019	1,790	16.9	960	8.1	7.7	15.7
Mar-20-2019	1,770	16.6	976	8.0	7.7	16.4
Mar-21-2019	1,770	16.3	984	8.1	7.7	17.1
Mar-22-2019	1,770	16.0	999	8.1	7.7	18.3
Mar-23-2019	1,810	15.9	965	8.3	7.7	17.9
Mar-24-2019	2,020	16.0	796	8.5	7.8	16.5
Mar-25-2019	2,290	16.2	685	8.4	7.7	14.7
Mar-26-2019	NA	16.8	647	8.3	7.7	13.1
Mar-27-2019	NA	17.2	652	8.2	7.7	12.1
Mar-28-2019	NA	16.9	628	8.2	7.7	12.4
Mar-29-2019	NA	16.6	584	8.4	7.7	13.9
Mar-30-2019	NA	16.5	508	8.5	7.7	12.3
Mar-31-2019	NA	16.6	460	8.5	7.7	10.2
Apr-01-2019	NA	17.0	457	8.1	7.6	9.1
Apr-02-2019	NA	17.4	461	7.8	7.5	9.1
Apr-03-2019	NA	17.8	516	7.5	7.5	9.4
Apr-04-2019	NA	18.5	677	6.7	7.5	14.9
Apr-05-2019	2,290	17.9	708	6.5	7.5	18.9
Apr-06-2019	1,990	17.9	739	6.7	7.5	19.4
Apr-07-2019	1,780	18.7	796	6.8	7.5	21.0
Apr-08-2019	1,600	19.6	856	6.8	7.5	21.3
Apr-09-2019	1,420	19.5	903	7.1	7.6	23.6
Apr-10-2019	1,260	17.9	964	7.6	7.7	26.7
Apr-11-2019	1,140	16.8	1,060	7.9	7.7	26.0
Apr-12-2019	1,030	16.4	1,130	8.7	7.8	24.4
Apr-13-2019	964	17.2	1,190	9.5	7.8	23.8
Apr-14-2019	928	18.5	1,230	9.8	7.8	23.6
Apr-15-2019	895	18.6	1,290	9.7	NA	23.9
Apr-16-2019	856	18.1	1,310	9.3	NA	25.3
Apr-17-2019	788	18.4	1,300	9.5	8.0	26.4
Apr-18-2019	688	20.4	1,440	9.0	8.0	35.7
Apr-19-2019	626	22.0	1,460	8.4	7.9	39.8
Apr-20-2019	598	22.0	1,410	8.2	8.0	38.1
Apr-21-2019	591	21.0	1,300	8.0	8.0	38.8
Apr-22-2019	583	21.1	1,260	7.9	7.9	38.7
Apr-23-2019	577	21.7	1,240	8.1	7.9	40.2
Apr-24-2019	571	23.1	1,190	8.2	7.9	41.0
Apr-25-2019	568	24.5	1,230	8.2	8.0	39.1
Apr-26-2019	557	24.7	1,290	7.9	7.9	38.3
Apr-27-2019	547	24.4	1,330	7.4	7.9	41.4
Apr-28-2019	541	23.6	1,320	7.3	7.8	43.6
Apr-29-2019	508	23.2	1,390	7.4	7.8	41.2
Apr-30-2019	518	22.1	1,230	7.5	7.8	40.6
May-01-2019	553	21.4	1,190	7.8	7.9	36.3
May-02-2019	585	21.3	1,120	7.9	7.9	33.2
May-03-2019	599	21.5	1,150	7.9	7.9	30.8
May-04-2019	607	21.7	1,210	7.9	7.9	30.5
May-05-2019	638	21.6	1,120	7.9	7.9	29.9
May-06-2019	707	21.4	936	7.9	7.9	26.0
May-07-2019	804	20.4	763	8.2	7.9	20.7
May-08-2019	899	20.6	734	8.2	7.9	22.6
May-09-2019	927	21.1	727	8.3	8.0	25.4
May-10-2019	918	21.3	728	8.5	8.0	26.1
May-11-2019	900	21.7	750	8.2	8.0	27.8
May-12-2019	918	21.9	734	8.1	7.9	26.8
May-13-2019	952	21.8	691	8.1	7.9	25.7
May-14-2019	950	21.1	688	8.0	7.9	27.4
May-15-2019	939	20.2	665	7.6	7.8	26.7
May-16-2019	937	19.2	673	7.9	7.8	25.5
May-17-2019	983	18.7	647	8.3	7.8	21.5
May-18-2019	1,150	17.1	500	8.4	7.7	14.0
May-19-2019	1,380	15.3	355	8.4	7.6	11.5
May-20-2019	1,550	15.3	315	8.6	7.5	11.2
May-21-2019	1,700	15.9	320	8.9	7.6	9.9
May-22-2019	1,780	16.2	346	9.0	7.6	9.9

PARAMETER	Flow	Temperature	Specific Conductance	Dissolved Oxygen	pH	Turbidity
DATA SOURCE	USGS	USGS	USGS	USGS	USGS	USGS
UNITS	cfs	°C	µS/cm	mg/L	units	NTU
May-23-2019	1,870	16.5	403	9.1	7.6	9.3
May-24-2019	1,890	16.7	365	9.2	7.6	8.9
May-25-2019	1,950	17.6	355	9.3	7.6	8.1
May-26-2019	2,060	17.4	347	8.8	7.6	10.7
May-27-2019	NA	17.1	193	7.8	7.4	25.8
May-28-2019	NA	17.3	193	7.3	7.2	20.4
May-29-2019	NA	19.2	262	6.6	7.2	14.6
May-30-2019	NA	21.2	198	5.4	7.0	11.1
May-31-2019	NA	22.6	165	4.0	6.9	7.9
Jun-01-2019	NA	23.9	143	3.2	6.8	5.6
Jun-02-2019	NA	24.6	131	2.7	6.7	4.7
Jun-03-2019	NA	24.9	135	2.4	6.7	4.0
Jun-04-2019	NA	25.8	146	2.2	6.7	3.4
Jun-05-2019	NA	26.7	148	1.9	6.6	2.9
Jun-06-2019	NA	26.7	141	1.8	6.6	2.8
Jun-07-2019	NA	24.5	128	2.7	6.7	3.2
Jun-08-2019	NA	22.0	124	4.5	6.8	4.1
Jun-09-2019	NA	22.8	135	4.8	6.9	4.6
Jun-10-2019	NA	24.3	147	4.8	6.8	5.5
Jun-11-2019	NA	25.7	153	4.6	6.9	6.4
Jun-12-2019	NA	26.7	158	4.3	6.9	7.4
Jun-13-2019	NA	26.8	170	4.2	6.9	8.6
Jun-14-2019	NA	26.3	201	4.1	6.9	11.3
Jun-15-2019	NA	25.8	236	4.4	7.0	19.0
Jun-16-2019	NA	24.8	191	5.2	7.1	26.2
Jun-17-2019	NA	24.6	157	5.7	7.0	26.0
Jun-18-2019	NA	25.2	133	5.7	7.0	24.4
Jun-19-2019	NA	25.7	151	5.6	7.0	23.5
Jun-20-2019	NA	25.7	150	5.7	7.0	28.0
Jun-21-2019	NA	24.5	120	6.0	7.0	28.8
Jun-22-2019	NA	23.6	118	6.3	7.0	26.7
Jun-23-2019	NA	24.3	152	6.1	7.0	26.7
Jun-24-2019	NA	25.6	272	5.8	7.1	29.1
Jun-25-2019	1,960	26.1	390	5.7	7.1	35.1
Jun-26-2019	1,510	25.7	437	5.9	7.2	42.8
Jun-27-2019	969	24.8	543	6.1	7.2	51.3
Jun-28-2019	763	23.7	719	6.3	7.3	49.9
Jun-29-2019	627	23.6	939	6.7	7.4	48.5
Jun-30-2019	553	24.3	1,100	7.1	7.5	45.1
Jul-01-2019	651	24.6	1,090	7.6	7.5	43.5
Jul-02-2019	569	24.9	962	7.7	7.6	45.9
Jul-03-2019	510	25.3	919	7.6	7.6	45.1
Jul-04-2019	462	25.7	1,020	7.7	7.6	43.1
Jul-05-2019	431	26.5	1,170	8.0	7.6	42.5
Jul-06-2019	397	26.8	1,240	8.8	7.8	42.2
Jul-07-2019	390	26.6	1,260	8.3	7.8	39.8
Jul-08-2019	387	26.0	1,250	8.2	7.8	39.2
Jul-09-2019	374	25.6	1,260	7.9	7.7	40.2
Jul-10-2019	392	25.9	1,080	7.6	7.7	44.4
Jul-11-2019	388	26.5	941	7.5	7.7	48.6
Jul-12-2019	374	26.9	898	7.6	7.7	49.9
Jul-13-2019	355	27.6	943	7.6	7.7	48.8
Jul-14-2019	349	28.0	959	7.6	7.7	45.4
Jul-15-2019	364	27.8	974	7.6	7.7	42.9
Jul-16-2019	363	27.9	952	7.7	7.8	41.3
Jul-17-2019	339	27.6	965	8.2	7.8	39.1
Jul-18-2019	334	27.8	962	8.6	7.9	36.2
Jul-19-2019	333	27.8	982	8.8	8.0	37.8
Jul-20-2019	348	27.6	893	8.6	8.0	40.2
Jul-21-2019	363	27.4	779	8.5	7.9	44.0
Jul-22-2019	397	28.1	782	8.3	7.9	40.6
Jul-23-2019	415	28.6	760	8.1	7.8	38.8
Jul-24-2019	386	28.2	776	8.5	8.0	39.3
Jul-25-2019	352	28.6	795	8.4	8.0	40.2
Jul-26-2019	318	28.6	831	8.4	8.0	39.9
Jul-27-2019	290	28.5	885	8.7	8.0	38.4
Jul-28-2019	283	29.0	942	8.5	8.0	40.4
Jul-29-2019	285	29.1	905	8.6	8.0	40.7
Jul-30-2019	268	28.0	898	8.6	8.0	42.1
Jul-31-2019	262	27.4	893	8.8	8.1	44.7
Aug-01-2019	263	27.5	896	9.1	8.1	46.2
Aug-02-2019	254	27.3	943	9.0	8.1	44.0

PARAMETER	Flow	Temperature	Specific Conductance	Dissolved Oxygen	pH	Turbidity
DATA SOURCE	USGS	USGS	USGS	USGS	USGS	USGS
UNITS	cfs	°C	µS/cm	mg/L	units	NTU
Aug-03-2019	266	27.6	889	8.6	8.0	46.1
Aug-04-2019	271	28.0	829	8.2	7.9	45.4
Aug-05-2019	267	27.0	788	7.9	7.9	47.1
Aug-06-2019	281	27.3	764	8.1	7.9	47.1
Aug-07-2019	297	27.6	745	8.0	7.9	47.7
Aug-08-2019	279	26.7	757	7.8	7.8	49.9
Aug-09-2019	282	26.1	710	7.8	7.8	55.0
Aug-10-2019	288	26.1	662	7.9	7.9	58.5
Aug-11-2019	306	25.5	648	8.4	7.9	60.4
Aug-12-2019	334	25.8	670	8.4	7.9	56.7
Aug-13-2019	330	26.6	620	8.3	7.9	56.3
Aug-14-2019	337	27.1	580	8.3	7.9	57.0
Aug-15-2019	325	27.9	583	8.1	7.9	51.7
Aug-16-2019	301	28.6	662	7.8	7.9	48.2
Aug-17-2019	292	28.1	700	7.4	7.8	45.5
Aug-18-2019	288	26.6	723	7.7	7.9	46.7
Aug-19-2019	307	26.0	708	7.9	7.9	45.9
Aug-20-2019	302	25.9	722	7.8	7.9	45.1
Aug-21-2019	301	25.7	722	7.9	7.9	46.5
Aug-22-2019	309	26.5	736	8.0	7.9	46.2
Aug-23-2019	303	27.6	726	7.6	7.8	44.7
Aug-24-2019	288	27.8	734	7.6	7.8	43.8
Aug-25-2019	282	27.9	733	7.6	7.8	42.3
Aug-26-2019	282	28.0	781	7.8	7.8	39.7
Aug-27-2019	260	27.7	883	7.6	7.8	36.3
Aug-28-2019	257	27.6	968	7.6	7.9	36.5
Aug-29-2019	259	27.2	962	7.7	7.9	37.1
Aug-30-2019	263	26.5	954	7.7	7.9	39.4
Aug-31-2019	268	26.5	912	7.5	7.8	42.4
Sep-01-2019	276	26.7	873	7.5	7.8	41.7
Sep-02-2019	283	26.7	976	7.7	7.8	39.0
Sep-03-2019	301	26.4	914	7.7	7.8	38.9
Sep-04-2019	322	26.5	878	7.5	7.8	38.5
Sep-05-2019	324	26.8	876	7.6	7.8	35.7
Sep-06-2019	328	26.0	900	7.7	7.8	34.6
Sep-07-2019	318	23.9	674	7.8	7.8	21.7
Sep-08-2019	322	22.5	522	8.0	7.7	18.7
Sep-09-2019	339	22.7	582	8.2	7.7	19.8
Sep-10-2019	354	22.9	664	8.2	7.8	24.9
Sep-11-2019	350	23.0	720	8.1	7.8	30.1
Sep-12-2019	343	23.4	809	8.0	7.8	28.8
Sep-13-2019	334	23.7	858	7.9	7.8	25.5
Sep-14-2019	334	22.7	611	8.0	7.7	15.5
Sep-15-2019	344	21.9	551	8.1	7.7	14.1
Sep-16-2019	351	20.9	512	8.2	7.7	14.1
Sep-17-2019	347	19.8	511	8.6	7.7	14.0
Sep-18-2019	352	19.7	519	8.8	7.8	14.3
Sep-19-2019	359	19.5	493	8.8	7.8	14.3
Sep-20-2019	369	19.1	470	8.8	7.8	15.3
Sep-21-2019	382	19.0	441	8.9	7.8	14.4
Sep-22-2019	389	19.2	460	9.2	7.8	14.5
Sep-23-2019	403	19.6	457	9.0	7.8	14.2
Sep-24-2019	416	19.8	427	8.9	7.8	13.1
Sep-25-2019	427	19.7	370	8.7	7.6	12.4
Sep-26-2019	429	19.8	328	8.4	7.5	11.4
Sep-27-2019	427	19.7	302	8.3	7.4	11.3
Sep-28-2019	428	18.7	265	8.2	7.4	10.5
Sep-29-2019	433	17.3	260	8.4	7.4	10.9
Sep-30-2019	437	16.5	277	8.7	7.4	10.4
Oct-01-2019	440	16.0	298	8.9	7.4	10.6
Oct-02-2019	428	16.3	430	8.6	7.5	14.7
Oct-03-2019	404	17.9	662	7.8	7.6	32.5
Oct-04-2019	381	18.0	731	8.1	7.8	38.8
Oct-05-2019	373	17.8	824	8.4	7.8	37.2
Oct-06-2019	371	18.4	860	8.3	7.8	39.3
Oct-07-2019	370	19.3	861	8.4	7.8	40.3
Oct-08-2019	369	19.6	846	8.3	7.8	43.8
Oct-09-2019	369	18.4	813	8.5	7.9	45.5
Oct-10-2019	370	15.9	795	9.1	8.0	40.4
Oct-11-2019	370	16.3	846	9.1	7.9	35.1
Oct-12-2019	367	16.9	879	9.0	7.9	33.8
Oct-13-2019	363	17.1	837	8.8	7.9	37.0

PARAMETER	Flow	Temperature	Specific Conductance	Dissolved Oxygen	pH	Turbidity
DATA SOURCE	USGS	USGS	USGS	USGS	USGS	USGS
UNITS	cfs	°C	µS/cm	mg/L	units	NTU
Oct-14-2019	363	17.1	821	8.6	7.9	36.9
Oct-15-2019	363	17.2	807	8.5	7.8	30.7
Oct-16-2019	367	16.9	775	8.3	NA	26.7
Oct-17-2019	374	17.2	722	8.4	NA	23.5
Oct-18-2019	369	17.1	744	8.3	NA	26.7
Oct-19-2019	362	17.3	786	8.0	NA	27.9
Oct-20-2019	361	17.4	703	7.9	NA	21.1
Oct-21-2019	353	17.2	656	7.9	NA	16.7
Oct-22-2019	347	17.5	694	7.4	NA	16.6
Oct-23-2019	347	17.7	682	7.4	NA	15.6
Oct-24-2019	348	17.6	692	7.6	NA	14.2
Oct-25-2019	346	17.4	674	7.8	NA	12.6
Oct-26-2019	346	17.2	683	7.9	NA	12.7
Oct-27-2019	348	15.4	806	8.3	NA	19.0
Oct-28-2019	349	13.7	918	8.6	NA	20.1
Oct-29-2019	354	13.5	986	8.9	NA	21.5
Oct-30-2019	348	12.9	1,000	9.3	NA	23.2
Oct-31-2019	336	12.8	991	9.5	7.8	25.5
Nov-01-2019	323	12.6	973	9.7	7.8	25.3
Nov-02-2019	305	12.7	982	9.6	7.8	28.4
Nov-03-2019	283	12.9	978	9.5	7.8	27.1
Nov-04-2019	273	13.3	993	9.5	7.8	24.1
Nov-05-2019	253	13.7	1,010	9.4	7.8	25.0
Nov-06-2019	243	14.1	1,010	9.3	7.8	27.8
Nov-07-2019	234	14.3	1,030	9.2	7.8	28.3
Nov-08-2019	237	14.5	1,030	9.2	7.8	26.7
Nov-09-2019	247	14.6	994	9.1	7.8	28.8
Nov-10-2019	246	14.5	1,010	9.1	7.8	27.0
Nov-11-2019	237	14.7	1,030	9.0	7.8	26.1
Nov-12-2019	233	14.8	1,050	9.0	7.8	26.1
Nov-13-2019	236	14.8	1,060	8.9	7.8	26.3
Nov-14-2019	235	15.1	1,060	8.7	7.7	26.8
Nov-15-2019	244	15.1	1,060	8.7	7.8	25.8
Nov-16-2019	254	14.8	1,060	8.8	7.8	25.6
Nov-17-2019	256	14.6	1,060	8.8	7.8	25.6
Nov-18-2019	257	14.6	1,060	8.8	7.8	25.5
Nov-19-2019	256	14.6	1,060	8.7	7.7	25.8
Nov-20-2019	255	14.1	1,060	8.7	7.8	26.2
Nov-21-2019	249	13.4	1,060	8.9	7.8	24.3
Nov-22-2019	245	13.1	1,090	9.1	7.8	23.2
Nov-23-2019	242	13.0	1,110	9.2	7.8	22.9
Nov-24-2019	238	12.6	1,140	9.3	7.8	20.9
Nov-25-2019	246	11.7	1,150	9.6	7.8	21.3
Nov-26-2019	239	9.9	1,180	10.0	7.8	16.1
Nov-27-2019	246	9.9	1,180	9.9	7.8	17.3
Nov-28-2019	261	9.6	1,140	9.9	7.8	18.7
Nov-29-2019	277	9.7	1,100	10.0	7.8	19.5
Nov-30-2019	286	9.0	1,080	10.1	7.8	21.3
Dec-01-2019	329	8.8	1,050	10.3	7.8	20.5
Dec-02-2019	478	9.6	985	9.9	7.8	28.7
Dec-03-2019	798	10.0	942	9.1	7.6	31.8
Dec-04-2019	1,250	10.7	1,180	8.0	7.5	34.0
Dec-05-2019	1,370	11.4	1,220	7.3	7.4	31.8
Dec-06-2019	1,560	12.0	1,140	7.1	7.4	31.5
Dec-07-2019	1,530	13.0	1,150	6.8	7.4	29.6
Dec-08-2019	1,460	13.4	1,100	6.5	7.4	24.0
Dec-09-2019	1,390	12.9	1,080	6.5	7.4	20.4
Dec-10-2019	1,340	12.4	1,080	6.7	7.4	20.8
Dec-11-2019	1,270	12.3	1,030	7.0	7.5	21.9
Dec-12-2019	1,190	12.7	1,030	7.2	7.5	21.5
Dec-13-2019	1,120	13.3	1,060	7.1	7.5	22.4
Dec-14-2019	1,080	13.5	1,090	7.0	7.5	25.2
Dec-15-2019	1,040	12.6	1,120	7.3	7.5	22.0
Dec-16-2019	981	11.6	1,180	7.8	7.6	19.6
Dec-17-2019	916	10.8	1,230	8.2	7.6	17.0
Dec-18-2019	845	10.5	1,280	8.5	7.6	17.2
Dec-19-2019	765	10.7	1,320	8.6	7.6	16.7
Dec-20-2019	701	10.6	1,380	8.8	7.6	17.2
Dec-21-2019	668	10.4	1,420	8.9	7.6	21.4
Dec-22-2019	654	10.4	1,430	9.0	7.7	22.3
Dec-23-2019	657	10.8	1,410	9.1	7.7	21.6
Dec-24-2019	647	10.1	1,460	9.3	7.7	22.1

PARAMETER	Flow	Temperature	Specific Conductance	Dissolved Oxygen	pH	Turbidity
DATA SOURCE	USGS	USGS	USGS	USGS	USGS	USGS
UNITS	cfs	°C	µS/cm	mg/L	units	NTU
Dec-25-2019	640	10.3	1,490	9.4	7.7	20.6
Dec-26-2019	656	10.2	1,420	9.6	7.8	20.3
Dec-27-2019	668	9.4	1,350	9.9	7.8	20.2
Dec-28-2019	663	9.0	1,400	10.1	7.8	20.1
Dec-29-2019	655	9.0	1,450	10.2	7.8	18.1
Dec-30-2019	638	9.6	1,510	10.2	7.8	16.3
Dec-31-2019	612	9.6	1,610	10.2	7.8	17.7

NOTES: See Table 14 for explanation of footnotes and agency abbreviations

USGS data webpage

[http://waterdata.usgs.gov/nwis/dv/?site\\_no=11273400&agency\\_cd=USGS&referred\\_module=sw](http://waterdata.usgs.gov/nwis/dv/?site_no=11273400&agency_cd=USGS&referred_module=sw)

Table 6b. Monthly averages and totals

PARAMETER	Total Flow	Average Temperature	Average Specific Conductance	Average Dissolved Oxygen	Average pH	Average Turbidity
DATA SOURCE	Calculated	Calculated	Calculated	Calculated	Calculated	Calculated
UNITS	acre-feet	°C	µS/cm	µS/cm	units	NTU
Jan-19	39,110	10.7	1,343	9.1	7.9	NA
Feb-19	22,700	10.9	764	8.7	7.6	18.9
Mar-19	41,990	15.2	750	8.3	7.7	15.4
Apr-19	48,430	20.0	1,089	8.0	7.8	28.8
May-19	57,810	19.4	608	8.0	7.7	20.5
Jun-19	12,660	25.0	262	4.8	7.0	20.2
Jul-19	23,260	27.3	967	8.1	7.8	42.1
Aug-19	17,740	27.0	765	8.0	7.9	46.9
Sep-19	21,460	21.8	583	8.3	7.7	20.8
Oct-19	22,520	16.8	768	8.4	7.8	27.1
Nov-19	15,150	13.2	1,060	9.3	7.8	24.5
Dec-19	56,670	11.0	1,245	8.4	7.6	22.4

NOTES:

Table 7. Water quality monitoring in the San Joaquin River above Merced River at China Island Refuge (Station R)

PARAMETER	Physicals					Total Selenium	Total Boron	Total Molybdenum
	Dissolved Oxygen	pH	Specific Conductance	Temperature	Turbidity			
DATA SOURCE	USBR	USBR	USBR	USBR	USBR	USBR	USBR	USBR
UNITS	mg/L	units	µS/cm	°C	NTU	µg/L	mg/L	µg/L
Jan-04-2019	16.2	7.7	1,604	7.0	18.3	0.5	1.0	
Jan-11-2019	NA	NA	NA	NA	NA	NA	NA	
Jan-18-2019	NA	NA	NA	NA	NA	NA	NA	
Jan-24-2019	15.6	7.7	1,213	10.6	32.2	0.4	0.8	
Jan-29-2019	NA	NA	NA	NA	NA	NA	NA	NA
Feb-05-2019	NA	NA	NA	NA	NA	NA	NA	
Feb-12-2019	NA	NA	NA	NA	NA	NA	NA	
Feb-21-2019	NA	NA	NA	NA	NA	NA	NA	
Feb-28-2019	NA	NA	NA	NA	NA	NA	NA	NA
Mar-07-2019	NA	NA	NA	NA	NA	NA	NA	
Mar-12-2019	NA	NA	NA	NA	NA	NA	NA	
Mar-21-2019	10.6	7.5	1,255	16.3	22.6	0.855 U	0.8	
Mar-26-2019	9.5	7.4	685	16.4	18.8	<0.4	0.5	4
Apr-04-2019	8.4	7.3	679	17.7	17.8	<0.4	0.4	
Apr-11-2019	9.2	7.4	1,240	16.6	40.3	0.4	0.6	
Apr-18-2019	NA	NA	NA	NA	NA	NA	NA	
Apr-25-2019	10.9	7.6	1,224	23.2	48.7	0.4	0.6	
Apr-30-2019	11.4	7.6	1,246	21.5	59.2	<0.4	0.6	5
May-08-2019	13.0	7.5	1,072	20.9	35.3	<0.4	0.4	
May-15-2019	10.5	7.4	886	20.6	47.6	<0.4	0.4	
May-21-2019	11.4	7.3	516	16.5	22.6	<0.4	0.2	
May-29-2019	8.8	7.1	336	18.8	22.0	<0.4	0.2	2
Jun-03-2019	7.3	6.7	161	23.6	5.0	<0.4	0.1	
Jun-14-2019	8.2	6.8	209	24.7	14.8	<0.4	0.1	
Jun-18-2019	9.2	6.9	140	23.5	30.3	<0.4	0.1	
Jun-24-2019	9.0	7.1	277	24.4	37.8	<0.4	0.1	2
Jul-02-2019	9.0	7.5	1,142	23.0	58.5	0.4	0.5	
Jul-11-2019	9.0	7.6	940	25.0	61.9	<0.4	0.4	
Jul-18-2019	9.0	7.7	954	26.2	48.9	<0.4	0.3	
Jul-24-2019	8.3	7.7	756	26.2	52.7	<0.4	0.3	
Jul-29-2019	8.9	7.7	890	27.1	52.7	<0.4	0.3	5 V
Aug-09-2019	9.0	7.6	710	23.9	76.9	<0.4	0.4	
Aug-13-2019	9.0	7.7	612	24.5	86.6	<0.4	0.3	
Aug-21-2019	9.2	7.7	672	23.8	74.7	<0.4	0.3	
Aug-29-2019	9.2	7.6	945	25.1	58.6	<0.4	0.4	
Sep-06-2019	8.9	7.5	913	24.2	57.2	<0.4	0.4	7
Sep-10-2019	7.5	7.4	842	21.1	46.7	0.4	0.4	
Sep-20-2019	10.1	7.5	821	19.7	43.2	<0.4	0.4	
Sep-25-2019	7.8	7.3	690	21.2	27.1	<0.4	0.3	6
Oct-02-2019	11.2	7.1	622	15.6	22.0	<0.4	0.4	
Oct-09-2019	10.0	7.6	788	16.8	60.0	<0.4	0.5	
Oct-16-2019	10.0	7.4	804	16.0	41.6	<0.4	0.5	
Oct-23-2019	9.0	7.6	788	16.3	25.9	<0.4	0.5	
Oct-30-2019	8.6	7.4	984	10.8	NA	<0.4	0.6	7
Nov-06-2019	12.7	7.7	1,012	13.3	28.7	<0.4	0.6	
Nov-15-2019	13.1	7.6	1,048	13.8	24.8	<0.4	0.7	
Nov-19-2019	13.2	7.7	1,056	13.6	25.3	<0.4	0.7	
Nov-26-2019	11.0	7.5	1,095	8.2	NA	<0.4	0.5	5
Dec-03-2019	NA	NA	NA	NA	NA	NA	NA	
Dec-12-2019	8.8	7.4	968	12.2	26.8	0.7	0.6	
Dec-19-2019	NA	NA	NA	NA	20.4	0.6	0.8	
Dec-23-2019	NA	NA	NA	NA	NA	NA	NA	
Dec-30-2019	NA	NA	NA	NA	NA	NA	NA	NA

NOTES: See Table 14 for explanation of footnotes and agency abbreviations

PARAMETER	Nutrients	
	Nitrate as N (Dissolved)	Ammonia as N
UNITS	mg/L	mg/L
Jan-29-2019	NA	NA
Feb-28-2019	NA	NA
Mar-26-2019	0.28	0.096 L,V
Apr-30-2019	0.23	0.17
May-29-2019	0.054	0.098
Jun-24-2019	0.11	0.16
Jul-29-2019	0.14	0.24 U
Aug-29-2019	<0.030	0.11
Sep-25-2019	<0.030	0.064
Oct-30-2019	0.071	0.11
Nov-26-2019	0.18	<0.050 L,V
Dec-30-2019	NA	NA

NOTES:

Table 7 (Continued). Water quality monitoring in the San Joaquin River above Merced River at China Island Refuge (Station R)

PARAMETER	Pesticides							
	Copper	Bifenthrin	Carbaryl	Chlorpyrifos	Cyfluthrin	Cypermethrin	Diazinon	Dimethoate
UNITS	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Jan-24-2019	3.7							
Feb-05-2019								NA
May-21-2019	2.6		<0.07				<0.02	<0.10
Jun-03-2019	1.5	<0.02	<0.07	<0.015	<0.03	<0.05		<0.10

NOTES: '<' value provided for pesticides is the PQL

PARAMETER	Pesticides							
	Diuron	Esfenvalerate	Glyphosate	Hexazinone	Imidacloprid	Lambda-Cyhalothrin	Linuron	Malathion
UNITS	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Jan-24-2019	<0.40	<0.02	<5.0					
Feb-05-2019	NA		NA				NA	NA
May-21-2019		<0.02	<5.0		<1.0	<0.02		<0.10
Jun-03-2019		<0.02	<5.0 T		<1.0	<0.02		
Dec-03-2019	NA		NA	NA				

NOTES: '<' value provided for pesticides is the PQL

PARAMETER	Pesticides					
	Methomyl	Oxyfluorfen	Permethrin	Prowl (Pendimethalin)	Trifluralin	2,4 DB
UNITS	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Jan-24-2019		<0.05		<0.1		
Feb-05-2019		NA		NA		NA
May-21-2019	<0.07		<0.02		NA	
Jun-03-2019	<0.07		<0.02		<0.05	
Dec-03-2019		NA		NA		NA

NOTES: '<' value provided for pesticides is the PQL

**Table 8a. Water quality monitoring in the San Joaquin River at Fremont Ford (Station G)  
USGS Station Code: 11261500**

<b>PARAMETER</b>	<b>Flow</b>	<b>Temperature</b>	<b>Specific Conductance</b>
<b>DATA SOURCE</b>	<b>USGS</b>	<b>USGS</b>	<b>USGS</b>
<b>UNITS</b>	<b>cfs</b>	<b>°C</b>	<b>µS/cm</b>
Jan-01-2019	269	7.3	1,150
Jan-02-2019	270	7.0	1,160
Jan-03-2019	275	7.0	1,130
Jan-04-2019	285	7.1	1,100
Jan-05-2019	274	7.2	1,150
Jan-06-2019	280	7.5	1,140
Jan-07-2019	301	8.9	1,090
Jan-08-2019	359	9.6	853
Jan-09-2019	468	10.6	588
Jan-10-2019	443	11.4	681
Jan-11-2019	396	11.7	783
Jan-12-2019	381	11.5	811
Jan-13-2019	372	11.2	829
Jan-14-2019	361	10.9	892
Jan-15-2019	356	10.5	937
Jan-16-2019	372	10.7	958
Jan-17-2019	416	11.3	878
Jan-18-2019	541	11.8	649
Jan-19-2019	942	12.7	316
Jan-20-2019	1,110	13.0	406
Jan-21-2019	975	12.9	562
Jan-22-2019	785	11.9	655
Jan-23-2019	650	11.0	684
Jan-24-2019	542	10.7	765
Jan-25-2019	479	10.9	829
Jan-26-2019	449	10.9	871
Jan-27-2019	434	11.3	909
Jan-28-2019	415	11.6	927
Jan-29-2019	407	12.0	976
Jan-30-2019	397	12.5	1,010
Jan-31-2019	392	13.3	1,040
Feb-01-2019	388	13.3	1,040
Feb-02-2019	402	13.4	1,000
Feb-03-2019	439	12.9	940
Feb-04-2019	653	12.4	618
Feb-05-2019	1,150	11.3	290
Feb-06-2019	1,800	10.0	208
Feb-07-2019	1,970	9.8	119
Feb-08-2019	1,820	10.0	143
Feb-09-2019	1,630	10.2	172
Feb-10-2019	1,550	10.6	213
Feb-11-2019	1,600	10.8	293



<b>PARAMETER</b>	<b>Flow</b>	<b>Temperature</b>	<b>Specific Conductance</b>
<b>DATA SOURCE</b>	<b>USGS</b>	<b>USGS</b>	<b>USGS</b>
<b>UNITS</b>	<b>cfs</b>	<b>°C</b>	<b>µS/cm</b>
Feb-12-2019	1,860	10.4	449
Feb-13-2019	1,900	10.0	528
Feb-14-2019	1,800	10.4	483
Feb-15-2019	1,860	11.3	369
Feb-16-2019	2,360	11.6	283
Feb-17-2019	3,380	11.4	237
Feb-18-2019	4,320	10.9	216
Feb-19-2019	4,850	10.5	198
Feb-20-2019	4,810	10.3	184
Feb-21-2019	4,430	10.5	180
Feb-22-2019	4,000	10.4	187
Feb-23-2019	3,630	10.1	193
Feb-24-2019	3,220	10.3	200
Feb-25-2019	2,860	10.8	210
Feb-26-2019	2,580	11.4	216
Feb-27-2019	2,380	11.9	221
Feb-28-2019	2,180	12.4	227
Mar-01-2019	2,000	12.8	230
Mar-02-2019	1,880	13.1	233
Mar-03-2019	1,690	13.5	248
Mar-04-2019	1,670	14.0	281
Mar-05-2019	1,760	14.4	283
Mar-06-2019	1,830	14.3	274
Mar-07-2019	1,860	14.0	247
Mar-08-2019	1,930	14.0	228
Mar-09-2019	2,320	13.9	207
Mar-10-2019	2,840	13.5	192
Mar-11-2019	2,430	13.3	177
Mar-12-2019	1,950	13.5	165
Mar-13-2019	1,710	13.6	172
Mar-14-2019	1,530	13.4	197
Mar-15-2019	1,380	13.4	213
Mar-16-2019	1,200	13.8	225
Mar-17-2019	1,040	14.4	219
Mar-18-2019	952	15.0	217
Mar-19-2019	881	15.8	220
Mar-20-2019	864	16.3	218
Mar-21-2019	842	16.4	218
Mar-22-2019	830	16.2	205
Mar-23-2019	946	16.1	198
Mar-24-2019	1,270	16.2	198
Mar-25-2019	1,540	16.1	311
Mar-26-2019	1,680	16.2	352
Mar-27-2019	1,720	16.4	256

<b>PARAMETER</b>	<b>Flow</b>	<b>Temperature</b>	<b>Specific Conductance</b>
<b>DATA SOURCE</b>	<b>USGS</b>	<b>USGS</b>	<b>USGS</b>
<b>UNITS</b>	<b>cfs</b>	<b>°C</b>	<b>µS/cm</b>
Mar-28-2019	1,740	16.4	215
Mar-29-2019	1,760	16.3	200
Mar-30-2019	1,850	16.4	192
Mar-31-2019	1,930	16.5	185
Apr-01-2019	1,970	16.8	174
Apr-02-2019	1,930	17.2	174
Apr-03-2019	1,830	17.5	181
Apr-04-2019	1,600	17.6	NA
Apr-05-2019	1,400	17.6	NA
Apr-06-2019	1,210	17.9	NA
Apr-07-2019	1,060	18.8	NA
Apr-08-2019	922	19.9	NA
Apr-09-2019	815	20.1	NA
Apr-10-2019	704	NA	NA
Apr-11-2019	615	NA	NA
Apr-12-2019	553	NA	NA
Apr-13-2019	509	17.8	1,090
Apr-14-2019	474	19.1	1,140
Apr-15-2019	442	19.4	1,210
Apr-16-2019	418	19.1	1,230
Apr-17-2019	411	19.5	1,180
Apr-18-2019	405	20.6	1,120
Apr-19-2019	394	21.8	1,090
Apr-20-2019	386	21.9	1,070
Apr-21-2019	384	21.1	1,030
Apr-22-2019	381	21.0	1,030
Apr-23-2019	379	21.5	992
Apr-24-2019	382	22.7	941
Apr-25-2019	385	24.2	966
Apr-26-2019	367	24.6	1,020
Apr-27-2019	366	24.4	982
Apr-28-2019	357	23.6	1,100
Apr-29-2019	359	23.0	1,120
Apr-30-2019	359	22.0	955
May-01-2019	328	21.6	923
May-02-2019	322	21.7	928
May-03-2019	322	22.0	973
May-04-2019	314	22.3	966
May-05-2019	311	22.2	936
May-06-2019	313	22.3	878
May-07-2019	313	22.2	853
May-08-2019	320	22.6	844
May-09-2019	320	23.1	885
May-10-2019	310	23.1	878

<b>PARAMETER</b>	<b>Flow</b>	<b>Temperature</b>	<b>Specific Conductance</b>
<b>DATA SOURCE</b>	<b>USGS</b>	<b>USGS</b>	<b>USGS</b>
<b>UNITS</b>	<b>cfs</b>	<b>°C</b>	<b>µS/cm</b>
May-11-2019	304	23.6	861
May-12-2019	305	23.9	873
May-13-2019	305	23.8	826
May-14-2019	308	23.1	803
May-15-2019	325	22.0	766
May-16-2019	326	20.9	790
May-17-2019	334	20.7	787
May-18-2019	390	19.5	702
May-19-2019	491	18.4	613
May-20-2019	590	18.6	587
May-21-2019	678	19.1	527
May-22-2019	750	19.3	498
May-23-2019	804	19.9	507
May-24-2019	893	20.5	505
May-25-2019	972	21.4	483
May-26-2019	1,130	20.5	279
May-27-2019	1,900	18.2	70
May-28-2019	3,200	18.0	75
May-29-2019	4,330	18.3	88
May-30-2019	5,400	19.2	86
May-31-2019	6,180	20.0	88
Jun-01-2019	6,330	20.7	84
Jun-02-2019	6,240	21.4	80
Jun-03-2019	6,100	22.1	71
Jun-04-2019	5,900	22.9	58
Jun-05-2019	5,890	23.6	67
Jun-06-2019	5,860	24.6	57
Jun-07-2019	5,640	23.2	55
Jun-08-2019	5,100	21.4	57
Jun-09-2019	4,680	21.7	59
Jun-10-2019	4,200	22.9	56
Jun-11-2019	3,890	24.1	55
Jun-12-2019	3,530	25.2	65
Jun-13-2019	3,010	25.7	81
Jun-14-2019	2,190	25.4	121
Jun-15-2019	1,790	25.0	116
Jun-16-2019	1,810	24.2	74
Jun-17-2019	1,930	23.9	61
Jun-18-2019	2,110	24.4	67
Jun-19-2019	2,280	24.9	116
Jun-20-2019	2,290	24.9	79
Jun-21-2019	2,290	23.7	62
Jun-22-2019	2,180	22.9	65
Jun-23-2019	1,810	23.8	111

<b>PARAMETER</b>	<b>Flow</b>	<b>Temperature</b>	<b>Specific Conductance</b>
<b>DATA SOURCE</b>	<b>USGS</b>	<b>USGS</b>	<b>USGS</b>
<b>UNITS</b>	<b>cfs</b>	<b>°C</b>	<b>µS/cm</b>
Jun-24-2019	1,440	25.2	194
Jun-25-2019	1,120	26.0	249
Jun-26-2019	881	25.6	297
Jun-27-2019	666	24.8	380
Jun-28-2019	538	23.6	494
Jun-29-2019	454	23.5	647
Jun-30-2019	418	24.2	738
Jul-01-2019	427	24.6	698
Jul-02-2019	438	24.8	609
Jul-03-2019	423	25.1	616
Jul-04-2019	396	25.5	721
Jul-05-2019	362	26.2	822
Jul-06-2019	341	26.6	829
Jul-07-2019	333	26.3	814
Jul-08-2019	323	25.9	833
Jul-09-2019	324	25.5	816
Jul-10-2019	343	25.6	702
Jul-11-2019	357	26.2	625
Jul-12-2019	346	26.6	622
Jul-13-2019	340	27.3	659
Jul-14-2019	336	27.7	678
Jul-15-2019	338	27.7	664
Jul-16-2019	337	27.8	667
Jul-17-2019	324	NA	NA
Jul-18-2019	317	NA	NA
Jul-19-2019	318	27.6	661
Jul-20-2019	343	27.3	586
Jul-21-2019	363	27.2	533
Jul-22-2019	368	27.7	545
Jul-23-2019	370	28.2	541
Jul-24-2019	350	28.0	539
Jul-25-2019	331	28.4	554
Jul-26-2019	314	28.5	596
Jul-27-2019	293	28.3	674
Jul-28-2019	289	28.7	692
Jul-29-2019	294	28.9	658
Jul-30-2019	284	28.0	670
Jul-31-2019	287	27.5	634
Aug-01-2019	285	27.4	613
Aug-02-2019	277	27.2	666
Aug-03-2019	292	27.5	623
Aug-04-2019	295	27.8	595
Aug-05-2019	300	26.9	575
Aug-06-2019	311	27.3	562

<b>PARAMETER</b>	<b>Flow</b>	<b>Temperature</b>	<b>Specific Conductance</b>
<b>DATA SOURCE</b>	<b>USGS</b>	<b>USGS</b>	<b>USGS</b>
<b>UNITS</b>	<b>cfs</b>	<b>°C</b>	<b>µS/cm</b>
Aug-07-2019	312	27.3	555
Aug-08-2019	319	26.7	543
Aug-09-2019	331	26.0	518
Aug-10-2019	341	26.0	484
Aug-11-2019	339	25.3	471
Aug-12-2019	331	25.6	458
Aug-13-2019	334	26.2	438
Aug-14-2019	336	26.7	409
Aug-15-2019	318	27.6	431
Aug-16-2019	301	28.3	494
Aug-17-2019	286	27.7	515
Aug-18-2019	281	26.5	527
Aug-19-2019	289	25.9	505
Aug-20-2019	291	25.6	489
Aug-21-2019	289	25.4	478
Aug-22-2019	278	26.1	473
Aug-23-2019	270	27.1	470
Aug-24-2019	272	27.4	474
Aug-25-2019	259	27.7	497
Aug-26-2019	236	27.7	562
Aug-27-2019	218	27.6	632
Aug-28-2019	210	27.4	675
Aug-29-2019	206	27.1	685
Aug-30-2019	207	26.4	684
Aug-31-2019	215	26.3	643
Sep-01-2019	209	26.4	644
Sep-02-2019	204	26.6	650
Sep-03-2019	207	26.2	626
Sep-04-2019	214	26.3	611
Sep-05-2019	217	26.4	614
Sep-06-2019	209	25.9	634
Sep-07-2019	187	25.2	657
Sep-08-2019	185	24.4	690
Sep-09-2019	185	24.0	660
Sep-10-2019	176	23.4	656
Sep-11-2019	167	23.2	676
Sep-12-2019	156	23.5	713
Sep-13-2019	150	24.0	775
Sep-14-2019	148	24.6	805
Sep-15-2019	151	24.6	755
Sep-16-2019	154	23.3	707
Sep-17-2019	153	22.7	755
Sep-18-2019	155	22.5	751
Sep-19-2019	159	22.0	677

<b>PARAMETER</b>	<b>Flow</b>	<b>Temperature</b>	<b>Specific Conductance</b>
<b>DATA SOURCE</b>	<b>USGS</b>	<b>USGS</b>	<b>USGS</b>
<b>UNITS</b>	<b>cfs</b>	<b>°C</b>	<b>µS/cm</b>
Sep-20-2019	159	21.5	622
Sep-21-2019	154	21.7	655
Sep-22-2019	154	22.1	670
Sep-23-2019	159	22.3	625
Sep-24-2019	165	22.6	611
Sep-25-2019	178	23.3	548
Sep-26-2019	191	24.1	508
Sep-27-2019	198	24.0	481
Sep-28-2019	201	22.4	498
Sep-29-2019	211	20.8	524
Sep-30-2019	215	19.9	529
Oct-01-2019	213	18.7	531
Oct-02-2019	188	18.3	502
Oct-03-2019	155	18.3	504
Oct-04-2019	156	17.8	509
Oct-05-2019	152	17.5	544
Oct-06-2019	153	18.1	537
Oct-07-2019	157	18.9	529
Oct-08-2019	161	19.1	521
Oct-09-2019	163	18.2	515
Oct-10-2019	159	16.1	536
Oct-11-2019	158	16.5	524
Oct-12-2019	161	16.8	506
Oct-13-2019	169	16.8	498
Oct-14-2019	166	16.7	505
Oct-15-2019	164	16.8	540
Oct-16-2019	165	16.5	554
Oct-17-2019	178	17.2	506
Oct-18-2019	171	16.9	540
Oct-19-2019	170	17.0	546
Oct-20-2019	172	17.2	553
Oct-21-2019	169	17.2	582
Oct-22-2019	167	17.4	612
Oct-23-2019	165	17.6	681
Oct-24-2019	164	17.6	700
Oct-25-2019	168	17.5	707
Oct-26-2019	172	17.4	717
Oct-27-2019	178	15.0	734
Oct-28-2019	179	13.9	757
Oct-29-2019	185	13.6	741
Oct-30-2019	192	12.8	730
Oct-31-2019	200	12.4	715
Nov-01-2019	209	12.1	716
Nov-02-2019	207	12.1	719

<b>PARAMETER</b>	<b>Flow</b>	<b>Temperature</b>	<b>Specific Conductance</b>
<b>DATA SOURCE</b>	<b>USGS</b>	<b>USGS</b>	<b>USGS</b>
<b>UNITS</b>	<b>cfs</b>	<b>°C</b>	<b>µS/cm</b>
Nov-03-2019	206	12.2	725
Nov-04-2019	206	12.6	752
Nov-05-2019	208	13.0	765
Nov-06-2019	205	13.3	778
Nov-07-2019	194	13.6	798
Nov-08-2019	198	13.8	778
Nov-09-2019	205	13.9	745
Nov-10-2019	200	13.9	772
Nov-11-2019	194	14.0	794
Nov-12-2019	191	14.1	830
Nov-13-2019	191	14.1	851
Nov-14-2019	193	14.4	862
Nov-15-2019	198	14.4	854
Nov-16-2019	196	14.3	886
Nov-17-2019	200	14.2	877
Nov-18-2019	204	14.1	886
Nov-19-2019	208	14.0	865
Nov-20-2019	210	13.6	857
Nov-21-2019	211	13.1	871
Nov-22-2019	205	12.8	891
Nov-23-2019	203	12.6	918
Nov-24-2019	206	12.2	945
Nov-25-2019	209	11.3	954
Nov-26-2019	205	9.8	979
Nov-27-2019	214	9.9	954
Nov-28-2019	234	9.5	906
Nov-29-2019	250	9.5	890
Nov-30-2019	262	8.6	866
Dec-01-2019	280	8.7	831
Dec-02-2019	336	9.4	804
Dec-03-2019	464	9.8	718
Dec-04-2019	620	10.7	794
Dec-05-2019	719	11.3	835
Dec-06-2019	850	11.9	852
Dec-07-2019	864	12.7	856
Dec-08-2019	816	13.1	855
Dec-09-2019	758	12.7	852
Dec-10-2019	729	12.4	820
Dec-11-2019	735	12.3	776
Dec-12-2019	691	12.6	788
Dec-13-2019	645	13.1	822
Dec-14-2019	616	13.2	857
Dec-15-2019	584	12.4	887
Dec-16-2019	550	11.6	920

<b>PARAMETER</b>	<b>Flow</b>	<b>Temperature</b>	<b>Specific Conductance</b>
<b>DATA SOURCE</b>	<b>USGS</b>	<b>USGS</b>	<b>USGS</b>
<b>UNITS</b>	<b>cfs</b>	<b>°C</b>	<b>µS/cm</b>
Dec-17-2019	510	10.7	951
Dec-18-2019	473	10.3	965
Dec-19-2019	446	10.4	983
Dec-20-2019	424	10.2	1,020
Dec-21-2019	409	10.0	1,030
Dec-22-2019	401	10.1	1,040
Dec-23-2019	394	10.4	1,050
Dec-24-2019	386	9.8	1,060
Dec-25-2019	386	9.9	1,060
Dec-26-2019	408	9.8	985
Dec-27-2019	405	9.2	969
Dec-28-2019	400	8.8	991
Dec-29-2019	387	8.7	1,020
Dec-30-2019	370	9.2	1,050
Dec-31-2019	356	9.1	1,070

**NOTES:** See Table 14 for explanation of footnotes and agency abbreviations  
USGS data webpage.

[http://waterdata.usgs.gov/nwis/dv/?site\\_no=11261500&agency\\_cd=USGS&referred\\_module=sw](http://waterdata.usgs.gov/nwis/dv/?site_no=11261500&agency_cd=USGS&referred_module=sw)



**Table 8b. Monthly averages and totals**

<b>PARAMETER</b>	<b>Total Flow</b>	<b>Average Temperature</b>	<b>Average Specific Conductance</b>
<b>DATA SOURCE</b>	<b>Calculated</b>	<b>Calculated</b>	<b>Calculated</b>
<b>UNITS</b>	<b>acre-feet</b>	<b>°C</b>	<b>µS/cm</b>
Jan-19	28,550	10.6	862
Feb-19	130,560	11.0	343
Mar-19	98,830	14.8	225
Apr-19	43,170	20.4	943
May-19	65,630	21.0	641
Jun-19	183,610	23.9	157
Jul-19	21,040	27.0	664
Aug-19	17,510	26.8	540
Sep-19	10,650	23.7	644
Oct-19	10,450	16.8	586
Nov-19	12,340	12.7	843
Dec-19	32,550	10.8	920

**NOTES:**

**Table 8c. Other water quality monitoring in the San Joaquin River at Fremont Ford (Station G)**

PARAMETER	Physicals					Total Selenium	Total Boron
	Dissolved Oxygen	pH	Specific Conductance	Temperature	Turbidity		
DATA SOURCE	USBR	USBR	USBR	USBR	USBR	USBR	USBR
UNITS	mg/L	units	µS/cm	°C	NTU	µg/L	mg/L
Jan-04-2019	16.4	7.8	1,059	7.0	20.4	<0.4	0.4
Jan-11-2019	6.8	7.5	738	12.1	49.3	<0.4	0.3
Jan-18-2019	13.2	7.7	684	12.2	45.9	<0.4	0.3
Jan-24-2019	14.4	7.7	740	10.6	42.7	<0.4	0.3
Jan-29-2019	15.1	7.7	970	11.8	32.9	<0.4	0.4
Feb-05-2019	10.5	7.8	274	10.6	68.0	<0.4	0.1
Feb-12-2019	12.9	7.7	204	9.6	44.0	<0.4	0.0
Feb-21-2019	19.2	8.4	267	10.4	35.5	<0.4	0.1
Feb-28-2019	9.5	7.9	412	13.2	20.9	<0.4	0.2
Mar-07-2019	14.5	8.0	362	14.7	17.3	<0.4	0.1
Mar-12-2019	13.7	7.6	420	13.8	18.3	<0.4	0.1
Mar-21-2019	11.1	7.7	966	16.7	17.8	0.5	0.5
Mar-26-2019	9.6	7.7	374	16.7	12.8	<0.4	0.2
Apr-04-2019	8.1	7.5	439	17.3	18.6	<0.4	0.2
Apr-11-2019	9.2	7.6	988	16.9	34.1	<0.4	0.4
Apr-18-2019	9.5	7.5	1,133	19.6	37.8	<0.4	0.4
Apr-25-2019	11.6	7.7	1,009	23.3	34.6	0.4	0.4
Apr-30-2019	11.5	7.7	974	21.3	44.0	<0.4	0.3
May-08-2019	13.3	7.7	865	21.6	41.9	<0.4	0.2
May-15-2019	10.2	7.6	796	21.0	42.9	<0.4	0.3
May-21-2019	11.2	7.5	558	18.3	26.5	<0.4	0.2
May-29-2019	7.9	7.3	89	18.7	25.4	<0.4	0.0
Jun-03-2019	8.1	6.7	60	23.7	8.7	<0.4	<0.02
Jun-14-2019	7.7	6.9	121	24.6	17.1	<0.4	0.0
Jun-18-2019	8.8	6.9	59	23.9	22.8	<0.4	0.0
Jun-24-2019	8.5	7.1	175	26.1	23.4	<0.4	0.0
Jul-02-2019	9.1	7.6	653	24.0	36.2	<0.4	0.1
Jul-11-2019	8.6	7.6	651	25.9	40.8	<0.4	0.2
Jul-18-2019	8.8	7.6	681	26.7	43.7	<0.4	0.2
Jul-24-2019	8.7	7.6	543	26.8	42.0	<0.4	0.2
Jul-29-2019	8.6	7.6	659	27.5	42.6	<0.4	0.2
Aug-09-2019	8.6	7.6	512	24.4	63.0	<0.4	0.2
Aug-13-2019	9.4	7.7	431	25.1	69.5	<0.4	0.1
Aug-21-2019	9.1	7.7	478	24.2	61.6	<0.4	0.1
Aug-29-2019	8.6	7.6	684	25.1	41.7	<0.4	0.2
Sep-06-2019	8.0	7.6	638	24.5	40.9	<0.4	0.2
Sep-10-2019	8.0	7.7	653	21.3	42.9	<0.4	0.2
Sep-20-2019	9.9	7.7	621	19.6	42.5	<0.4	0.2
Sep-25-2019	7.1	7.7	553	21.9	43.2	<0.4	0.2
Oct-02-2019	11.7	7.6	502	16.6	27.6	<0.4	0.2
Oct-09-2019	10.5	7.9	511	16.5	37.3	<0.4	0.2
Oct-16-2019	11.1	7.0	556	16.0	25.1	<0.4	0.2
Oct-23-2019	10.3	7.7	690	15.6	34.9	<0.4	0.3
Oct-30-2019	9.5	7.6	747	10.3	NA	<0.4	0.3
Nov-06-2019	12.8	7.8	794	12.0	26.8	<0.4	0.3
Nov-15-2019	13.8	7.7	856	12.8	23.3	<0.4	0.3
Nov-19-2019	13.5	7.7	868	13.2	21.0	<0.4	0.3
Nov-26-2019	10.8	7.6	984	8.1	NA	<0.4	0.4
Dec-03-2019	11.4	7.7	712	8.4	38.8	<0.4	0.3
Dec-12-2019	9.7	7.5	786	11.1	25.3	0.5	0.4
Dec-19-2019	NA	NA	NA	NA	25.2	<0.4	0.4
Dec-23-2019	12.0	7.5	1,054	9.1	28.3	<0.4	0.4
Dec-30-2019	14.4	8.0	1,055	8.0	21.9	0.7	0.4

NOTES: See Table 14 for explanation of footnotes and agency abbreviations

**Table 9a. Water quality monitoring in the San Joaquin River at Crows Landing (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-01-2019	601	7.7	1,140	0.6
Jan-02-2019	595	7.5	1,150	0.7
Jan-03-2019	589	7.5	1,170	0.5
Jan-04-2019	582	7.8	1,180	0.7
Jan-05-2019	568	7.9	1,170	0.5
Jan-06-2019	572	8.1	1,230	0.5
Jan-07-2019	618	9.5	1,280	0.5
Jan-08-2019	668	10.7	1,310	0.4
Jan-09-2019	761	11.1	1,210	0.5
Jan-10-2019	827	11.5	1,020	0.4
Jan-11-2019	795	12.0	988	0.4
Jan-12-2019	754	11.8	1,000	<0.4
Jan-13-2019	752	11.5	1,070	<0.4
Jan-14-2019	744	11.2	1,100	<0.4
Jan-15-2019	752	10.7	1,140	0.4
Jan-16-2019	804	10.8	1,170	0.4
Jan-17-2019	1,280	11.6	1,150	0.5
Jan-18-2019	1,230	12.3	1,020	0.6
Jan-19-2019	1,310	12.6	1,010	0.6
Jan-20-2019	1,610	12.9	982	0.990 L
Jan-21-2019	1,630	12.7	897	0.709 L
Jan-22-2019	1,440	11.8	884	0.530 L
Jan-23-2019	1,210	11.2	883	0.423 L
Jan-24-2019	1,060	11.0	880	<0.4
Jan-25-2019	941	11.0	880	<0.4
Jan-26-2019	860	11.2	879	<0.4
Jan-27-2019	815	11.7	880	<0.4
Jan-28-2019	783	12.2	881	<0.4
Jan-29-2019	756	12.6	881	0.5
Jan-30-2019	731	12.9	882	<0.4
Jan-31-2019	724	13.8	885	<0.4
Feb-01-2019	719	13.8	886	<0.4
Feb-02-2019	763	13.5	893	<0.4
Feb-03-2019	1,080	13.0	1,270	1.24 U
Feb-04-2019	1,570	12.4	1,130	0.7
Feb-05-2019	1,940	11.1	967	0.6
Feb-06-2019	2,440	10.1	827	NA
Feb-07-2019	2,740	9.6	666	NA
Feb-08-2019	2,840	9.5	642	NA
Feb-09-2019	2,850	9.9	645	NA
Feb-10-2019	2,850	10.2	645	NA
Feb-11-2019	2,910	10.3	644	NA
Feb-12-2019	3,200	9.8	636	NA
Feb-13-2019	3,460	9.5	597	NA
Feb-14-2019	4,050	10.7	538	NA
Feb-15-2019	5,430	11.3	521	NA
Feb-16-2019	6,110	11.4	433	NA
Feb-17-2019	6,610	10.8	372	NA
Feb-18-2019	7,500	10.1	341	NA
Feb-19-2019	8,590	9.7	328	NA
Feb-20-2019	9,410	9.8	317	NA
Feb-21-2019	9,870	10.0	307	NA
Feb-22-2019	9,730	9.4	288	NA

PARAMETER	Flow	Temperature	Specific Conductance	Total Selenium
DATA SOURCE	USGS	USGS	USGS	USBR
UNITS	cfs	°C	µS/cm	µg/L
Feb-23-2019	9,540	9.4	285	NA
Feb-24-2019	9,220	9.9	284	NA
Feb-25-2019	8,920	10.6	285	NA
Feb-26-2019	8,580	10.9	285	NA
Feb-27-2019	8,310	11.2	285	NA
Feb-28-2019	8,120	11.6	286	NA
Mar-01-2019	7,890	11.7	286	NA
Mar-02-2019	7,360	11.9	285	NA
Mar-03-2019	6,300	13.0	283	NA
Mar-04-2019	5,300	13.8	283	NA
Mar-05-2019	4,900	13.8	285	NA
Mar-06-2019	4,820	13.5	285	NA
Mar-07-2019	4,890	13.2	286	NA
Mar-08-2019	5,050	13.2	286	NA
Mar-09-2019	5,150	12.8	287	NA
Mar-10-2019	5,290	12.5	287	NA
Mar-11-2019	5,360	12.6	287	NA
Mar-12-2019	5,160	13.0	286	NA
Mar-13-2019	4,450	12.9	286	NA
Mar-14-2019	3,690	12.8	322	NA
Mar-15-2019	3,370	13.2	351	NA
Mar-16-2019	3,200	13.8	356	NA
Mar-17-2019	3,600	14.1	510	NA
Mar-18-2019	3,850	14.4	486	NA
Mar-19-2019	3,850	14.8	477	NA
Mar-20-2019	3,820	14.6	477	NA
Mar-21-2019	3,810	14.2	478	NA
Mar-22-2019	3,760	13.9	480	NA
Mar-23-2019	3,830	13.8	484	NA
Mar-24-2019	4,060	13.9	464	NA
Mar-25-2019	4,360	14.1	427	NA
Mar-26-2019	4,580	14.7	396	NA
Mar-27-2019	4,720	15.2	394	NA
Mar-28-2019	4,780	14.9	397	NA
Mar-29-2019	4,890	15.0	384	NA
Mar-30-2019	5,170	14.7	351	NA
Mar-31-2019	5,870	14.5	310	NA
Apr-01-2019	6,430	14.6	288	NA
Apr-02-2019	6,670	14.8	278	NA
Apr-03-2019	6,640	14.9	272	NA
Apr-04-2019	5,470	16.0	273	NA
Apr-05-2019	4,150	16.1	275	NA
Apr-06-2019	3,730	16.0	283	NA
Apr-07-2019	3,440	16.4	277	NA
Apr-08-2019	3,190	17.3	278	NA
Apr-09-2019	2,980	17.3	291	NA
Apr-10-2019	2,810	16.1	292	NA
Apr-11-2019	2,650	15.3	296	NA
Apr-12-2019	2,520	14.8	311	NA
Apr-13-2019	2,420	15.2	342	NA
Apr-14-2019	2,340	16.2	350	NA
Apr-15-2019	2,300	16.3	386	NA
Apr-16-2019	2,260	16.0	384	NA
Apr-17-2019	2,210	15.8	378	NA
Apr-18-2019	1,910	16.9	347	NA

PARAMETER	Flow	Temperature	Specific Conductance	Total Selenium
DATA SOURCE	USGS	USGS	USGS	USBR
UNITS	cfs	°C	µS/cm	µg/L
Apr-19-2019	1,440	18.7	471	NA
Apr-20-2019	1,360	19.6	562	NA
Apr-21-2019	1,310	19.3	577	NA
Apr-22-2019	1,290	19.5	625	NA
Apr-23-2019	1,240	20.1	648	NA
Apr-24-2019	1,130	21.2	589	NA
Apr-25-2019	1,050	22.6	699	NA
Apr-26-2019	1,020	23.0	789	NA
Apr-27-2019	957	22.8	881	NA
Apr-28-2019	927	22.3	939	NA
Apr-29-2019	1,080	22.1	869	NA
Apr-30-2019	1,210	21.7	744	NA
May-01-2019	1,420	19.9	603	NA
May-02-2019	1,550	18.7	488	NA
May-03-2019	1,620	18.7	449	NA
May-04-2019	1,680	18.7	439	NA
May-05-2019	1,750	18.7	439	NA
May-06-2019	1,870	18.7	396	NA
May-07-2019	2,270	17.8	315	NA
May-08-2019	2,490	17.7	289	NA
May-09-2019	2,610	18.1	288	NA
May-10-2019	2,620	18.2	294	NA
May-11-2019	2,580	18.5	297	NA
May-12-2019	2,560	18.6	292	NA
May-13-2019	2,650	18.7	281	NA
May-14-2019	2,640	18.3	281	NA
May-15-2019	2,660	17.5	281	NA
May-16-2019	2,680	16.6	279	NA
May-17-2019	2,760	16.2	277	NA
May-18-2019	3,240	15.3	268	NA
May-19-2019	3,960	14.2	223	NA
May-20-2019	4,540	14.1	192	NA
May-21-2019	4,910	14.5	177	NA
May-22-2019	5,230	15.0	184	NA
May-23-2019	5,550	15.1	204	NA
May-24-2019	5,860	15.4	209	NA
May-25-2019	6,120	15.9	199	NA
May-26-2019	6,160	15.8	208	NA
May-27-2019	6,330	15.3	201	NA
May-28-2019	6,800	15.3	152	NA
May-29-2019	7,110	16.7	204	NA
May-30-2019	7,380	18.1	223	NA
May-31-2019	8,160	19.7	213	NA
Jun-01-2019	8,980	20.9	195	NA
Jun-02-2019	9,420	21.9	177	NA
Jun-03-2019	9,580	22.1	154	NA
Jun-04-2019	9,560	22.6	145	NA
Jun-05-2019	9,510	23.2	163	NA
Jun-06-2019	9,200	23.9	163	NA
Jun-07-2019	8,800	22.8	146	NA
Jun-08-2019	8,440	20.7	140	NA
Jun-09-2019	8,090	20.6	142	NA
Jun-10-2019	7,750	21.8	149	NA
Jun-11-2019	7,340	22.9	158	NA
Jun-12-2019	6,920	23.8	155	NA

PARAMETER	Flow	Temperature	Specific Conductance	Total Selenium
DATA SOURCE	USGS	USGS	USGS	USBR
UNITS	cfs	°C	µS/cm	µg/L
Jun-13-2019	6,550	24.0	164	NA
Jun-14-2019	6,050	23.6	167	NA
Jun-15-2019	5,290	23.2	197	NA
Jun-16-2019	4,790	22.3	194	NA
Jun-17-2019	4,770	22.1	167	NA
Jun-18-2019	4,800	22.6	149	NA
Jun-19-2019	4,850	23.2	148	NA
Jun-20-2019	4,440	24.3	182	NA
Jun-21-2019	4,270	23.9	183	NA
Jun-22-2019	4,440	23.1	155	NA
Jun-23-2019	4,400	23.3	149	NA
Jun-24-2019	4,010	24.1	195	NA
Jun-25-2019	3,380	24.3	282	NA
Jun-26-2019	2,820	23.7	312	NA
Jun-27-2019	2,140	23.0	396	NA
Jun-28-2019	1,700	22.3	451	NA
Jun-29-2019	1,480	21.9	526	NA
Jun-30-2019	1,310	22.6	622	NA
Jul-01-2019	1,330	23.2	670	NA
Jul-02-2019	1,280	23.6	599	NA
Jul-03-2019	1,130	23.9	654	NA
Jul-04-2019	1,050	24.2	684	NA
Jul-05-2019	980	24.9	747	NA
Jul-06-2019	898	25.3	804	NA
Jul-07-2019	893	25.2	833	NA
Jul-08-2019	898	24.9	801	NA
Jul-09-2019	855	24.4	803	NA
Jul-10-2019	887	24.6	828	NA
Jul-11-2019	853	25.3	793	NA
Jul-12-2019	849	25.8	726	NA
Jul-13-2019	802	26.4	716	NA
Jul-14-2019	764	26.7	744	NA
Jul-15-2019	745	26.7	752	NA
Jul-16-2019	756	NA	NA	NA
Jul-17-2019	732	NA	NA	NA
Jul-18-2019	691	NA	NA	NA
Jul-19-2019	693	NA	NA	NA
Jul-20-2019	735	26.4	753	NA
Jul-21-2019	744	26.5	693	NA
Jul-22-2019	802	27.0	628	NA
Jul-23-2019	819	27.7	607	NA
Jul-24-2019	790	27.4	604	NA
Jul-25-2019	732	27.4	631	NA
Jul-26-2019	657	27.6	692	NA
Jul-27-2019	620	27.3	753	NA
Jul-28-2019	627	27.4	772	NA
Jul-29-2019	607	27.7	758	NA
Jul-30-2019	594	26.8	761	NA
Jul-31-2019	543	26.1	815	NA
Aug-01-2019	551	26.2	808	NA
Aug-02-2019	548	26.2	808	NA
Aug-03-2019	572	26.5	834	NA
Aug-04-2019	599	27.0	762	NA
Aug-05-2019	563	26.3	740	NA
Aug-06-2019	575	26.2	754	NA

PARAMETER	Flow	Temperature	Specific Conductance	Total Selenium
DATA SOURCE	USGS	USGS	USGS	USBR
UNITS	cfs	°C	µS/cm	µg/L
Aug-07-2019	615	26.6	728	NA
Aug-08-2019	587	26.0	689	NA
Aug-09-2019	591	25.1	705	NA
Aug-10-2019	600	25.3	662	NA
Aug-11-2019	621	24.9	631	NA
Aug-12-2019	653	25.3	604	NA
Aug-13-2019	681	25.9	586	NA
Aug-14-2019	692	26.6	550	NA
Aug-15-2019	703	27.2	521	NA
Aug-16-2019	685	27.6	555	NA
Aug-17-2019	677	27.6	577	NA
Aug-18-2019	677	26.5	573	NA
Aug-19-2019	699	25.4	576	NA
Aug-20-2019	697	24.9	581	NA
Aug-21-2019	717	24.8	616	<0.4
Aug-22-2019	754	25.6	601	<0.4
Aug-23-2019	790	26.6	572	<0.4
Aug-24-2019	760	26.9	582	<0.4
Aug-25-2019	752	27.0	600	<0.4
Aug-26-2019	731	27.1	595	<0.4
Aug-27-2019	727	26.8	636	<0.4
Aug-28-2019	793	26.5	622	<0.4
Aug-29-2019	922	25.8	501	<0.4
Aug-30-2019	1,000	24.6	474	<0.4
Aug-31-2019	1,050	24.3	476	<0.4
Sep-01-2019	1,090	24.4	442	<0.4
Sep-02-2019	1,100	24.4	449	<0.4
Sep-03-2019	1,080	24.0	485	<0.4
Sep-04-2019	1,060	24.1	469	<0.4
Sep-05-2019	1,080	24.3	439	<0.4
Sep-06-2019	1,160	23.6	447	<0.4
Sep-07-2019	1,640	21.6	339	<0.4
Sep-08-2019	1,980	20.3	272	<0.4
Sep-09-2019	1,920	20.4	201	<0.4
Sep-10-2019	1,600	20.8	253	<0.4
Sep-11-2019	1,320	21.1	278	<0.4
Sep-12-2019	1,110	21.5	294	<0.4
Sep-13-2019	1,210	21.8	305	<0.4
Sep-14-2019	1,630	20.9	233	<0.4
Sep-15-2019	1,860	19.4	200	<0.4
Sep-16-2019	1,970	18.4	192	<0.4
Sep-17-2019	2,010	17.6	203	<0.4
Sep-18-2019	2,060	17.3	203	<0.4
Sep-19-2019	2,100	17.3	182	<0.4
Sep-20-2019	2,120	17.1	174	<0.4
Sep-21-2019	2,140	17.1	179	<0.4
Sep-22-2019	2,180	17.2	171	<0.4
Sep-23-2019	2,250	17.4	174	<0.4
Sep-24-2019	2,370	17.7	165	<0.4
Sep-25-2019	2,640	17.6	148	<0.4
Sep-26-2019	2,890	17.5	155	<0.4
Sep-27-2019	3,010	17.6	162	<0.4
Sep-28-2019	3,130	17.0	158	<0.4
Sep-29-2019	3,240	16.0	146	<0.4
Sep-30-2019	3,280	15.3	144	<0.4

PARAMETER	Flow	Temperature	Specific Conductance	Total Selenium
DATA SOURCE	USGS	USGS	USGS	USBR
UNITS	cfs	°C	µS/cm	µg/L
Oct-01-2019	3,240	14.9	148	<0.4
Oct-02-2019	2,660	14.9	171	<0.4
Oct-03-2019	1,400	15.7	260	<0.4
Oct-04-2019	1,030	16.5	306	<0.4
Oct-05-2019	915	16.8	372	<0.4
Oct-06-2019	860	17.5	448	<0.4
Oct-07-2019	841	18.3	485	<0.4
Oct-08-2019	729	18.9	515	<0.4
Oct-09-2019	698	18.4	533	<0.4
Oct-10-2019	658	16.2	540	<0.4
Oct-11-2019	599	16.4	558	<0.4
Oct-12-2019	572	17.0	578	<0.4
Oct-13-2019	581	17.2	599	<0.4
Oct-14-2019	606	17.1	619	<0.4
Oct-15-2019	648	17.1	636	<0.4
Oct-16-2019	832	16.5	647	<0.4
Oct-17-2019	1,040	16.0	650	<0.4
Oct-18-2019	1,040	15.8	628	<0.4 T
Oct-19-2019	914	16.2	578	<0.4 T
Oct-20-2019	1,110	16.4	574	<0.4 T
Oct-21-2019	1,450	15.8	549	<0.4 T
Oct-22-2019	1,360	16.0	525	<0.4 T
Oct-23-2019	1,470	16.1	511	<0.4 T
Oct-24-2019	1,630	16.1	496	<0.4 T
Oct-25-2019	1,760	15.8	477	<0.4
Oct-26-2019	1,840	15.6	461	<0.4
Oct-27-2019	1,600	14.6	438	<0.4
Oct-28-2019	1,250	13.6	430	<0.4
Oct-29-2019	961	13.5	437	<0.4
Oct-30-2019	843	13.3	450	<0.4
Oct-31-2019	804	13.2	470	<0.4
Nov-01-2019	778	13.1	494	<0.4
Nov-02-2019	766	13.2	520	<0.4
Nov-03-2019	721	13.3	548	<0.4
Nov-04-2019	681	13.7	576	<0.4
Nov-05-2019	652	14.0	NA	<0.4
Nov-06-2019	611	14.3	NA	<0.4
Nov-07-2019	589	14.6	NA	<0.4
Nov-08-2019	580	14.7	NA	<0.4 T
Nov-09-2019	592	14.8	NA	<0.4 T
Nov-10-2019	596	14.6	NA	<0.4 T
Nov-11-2019	590	14.7	NA	<0.4 T
Nov-12-2019	569	14.8	NA	<0.4
Nov-13-2019	564	14.9	NA	<0.4
Nov-14-2019	558	15.1	NA	<0.4
Nov-15-2019	570	15.1	NA	<0.4
Nov-16-2019	582	14.8	NA	<0.4
Nov-17-2019	590	14.7	NA	<0.4
Nov-18-2019	593	14.6	NA	<0.4
Nov-19-2019	578	14.6	NA	<0.4
Nov-20-2019	580	14.1	NA	<0.4
Nov-21-2019	575	13.5	NA	<0.4 T
Nov-22-2019	574	13.2	NA	<0.4
Nov-23-2019	565	13.1	NA	<0.4
Nov-24-2019	575	12.8	NA	<0.4



PARAMETER	Flow	Temperature	Specific Conductance	Total Selenium
DATA SOURCE	USGS	USGS	USGS	USBR
UNITS	cfs	°C	µS/cm	µg/L
Nov-25-2019	584	12.0	NA	<0.4
Nov-26-2019	573	10.3	NA	<0.4
Nov-27-2019	594	10.1	NA	<0.4
Nov-28-2019	625	10.1	NA	<0.4
Nov-29-2019	663	10.0	NA	NA
Nov-30-2019	689	9.7	NA	NA
Dec-01-2019	744	9.2	NA	NA
Dec-02-2019	893	9.8	NA	NA
Dec-03-2019	1,110	10.2	NA	NA
Dec-04-2019	1,550	10.6	NA	NA
Dec-05-2019	1,740	11.2	NA	NA
Dec-06-2019	1,840	11.8	NA	0.8
Dec-07-2019	1,850	12.7	NA	0.9
Dec-08-2019	1,800	13.2	NA	0.7
Dec-09-2019	1,710	12.9	NA	0.7
Dec-10-2019	1,680	12.3	NA	0.8
Dec-11-2019	1,620	12.2	895	0.7
Dec-12-2019	1,550	12.5	919	0.7
Dec-13-2019	1,480	13.2	943	0.6
Dec-14-2019	1,420	13.4	966	0.5
Dec-15-2019	1,370	12.7	986	0.5
Dec-16-2019	1,310	11.6	1,000	0.4
Dec-17-2019	1,250	10.8	1,020	0.5
Dec-18-2019	1,170	10.6	1,030	0.515 T
Dec-19-2019	1,090	11.0	1,050	0.458 T
Dec-20-2019	1,020	10.9	1,060	0.477 T
Dec-21-2019	968	10.7	1,070	0.434 T
Dec-22-2019	946	10.6	1,090	0.370 T
Dec-23-2019	945	11.0	1,110	0.414 T
Dec-24-2019	932	10.4	1,110	0.439 T
Dec-25-2019	918	10.4	1,120	0.4
Dec-26-2019	929	10.4	1,140	0.6
Dec-27-2019	942	9.7	1,110	0.6
Dec-28-2019	939	9.2	1,090	0.5
Dec-29-2019	933	9.3	1,100	0.5
Dec-30-2019	925	9.8	1,130	0.6
Dec-31-2019	895	10.0	1,150	0.6

**NOTES:** See Table 14 for explanation of footnotes and agency abbreviations

Autosampler malfunction (no selenium samples collected February 6 - August 20 and November 29 - December 5)

USGS data webpage.

[http://waterdata.usgs.gov/nwis/dv/?site\\_no=11274550&agency\\_cd=USGS&referred\\_module=sw](http://waterdata.usgs.gov/nwis/dv/?site_no=11274550&agency_cd=USGS&referred_module=sw)

**Table 9b. Monthly averages and totals**

<b>PARAMETER</b>	<b>Total Flow</b>	<b>Average Temperature</b>	<b>Average Specific Conductance</b>	<b>Average Selenium</b>
<b>DATA SOURCE</b>	<b>Calculated</b>	<b>Calculated</b>	<b>Calculated</b>	<b>Calculated</b>
<b>UNITS</b>	<b>acre-feet</b>	<b>°C</b>	<b>µS/cm</b>	<b>µg/L</b>
Jan-19	54,270	10.9	1,039	0.5
Feb-19	296,240	10.7	557	0.5
Mar-19	291,830	13.7	363	NA
Apr-19	154,980	18.0	466	NA
May-19	237,540	17.1	285	NA
Jun-19	347,270	22.8	218	NA
Jul-19	50,290	25.9	727	NA
Aug-19	42,810	26.1	630	0.4
Sep-19	115,500	19.7	255	0.4
Oct-19	71,290	16.0	487	0.4
Nov-19	36,410	13.4	535	0.4
Dec-19	76,300	11.1	1,052	0.4

**NOTES:**

Table 9c. Other water quality monitoring in the San Joaquin River at Crows Landing (Station N)

PARAMETER	Physicals					Total Selenium	Total Boron	Total Molybdenum
	Dissolved Oxygen	pH	Specific Conductance	Temperature	Turbidity			
DATA SOURCE	USBR	USBR	USBR	USBR	USBR	USBR	USBR	USBR
UNITS	mg/L	units	µS/cm	°C	NTU	µg/L	mg/L	µg/L
Jan-04-2019	15.7	7.3	1,365	7.6	13.3	0.5	0.8	
Jan-11-2019	5.5	7.3	1,047	12.5	39.5	<0.4	0.6	
Jan-18-2019	9.8	7.5	1,052	12.8	79.3	<0.4	0.6	
Jan-24-2019	14.4	7.4	1,056	10.5	32.5	0.4	0.7	
Jan-29-2019	14.5	7.4	1,315	20.2	26.2	0.5	0.8	6
Feb-05-2019	11.7	7.7	851	10.7	80.9	0.7	0.7	
Feb-12-2019	15.0	7.3	490	9.8	50.5	<0.4	0.3	
Feb-21-2019	14.4	6.8	252	10.3	33.5	<0.4	0.1	
Feb-28-2019	8.5	7.1	284	12.3	15.3	<0.4	0.1	2
Mar-07-2019	13.5	7.1	491	13.5	19.9	0.5	0.4	
Mar-12-2019	13.6	7.0	421	13.0	17.6	<0.4	0.2	
Mar-21-2019	12.1	7.4	486	14.1	18.5	0.4	0.3	
Mar-26-2019	10.1	6.9	368	14.5	16.4	<0.4	0.2	2
Apr-04-2019	8.7	6.4	361	15.8	12.2	<0.4	0.2	
Apr-11-2019	9.4	7.2	467	15.2	22.9	<0.4	0.2	
Apr-18-2019	9.4	7.3	508	16.4	21.2	<0.4	0.2	
Apr-25-2019	10.4	7.2	848	21.9	27.1	0.4	0.3	
Apr-30-2019	10.8	6.9	697	21.5	23.2	<0.4	0.3	3
May-08-2019	13.0	7.3	254	17.4	20.5	<0.4	0.1	
May-15-2019	12.1	6.9	264	17.3	21.5	<0.4	0.1	
May-21-2019	10.4	7.0	147	14.3	15.4	<0.4	0.0	
May-29-2019	10.7	7.6	154	15.9	13.6	<0.4	0.1	1
Jun-03-2019	9.7	6.8	100	21.5	7.4	<0.4	0.0	
Jun-14-2019	9.7	6.8	137	23.0	14.5	<0.4	0.1	
Jun-18-2019	9.9	7.0	120	22.0	23.7	<0.4	0.0	
Jun-24-2019	9.6	6.9	168	23.5	27.2	<0.4	0.1	1
Jul-02-2019	9.2	7.0	606	22.7	62.1	<0.4	0.2	
Jul-11-2019	8.9	7.2	778	24.2	21.6	<0.4	0.3	
Jul-18-2019	8.3	7.2	795	25.7	20.3	<0.4	0.2	
Jul-24-2019	9.4	7.3	597	26.2	22.8	<0.4	0.2	
Jul-29-2019	9.1	7.3	776	26.1	21.9	<0.4	0.3	3,3 V
Aug-09-2019	9.0	7.2	710	23.3	28.5	<0.4	0.3	
Aug-13-2019	8.9	7.2	558	24.3	31.9	<0.4	0.2	
Aug-21-2019	8.3	7.3	564	23.7	25.9	<0.4	0.2	
Aug-29-2019	8.1	7.1	486	24.7	23.1	<0.4	0.2	3
Sep-06-2019	9.0	7.0	429	22.1	21.5	<0.4	0.2	
Sep-10-2019	7.3	6.8	219	19.0	17.7	<0.4	0.1	
Sep-20-2019	9.8	7.1	151	16.3	15.6	<0.4	0.0	
Sep-25-2019	8.1	7.2	121	16.8	16.5	<0.4	0.1	<1
Oct-02-2019	10.6	7.0	140	13.5	14.6	<0.4	0.1	
Oct-09-2019	9.4	7.3	581	17.1	22.0	<0.4	0.3	
Oct-16-2019	NA	NA	NA	NA	NA	NA	NA	
Oct-23-2019	8.6	7.8	232	15.4	18.6	<0.4	0.1	
Oct-30-2019	11.7	7.6	559	12.5	NA	<0.4	0.3	3
Nov-06-2019	12.2	7.7	818	14.0	14.4	<0.4	0.4	
Nov-15-2019	12.9	7.7	888	14.6	18.1	<0.4	0.5	
Nov-19-2019	13.4	7.7	871	14.0	15.7	<0.4	0.4	
Nov-26-2019	10.7	7.5	934	9.1	NA	<0.4	0.4	5
Dec-03-2019	11.3	7.5	758	9.1	41.4	<0.4	0.4	
Dec-12-2019	10.3	7.5	887	11.7	52.3	0.7	0.6	
Dec-19-2019	NA	NA	NA	NA	19.0	0.4	0.7	
Dec-23-2019	11.2	7.0	1,180	9.8	17.8	0.4	0.7	
Dec-30-2019	12.6	7.5	1,209	8.2	16.5	0.844 U	0.8	5

NOTES: See Table 14 for explanation of footnotes and agency abbreviations

PARAMETER	Nutrients	
	Nitrate as N (Dissolved)	Ammonia as N
UNITS	mg/L	mg/L
Jan-29-2019	0.10 L	0.15
Feb-28-2019	0.46	0.069
Mar-26-2019	0.35	<0.050 L, V
Apr-30-2019	1.5	0.13
May-29-2019	0.2	0.14
Jun-24-2019	0.27	0.19
Jul-29-2019	2.2	0.15
Aug-29-2019	1.2	0.27 U
Sep-25-2019	0.4	0.065
Oct-30-2019	1.7	0.088
Nov-26-2019	2.4	0.082 L, V
Dec-30-2019	1.9	0.18 L

NOTES:

**Table 10. New WDR Summary of fathead minnow (*Pimephales promelas*) larvae survival**

LOCATION	Station B3	Station D	Station F	Station R	Conductivity Control	Lab Water Control
DATA SOURCE	SLDMWA	SLDMWA	SLDMWA	SLDMWA	SLDMWA	SLDMWA
UNITS	%	%	%	%	%	%
1/23/2019	N/A	100	N/A	N/A	N/A	100
2/20/2019	N/A	97.5	N/A	N/A	N/A	100
3/14/2019	95	98	98	98	100	100
4/18/2019	N/A	100	N/A	N/A	N/A	100
5/22/2019	N/A	100	N/A	N/A	N/A	100
6/12/2019	100	100	100	100	N/A	100
7/24/2019	N/A	100	N/A	N/A	N/A	100
8/26/2019	N/A	100	N/A	N/A	N/A	100
9/24/2019	98	100	N/A	100	N/A	100
9/27/2019	N/A	N/A	100	N/A	N/A	100
10/24/2019	N/A	100	N/A	N/A	N/A	100
11/19/2019	100	100	100	100	N/A	100
12/18/2019	N/A	100	N/A	N/A	N/A	100

NOTES: See Table 14 for explanation of footnotes and agency abbreviations

**Table 11. New WDR Summary of Daphnia magna survival in 7-day tests**

LOCATION	Station B3	Station D	Station F	Station R	Conductivity Control	Lab Water Control
DATA SOURCE	SLDMWA	SLDMWA	SLDMWA	SLDMWA	SLDMWA	SLDMWA
UNITS	%	%	%	%	%	%
1/23/2019	N/A	100	N/A	N/A	N/A	100
2/20/2019	N/A	100	N/A	N/A	N/A	100
3/14/2019	95	100	100	100	100	100
4/18/2019	N/A	100	N/A	N/A	N/A	100
5/22/2019	N/A	100	N/A	N/A	N/A	100
6/12/2019	100	100	95	100	N/A	90
7/24/2019	N/A	100	N/A	N/A	N/A	100
8/26/2019	N/A	100	N/A	N/A	N/A	100
9/24/2019	100	100	N/A	100	N/A	100
9/27/2019	N/A	N/A	100	N/A	N/A	85 <sup>a</sup>
10/2/2019	N/A	N/A	100	N/A	N/A	100
10/24/2019	N/A	100	N/A	N/A	N/A	100
11/19/2019	95	100	95	100	N/A	95
12/18/2019	N/A	100	N/A	N/A	N/A	95

NOTES: See Table 14 for explanation of footnotes and agency abbreviations

<sup>a</sup> - The test initiated on 9/27/19 failed to meet test acceptability criteria (TAC) with <90% survival in the Lab Control. The re-test was initiated using the same sample on 10/2/19.

**Table 12. New WDR Summary of Selenastrum capricornutum growth in 4-day tests**

LOCATION	Station B3	Station D	Station F	Station R	Conductivity Control	Lab Water Control
DATA SOURCE	SLDMWA	SLDMWA	SLDMWA	SLDMWA	SLDMWA	SLDMWA
UNITS	cells/mL x 10 <sup>6</sup>	cells/mL x 10 <sup>6</sup>	cells/mL x 10 <sup>6</sup>	cells/mL x 10 <sup>6</sup>	cells/mL x 10 <sup>6</sup>	cells/mL x 10 <sup>6</sup>
1/23/2019	N/A	7.32	N/A	N/A	N/A	3.15
2/20/2019	N/A	7.96	N/A	N/A	N/A	3.30
3/14/2019	4.25	7.82	6.93	6.73	3.06	3.13
4/18/2019	N/A	6.46	N/A	N/A	N/A	2.66
5/22/2019	N/A	6.14	N/A	N/A	N/A	3.69
6/12/2019	4.22	6.14	6.38	6.03	N/A	3.42
7/24/2019	N/A	5.36	N/A	N/A	N/A	3.37
8/26/2019	N/A	6.89	N/A	N/A	N/A	3.81
9/24/2019	4.78	6.39	N/A	5.66	N/A	2.65
9/27/2019	N/A	N/A	6.18	N/A	N/A	3.53
10/24/2019	N/A	5.29	N/A	N/A	N/A	1.84
11/19/2019	3.69	7.83	6.87	7.09	N/A	2.94
12/18/2019	N/A	6.78	N/A	N/A	N/A	2.79

NOTES: See Table 14 for explanation of footnotes and agency abbreviations

**Table 13. Summary of Hyalella azteca survival in sediment**

LOCATION	Station B3	Station C	Station D	Station F	Station R	Laboratory Control
DATA SOURCE	SLDMWA	SLDMWA	SLDMWA	SLDMWA	SLDMWA	SLDMWA
UNITS	%	%	%	%	%	%
3/14/2019	N/A	N/A	94	N/A	N/A	98

**Table 14. Explanations of footnotes and agency abbreviations.**

	<b>Agency</b>
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**

Blank Cell	Not Required
<	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
NA	Not analyzed, 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

### **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