

GRASSLAND BYPASS PROJECT
QUARTERLY DATA REPORT
July, August and September 2009

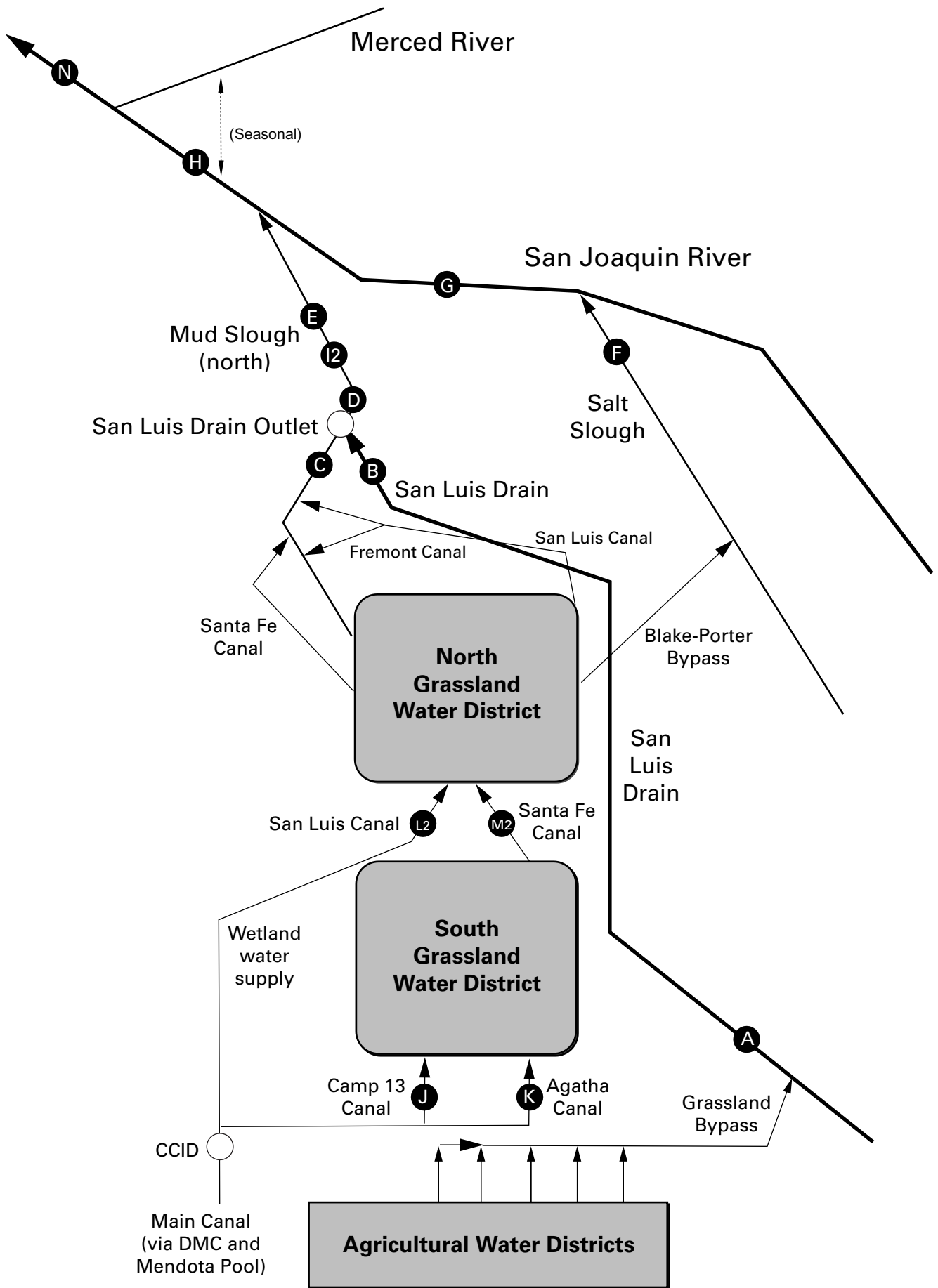
July 2010

A cooperative effort of:

U.S. Bureau of Reclamation
Central Valley Regional Water Quality Control Board
U.S. Fish and Wildlife Service
California Department of Fish and Game
San Luis & Delta-Mendota Water Authority
U.S. Environmental Protection Agency
U.S. Geological Survey

compiled by San Francisco Estuary Institute





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PRELIMINARY RESULTS

Table 1. Continuous water monitoring at Station A (inflow to San Luis Drain), July, August, September 2009.

See Table 33 for explanation of footnotes and agency abbreviations.

| PARAMETER | Flow | Specific Conductance | Flow | Specific Conductance | Flow | Specific Conductance |
|-------------|--------|----------------------|--------|----------------------|-----------|----------------------|
| DATA SOURCE | SLDMWA | SLDMWA | SLDMWA | SLDMWA | SLDMWA | SLDMWA |
| UNITS | cfs | µS/cm | cfs | µS/cm | cfs | µS/cm |
| Month | July | July | August | August | September | September |
| Day 1 | 17 | 3,220 | 8 | 4,010 | 5 | 3,770 |
| Day 2 | 20 | 3,330 | 12 | 4,110 | 6 | 3,190 |
| Day 3 | 17 | 3,840 | 17 | 3,610 | 7 | 3,920 |
| Day 4 | 18 | 3,990 | 18 | 3,540 | 7 | 4,440 |
| Day 5 | 16 | 3,490 | 17 | 3,750 | 8 | 4,270 |
| Day 6 | 14 | 4,190 | 14 | 4,180 | 8 | 4,740 |
| Day 7 | 15 | 4,610 | 12 | 4,580 | 10 | 4,760 |
| Day 8 | 12 | 4,340 | 13 | 4,380 | 16 | 3,570 |
| Day 9 | 12 | 4,230 | 12 | 4,520 | 16 | 3,390 |
| Day 10 | 11 | 3,820 | 14 | 4,620 | 17 | 3,860 |
| Day 11 | 12 | 3,600 | 11 | 3,770 | 12 | 4,160 |
| Day 12 | 10 | 4,500 | 10 | 3,680 | 13 | 4,060 |
| Day 13 | 7 | 4,520 | 10 | 3,360 | 10 | 3,830 |
| Day 14 | 7 | 4,540 | 7 | 3,990 | 11 | 3,650 |
| Day 15 | 7 | 4,520 | 5 | 4,530 | 12 | 3,200 |
| Day 16 | 10 | 4,300 | 6 | 4,170 | 18 | 3,680 |
| Day 17 | 11 | 3,860 | 9 | 4,010 | 15 | 3,830 |
| Day 18 | 12 | 3,390 | 13 | 3,450 | 12 | 3,710 |
| Day 19 | 11 | 2,740 | 13 | 2,670 | 13 | 3,140 |
| Day 20 | 9 | 2,890 | 13 | 2,370 | 14 | 3,740 |
| Day 21 | 11 | 2,350 | 15 | 2,680 | 12 | 3,680 |
| Day 22 | 15 | 2,640 | 18 | 2,550 | 10 | 3,390 |
| Day 23 | 14 | 2,700 | 21 | 2,350 | 9 | 3,240 |
| Day 24 | 13 | 2,380 | 22 | 3,200 | 5 | 3,460 |
| Day 25 | 18 | 2,990 | 17 | 3,240 | 3 | 3,690 |
| Day 26 | 14 | 3,470 | 14 | 3,440 | 6 | 3,540 |
| Day 27 | 14 | 3,300 | 13 | 3,480 | 11 | 3,250 |
| Day 28 | 13 | 3,070 | 10 | 4,020 | 10 | 3,300 |
| Day 29 | 9 | 3,550 | 8 | 4,050 | 10 | 3,200 |
| Day 30 | 7 | 4,260 | 9 | 4,080 | 10 | 3,390 |
| Day 31 | 9 | 4,260 | 7 | 4,140 | . | . |
| Mean | 12.5 | 3,640 | 12.5 | 3,690 | 10.5 | 3,700 |

PRELIMINARY RESULTS

Table 2a. Continuous water monitoring at Stations B and B2 (San Luis Drain Terminus), July 2009.

See Table 33 for explanation of footnotes and agency abbreviations.

| PARAMETER | San Luis Drain Outlet Flow | Temperature | Boron | Specific Conductance | Selenium (total) | Selenium (total) Load |
|------------------------|-------------------------------|-------------|------------|-------------------------|---------------------|--------------------------|
| DATA SOURCE | SLDMWA* | SLDMWA | CVRWQCB | SLDMWA | CVRWQCB | Computed |
| UNITS | cfs | °C | mg/L | µS/cm | µg/L | lbs |
| Jul-01-2009 | 16 | 27.2 | 7.8 | 4,280 | 23.3 | 2.1 |
| Jul-02-2009 | 15 | 27.1 | 7.4 | 4,360 | 21.8 | 1.7 |
| Jul-03-2009 | 17 | 26.8 | 8.1 | 4,240 | 36.8 | 3.5 |
| Jul-04-2009 | 16 | 26.7 | 7.2 | 4,480 | 33.3 | 2.8 |
| Jul-05-2009 | 16 | 26.2 | 6.7 | 3,840 | 21.2 | 1.8 |
| Jul-06-2009 | 14 | 25.6 | 6.9 | 3,590 | 20.5 | 1.5 |
| Jul-07-2009 | 13 | 24.9 | 6.8 | 3,770 | 24.0 | 1.6 |
| Jul-08-2009 | 12 | 24.9 | 6.8 | 3,540 | 18.7 | 1.3 |
| Jul-09-2009 | 11 | 25.4 | 8.0 | 4,080 | 22.0 | 1.3 |
| Jul-10-2009 | 10 | 25.1 | 8.9 | 4,150 | 23.8 | 1.3 |
| Jul-11-2009 | 10 | 25.3 | 9.9 | 4,810 | 23.1 | 1.2 |
| Jul-12-2009 | 10 | 25.2 | 9.9 | 4,960 | 25.4 | 1.4 |
| Jul-13-2009 | 8 | 25.0 | 8.6 | 4,910 | 24.8 | 1.1 |
| Jul-14-2009 | 7 | 24.5 | 8.4 | 4,560 | 25.6 | 0.9 |
| Jul-15-2009 | 6 | 26.1 | 9.5 | 4,570 | 27.7 | 0.9 |
| Jul-16-2009 | 6 | 27.1 | 9.7 | 4,880 | 26.9 | 0.8 |
| Jul-17-2009 | 7 | 27.8 | 10.6 | 5,170 | 25.6 | 0.9 |
| Jul-18-2009 | 8 | 27.7 | 11.0 | 5,460 | 27.0 | 1.1 |
| Jul-19-2009 | 9 | 28.0 | 9.3 | 5,490 | 29.7 | 1.5 |
| Jul-20-2009 | 8 | 28.5 | 8.6 | 5,270 | 27.2 | 1.2 |
| Jul-21-2009 | 7 | 28.2 | 8.0 | 5,160 | 21.8 | 0.9 |
| Jul-22-2009 | 8 | 27.8 | 8.7 | 4,850 | 20.6 | 0.8 |
| Jul-23-2009 | 11 | 27.3 | 10.3 | 4,910 | 25.1 | 1.5 |
| Jul-24-2009 | 12 | 27.0 | 10.7 | 5,730 | 29.5 | 1.9 |
| Jul-25-2009 | 12 | 26.6 | 10.1 | 5,730 | 24.2 | 1.5 |
| Jul-26-2009 | 15 | 27.1 | 8.6 | 5,140 | 21.1 | 1.7 |
| Jul-27-2009 | 12 | 27.5 | 6.1 | 4,140 | 19.0 | 1.3 |
| Jul-28-2009 | 11 | 27.7 | 4.9 | 3,550 | 18.2 | 1.1 |
| Jul-29-2009 | 10 | 27.5 | 5.1 | 3,200 | 17.0 | 1.0 |
| Jul-30-2009 | 8 | 27.7 | 5.2 | 3,370 | 18.3 | 0.8 |
| Jul-31-2009 | 6 | 27.3 | 4.8 | 3,410 | 16.7 | 0.6 |
| Mean | 11 | 26.7 | 8.3 | 4,500 | 23.9 | 1.4 |
| Total Acre-feet | 650 | | | | | |
| Total (lbs) | | | | | | 43 |

| | |
|--|------------|
| Load Limitation for July 2009 (lbs) | 171 |
|--|------------|

PRELIMINARY RESULTS

Table 2a. Continuous water monitoring at Stations B and B2 (San Luis Drain Terminus), August 2009.

See Table 33 for explanation of footnotes and agency abbreviations.

| PARAMETER | San Luis Drain Outlet Flow | Temperature | Boron | Specific Conductance | Selenium (total) | Selenium (total) Load |
|------------------------|-------------------------------|-------------|---------|-------------------------|---------------------|--------------------------|
| DATA SOURCE | SLDMWA* | SLDMWA | CVRWQCB | SLDMWA | CVRWQCB | Computed |
| UNITS | cfs | °C | mg/L | µS/cm | µg/L | lbs |
| Aug-01-2009 | 7 | 27.0 | 4.6 | 3,340 | 14.3 | 0.5 |
| Aug-02-2009 | 6 | 26.3 | 5.1 | 3,040 | 15.2 | 0.5 |
| Aug-03-2009 | 8 | 26.0 | 6.2 | 3,190 | 16.8 | 0.8 |
| Aug-04-2009 | 14 | 26.2 | 6.4 | 3,820 | 17.6 | 1.3 |
| Aug-05-2009 | 16 | 26.4 | 6.3 | 4,140 | 18.9 | 1.7 |
| Aug-06-2009 | 15 | 25.8 | 6.7 | 4,020 | 21.0 | 1.7 |
| Aug-07-2009 | 12 | 24.7 | 6.3 | 4,530 | 18.1 | 1.2 |
| Aug-08-2009 | 10 | 25.2 | 7.2 | 5,240 | 30.9 | 1.7 |
| Aug-09-2009 | 11 | 25.5 | 7.6 | 5,020 | 34.2 | 2.0 |
| Aug-10-2009 | 11 | 26.2 | 7.7 | 4,740 | 34.6 | 2.1 |
| Aug-11-2009 | 11 | 26.5 | 6.8 | 4,420 | 31.0 | 1.8 |
| Aug-12-2009 | 9 | 26.7 | 6.7 | 4,320 | 31.6 | 1.6 |
| Aug-13-2009 | 8 | 26.7 | 7.2 | 4,340 | 24.5 | 1.1 |
| Aug-14-2009 | 8 | 26.2 | 8.2 | 4,570 | 26.4 | 1.1 |
| Aug-15-2009 | 6 | 25.5 | 8.5 | 4,940 | 31.7 | 1.1 |
| Aug-16-2009 | 6 | 25.1 | 9.1 | 5,170 | 36.2 | 1.1 |
| Aug-17-2009 | 5 | 24.9 | 9.4 | 5,480 | 40.8 | 1.2 |
| Aug-18-2009 | 6 | 25.4 | 9.2 | 5,800 | 38.0 | 1.2 |
| Aug-19-2009 | 10 | 25.8 | 10.6 | 5,730 | 32.6 | 1.8 |
| Aug-20-2009 | 10 | 25.7 | 11.3 | 5,840 | 26.6 | 1.5 |
| Aug-21-2009 | 11 | 25.6 | 11.1 | 5,920 | 22.2 | 1.3 |
| Aug-22-2009 | 13 | 26.6 | 8.4 | 5,520 | 20.8 | 1.4 |
| Aug-23-2009 | 16 | 26.0 | 8.4 | 4,680 | 23.0 | 1.9 |
| Aug-24-2009 | 19 | 25.2 | 9.5 | 5,280 | 30.2 | 3.1 |
| Aug-25-2009 | 20 | 24.8 | 6.5 | 4,510 | 16.9 | 1.8 |
| Aug-26-2009 | 16 | 25.0 | 5.0 | 3,150 | 13.7 | 1.2 |
| Aug-27-2009 | 13 | 25.1 | 5.6 | 3,230 | 14.6 | 1.0 |
| Aug-28-2009 | 11 | 25.0 | 4.8 | 3,220 | 15.2 | 0.9 |
| Aug-29-2009 | 9 | 25.2 | 4.5 | 2,890 | 14.2 | 0.7 |
| Aug-30-2009 | 7 | 26.4 | 5.0 | 2,730 | 15.0 | 0.6 |
| Aug-31-2009 | 7 | 25.2 | 6.2 | 2,880 | 17.8 | 0.6 |
| Mean | 11 | 25.7 | 7.3 | 4,380 | 24.3 | 1.3 |
| Total Acre-feet | 660 | | | | | |
| Total (lbs) | | | | | | 42 |

Load Limitation for August 2009 (lbs) **179**

Autosampler failed. Data collected by SLDMWA.

PRELIMINARY RESULTS

Table 2a. Continuous water monitoring at Stations B and B2 (San Luis Drain Terminus), September 2009.

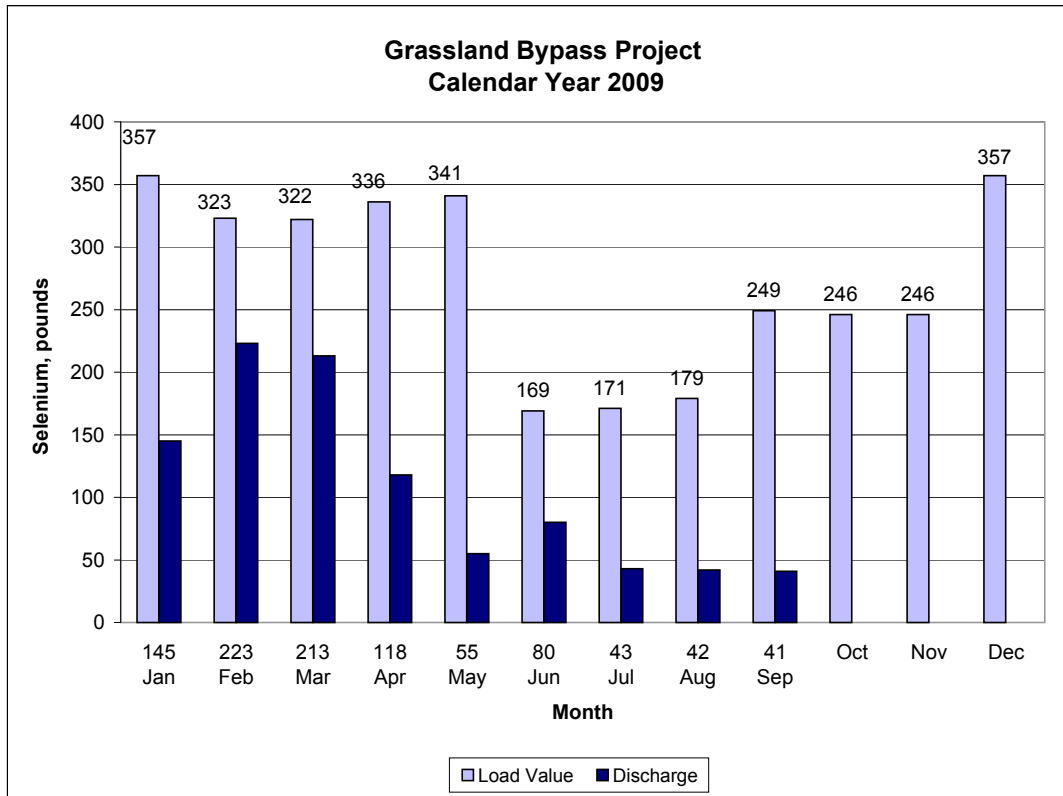
See Table 33 for explanation of footnotes and agency abbreviations.

| PARAMETER | San Luis Drain Outlet Flow | Temperature | Boron | Specific Conductance | Selenium (total) | Selenium (total) Load |
|------------------------|----------------------------|-------------|---------|----------------------|------------------|-----------------------|
| DATA SOURCE | SLDMWA* | SLDMWA | CVRWQCB | SLDMWA | CVRWQCB | Computed |
| UNITS | cfs | °C | mg/L | µS/cm | µg/L | lbs |
| Sep-01-2009 | 7 | 24.9 | 6.8 | 3,520 | 17.8 | 0.6 |
| Sep-02-2009 | 6 | 25.8 | 6.3 | 3,830 | 18.3 | 0.6 |
| Sep-03-2009 | 5 | 25.8 | 6.2 | 3,810 | 18.5 | 0.5 |
| Sep-04-2009 | 6 | 25.2 | 6.7 | 3,840 | 17.2 | 0.5 |
| Sep-05-2009 | 6 | 24.5 | 6.5 | 3,950 | 15.5 | 0.5 |
| Sep-06-2009 | 6 | 24.6 | 6.9 | 3,990 | 15.7 | 0.5 |
| Sep-07-2009 | 7 | 24.0 | 7.5 | 4,090 | 15.1 | 0.5 |
| Sep-08-2009 | 8 | 23.7 | 7.4 | 4,360 | 13.8 | 0.6 |
| Sep-09-2009 | 12 | 24.2 | 7.8 | 4,510 | 18.8 | 1.2 |
| Sep-10-2009 | 15 | 24.6 | 8.5 | 5,090 | 27.5 | 2.2 |
| Sep-11-2009 | 15 | 24.9 | 7.8 | 5,240 | 28.2 | 2.3 |
| Sep-12-2009 | 12 | 25.0 | 8.3 | 4,750 | 35.3 | 2.3 |
| Sep-13-2009 | 11 | 24.4 | 10.5 | 5,550 | 32.7 | 1.9 |
| Sep-14-2009 | 10 | 23.9 | 11.1 | 6,050 | 32.0 | 1.8 |
| Sep-15-2009 | 11 | 23.7 | 9.9 | 6,150 | 27.1 | 1.5 |
| Sep-16-2009 | 11 | 24.2 | 6.6 | 4,670 | 22.6 | 1.4 |
| Sep-17-2009 | 16 | 24.3 | 7.7 | 4,180 | 34.5 | 3.1 |
| Sep-18-2009 | 16 | 24.9 | 8.2 | 4,940 | 38.6 | 3.2 |
| Sep-19-2009 | 12 | 25.6 | 9.0 | 5,130 | 33.2 | 2.2 |
| Sep-20-2009 | 12 | 25.2 | 7.8 | 5,050 | 31.4 | 2.0 |
| Sep-21-2009 | 13 | 25.1 | 7.4 | 4,700 | 27.0 | 1.9 |
| Sep-22-2009 | 12 | 25.5 | 6.0 | 4,320 | 21.1 | 1.4 |
| Sep-23-2009 | 11 | 25.2 | 7.9 | 4,000 | 24.4 | 1.4 |
| Sep-24-2009 | 7 | 25.4 | 7.4 | 4,740 | 23.9 | 0.9 |
| Sep-25-2009 | 7 | 24.9 | 7.9 | 4,580 | 23.6 | 0.9 |
| Sep-26-2009 | 6 | 24.7 | 7.4 | 4,720 | 25.1 | 0.8 |
| Sep-27-2009 | 6 | 24.9 | 7.1 | 4,700 | 23.3 | 0.8 |
| Sep-28-2009 | 11 | 25.2 | 6.0 | 4,470 | 20.6 | 1.2 |
| Sep-29-2009 | 10 | 23.6 | 6.3 | 3,880 | 17.0 | 0.9 |
| Sep-30-2009 | 10 | 20.6 | 7.3 | 4,210 | 20.7 | 1.2 |
| . | . | . | . | . | . | . |
| Mean | 10 | 24.6 | 7.6 | 4,570 | 24.0 | 1.4 |
| Total Acre-feet | 590 | | | | | |
| Total (lbs) | | | | | | 41 |

| | |
|---|------------|
| Load Limitation for September 2009 (lbs) | 249 |
|---|------------|

PRELIMINARY RESULTS

Figure 2b. Monthly selenium discharges from the terminus of the San Luis Drain into Mud Slough compared to load values.



PRELIMINARY RESULTS

**Table 3. Continuous water monitoring at Station D
(Mud Slough North downstream of drainage discharges), July 2009.**

See Table 33 for explanation of footnotes and agency abbreviations.

| PARAMETER | Flow | Temperature | Specific Conductance |
|--------------------|-------------|--------------------|-----------------------------|
| DATA SOURCE | USGS | USGS | USGS |
| UNITS | cfs | °C | µS/cm |
| Jul-01-2009 | e29 | 27.1 | 3,890 |
| Jul-02-2009 | e23 | 27.0 | 3,920 |
| Jul-03-2009 | e19 | 26.7 | 3,990 |
| Jul-04-2009 | e17 | 26.9 | 4,330 |
| Jul-05-2009 | e22 | 26.2 | 3,230 |
| Jul-06-2009 | e25 | 25.4 | 3,000 |
| Jul-07-2009 | 21 | 25.1 | 3,190 |
| Jul-08-2009 | 16 | 24.8 | 3,500 |
| Jul-09-2009 | 13 | 25.1 | 4,010 |
| Jul-10-2009 | 12 | 24.9 | 4,240 |
| Jul-11-2009 | 13 | 24.9 | 4,710 |
| Jul-12-2009 | 15 | 24.7 | 4,580 |
| Jul-13-2009 | 21 | 24.2 | 3,620 |
| Jul-14-2009 | 25 | 25.4 | 2,720 |
| Jul-15-2009 | 21 | 27.0 | 2,760 |
| Jul-16-2009 | 16 | 27.1 | 3,070 |
| Jul-17-2009 | 16 | 27.3 | 3,680 |
| Jul-18-2009 | 17 | 27.6 | 3,970 |
| Jul-19-2009 | 18 | 28.3 | 4,310 |
| Jul-20-2009 | 18 | 28.4 | 3,930 |
| Jul-21-2009 | 12 | 27.6 | 4,830 |
| Jul-22-2009 | 12 | 27.2 | 4,740 |
| Jul-23-2009 | 15 | 27.0 | 4,830 |
| Jul-24-2009 | 16 | 26.9 | 5,440 |
| Jul-25-2009 | 16 | 26.6 | 5,350 |
| Jul-26-2009 | 21 | 26.8 | 4,570 |
| Jul-27-2009 | 17 | 27.3 | 4,010 |
| Jul-28-2009 | 14 | 27.8 | 3,610 |
| Jul-29-2009 | 14 | 27.5 | 3,510 |
| Jul-30-2009 | 12 | 27.4 | 3,500 |
| Jul-31-2009 | 9 | 27.0 | 3,480 |
| Mean | 16 | 26.6 | 3,950 |

PRELIMINARY RESULTS

**Table 3. Continuous water monitoring at Station D
(Mud Slough North downstream of drainage discharges), August 2009.**

See Table 33 for explanation of footnotes and agency abbreviations.

| PARAMETER | Flow | Temperature | Specific Conductance |
|--------------------|-------------|--------------------|-----------------------------|
| DATA SOURCE | USGS | USGS | USGS |
| UNITS | cfs | °C | µS/cm |
| Aug-01-2009 | 9 | 26.7 | 3,460 |
| Aug-02-2009 | 9 | 26.2 | 3,200 |
| Aug-03-2009 | 13 | 26.1 | 3,160 |
| Aug-04-2009 | 24 | 26.1 | 2,910 |
| Aug-05-2009 | 28 | 26.3 | 3,020 |
| Aug-06-2009 | 26 | 25.4 | 3,360 |
| Aug-07-2009 | 21 | 24.7 | NA |
| Aug-08-2009 | 21 | 24.9 | NA |
| Aug-09-2009 | 22 | 25.8 | 3,430 |
| Aug-10-2009 | 28 | 26.1 | 2,860 |
| Aug-11-2009 | 26 | 26.6 | 2,660 |
| Aug-12-2009 | 18 | 26.3 | 3,110 |
| Aug-13-2009 | 14 | 26.3 | 3,400 |
| Aug-14-2009 | 13 | 25.8 | 3,700 |
| Aug-15-2009 | 12 | 24.8 | 3,700 |
| Aug-16-2009 | 11 | 25.1 | 3,780 |
| Aug-17-2009 | 9 | 25.2 | 4,240 |
| Aug-18-2009 | 10 | 25.5 | 4,900 |
| Aug-19-2009 | 14 | 26.0 | 5,230 |
| Aug-20-2009 | 14 | 25.8 | 5,300 |
| Aug-21-2009 | 14 | 26.1 | 5,410 |
| Aug-22-2009 | 16 | 26.5 | 5,130 |
| Aug-23-2009 | 22 | 26.1 | 4,060 |
| Aug-24-2009 | 26 | 25.1 | NA |
| Aug-25-2009 | 25 | 24.9 | NA |
| Aug-26-2009 | 19 | 25.0 | NA |
| Aug-27-2009 | 14 | 25.3 | 3,110 |
| Aug-28-2009 | 13 | 25.0 | 3,260 |
| Aug-29-2009 | 12 | 25.4 | 3,030 |
| Aug-30-2009 | 13 | 26.6 | 2,570 |
| Aug-31-2009 | 31 | 25.1 | 1,600 |
| Mean | 18 | 25.7 | 3,600 |

PRELIMINARY RESULTS

**Table 3. Continuous water monitoring at Station D
(Mud Slough North downstream of drainage discharges), September 2009.**

See Table 33 for explanation of footnotes and agency abbreviations.

| PARAMETER | Flow | Temperature | Specific Conductance |
|--------------------|-------------|--------------------|-----------------------------|
| DATA SOURCE | USGS | USGS | USGS |
| UNITS | cfs | °C | µS/cm |
| Sep-01-2009 | 16 | 25.5 | 2,510 |
| Sep-02-2009 | 11 | 25.4 | NA |
| Sep-03-2009 | 15 | 25.4 | NA |
| Sep-04-2009 | e18 | 24.8 | NA |
| Sep-05-2009 | e11 | 23.6 | NA |
| Sep-06-2009 | e11 | 23.9 | NA |
| Sep-07-2009 | e15 | 23.4 | NA |
| Sep-08-2009 | e19 | 23.5 | NA |
| Sep-09-2009 | e17 | 23.8 | NA |
| Sep-10-2009 | e22 | NA | NA |
| Sep-11-2009 | 26 | NA | NA |
| Sep-12-2009 | 24 | 24.9 | 3,120 |
| Sep-13-2009 | 25 | 23.8 | 3,360 |
| Sep-14-2009 | 33 | 23.3 | 2,950 |
| Sep-15-2009 | 34 | 23.3 | 2,890 |
| Sep-16-2009 | 27 | 23.9 | 3,000 |
| Sep-17-2009 | 27 | 24.0 | 3,250 |
| Sep-18-2009 | 33 | 24.9 | 3,050 |
| Sep-19-2009 | 30 | 25.2 | 2,870 |
| Sep-20-2009 | 28 | 24.4 | 2,980 |
| Sep-21-2009 | 29 | 24.7 | 3,020 |
| Sep-22-2009 | 25 | 25.0 | 2,940 |
| Sep-23-2009 | 28 | 24.9 | 2,480 |
| Sep-24-2009 | 32 | 25.0 | 2,100 |
| Sep-25-2009 | 38 | 24.3 | 1,900 |
| Sep-26-2009 | 41 | 24.3 | 1,730 |
| Sep-27-2009 | 48 | 24.6 | 1,640 |
| Sep-28-2009 | 59 | 24.5 | 1,770 |
| Sep-29-2009 | 51 | 22.0 | 1,710 |
| Sep-30-2009 | 42 | 19.0 | 2,030 |
| . | . | . | . |
| Mean | 31 | 24.1 | 2,570 |

PRELIMINARY RESULTS

Table 4. Continuous water monitoring at Station F (Salt Slough at Highway 165), July 2009.

See Table 33 for explanation of footnotes and agency abbreviations.

| PARAMETER | Flow | Temperature | Specific Conductance |
|--------------------|-------------|--------------------|-----------------------------|
| DATA SOURCE | usgs | usgs | usgs |
| UNITS | cfs | °C | µS/cm |
| Jul-01-2009 | 92 | 26.5 | 1,270 |
| Jul-02-2009 | 102 | 26.6 | 1,280 |
| Jul-03-2009 | 106 | 26.3 | 1,280 |
| Jul-04-2009 | 103 | 26.1 | 1,290 |
| Jul-05-2009 | 110 | 25.7 | 1,250 |
| Jul-06-2009 | 120 | 24.5 | 1,170 |
| Jul-07-2009 | 140 | 24.1 | 1,110 |
| Jul-08-2009 | 157 | 24.3 | 1,010 |
| Jul-09-2009 | 124 | 24.3 | 1,090 |
| Jul-10-2009 | 117 | 24.2 | 1,090 |
| Jul-11-2009 | 131 | 24.3 | 1,060 |
| Jul-12-2009 | 136 | 24.2 | 1,070 |
| Jul-13-2009 | 147 | 24.0 | 1,010 |
| Jul-14-2009 | 151 | 25.0 | 1,030 |
| Jul-15-2009 | 132 | 26.8 | 1,120 |
| Jul-16-2009 | 110 | 27.2 | 1,150 |
| Jul-17-2009 | 103 | 27.2 | 1,130 |
| Jul-18-2009 | 97 | 27.4 | 1,180 |
| Jul-19-2009 | 114 | 28.1 | 1,160 |
| Jul-20-2009 | 128 | 28.1 | 1,050 |
| Jul-21-2009 | 125 | 27.2 | 1,010 |
| Jul-22-2009 | 109 | 26.6 | 982 |
| Jul-23-2009 | 99 | 26.4 | 1,010 |
| Jul-24-2009 | 103 | 25.9 | 1,010 |
| Jul-25-2009 | 98 | 25.4 | 1,010 |
| Jul-26-2009 | 108 | 25.9 | 984 |
| Jul-27-2009 | 119 | 26.9 | 970 |
| Jul-28-2009 | 130 | 27.3 | 939 |
| Jul-29-2009 | 127 | 27.0 | 928 |
| Jul-30-2009 | 123 | 26.4 | 949 |
| Jul-31-2009 | 124 | 26.2 | 988 |
| Mean | 119 | 26.0 | 1,080 |

PRELIMINARY RESULTS

Table 4. Continuous water monitoring at Station F (Salt Slough at Highway 165), August 2009.

See Table 33 for explanation of footnotes and agency abbreviations.

| PARAMETER | Flow | Temperature | Specific Conductance |
|--------------------|-------------|--------------------|-----------------------------|
| DATA SOURCE | usgs | usgs | usgs |
| UNITS | cfs | °C | µS/cm |
| Aug-01-2009 | 129 | 26.1 | 940 |
| Aug-02-2009 | 129 | 25.6 | 970 |
| Aug-03-2009 | 140 | 25.3 | 879 |
| Aug-04-2009 | 122 | 25.3 | 903 |
| Aug-05-2009 | 80 | 25.6 | 1,010 |
| Aug-06-2009 | 62 | 24.2 | 1,150 |
| Aug-07-2009 | 76 | 23.5 | 1,200 |
| Aug-08-2009 | 78 | 24.1 | 1,190 |
| Aug-09-2009 | 98 | 25.0 | 1,040 |
| Aug-10-2009 | 115 | 25.6 | 995 |
| Aug-11-2009 | 123 | 26.1 | 965 |
| Aug-12-2009 | 103 | 25.8 | 1,020 |
| Aug-13-2009 | 70 | 25.9 | 1,180 |
| Aug-14-2009 | 81 | 25.4 | 1,250 |
| Aug-15-2009 | 89 | 24.0 | 1,160 |
| Aug-16-2009 | 80 | 24.4 | 1,130 |
| Aug-17-2009 | 86 | 25.1 | 1,100 |
| Aug-18-2009 | 92 | 25.3 | 1,060 |
| Aug-19-2009 | 83 | 25.6 | 1,110 |
| Aug-20-2009 | 94 | 25.2 | 1,140 |
| Aug-21-2009 | 98 | 25.4 | 1,090 |
| Aug-22-2009 | 99 | 25.6 | 1,070 |
| Aug-23-2009 | 102 | 25.0 | 1,080 |
| Aug-24-2009 | 98 | 24.0 | 1,130 |
| Aug-25-2009 | NA | NA | NA |
| Aug-26-2009 | NA | 24.2 | 1,130 |
| Aug-27-2009 | 110 | 24.3 | 1,130 |
| Aug-28-2009 | 93 | 24.1 | 1,150 |
| Aug-29-2009 | 104 | 24.4 | 1,130 |
| Aug-30-2009 | 110 | 25.7 | 1,100 |
| Aug-31-2009 | 121 | 25.1 | 1,030 |
| Mean | 99 | 25.0 | 1,080 |

PRELIMINARY RESULTS

Table 4. Continuous water monitoring at Station F (Salt Slough at Highway 165), September 2009.

See Table 33 for explanation of footnotes and agency abbreviations.

| PARAMETER | Flow | Temperature | Specific Conductance |
|--------------------|-------------|--------------------|-----------------------------|
| DATA SOURCE | USGS | USGS | USGS |
| UNITS | cfs | °C | µS/cm |
| Sep-01-2009 | 117 | 25.1 | 1,030 |
| Sep-02-2009 | 87 | 25.2 | 1,180 |
| Sep-03-2009 | 66 | 25.3 | 1,310 |
| Sep-04-2009 | 58 | 24.5 | 1,340 |
| Sep-05-2009 | 60 | 23.3 | 1,230 |
| Sep-06-2009 | 71 | 23.4 | 1,120 |
| Sep-07-2009 | 82 | 22.7 | 1,050 |
| Sep-08-2009 | 86 | 22.9 | 1,010 |
| Sep-09-2009 | 65 | 23.4 | 1,100 |
| Sep-10-2009 | 54 | 23.9 | 1,300 |
| Sep-11-2009 | 75 | 24.3 | 1,180 |
| Sep-12-2009 | 89 | 24.6 | 1,070 |
| Sep-13-2009 | 84 | 23.2 | 1,090 |
| Sep-14-2009 | 81 | 22.5 | 1,110 |
| Sep-15-2009 | 82 | 22.4 | 1,080 |
| Sep-16-2009 | 62 | 23.3 | 1,210 |
| Sep-17-2009 | 50 | 23.6 | 1,340 |
| Sep-18-2009 | 50 | 24.5 | 1,430 |
| Sep-19-2009 | 58 | 24.7 | 1,300 |
| Sep-20-2009 | 56 | 23.7 | 1,260 |
| Sep-21-2009 | 61 | 24.0 | 1,240 |
| Sep-22-2009 | 61 | 24.4 | 1,200 |
| Sep-23-2009 | 52 | 24.6 | 1,300 |
| Sep-24-2009 | 47 | 24.4 | 1,390 |
| Sep-25-2009 | 48 | 23.7 | 1,460 |
| Sep-26-2009 | 61 | 23.8 | 1,330 |
| Sep-27-2009 | 58 | 24.2 | 1,260 |
| Sep-28-2009 | 48 | 23.9 | 1,320 |
| Sep-29-2009 | 48 | 20.9 | 1,410 |
| Sep-30-2009 | 49 | 17.7 | 1,430 |
| . | . | . | . |
| Mean | 66 | 23.6 | 1,240 |

PRELIMINARY RESULTS

Table 5. Continuous water monitoring at Station N (San Joaquin River at Crow's Landing), July 2009.

See Table 33 for explanation of footnotes and agency abbreviations.

| PARAMETER | Flow | Temperature | Specific Conductance | Selenium (total) |
|-------------|------|-------------|----------------------|------------------|
| DATA SOURCE | USGS | USGS | CVRWQCB | CVRWQCB |
| UNITS | cfs | °C | µS/cm | µg/L |
| Jul-01-2009 | 276 | 27.1 | 1,320 | 1.4 |
| Jul-02-2009 | 274 | 26.9 | 1,450 | 1.5 |
| Jul-03-2009 | 261 | 26.7 | 1,530 | 1.4 |
| Jul-04-2009 | 255 | 26.4 | 1,470 | 1.6 |
| Jul-05-2009 | 282 | 25.9 | 1,370 | 1.9 |
| Jul-06-2009 | 276 | 24.9 | 1,480 | 2.5 |
| Jul-07-2009 | 296 | 24.4 | 1,270 | 1.5 |
| Jul-08-2009 | 296 | 24.6 | 1,270 | 1.3 |
| Jul-09-2009 | 297 | 24.7 | 1,210 | 1.2 |
| Jul-10-2009 | 273 | 24.6 | 1,250 | 1.1 |
| Jul-11-2009 | 253 | 24.3 | 1,380 | 1.1 |
| Jul-12-2009 | 263 | 24.2 | 1,370 | 1.1 |
| Jul-13-2009 | 266 | 24.4 | 1,280 | 1.1 |
| Jul-14-2009 | 273 | 25.4 | 1,300 | 1.2 |
| Jul-15-2009 | 262 | 27.2 | 1,330 | 1.5 |
| Jul-16-2009 | 250 | 27.4 | 1,320 | 1.1 |
| Jul-17-2009 | 209 | 27.1 | 1,470 | 1.3 |
| Jul-18-2009 | 201 | 27.2 | 1,560 | 1.0 |
| Jul-19-2009 | 208 | 27.8 | 1,560 | 1.1 |
| Jul-20-2009 | 214 | 27.8 | 1,510 | 1.4 |
| Jul-21-2009 | 201 | 26.9 | 1,500 | 1.2 |
| Jul-22-2009 | 223 | 26.1 | 1,400 | 1.3 |
| Jul-23-2009 | 223 | 25.7 | 1,250 | 0.9 |
| Jul-24-2009 | 207 | 25.4 | 1,390 | 1.0 |
| Jul-25-2009 | 195 | 25.0 | 1,480 | 1.3 |
| Jul-26-2009 | 201 | 25.8 | 1,360 | 1.2 |
| Jul-27-2009 | 192 | 26.7 | 1,530 | 1.6 |
| Jul-28-2009 | 188 | 27.0 | 1,530 | 1.6 |
| Jul-29-2009 | 193 | 26.6 | NA | NA |
| Jul-30-2009 | 208 | 26.3 | NA | NA |
| Jul-31-2009 | 198 | 26.2 | 1,290 | 1.0 |
| Mean | 239 | 26.0 | 1,390 | 1.3 |

PRELIMINARY RESULTS

Table 5. Continuous water monitoring at Station N (San Joaquin River at Crow's Landing), August 2009.

See Table 33 for explanation of footnotes and agency abbreviations.

| PARAMETER | Flow | Temperature | Specific Conductance | Selenium (total) |
|-------------|------|-------------|----------------------|------------------|
| DATA SOURCE | USGS | USGS | CVRWQCB | CVRWQCB |
| UNITS | cfs | °C | µS/cm | µg/L |
| Aug-01-2009 | 218 | 25.7 | 1,250 | 1.0 |
| Aug-02-2009 | 244 | 25.4 | 1,240 | 0.8 |
| Aug-03-2009 | 265 | 25.1 | NA | NA |
| Aug-04-2009 | 232 | 25.1 | 1,080 | 0.8 |
| Aug-05-2009 | 259 | 24.9 | 1,150 | 0.9 |
| Aug-06-2009 | 208 | 24.2 | 1,280 | 1.2 |
| Aug-07-2009 | 224 | 23.5 | 1,440 | 1.3 |
| Aug-08-2009 | 202 | 24.2 | 1,510 | 1.5 |
| Aug-09-2009 | 197 | 25.0 | 1,580 | 1.4 |
| Aug-10-2009 | 229 | 25.7 | 1,450 | 1.6 |
| Aug-11-2009 | 220 | 26.4 | 1,310 | 1.5 |
| Aug-12-2009 | 210 | 26.0 | 1,370 | 1.7 |
| Aug-13-2009 | 195 | 25.8 | 1,360 | 1.4 |
| Aug-14-2009 | 206 | 25.0 | 1,340 | 1.3 |
| Aug-15-2009 | 222 | 23.8 | 1,330 | 1.0 |
| Aug-16-2009 | 216 | 24.4 | 1,440 | 1.1 |
| Aug-17-2009 | 200 | 25.1 | 1,430 | 1.0 |
| Aug-18-2009 | 210 | 25.0 | 1,300 | 0.8 |
| Aug-19-2009 | 198 | 25.1 | 1,350 | 0.9 |
| Aug-20-2009 | 227 | 24.7 | 1,200 | 0.7 |
| Aug-21-2009 | 220 | 25.1 | 1,240 | 1.1 |
| Aug-22-2009 | 231 | 25.8 | 1,270 | 1.2 |
| Aug-23-2009 | 251 | 25.4 | 1,250 | 1.3 |
| Aug-24-2009 | 247 | 24.5 | 1,220 | 1.3 |
| Aug-25-2009 | 240 | 24.2 | 1,310 | 1.5 |
| Aug-26-2009 | 215 | 24.8 | 1,430 | 1.8 |
| Aug-27-2009 | 232 | 24.6 | 1,490 | 2.2 |
| Aug-28-2009 | 255 | 24.4 | 1,270 | 1.2 |
| Aug-29-2009 | 219 | 24.9 | 1,180 | 0.9 |
| Aug-30-2009 | 217 | 26.0 | 1,360 | 1.0 |
| Aug-31-2009 | 230 | 24.9 | 1,240 | 0.9 |
| Mean | 224 | 25.0 | 1,320 | 1.2 |

PRELIMINARY RESULTS

Table 5. Continuous water monitoring at Station N (San Joaquin River at Crow's Landing), September 2009.

See Table 33 for explanation of footnotes and agency abbreviations.

| PARAMETER | Flow | Temperature | Specific Conductance | Selenium (total) |
|-------------|------|-------------|----------------------|------------------|
| DATA SOURCE | USGS | USGS | CVRWQCB | CVRWQCB |
| UNITS | cfs | °C | µS/cm | µg/L |
| Sep-01-2009 | 247 | 24.7 | 1,170 | 0.8 |
| Sep-02-2009 | 240 | 25.1 | 1,170 | 0.9 |
| Sep-03-2009 | 238 | 24.8 | 1,110 | 0.7 |
| Sep-04-2009 | 215 | 24.5 | 1,290 | 0.9 |
| Sep-05-2009 | 212 | 22.9 | 1,340 | 0.9 |
| Sep-06-2009 | 213 | 23.0 | 1,410 | 1.0 |
| Sep-07-2009 | 212 | 22.7 | 1,310 | 0.8 |
| Sep-08-2009 | 218 | 23.0 | 1,250 | 0.7 |
| Sep-09-2009 | 228 | 23.4 | 1,190 | 0.7 |
| Sep-10-2009 | 228 | 23.6 | 1,170 | 0.8 |
| Sep-11-2009 | 204 | 24.0 | 1,290 | 0.8 |
| Sep-12-2009 | 225 | 24.3 | 1,510 | 1.1 |
| Sep-13-2009 | 268 | 23.3 | 1,310 | 1.2 |
| Sep-14-2009 | 277 | 23.2 | 1,030 | 0.9 |
| Sep-15-2009 | 280 | 22.8 | 1,090 | 1.1 |
| Sep-16-2009 | 260 | 23.2 | 1,160 | 1.1 |
| Sep-17-2009 | 250 | 23.3 | 1,170 | 1.1 |
| Sep-18-2009 | 261 | 24.1 | 1,190 | 0.9 |
| Sep-19-2009 | 242 | 24.8 | 1,260 | 1.1 |
| Sep-20-2009 | 258 | 24.0 | 1,390 | 1.8 |
| Sep-21-2009 | 267 | 24.0 | 1,200 | 1.5 |
| Sep-22-2009 | 240 | 24.2 | 1,250 | 1.2 |
| Sep-23-2009 | 219 | 24.1 | 1,430 | 1.7 |
| Sep-24-2009 | 220 | 24.0 | 1,480 | 1.6 |
| Sep-25-2009 | 251 | 23.3 | 1,370 | 1.5 |
| Sep-26-2009 | 258 | 23.5 | 1,370 | 1.0 |
| Sep-27-2009 | 279 | 24.1 | 1,350 | 0.9 |
| Sep-28-2009 | 273 | 24.0 | 1,270 | 0.9 |
| Sep-29-2009 | 275 | 21.5 | 1,150 | 1.0 |
| Sep-30-2009 | 300 | 18.7 | 1,120 | 0.9 |
| . | . | . | . | . |
| Mean | 245 | 23.5 | 1,260 | 1.1 |

PRELIMINARY RESULTS

Table 6a. Weekly water quality monitoring at Station A (inflow to San Luis Drain), taken from grab samples.

See Table 33 for explanation of footnotes and agency abbreviations.

| PARAMETER | Flow | . | . | Specific Conductance | Total Suspended Solids | . | . | . |
|-------------|--------|---|---|----------------------|------------------------|---|---|---|
| DATA SOURCE | SLDMWA | . | . | CVRWQCB | CVRWQCB | . | . | . |
| UNITS | cfs | . | . | µS/cm | mg/L | . | . | . |
| Jul-06-2009 | 14 | . | . | 4,650 | 46 | . | . | . |
| Jul-13-2009 | 7 | . | . | 5,050 | 19 | . | . | . |
| Jul-20-2009 | 9 | . | . | 3,470 | 133 | . | . | . |
| Jul-27-2009 | 14 | . | . | 4,060 | 150 | . | . | . |
| Aug-03-2009 | 17 | . | . | 4,250 | 119 | . | . | . |
| Aug-10-2009 | 14 | . | . | 4,930 | 123 | . | . | . |
| Aug-17-2009 | 9 | . | . | 4,730 | 40 | . | . | . |
| Aug-24-2009 | 22 | . | . | 3,760 | 277 | . | . | . |
| Aug-17-2009 | 9 | . | . | 4,760 | 124 | . | . | . |
| Sep-08-2009 | 16 | . | . | 4,800 | 120 | . | . | . |
| Sep-14-2009 | 11 | . | . | 4,190 | 108 | . | . | . |
| Sep-21-2009 | 12 | . | . | 4,510 | 111 | . | . | . |
| Sep-28-2009 | 10 | . | . | 3,890 | 53 | . | . | . |

Table 6b. Weekly water quality monitoring at Station A (inflow to San Luis Drain), taken from composite samples.

See Table 33 for explanation of footnotes and agency abbreviations.

| PARAMETER | Flow | . | . | Specific Conductance | . | Selenium (total) | . | Boron |
|-------------|--------|---|---|----------------------|---|------------------|---|---------|
| DATA SOURCE | SLDMWA | . | . | CVRWQCB | . | CVRWQCB | . | CVRWQCB |
| UNITS | cfs | . | . | µS/cm | . | µg/L | . | mg/L |
| Jul-05-2009 | 16 | . | . | 4,230 | . | 26.1 | . | 7.5 |
| Jul-12-2009 | 10 | . | . | 5,170 | . | 30.6 | . | 8.8 |
| Jul-19-2009 | 11 | . | . | 4,570 | . | 28.3 | . | 7.8 |
| Jul-26-2009 | 14 | . | . | 3,260 | . | 21.2 | . | 4.7 |
| Aug-02-2009 | 12 | . | . | 4,430 | . | 33.5 | . | 7.1 |
| Aug-09-2009 | 12 | . | . | 5,460 | . | 40.2 | . | 8.4 |
| Aug-16-2009 | 6 | . | . | 4,730 | . | 33.8 | . | 8.5 |
| Aug-23-2009 | 21 | . | . | 3,260 | . | 21.2 | . | 5.6 |
| Aug-30-2009 | 9 | . | . | 4,850 | . | 32.3 | . | 6.9 |
| Sep-06-2009 | 8 | . | . | 5,820 | . | 39.3 | . | 9.1 |
| Sep-13-2009 | 10 | . | . | 4,500 | . | 38.1 | . | 6.9 |
| Sep-20-2009 | 14 | . | . | 4,240 | . | 30.8 | . | 7.0 |
| Sep-27-2009 | 11 | . | . | 3,700 | . | 22.0 | . | 7.3 |

PRELIMINARY RESULTS

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

See Table 33 for explanation of footnotes and agency abbreviations.

| PARAMETER | Flow | Temperature | pH | Specific Conductance | Total Suspended Solids | Selenium (total) | Boron |
|-------------|------|-------------|---------|----------------------|------------------------|------------------|---------|
| DATA SOURCE | USGS | CVRWQCB | CVRWQCB | CVRWQCB | CVRWQCB | CVRWQCB | CVRWQCB |
| UNITS | cfs | °C | . | µS/cm | mg/L | µg/L | mg/L |
| Jul-01-2009 | 16 | 26.4 | 8.0 | 4,080 | 69 | 22.1 | 6.5 |
| Jul-07-2009 | 13 | 24.3 | 9.0 | 3,810 | 71 | 25.0 | 6.2 |
| Jul-14-2009 | 7 | 23.5 | 8.4 | 4,430 | 39 | 26.0 | 7.6 |
| Jul-21-2009 | 7 | 26.5 | 8.3 | 4,560 | 34 | 21.5 | 8.1 |
| Jul-28-2009 | 11 | 26.4 | 7.3 | 3,230 | 40 | 19.8 | 5.2 |
| Aug-04-2009 | 14 | 25.4 | 8.8 | 3,770 | 32 | 18.0 | 6.4 |
| Aug-11-2009 | 11 | 25.4 | 8.0 | 4,050 | 36 | 32.7 | 6.2 |
| Aug-18-2009 | 6 | 24.5 | 8.6 | 5,360 | 35 | 36.5 | 9.5 |
| Aug-25-2009 | 20 | 23.5 | 8.3 | 3,650 | 36 | 19.6 | 6.7 |
| Sep-01-2009 | 7 | 24.1 | 8.6 | 3,700 | 38 | 17.6 | 6.3 |
| Sep-08-2009 | 8 | 22.9 | 7.9 | 4,240 | 12 | 14.8 | 7.3 |
| Sep-15-2009 | 11 | 22.4 | 8.7 | 5,010 | 32 | 25.6 | 9.6 |
| Sep-22-2009 | 12 | 23.8 | 8.5 | 3,420 | 31 | 19.7 | 5.4 |
| Sep-29-2009 | 10 | 23.2 | 8.4 | 3,930 | 43 | 16.8 | 6.7 |

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

See Table 33 for explanation of footnotes and agency abbreviations.

| PARAMETER | Flow | Temperature | pH | Specific Conductance | . | Selenium (total) | Boron |
|-------------|---------------|-------------|---------|----------------------|---|------------------|---------|
| DATA SOURCE | calculated ** | CVRWQCB | CVRWQCB | CVRWQCB | . | CVRWQCB | CVRWQCB |
| UNITS | cfs | °C | . | µS/cm | . | µg/L | mg/L |
| Jul-01-2009 | 13 | 23.5 | 8.3 | 2,410 | . | 0.6 | 2.0 |
| Jul-07-2009 | 10 | 24.0 | 8.3 | 1,970 | . | 0.5 | 1.9 |
| Jul-14-2009 | 18 | 23.7 | 8.2 | 1,740 | . | 0.5 | 1.7 |
| Jul-21-2009 | 5 | 23.3 | 8.3 | 2,450 | . | 0.5 | 2.2 |
| Jul-28-2009 | 4 | 22.1 | 7.4 | 3,540 | . | 0.4 | 3.0 |
| Aug-04-2009 | 10 | 25.2 | 8.6 | 1,500 | . | 0.5 | 1.3 |
| Aug-11-2009 | 15 | 24.3 | 8.0 | 1,210 | . | 0.8 | 1.0 |
| Aug-18-2009 | 4 | 23.3 | 8.1 | 2,220 | . | 0.6 | 1.8 |
| Aug-25-2009 | 5 | 19.9 | 8.2 | 1,130 | . | 0.7 | 0.8 |
| Sep-01-2009 | 9 | 26.0 | 8.4 | 1,100 | . | 0.8 | 0.7 |
| Sep-08-2009 | 11 | 22.1 | 8.0 | 640 | . | 1.0 | 0.4 |
| Sep-15-2009 | 23 | 20.5 | 7.9 | 860 | . | 0.4 | 0.4 |
| Sep-22-2009 | 13 | 21.0 | 7.8 | 1,280 | . | 0.4 | 0.8 |
| Sep-29-2009 | 41 | 20.9 | 7.6 | 980 | . | <0.4 | 0.6 |

** Calculated flow value. Flow at Station C = flow at Station D - flow at Station B.

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

See Table 33 for explanation of footnotes and agency abbreviations.

| PARAMETER | Flow | Temperature | pH | Specific Conductance | Selenium (total) | Boron |
|-------------|------|-------------|---------|----------------------|------------------|---------|
| DATA SOURCE | USGS | CVRWQCB | CVRWQCB | CVRWQCB | CVRWQCB | CVRWQCB |
| UNITS | cfs | °C | . | µS/cm | µg/L | mg/L |
| Jul-07-2009 | 21 | 23.4 | 8.4 | 2,990 | 12.8 | 4.1 |
| Jul-14-2009 | 25 | 23.0 | 8.2 | 2,750 | 7.6 | 3.5 |
| Jul-21-2009 | 12 | 25.8 | 8.6 | 4,690 | 19.0 | 8.2 |
| Jul-28-2009 | 15 | 25.4 | 7.5 | 3,550 | 16.9 | 5.9 |
| Aug-04-2009 | 24 | 24.5 | 8.6 | 3,040 | 11.2 | 4.6 |
| Aug-11-2009 | 26 | 24.2 | 8.0 | 2,430 | 12.5 | 3.2 |
| Aug-18-2009 | 10 | 24.1 | 8.5 | 4,890 | 24.6 | 7.9 |
| Aug-25-2009 | 25 | 22.2 | 8.5 | 3,170 | 17.8 | 6.7 |
| Sep-01-2009 | 16 | 24.3 | 8.4 | 2,100 | 8.3 | 2.9 |
| Sep-08-2009 | e19 | 21.9 | 7.8 | 2,010 | 5.4 | 3.0 |
| Sep-15-2009 | 34 | 21.1 | 8.3 | 2,670 | 11.8 | 4.2 |
| Sep-22-2009 | 25 | 22.5 | 8.0 | 2,910 | 13.0 | 4.2 |
| Sep-29-2009 | 51 | 21.3 | 7.6 | 1,660 | 4.6 | 1.8 |

Table 10. Weekly water quality monitoring at Station I2 (Mud Slough backwater downstream of Station D).

See Table 33 for explanation of footnotes and agency abbreviations.

| PARAMETER | | pH | Specific Conductance | Turbidity | Selenium | Boron |
|-------------|---|------|----------------------|-----------|----------|-------|
| DATA SOURCE | | USBR | USBR | USBR | USBR | USBR |
| UNITS | | . | µS/cm | NTU | µg/L | mg/L |
| Jul-7-2009 | . | 8.5 | 3,210 | 24 | 10.8 | 4.1 |
| Jul-15-2009 | . | 8.7 | 2,840 | 28 | 6.8 | 3.4 |
| Jul-21-2009 | . | 8.6 | 4,860 | 29 | 17.5 | 7.5 |
| Jul-29-2009 | . | 8.6 | 3,530 | 24 | 14.0 | 4.6 |
| Aug-5-2009 | . | 8.8 | 3,090 | 12 | 11.8 | 4.6 |
| Aug-11-2009 | . | 8.1 | 2,360 | 15 | 12.4 | 3.4 |
| Aug-18-2009 | . | 8.6 | 5,090 | 37 | 22.7 | 8.3 |
| Aug-25-2009 | . | 8.6 | 3,730 | 12 | 18.2 | 6.6 |
| Sep-03-2009 | . | 8.6 | 2,520 | 35 | 7.7 | 3.5 |
| Sep-10-2009 | . | 8.7 | 3,770 | 29 | 18.2 | 6.6 |
| Sep-15-2009 | . | 8.6 | 2,790 | 18 | 12.4 | 4.7 |
| Sep-22-2009 | . | 8.8 | 2,300 | 29 | 13.0 | 4.4 |
| Sep-29-2009 | . | 8.2 | 3,150 | 26 | 4.5 | 1.9 |

PRELIMINARY RESULTS

Table 11. Weekly water quality monitoring at Station F (Salt Slough at Lander Avenue).

See Table 33 for explanation of footnotes and agency abbreviations.

| PARAMETER | Flow | Temperature | pH | Specific Conductance | Selenium (total) | Boron |
|-------------|------|-------------|---------|----------------------|------------------|---------|
| DATA SOURCE | USGS | CVRWQCB | CVRWQCB | CVRWQCB | CVRWQCB | CVRWQCB |
| UNITS | cfs | °C | . | µS/cm | µg/L | mg/L |
| Jul-01-2009 | 92 | 23.7 | 7.2 | 1,270 | <0.4 | 0.5 |
| Jul-07-2009 | 140 | 21.6 | 7.9 | 1,110 | 0.5 | 0.4 |
| Jul-14-2009 | 151 | 22.6 | 7.5 | 968 | 0.8 | 0.4 |
| Jul-21-2009 | 125 | 24.7 | 7.8 | 1,020 | <0.4 | 0.4 |
| Jul-28-2009 | 130 | 24.9 | 7.1 | 899 | <0.4 | 0.4 |
| Aug-04-2009 | 122 | 23.3 | 7.8 | 900 | 0.4 | 0.3 |
| Aug-11-2009 | 123 | 23.7 | 7.1 | 950 | <0.4 | 0.3 |
| Aug-18-2009 | 92 | 22.6 | 7.8 | 820 | <0.4 | 0.4 |
| Aug-25-2009 | NA | 20.9 | 7.6 | 1,100 | <0.4 | 0.4 |
| Sep-01-2009 | 117 | 22.3 | 7.8 | 970 | <0.4 | 0.3 |
| Sep-08-2009 | 86 | 21.8 | 7.8 | 940 | 0.6 | 0.4 |
| Sep-15-2009 | 82 | 20.0 | 7.7 | 1,060 | <0.4 | 0.5 |
| Sep-22-2009 | 61 | 21.8 | 7.7 | 1,200 | <0.4 | 0.5 |
| Sep-29-2009 | 48 | 20.1 | 7.9 | 860 | 0.5 | 0.8 |

Table 12. Weekly water quality monitoring at Station J (Camp 13 Ditch).

See Table 33 for explanation of footnotes and agency abbreviations.

| PARAMETER | Flow | . | . | Specific Conductance | Selenium (total) | Boron |
|-------------|----------------------|---|---|----------------------|------------------|---------|
| DATA SOURCE | SLDMWA ^{††} | . | . | CVRWQCB | CVRWQCB | CVRWQCB |
| UNITS | cfs | . | . | µS/cm | µg/L | mg/L |
| Jul-06-2009 | 10 | . | . | 476 | 0.7 | 0.3 |
| Jul-13-2009 | 0 | . | . | 432 | 0.9 | 0.3 |
| Jul-20-2009 | 0 | . | . | 930 | 1.4 | 0.9 |
| Jul-27-2009 | 0 | . | . | 2,770 | 1.0 | 4.2 |
| Aug-03-2009 | 10 | . | . | 2,220 | 0.8 | 3.3 |
| Aug-10-2009 | 30 | . | . | 500 | 0.6 | 0.2 |
| Aug-17-2009 | 35 | . | . | 550 | 0.7 | 0.2 |
| Aug-24-2009 | 45 | . | . | 1,240 | 0.8 | 1.6 |
| Aug-31-2009 | 85 | . | . | 640 | <0.4 | 0.2 |
| Sep-08-2009 | 125 | . | . | 570 | 0.4 | 0.2 |
| Sep-14-2009 | 125 | . | . | 610 | <0.4 | 0.2 |
| Sep-21-2009 | 170 | . | . | 620 | 0.7 | 0.2 |
| Sep-28-2009 | 210 | . | . | 590 | <0.4 | 0.2 |

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Table 13. Weekly water quality monitoring at Station K (Agatha Canal).

See Table 33 for explanation of footnotes and agency abbreviations.

| PARAMETER | Flow | . | . | Specific Conductance | Selenium (total) | Boron |
|-------------|----------------------|---|---|----------------------|------------------|---------|
| DATA SOURCE | SLDMWA ^{††} | . | . | CVRWQCB | CVRWQCB | CVRWQCB |
| UNITS | cfs | . | . | µS/cm | µg/L | mg/L |
| Jul-06-2009 | 15 | . | . | 716 | 1.9 | 0.7 |
| Jul-13-2009 | 0 | . | . | 528 | 1.1 | 0.4 |
| Jul-20-2009 | 0 | . | . | 621 | 1.1 | 0.5 |
| Jul-27-2009 | 0 | . | . | 1,030 | 1.9 | 1.1 |
| Aug-03-2009 | 0 | . | . | 2,480 | 4.8 | 3.8 |
| Aug-10-2009 | 0 | . | . | 4,150 | 26.4 | 6.7 |
| Aug-17-2009 | 0 | . | . | 1,560 | 2.7 | 2.7 |
| Aug-24-2009 | 0 | . | . | 1,080 | 1.5 | 1.6 |
| Aug-31-2009 | 80 | . | . | 970 | 2.3 | 0.9 |
| Sep-08-2009 | 125 | . | . | 570 | 0.6 | 0.2 |
| Sep-14-2009 | 165 | . | . | 570 | <0.4 | 0.2 |
| Sep-21-2009 | 175 | . | . | 610 | 0.6 | 0.2 |
| Sep-28-2009 | 175 | . | . | 580 | 0.5 | 0.2 |

Table 14. Weekly water quality monitoring at Station L2 (San Luis Canal at splits).

See Table 33 for explanation of footnotes and agency abbreviations.

| PARAMETER | Flow | . | . | Specific Conductance | Selenium (total) | Boron |
|-------------|----------------------|---|---|----------------------|------------------|---------|
| DATA SOURCE | SLDMWA ^{††} | . | . | CVRWQCB | CVRWQCB | CVRWQCB |
| UNITS | cfs | . | . | µS/cm | µg/L | mg/L |
| Jul-06-2009 | NA | . | . | 1,430 | 1.4 | 1.4 |
| Jul-13-2009 | NA | . | . | 1,590 | 1.7 | 1.9 |
| Jul-20-2009 | NA | . | . | 2,240 | 3.4 | 2.2 |
| Jul-27-2009 | NA | . | . | 1,370 | 1.5 | 1.3 |
| Aug-03-2009 | NA | . | . | 780 | 0.6 | 0.5 |
| Aug-10-2009 | NA | . | . | 880 | 1.0 | 0.6 |
| Aug-17-2009 | NA | . | . | 900 | 1.2 | 0.7 |
| Aug-24-2009 | NA | . | . | 690 | 0.6 | 0.4 |
| Aug-31-2009 | NA | . | . | 1,440 | 1.7 | 1.2 |
| Sep-08-2009 | NA | . | . | 630 | 0.7 | 0.3 |
| Sep-14-2009 | NA | . | . | 610 | 0.5 | 0.2 |
| Sep-21-2009 | NA | . | . | 780 | 0.9 | 0.4 |
| Sep-28-2009 | NA | . | . | 640 | 0.5 | 0.2 |

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Table 15. Weekly water quality monitoring at Station M2 (Santa Fe Canal at weir).

See Table 33 for explanation of footnotes and agency abbreviations.

| PARAMETER | Flow | . | . | Specific Conductance | Selenium (total) | Boron |
|-------------|----------------------|---|---|----------------------|------------------|---------|
| DATA SOURCE | SLDMWA ^{††} | . | . | CVRWQCB | CVRWQCB | CVRWQCB |
| UNITS | cfs | . | . | µS/cm | µg/L | mg/L |
| Jul-06-2009 | NA | . | . | 1,200 | 1.3 | 1.7 |
| Jul-13-2009 | NA | . | . | 1,010 | 1.0 | 1.3 |
| Jul-20-2009 | NA | . | . | 1,020 | 0.7 | 1.1 |
| Jul-27-2009 | NA | . | . | 884 | 1.1 | 1.2 |
| Aug-03-2009 | NA | . | . | 860 | 0.6 | 0.7 |
| Aug-10-2009 | NA | . | . | 750 | 0.9 | 0.8 |
| Aug-17-2009 | NA | . | . | 770 | 0.8 | 0.6 |
| Aug-24-2009 | NA | . | . | 720 | 0.5 | 0.4 |
| Aug-31-2009 | NA | . | . | 660 | <0.4 | 0.3 |
| Sep-08-2009 | NA | . | . | 640 | 0.7 | 0.3 |
| Sep-14-2009 | NA | . | . | 670 | <0.4 | 0.3 |
| Sep-21-2009 | NA | . | . | 670 | 0.5 | 0.3 |
| Sep-28-2009 | NA | . | . | 740 | 0.6 | 0.3 |

Table 16. Weekly water quality monitoring at Central California Irrigation District Main Canal at Russell Avenue (MER510).

See Table 33 for explanation of footnotes and agency abbreviations.

| PARAMETER | . | . | . | Specific Conductance | Selenium (total) | Boron |
|-------------|---|---|---|----------------------|------------------|---------|
| DATA SOURCE | . | . | . | CVRWQCB | CVRWQCB | CVRWQCB |
| UNITS | . | . | . | µS/cm | µg/L | mg/L |
| Jul-06-2009 | . | . | . | 462 | 0.7 | 0.3 |
| Jul-13-2009 | . | . | . | 373 | 0.6 | 0.2 |
| Jul-20-2009 | . | . | . | 454 | 0.4 | 0.2 |
| Jul-27-2009 | . | . | . | 391 | 0.4 | 0.2 |
| Aug-03-2009 | . | . | . | 440 | 0.6 | 0.2 |
| Aug-10-2009 | . | . | . | 580 | 0.5 | 0.3 |
| Aug-17-2009 | . | . | . | 550 | 0.4 | 0.2 |
| Aug-24-2009 | . | . | . | 560 | 0.4 | 0.2 |
| Aug-31-2009 | . | . | . | 600 | 0.4 | 0.2 |
| Sep-08-2009 | . | . | . | 550 | 0.6 | 0.2 |
| Sep-14-2009 | . | . | . | 570 | 0.6 | 0.2 |
| Sep-21-2009 | . | . | . | 550 | 0.5 | 0.2 |
| Sep-28-2009 | . | . | . | 580 | 0.7 | 0.2 |

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Table 17. Weekly water quality monitoring at Station G (San Joaquin River at Fremont Ford).

See Table 33 for explanation of footnotes and agency abbreviations.

| PARAMETER | Flow | Temperature | pH | Specific Conductance | Selenium (total) | Boron |
|-------------|------|-------------|---------|----------------------|------------------|---------|
| DATA SOURCE | USGS | CVRWQCB | CVRWQCB | CVRWQCB | CVRWQCB | CVRWQCB |
| UNITS | cfs | °C | . | µS/cm | µg/L | mg/L |
| Jul-01-2009 | 111 | 24.6 | 6.9 | 1,460 | <0.4 | 0.5 |
| Jul-07-2009 | 128 | 22.7 | 7.5 | 1,240 | 0.5 | 0.5 |
| Jul-14-2009 | 152 | 23.6 | 7.6 | 1,020 | 0.5 | 0.4 |
| Jul-21-2009 | 122 | 25.6 | 7.4 | 1,130 | <0.4 | 0.4 |
| Jul-28-2009 | 116 | 25.2 | 7.1 | 1,110 | <0.4 | 0.4 |
| Aug-04-2009 | 134 | 24.7 | 8.0 | 920 | <0.4 | 0.3 |
| Aug-11-2009 | 124 | 24.6 | 7.2 | 1,070 | <0.4 | 0.4 |
| Aug-18-2009 | 90 | 24.0 | 7.8 | 670 | 0.4 | 0.5 |
| Aug-25-2009 | 108 | 21.6 | 7.3 | 1,270 | <0.4 | 0.5 |
| Sep-01-2009 | 126 | 24.4 | 7.8 | 1,010 | <0.4 | 0.4 |
| Sep-08-2009 | 95 | 20.5 | 7.9 | 1,260 | 0.4 | 0.4 |
| Sep-15-2009 | 91 | 20.6 | 7.4 | 890 | <0.4 | 0.5 |
| Sep-22-2009 | 66 | 22.3 | 7.7 | 1,620 | <0.4 | 0.7 |
| Sep-29-2009 | 47 | 20.5 | 7.7 | 2,120 | <0.4 | 0.8 |

Table 18. Weekly water quality monitoring at Station H (San Joaquin River at Hills Ferry).

(Collected data intended for use with biological monitoring.)

See Table 33 for explanation of footnotes and agency abbreviations.

| PARAMETER | . | . | . | Specific Conductance | Selenium (total) | Boron |
|-------------|---|---|---|----------------------|------------------|--------|
| DATA SOURCE | . | . | . | SLDMWA | SLDMWA | SLDMWA |
| UNITS | . | . | . | µS/cm | µg/L | mg/L |
| Jul-07-2009 | . | . | . | 1,720 | 1.9 | 1.1 |
| Jul-14-2009 | . | . | . | 1,180 | 1.7 | 1.5 |
| Jul-21-2009 | . | . | . | 1,550 | 2.1 | 0.8 |
| Jul-29-2009 | . | . | . | 2,420 | 3.7 | 3.2 |
| Aug-04-2009 | . | . | . | 1,280 | 1.0 | 0.7 |
| Aug-11-2009 | . | . | . | 2,420 | 20.3 | 2.8 |
| Aug-18-2009 | . | . | . | 1,270 | 10.5 | 1.0 |
| Aug-25-2009 | . | . | . | 1,840 | 2.7 | 1.5 |
| Sep-01-2009 | . | . | . | 1,380 | 1.7 | 0.8 |
| Sep-08-2009 | . | . | . | 1,730 | 13.6 | 1.7 |
| Sep-15-2009 | . | . | . | 2,910 | 29.0 | 3.0 |
| Sep-22-2009 | . | . | . | 1,960 | 8.3 | 2.4 |
| Sep-29-2009 | . | . | . | 1,970 | 2.6 | 1.4 |

Outside of normal range.

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Table 19. Weekly water quality monitoring at Station N (San Joaquin River at Crow's Landing).

See Table 33 for explanation of footnotes and agency abbreviations

| PARAMETER | Flow | Temperature | pH | Specific Conductance | Selenium (total) | Boron |
|--------------------|-------------|--------------------|----------------|-----------------------------|-------------------------|----------------|
| DATA SOURCE | USGS | CVRWQCB | CVRWQCB | CVRWQCB | CVRWQCB | CVRWQCB |
| UNITS | cfs | °C | . | µS/cm | µg/L | mg/L |
| Jul-01-2009 | 276 | 25.0 | 7.9 | 1,370 | 1.4 | 0.8 |
| Jul-07-2009 | 296 | 22.5 | 8.0 | 1,290 | 1.5 | 0.7 |
| Jul-14-2009 | 273 | 22.9 | 7.7 | 1,310 | 1.3 | 0.8 |
| Jul-21-2009 | 201 | 24.6 | 7.8 | 1,550 | 1.2 | 0.9 |
| Jul-28-2009 | 188 | 24.7 | 7.4 | 1,590 | 1.6 | 1.1 |
| Aug-04-2009 | 232 | 23.7 | 7.4 | 1,180 | 0.8 | 0.6 |
| Aug-11-2009 | 220 | 24.3 | 7.6 | 1,320 | 1.6 | 0.8 |
| Aug-18-2009 | 210 | 22.9 | 7.8 | 1,230 | 0.8 | 0.6 |
| Aug-25-2009 | 240 | 21.7 | 7.7 | 1,330 | 1.3 | 0.9 |
| Sep-01-2009 | 247 | 23.9 | 7.8 | 1,150 | 0.8 | 0.5 |
| Sep-08-2009 | 218 | 20.6 | 7.8 | 1,230 | 0.8 | 0.5 |
| Sep-15-2009 | 280 | 21.2 | 7.8 | 1,070 | 1.2 | 0.6 |
| Sep-22-2009 | 240 | 22.5 | 7.8 | 1,310 | 1.5 | 0.8 |
| Sep-29-2009 | 275 | 21.1 | 7.8 | 1,170 | 0.6 | 0.6 |

Table 20. Summary of fathead minnow (*Pimephales promelas*) larvae survival in 7-day tests using water samples collected from October 2008 to September 2009. Each value is the mean of 4 replicates with 10 fish in each replicate.

See Table 33 for explanation of footnotes and agency abbreviations.

| LOCATION | Station B | Station C | Station D | Station F | Canal | Control |
|-------------|-----------|-----------|-----------|-----------|--------|---------|
| DATA SOURCE | SLDMWA | SLDMWA | SLDMWA | SLDMWA | SLDMWA | SLDMWA |
| UNITS | % | % | % | % | % | % |
| Oct-2008 | 100 | 98 | 95 | 100 | 93 | 98 |
| Nov-2008 | 93 | 95 | 98 | 100 | 95 | 98 |
| Dec-2008 | 100 | 100 | 100 | 95 | 100 | 100 |
| Jan-2009 | 95 | 95 | 93 | 93 | 93 | 95 |
| Feb-2009 | 98 | 95 | 100 | 98 | 100 | 95 |
| Mar-2009 | 98 | 100 | 100 | 100 | 98 | 95 |
| Apr-2009 | 100 | 93 | 95 | 95 | 73 | 98 |
| May-2009 | 98 | 98 | 98 | 100 | 93 | 95 |
| Jun-2009 | 95 | 95 | 95 | 93 | 93 | 95 |
| Jul-2009 | 95 | 98 | 93 | 98 | 98 | 100 |
| Aug-2009 | 98 | 98 | 88 | 93 | 100 | 100 |
| Sep-2009 | 100 | 98 | 98 | 100 | 100 | 98 |

Table 21. Summary of fathead minnow (*Pimephales promelas*) larvae growth in 7-day tests using water samples collected from October 2008 to September 2009. Each value is the mean of 4 replicates with 10 fish in each replicate.

See Table 33 for explanation of footnotes and agency abbreviations.

| LOCATION | Station B | Station C | Station D | Station F | Canal | Control |
|-------------|-----------|-----------|-----------|-----------|--------|---------|
| DATA SOURCE | SLDMWA | SLDMWA | SLDMWA | SLDMWA | SLDMWA | SLDMWA |
| UNITS | mg | mg | mg | mg | mg | mg |
| Oct-2008 | 0.43 | 0.44 | 0.38 | 0.41 | 0.37 | 0.38 |
| Nov-2008 | 0.32* | 0.35 | 0.31 | 0.32* | 0.38 | 0.35 |
| Dec-2008 | 0.34 | 0.35 | 0.35 | 0.34 | 0.34 | 0.32 |
| Jan-2009 | 0.35 | 0.37 | 0.36 | 0.33 | 0.30 | 0.36 |
| Feb-2009 | 0.51 | 0.53 | 0.49 | 0.46 | 0.50 | 0.35 |
| Mar-2009 | 0.50 | 0.50 | 0.45 | 0.50 | 0.44 | 0.44 |
| Apr-2009 | 0.33 | 0.43 | 0.35 | 0.40 | 0.30 | 0.38 |
| May-2009 | 0.48 | 0.41 | 0.41 | 0.42 | 0.42 | 0.42 |
| Jun-2009 | 0.42 | 0.40 | 0.46 | 0.44 | 0.43 | 0.45 |
| Jul-2009 | 0.46 | 0.49 | 0.50 | 0.52 | 0.44 | 0.47 |
| Aug-2009 | 0.42 | 0.40 | 0.41 | 0.38 | 0.43 | 0.52 |
| Sep-2009 | 0.43 | 0.41 | 0.42 | 0.45 | 0.39 | 0.43 |

Table 22. Summary of *Daphnia magna* survival in 7-day tests using water samples collected from October 2008 to September 2009. Each value is the mean of 10 replicates with 1 animal in each replicate.

See Table 33 for explanation of footnotes and agency abbreviations.

| LOCATION | Station B | Station C | Station D | Station F | Canal | Control |
|-------------|-----------|-----------|-----------|-----------|--------|---------|
| DATA SOURCE | SLDMWA | SLDMWA | SLDMWA | SLDMWA | SLDMWA | SLDMWA |
| UNITS | % | % | % | % | % | % |
| Oct-2008 | 90 | 100 | 90 | 90 | 100 | 100 |
| Nov-2008 | 100 | 100 | 100 | 100 | 90 | 90 |
| Dec-2008 | 100 | 100 | 100 | 100 | 100 | 90 |
| Dec-2009 | 90 | 100 | 100 | 100 | 100 | 100 |
| Feb-2009 | 100 | 80 | 90 | 70 | 90 | 80 |
| Mar-2009 | 100 | 100 | 100 | 100 | 90 | 90 |
| Apr-2009 | 100 | 100 | 80 | 90 | 90 | 100 |
| May-2009 | 80 | 100 | 90 | 100 | 100 | 100 |
| Jun-2009 | 100 | 0* | 30* | 90 | 100 | 100 |
| Jul-2009 | 90 | 70 | 100 | 100 | 90 | 90 |
| Aug-2009 | 100 | 100 | 100 | 100 | 100 | 100 |
| Sep-2009 | 100 | 100 | 80 | 90 | 100 | 100 |

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Table 23. Summary of *Daphnia magna* reproduction in 7-day tests using water samples collected from October 2008 to September 2009. Each value is the mean of 10 replicates with 1 animal in each replicate.

See Table 33 for explanation of footnotes and agency abbreviations.

| LOCATION | Station B | Station C | Station D | Station F | Delta Mendota Canal | Laboratory Control |
|-------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| DATA SOURCE | SLDMWA | SLDMWA | SLDMWA | SLDMWA | SLDMWA | SLDMWA |
| UNITS | neonates per female | neonates per female | neonates per female | neonates per female | neonates per female | neonates per female |
| Oct-2008 | 24.4 | 28.2 | 25.6 | 22.3 | 24.9 | 26.3 |
| Nov-2008 | 57.7 | 43.0 | 50.1 | 41.2 | 46.6 | 30.1 |
| Dec-2008 | 32.6 | 26.0 | 26.3 | 22.6 | 30.3 | 21.2 |
| Jan-2009 | 19.7 | 22.4 | 21.0 | 24.1 | 19.0 | 19.3 |
| Feb-2009 | 24.0 | 19.1 | 23.9 | 19.0 | 21.9 | 18.9 |
| Mar-2009 | 43.9 | 34.5 | 41.2 | 35.6 | 37.5 | 27.2 |
| Apr-2009 | 45.4 | 52.3 | 23.1 | 30.2 | 30.2 | 31.6 |
| May-2009 | 22.1 | 31.8 | 36.3 | 29.3 | 29.9 | 23.6 |
| Jun-2009 | 42.9 | 4.8* | 13.6* | 35.9 | 28.2 | 28.6 |
| Jul-2009 | 34.2 | 21.6 | 38.5 | 32.1 | 26.4 | 22.4 |
| Aug-2009 | 42.6 | 40.9 | 38.5 | 37.8 | 30.6 | 24.7 |
| Sep-2009 | 34.8 | 43.3 | 26.8 | 25.1 | 28.7 | 22.7 |

Table 24. Summary of *Selenastrum capricornutum* growth in 4-day tests using water samples collected from October 2008 to September 2009. Each value is the mean of 4 replicates.

See Table 33 for explanation of footnotes and agency abbreviations.

| LOCATION | Station B | Station C | Station D | Station F | Delta Mendota Canal | Laboratory Control |
|-------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| DATA SOURCE | SLDMWA | SLDMWA | SLDMWA | SLDMWA | SLDMWA | SLDMWA |
| UNITS | 10 ⁵ cells/mL | 10 ⁵ cells/mL | 10 ⁵ cells/mL | 10 ⁵ cells/mL | 10 ⁵ cells/mL | 10 ⁵ cells/mL |
| Oct-2008 | 25.8 | 33.9 | 30.6 | 30.7 | 24.3 | 22.5 |
| Nov-2008 | 15.8* | 23.7 | 25.3 | 24.0 | 20.5 | 21.6 |
| Dec-2008 | 17.5 | 23.9 | 21.0 | 20.0 | 20.3 | 18.4 |
| Jan-2009 | 2.5* | 27.9 | 20.2 | 25.1 | 3.2†††† | 22.6 |
| Feb-2009 | 14.4* | 36.5 | 42.9 | 33.8 | 34.9 | 29.4 |
| Mar-2009 | 12.9* | 32.9 | 31.3 | 34.0 | 27.4 | 29.9 |
| Apr-2009 | 20.9* | 22.2 | 27.0 | 24.3 | 25.0 | 19.3 |
| May-2009 | 21.6 | 33.2 | 25.2 | 11.4* | 21.4 | 22.8 |
| Jun-2009 | 19.8 | 20.2 | 24.4 | 21.7 | 20.1 | 17.0 |
| Jul-2009 | 22.5 | 28.4 | 28.2 | 26.8 | 22.9 | 19.7 |
| Aug-2009 | 21.7 | 26.4 | 24.6 | 26.6 | 22.0 | 23.0 |
| Sep-2009 | 31.6 | 32.6 | 25.6 | 28.9 | 27.6 | 22.3 |

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Table 25. Summary of selenium concentrations in grab water samples collected at study stations for use in laboratory toxicity tests, July 2009 to September 2009.

See Table 33 for explanation of footnotes and agency abbreviations.

| LOCATION | Station B | Station C | Station D | Station F | Delta Mendota Canal |
|-------------|-------------|-------------|-------------|-------------|---------------------|
| DATA SOURCE | SLDMWA/USBR | SLDMWA/USBR | SLDMWA/USBR | SLDMWA/USBR | SLDMWA/USBR |
| UNITS | µg/L | µg/L | µg/L | µg/L | µg/L |
| Jul-13-2009 | 22 | <0.4 | 15 | <0.4 | <0.4 |
| Jul-15-2009 | 27 | 0.4 | 7.0 | <0.4 | <0.4 |
| Jul-17-2009 | 23 | 0.5 | 13 | <0.4 | <0.4 |
| Aug-10-2009 | 31 | 0.6 | 13 | <0.4 | <0.4 |
| Aug-12-2009 | 27 | 0.6 | 15 | <0.4 | <0.4 |
| Aug-14-2009 | 27 | 0.4 | 14 | <0.4 | <0.4 |
| Sep-21-2009 | 24 | <0.4 | 14 | <0.4 | <0.4 |
| Sep-23-2009 | 24 | <0.4 | 9.3 | <0.4 | <0.4 |
| Sep-25-2009 | 23 | <0.4 | 5.1 | <0.4 | <0.4 |

Table 26. Summary of total suspended solids concentrations in grab water samples collected at study stations for use in laboratory toxicity tests, July 2009 to September 2009.

See Table 33 for explanation of footnotes and agency abbreviations.

| LOCATION | Station B | Station C | Station D | Station F | Delta Mendota Canal |
|-------------|-----------|-----------|-----------|-----------|---------------------|
| DATA SOURCE | SLDMWA | SLDMWA | SLDMWA | SLDMWA | SLDMWA |
| UNITS | mg/L | mg/L | mg/L | mg/L | mg/L |
| Jul-13-2009 | 33 | 19 | 19 | 51 | 25 |
| Jul-15-2009 | 31 | 19 | 22 | 50 | 24 |
| Jul-17-2009 | 34 | 37 | 39 | 48 | 24 |
| Aug-10-2009 | 21 | 12 | 30 | 62 | 5 |
| Aug-12-2009 | 28 | 10 | 21 | 67 | 4 |
| Aug-14-2009 | 30 | 20 | 38 | 70 | 16 |
| Sep-21-2009 | 13 | 62 | 65 | 40 | 17 |
| Sep-23-2009 | 17 | 28 | 38 | 22 | 20 |
| Sep-25-2009 | 42 | 18 | 21 | 23 | 11 |

PRELIMINARY RESULTS

Table 27. Monthly Flow and Salinity of Water at San Luis Drain, Station B.

See Table 33 for explanation of footnotes and agency abbreviations.

| PARAMETER | Flow at Station B | | Salinity at Station B | | |
|-----------|-------------------|-----------|-----------------------|-------|-----------|
| | Mean daily | Total | FW EC | TDS | Salt load |
| UNITS | cfs | acre-feet | µS/cm | mg/L | tons |
| Jan-2008 | 27 | 1,660 | 4,443 | 3,288 | 7,420 |
| Feb-2008 | 32 | 1,850 | 4,462 | 3,302 | 8,310 |
| Mar-2008 | 29 | 1,780 | 3,882 | 2,873 | 6,950 |
| Apr-2008 | 26 | 1,540 | 4,276 | 3,164 | 6,630 |
| May-2008 | 29 | 1,760 | 4,461 | 3,301 | 7,900 |
| Jun-2008 | 21 | 1,260 | 4,361 | 3,227 | 5,530 |
| Jul-2008 | 16 | 980 | 4,120 | 3,049 | 4,060 |
| Aug-2008 | 11 | 690 | 4,110 | 3,041 | 2,850 |
| Sep-2008 | 12 | 690 | 3,809 | 2,819 | 2,650 |
| Oct-2008 | 17 | 1,020 | 3,488 | 2,581 | 3,580 |
| Nov-2008 | 21 | 1,270 | 3,536 | 2,617 | 4,520 |
| Dec-2008 | 22 | 1,320 | 4,045 | 2,993 | 5,370 |
| Jan-2009 | 21 | 1,270 | 4,160 | 3,078 | 5,320 |
| Feb-2009 | 32 | 1,800 | 4,200 | 3,108 | 7,610 |
| Mar-2009 | 29 | 1,780 | 4,180 | 3,093 | 7,490 |
| Apr-2009 | 19 | 1,110 | 4,690 | 3,471 | 5,240 |
| May-2009 | 13 | 770 | 4,560 | 3,374 | 3,530 |
| Jun-2009 | 15 | 910 | 4,650 | 3,441 | 4,260 |
| Jul-2009 | 11 | 650 | 4,455 | 3,300 | 2,920 |
| Aug-2009 | 11 | 660 | 4,394 | 3,250 | 2,920 |
| Sep-2009 | 10 | 590 | 4,660 | 3,450 | 2,770 |

Note: EC to TDS conversion = 0.74

Water Year Averages and Totals

| PARAMETER | Mean daily flow | Total flow | FW EC | TDS | Salt load |
|-----------|-----------------|------------|-------|-------|-----------|
| UNITS | cfs | acre-feet | µS/cm | mg/L | tons |
| WY 1997 | 52 | 37,560 | 4,257 | 3,150 | 160,910 |
| WY 1998 | 64 | 45,950 | 4,438 | 3,280 | 204,970 |
| WY 1999 | 45 | 32,310 | 4,650 | 3,440 | 151,160 |
| WY 2000 | 43 | 31,260 | 4,301 | 3,180 | 135,190 |
| WY 2001 | 39 | 28,250 | 4,191 | 3,100 | 119,100 |
| WY 2002 | 39 | 28,400 | 4,069 | 3,010 | 116,260 |
| WY 2003 | 38 | 27,270 | 4,319 | 3,200 | 118,680 |
| WY 2004 | 38 | 27,700 | 4,173 | 3,090 | 116,410 |
| WY 2005 | 42 | 30,160 | 4,315 | 3,190 | 130,850 |
| WY 2006 | 36 | 25,970 | 4,605 | 3,410 | 120,440 |
| WY 2007 | 26 | 18,540 | 4,235 | 3,130 | 78,920 |
| WY 2008 | 22 | 15,670 | 4,161 | 3,080 | 65,640 |
| WY 2009 | 18 | 13,160 | 4,254 | 3,060 | 54,770 |

Calendar Year Totals

| PARAMETER | Mean daily flow | Total flow | FW EC | TDS | Salt load |
|-----------|-----------------|------------|-------|-------|-----------|
| UNITS | cfs | acre-feet | µS/cm | mg/L | tons |
| CY 1997 | 52 | 37,490 | 4,354 | 3,220 | 164,180 |
| CY 1998 | 64 | 46,240 | 4,563 | 3,380 | 212,560 |
| CY 1999 | 45 | 32,250 | 4,532 | 3,360 | 147,370 |
| CY 2000 | 42 | 30,210 | 4,189 | 3,100 | 127,370 |
| CY 2001 | 39 | 28,010 | 4,200 | 3,110 | 118,470 |
| CY 2002 | 39 | 28,460 | 4,155 | 3,070 | 118,830 |
| CY 2003 | 38 | 27,550 | 4,282 | 3,170 | 118,770 |
| CY 2004 | 39 | 28,290 | 4,129 | 3,060 | 117,730 |
| CY 2005 | 41 | 29,610 | 4,420 | 3,270 | 131,680 |
| CY 2006 | 36 | 25,890 | 4,589 | 3,395 | 119,540 |
| CY 2007 | 25 | 17,990 | 4,137 | 3,061 | 74,890 |
| CY 2008 | 22 | 15,860 | 4,096 | 3,030 | 65,360 |
| CY 2009 | 18 | 12,920 | 4,367 | 3,115 | 54,730 |

Note: All totals and averages calculated from USGS preliminary data.

PRELIMINARY RESULTS

Table 28. Monthly Flow and Salinity of Water at Mud Slough, Station D.

See Table 33 for explanation of footnotes and agency abbreviations.

| PARAMETER | Flow at Station D | | Salinity at Station D | | |
|-----------|-------------------|-----------|-----------------------|-------|-----------|
| | Mean daily | Total | FW EC | TDS | Salt load |
| UNITS | cfs | acre-feet | µS/cm | mg/L | tons |
| Jan-2008 | 169 | 10,410 | 1,590 | 1,097 | 15,530 |
| Feb-2008 | 148 | 8,500 | 1,790 | 1,235 | 14,280 |
| Mar-2008 | 125 | 7,690 | 1,830 | 1,263 | 13,210 |
| Apr-2008 | 71 | 4,200 | 2,420 | 1,670 | 9,540 |
| May-2008 | 50 | 3,060 | 2,640 | 1,822 | 7,580 |
| Jun-2008 | 29 | 1,720 | 2,400 | 1,656 | 3,870 |
| Jul-2008 | 18 | 1,090 | 2,630 | 1,815 | 2,690 |
| Aug-2008 | 14 | 890 | 2,530 | 1,746 | 2,110 |
| Sep-2008 | 20 | 1,160 | 1,670 | 1,152 | 1,820 |
| Oct-2008 | 106 | 6,540 | 1,040 | 718 | 6,380 |
| Nov-2008 | 86 | 5,100 | 1,520 | 1,049 | 7,270 |
| Dec-2008 | 106 | 6,520 | 1,640 | 1,132 | 10,030 |
| Jan-2009 | 90 | 5,530 | 2,590 | 1,787 | 13,440 |
| Feb-2009 | 133 | 7,380 | 2,620 | 1,808 | 18,140 |
| Mar-2009 | 157 | 9,630 | 2,620 | 1,808 | 23,680 |
| Apr-2009 | 51 | 3,030 | 3,410 | 2,353 | 9,700 |
| May-2009 | 32 | 1,950 | 3,120 | 2,153 | 5,710 |
| Jun-2009 | 29 | 1,750 | 3,380 | 2,332 | 5,550 |
| Jul-2009 | 17 | 1,060 | 3,880 | 2,677 | 3,860 |
| Aug-2009 | 18 | 1,090 | 3,430 | 2,367 | 3,510 |
| Sep-2009 | 28 | 1,660 | 2,430 | 1,677 | 3,790 |

Note: EC to TDS conversion = 0.69

Water Year Averages and Totals

| PARAMETER | Mean daily flow | Total flow | FW EC | TDS | Salt load |
|-----------|-----------------|------------|-------|-------|-----------|
| UNITS | cfs | acre-feet | µS/cm | mg/L | tons |
| WY 1997 | 181 | 130,930 | 2,390 | 1,650 | 293,810 |
| WY 1998 | 257 | 182,580 | 2,600 | 1,790 | 444,470 |
| WY 1999 | 141 | 101,360 | 2,582 | 1,780 | 245,370 |
| WY 2000 | 131 | 94,440 | 2,496 | 1,720 | 220,910 |
| WY 2001 | 129 | 92,870 | 2,737 | 1,890 | 238,710 |
| WY 2002 | 104 | 75,280 | 2,809 | 1,940 | 198,620 |
| WY 2003 | 122 | 88,200 | 2,688 | 1,860 | 223,110 |
| WY 2004 | 120 | 87,190 | 2,704 | 1,870 | 221,740 |
| WY 2005 | 154 | 110,600 | 2,535 | 1,750 | 263,230 |
| WY 2006 | 160 | 116,100 | 2,273 | 1,570 | 247,900 |
| WY 2007 | 100 | 72,200 | 2,541 | 1,750 | 171,840 |
| WY 2008 | 85 | 61,680 | 2,044 | 1,410 | 118,280 |
| WY 2009 | 69 | 49,600 | 2,809 | 1,780 | 120,070 |

Calendar Year Totals

| PARAMETER | Mean daily flow | Total flow | FW EC | TDS | Salt load |
|-----------|-----------------|------------|-------|-------|-----------|
| UNITS | cfs | acre-feet | µS/cm | mg/L | tons |
| CY 1997 | 174 | 125,450 | 2,471 | 1,700 | 290,040 |
| CY 1998 | 258 | 183,320 | 2,559 | 1,770 | 441,290 |
| CY 1999 | 137 | 98,740 | 2,588 | 1,790 | 240,370 |
| CY 2000 | 133 | 96,070 | 2,467 | 1,700 | 222,110 |
| CY 2001 | 123 | 88,890 | 2,768 | 1,910 | 230,900 |
| CY 2002 | 111 | 80,260 | 2,827 | 1,950 | 212,850 |
| CY 2003 | 119 | 85,750 | 2,621 | 1,810 | 211,080 |
| CY 2004 | 121 | 87,960 | 2,738 | 1,890 | 226,090 |
| CY 2005 | 160 | 115,030 | 2,513 | 1,730 | 270,640 |
| CY 2006 | 160 | 115,820 | 2,241 | 1,546 | 243,490 |
| CY 2007 | 86 | 61,940 | 2,611 | 1,801 | 151,730 |
| CY 2008 | 80 | 58,150 | 1,999 | 1,380 | 109,140 |
| CY 2009 | 72 | 52,020 | 2,828 | 1,817 | 128,520 |

Note: All totals and averages calculated from USGS preliminary data.

PRELIMINARY RESULTS

Table 29. Monthly Flow and Salinity of Water at Salt Slough, Station F.

See Table 33 for explanation of footnotes and agency abbreviations.

| PARAMETER | Flow at Station F | | Salinity at Station F | | |
|-----------|-------------------|-----------|-----------------------|-------|-----------|
| | Mean daily | Total | FW EC | TDS | Salt load |
| UNITS | cfs | acre-feet | µS/cm | mg/L | tons |
| Jan-2008 | 170 | 10,460 | 1,080 | 734 | 10,450 |
| Feb-2008 | 188 | 10,800 | 1,090 | 741 | 10,890 |
| Mar-2008 | 228 | 14,030 | 660 | 449 | 8,560 |
| Apr-2008 | 135 | 8,050 | 1,040 | 707 | 7,740 |
| May-2008 | 117 | 7,200 | 990 | 673 | 6,590 |
| Jun-2008 | 107 | 6,370 | 880 | 598 | 5,180 |
| Jul-2008 | 103 | 6,310 | 840 | 571 | 4,900 |
| Aug-2008 | 72 | 4,430 | 820 | 558 | 3,360 |
| Sep-2008 | 45 | 2,680 | 950 | 646 | 2,350 |
| Oct-2008 | 48 | 2,980 | 1,160 | 789 | 3,200 |
| Nov-2008 | 103 | 6,100 | 1,070 | 728 | 6,040 |
| Dec-2008 | 51 | 3,110 | 1,340 | 911 | 3,850 |
| Jan-2009 | 41 | 2,530 | 2,190 | 1,489 | 5,120 |
| Feb-2009 | 131 | 7,290 | 1,770 | 1,204 | 11,930 |
| Mar-2009 | 163 | 10,020 | 1,890 | 1,285 | 17,510 |
| Apr-2009 | 104 | 6,170 | 1,730 | 1,176 | 9,870 |
| May-2009 | 96 | 5,920 | 1,480 | 1,006 | 8,100 |
| Jun-2009 | 101 | 6,010 | 1,300 | 884 | 7,230 |
| Jul-2009 | 119 | 7,310 | 1,077 | 740 | 7,360 |
| Aug-2009 | 99 | 6,100 | 1,068 | 740 | 6,140 |
| Sep-2009 | 66 | 3,900 | 1,208 | 830 | 4,400 |

Note: EC to TDS conversion = 0.68

Water Year Averages and Totals

| PARAMETER | Mean daily flow | Total flow | FW EC | TDS | Salt load |
|-----------|-----------------|------------|-------|------|-----------|
| UNITS | cfs | acre-feet | µS/cm | mg/L | tons |
| WY 1997 | 216 | 156,080 | 1,294 | 880 | 186,800 |
| WY 1998 | 273 | 196,090 | 1,387 | 940 | 250,680 |
| WY 1999 | 210 | 151,770 | 1,192 | 810 | 167,190 |
| WY 2000 | 195 | 141,050 | 1,314 | 890 | 170,730 |
| WY 2001 | 185 | 133,880 | 1,340 | 910 | 165,690 |
| WY 2002 | 145 | 104,880 | 1,445 | 980 | 139,780 |
| WY 2003 | 177 | 127,940 | 1,334 | 910 | 158,340 |
| WY 2004 | 170 | 123,330 | 1,296 | 880 | 147,600 |
| WY 2005 | 215 | 155,280 | 1,267 | 860 | 181,620 |
| WY 2006 | 234 | 168,800 | 1,189 | 810 | 185,950 |
| WY 2007 | 154 | 111,370 | 1,272 | 870 | 131,770 |
| WY 2008 | 125 | 90,930 | 1,099 | 750 | 92,750 |
| WY 2009 | 94 | 67,810 | 1,574 | 910 | 83,920 |

Calendar Year Totals

| PARAMETER | Mean daily flow | Total flow | FW EC | TDS | Salt load |
|-----------|-----------------|------------|-------|------|-----------|
| UNITS | cfs | acre-feet | µS/cm | mg/L | tons |
| CY 1997 | 205 | 147,940 | 1,355 | 920 | 185,100 |
| CY 1998 | 281 | 201,370 | 1,292 | 880 | 241,000 |
| CY 1999 | 204 | 147,380 | 1,255 | 850 | 170,370 |
| CY 2000 | 194 | 140,370 | 1,284 | 870 | 166,090 |
| CY 2001 | 181 | 131,100 | 1,399 | 950 | 169,380 |
| CY 2002 | 161 | 116,600 | 1,403 | 950 | 150,650 |
| CY 2003 | 163 | 117,730 | 1,342 | 910 | 145,700 |
| CY 2004 | 170 | 123,500 | 1,285 | 870 | 146,130 |
| CY 2005 | 224 | 161,730 | 1,261 | 860 | 189,160 |
| CY 2006 | 232 | 167,460 | 1,163 | 793 | 180,680 |
| CY 2007 | 142 | 102,810 | 1,336 | 909 | 127,130 |
| CY 2008 | 120 | 86,890 | 1,046 | 710 | 83,900 |
| CY 2009 | 100 | 72,460 | 1,518 | 922 | 90,830 |

Note: All totals and averages calculated from USGS preliminary data.

PRELIMINARY RESULTS

Table 30. Monthly Flow and Salinity of Water at San Joaquin River at Fremont Ford, Station G.

See Table 33 for explanation of footnotes and agency abbreviations.

| PARAMETER | Flow at Station N | | Salinity at Station N | | |
|-----------|-------------------|-----------|-----------------------|-------|-----------|
| | Mean daily | Total | FW EC | TDS | Salt load |
| UNITS | cfs | acre-feet | µS/cm | mg/L | tons |
| Jan-2008 | 489 | 30,070 | 580 | 394 | 16,130 |
| Feb-2008 | 640 | 36,840 | 570 | 388 | 19,420 |
| Mar-2008 | 337 | 20,740 | 1,100 | 748 | 21,100 |
| Apr-2008 | 167 | 9,910 | 1,370 | 932 | 12,560 |
| May-2008 | 139 | 8,560 | 1,220 | 830 | 9,660 |
| Jun-2008 | 119 | 7,080 | 1,090 | 741 | 7,140 |
| Jul-2008 | 92 | 5,630 | 940 | 639 | 4,890 |
| Aug-2008 | 83 | 5,090 | 940 | 639 | 4,420 |
| Sep-2008 | 48 | 2,830 | 1,220 | 830 | 3,190 |
| Oct-2008 | 43 | 2,660 | 2,030 | 1,380 | 4,990 |
| Nov-2008 | 106 | 6,300 | 1,730 | 1,176 | 10,080 |
| Dec-2008 | 73 | 4,460 | 2,570 | 1,748 | 10,600 |
| Jan-2009 | 84 | 5,180 | 2,150 | 1,462 | 10,300 |
| Feb-2009 | 261 | 14,490 | 1,320 | 898 | 17,690 |
| Mar-2009 | 283 | 17,390 | 1,590 | 1,081 | 25,570 |
| Apr-2009 | 153 | 9,130 | 2,080 | 1,414 | 17,560 |
| May-2009 | 123 | 7,580 | 1,690 | 1,149 | 11,850 |
| Jun-2009 | 127 | 7,540 | 1,420 | 966 | 9,900 |
| Jul-2009 | 119 | 7,340 | 1,239 | 840 | 8,390 |
| Aug-2009 | 105 | 6,440 | 1,257 | 850 | 7,440 |
| Sep-2009 | 73 | 4,340 | 1,640 | 1,120 | 6,610 |

Note: EC to TDS conversion = 0.62

Water Year Averages and Totals

| PARAMETER | Mean daily flow | Total flow | FW EC | TDS | Salt load |
|-----------|-----------------|------------|-------|-------|-----------|
| UNITS | cfs | acre-feet | µS/cm | mg/L | tons |
| WY 1997 | na | na | 1,387 | 940 | na |
| WY 1998 | na | na | 1,281 | 870 | na |
| WY 1999 | na | na | 1,433 | 980 | na |
| WY 2000 | na | na | 1,525 | 1,040 | na |
| WY 2001 | na | na | 1,761 | 1,200 | na |
| WY 2002 | na | na | 1,546 | 970 | na |
| WY 2003 | 215 | 156,100 | 1,542 | 1,010 | 214,420 |
| WY 2004 | 223 | 161,760 | 1,554 | 1,020 | 224,390 |
| WY 2005 | 889 | 642,060 | 1,034 | 610 | 532,650 |
| WY 2006 | 2,670 | 1,931,210 | 863 | 530 | 1,392,020 |
| WY 2007 | 217 | 156,740 | 1,382 | 890 | 189,720 |
| WY 2008 | 206 | 148,330 | 1,611 | 1,100 | 221,900 |
| WY 2009 | 130 | 93,520 | 1,710 | 990 | 125,920 |

Calendar Year Totals

| PARAMETER | Mean daily flow | Total flow | FW EC | TDS | Salt load |
|-----------|-----------------|------------|-------|-------|-----------|
| UNITS | cfs | acre-feet | µS/cm | mg/L | tons |
| CY 1997 | na | na | 1,466 | 1,000 | na |
| CY 1998 | na | na | 1,221 | 830 | na |
| CY 1999 | na | na | 1,463 | 1,000 | na |
| CY 2000 | na | na | 1,517 | 1,030 | na |
| CY 2001 | na | na | 1,857 | 1,230 | na |
| CY 2002 | 225 | 163,110 | 1,531 | 980 | 217,390 |
| CY 2003 | 194 | 140,470 | 1,572 | 1,040 | 198,680 |
| CY 2004 | 238 | 172,020 | 1,513 | 980 | 229,270 |
| CY 2005 | 897 | 647,690 | 992 | 590 | 519,710 |
| CY 2006 | 2,671 | 1,931,950 | 838 | 518 | 1,361,900 |
| CY 2007 | 193 | 139,080 | 1,523 | 993 | 187,760 |
| CY 2008 | 197 | 141,790 | 1,649 | 1,120 | 215,970 |
| CY 2009 | 142 | 102,110 | 1,646 | 976 | 135,510 |

Note: All totals and averages calculated from USGS preliminary data.

PRELIMINARY RESULTS

Table 31. Monthly Flow and Salinity of Water at San Joaquin River at Crow's Landing, Station N.

See Table 33 for explanation of footnotes and agency abbreviations.

| PARAMETER | Flow at Station N | | Salinity at Station N | | |
|-----------|-------------------|-----------|-----------------------|------|-----------|
| | Mean daily | Total | FW EC | TDS | Salt load |
| UNITS | cfs | acre-feet | µS/cm | mg/L | tons |
| Jan-2008 | 1,410 | 86,440 | 537 | 333 | 39,140 |
| Feb-2008 | 1,490 | 85,840 | 565 | 350 | 40,890 |
| Mar-2008 | 1,040 | 64,130 | 889 | 551 | 48,070 |
| Apr-2008 | 780 | 46,630 | 933 | 578 | 36,680 |
| May-2008 | 1,100 | 67,510 | 452 | 280 | 25,730 |
| Jun-2008 | 380 | 22,670 | 870 | 539 | 16,630 |
| Jul-2008 | 300 | 18,300 | 804 | 498 | 12,410 |
| Aug-2008 | 400 | 24,700 | 604 | 374 | 12,580 |
| Sep-2008 | 340 | 20,480 | 635 | 394 | 10,970 |
| Oct-2008 | 430 | 26,480 | 896 | 556 | 20,010 |
| Nov-2008 | 520 | 30,940 | 1,055 | 654 | 27,530 |
| Dec-2008 | 500 | 30,570 | 1,235 | 766 | 31,830 |
| Jan-2009 | 500 | 30,610 | 1,380 | 856 | 35,620 |
| Feb-2009 | 780 | 43,120 | 1,300 | 806 | 47,270 |
| Mar-2009 | 840 | 51,450 | 1,410 | 874 | 61,170 |
| Apr-2009 | 490 | 29,110 | 1,600 | 992 | 39,270 |
| May-2009 | 480 | 29,690 | 1,110 | 688 | 27,790 |
| Jun-2009 | 360 | 21,640 | 1,250 | 775 | 22,810 |
| Jul-2009 | 240 | 14,710 | 1,391 | 862 | 17,250 |
| Aug-2009 | 220 | 13,760 | 1,308 | 811 | 15,180 |
| Sep-2009 | 250 | 14,590 | 1,236 | 766 | 15,210 |

Note: EC to TDS conversion = 0.62

Water Year Averages and Totals

| PARAMETER | Mean daily flow | Total flow | FW EC | TDS | Salt load |
|-----------|-----------------|------------|-------|------|-----------|
| UNITS | cfs | acre-feet | µS/cm | mg/L | tons |
| WY 1997 | 5,407 | 3,844,610 | 820 | 510 | 2,666,620 |
| WY 1998 | 6,869 | 4,904,910 | 601 | 370 | 2,468,150 |
| WY 1999 | 1,412 | 1,015,480 | 902 | 560 | 773,390 |
| WY 2000 | 1,423 | 1,027,440 | 976 | 610 | 852,360 |
| WY 2001 | 903 | 653,430 | 1,162 | 720 | 639,840 |
| WY 2002 | 738 | 533,960 | 1,202 | 750 | 544,640 |
| WY 2003 | 753 | 546,130 | 1,244 | 770 | 571,910 |
| WY 2004 | 764 | 554,550 | 1,226 | 760 | 573,180 |
| WY 2005 | 2,381 | 1,721,000 | 722 | 450 | 1,053,250 |
| WY 2006 | 4,748 | 3,437,650 | 569 | 350 | 1,636,320 |
| WY 2007 | 838 | 607,180 | 1,103 | 680 | 561,520 |
| WY 2008 | 802 | 580,500 | 1,059 | 660 | 521,060 |
| WY 2009 | 467 | 336,670 | 1,266 | 690 | 315,930 |

Calendar Year Totals

| PARAMETER | Mean daily flow | Total flow | FW EC | TDS | Salt load |
|-----------|-----------------|------------|-------|------|-----------|
| UNITS | cfs | acre-feet | µS/cm | mg/L | tons |
| CY 1997 | 5,063 | 3,590,680 | 975 | 600 | 2,929,990 |
| CY 1998 | 7,086 | 5,064,330 | 453 | 280 | 1,928,500 |
| CY 1999 | 1,207 | 864,600 | 1,017 | 630 | 740,790 |
| CY 2000 | 1,466 | 1,059,180 | 905 | 560 | 806,670 |
| CY 2001 | 882 | 638,210 | 1,174 | 730 | 633,610 |
| CY 2002 | 723 | 523,240 | 1,235 | 770 | 547,940 |
| CY 2003 | 718 | 521,480 | 1,258 | 780 | 553,190 |
| CY 2004 | 790 | 573,270 | 1,213 | 750 | 584,740 |
| CY 2005 | 2,428 | 1,755,440 | 697 | 430 | 1,026,580 |
| CY 2006 | 4,798 | 3,473,920 | 567 | 352 | 1,661,630 |
| CY 2007 | 740 | 535,270 | 1,099 | 682 | 496,160 |
| CY 2008 | 753 | 545,170 | 1,088 | 670 | 496,760 |
| CY 2009 | 489 | 353,040 | 1,264 | 660 | 316,720 |

Note: All totals and averages calculated from USGS preliminary data.

PRELIMINARY RESULTS

Table 32. Summary of sediment monitoring results from September 2006 to September 2009. Concentrations in µg/g dry weight.

| See Table 33 for explanation of footnotes and agency abbreviations. | | | | | | | | | | |
|---|---------------------------------------|------------|------------|------------|----------------|--------|------------|------------------|--------|------------|
| Station Code Station Name | PARAMETER DEPTH SOURCE UNITS | Selenium | | | Organic Carbon | | | Percent Moisture | | |
| | | 0-3 cm | 3-8 cm | Whole Core | 0-3 cm | 3-8 cm | Whole Core | 0-3 cm | 3-8 cm | Whole Core |
| | | USBR | USBR | USBR | USBR | USBR | USBR | USBR | USBR | USBR |
| | | µg/g (dry) | µg/g (dry) | µg/g (dry) | % | % | % | % | % | % |
| Station C: | Sep-13-2006 | **0.58 | **0.59 | **0.69 | **1.66 | **1.69 | **1.78 | 41.90 | 42.80 | 43.18 |
| Mud Slough North | Dec-07-2006 | 0.16 | 0.13 | 0.12 | 0.39 | 0.11 | 0.25 | 34.50 | 24.30 | 26.70 |
| upstream of | Mar-13-2007 | <0.10 | <0.10 | 0.16 | 0.37 | 0.30 | 0.27 | 33.30 | 27.00 | 26.50 |
| drainage discharges | Jun-27-2007 | <0.10 | <0.10 | <0.10 | 0.33 | 0.29 | 0.67 | 28.99 | 20.69 | 28.49 |
| | Sep-04-2007 | 0.10 | 0.10 | 0.10 | 0.14 | 0.14 | 0.23 | 18.60 | 19.50 | 19.30 |
| | Nov-05-2007 | 0.20 | 0.10 | 0.10 | 0.62 | 0.46 | 0.53 | 38.40 | 28.80 | 22.50 |
| | Mar-03-2008 | <0.10 | 0.10 | <0.10 | 0.13 | 0.16 | 0.08 | 27.30 | 26.50 | 23.80 |
| | Jun-03-2008 | <0.1 | <0.1 | 0.10 | 0.25 | 0.13 | 0.19 | 21.00 | 19.90 | 26.00 |
| | Sep-09-2008 | 0.10 | 0.10 | 0.10 | 0.24 | 0.33 | 0.55 | 16.20 | 45.40 | 34.40 |
| | Nov-04-2008 | 0.10 | 0.20 | 0.10 | 0.41 | 0.30 | 0.35 | 28.30 | 27.20 | 26.50 |
| | Mar-10-2009 | 0.10 | 0.10 | 0.10 | 0.66 | 0.71 | 0.53 | 38.90 | 36.30 | 35.90 |
| | Jun-03-2009 | P | P | P | 0.15 | 0.22 | 0.08 | 31.70 | 23.70 | 24.60 |
| | Aug-31-2009 | P | P | P | 0.13 | 0.16 | 0.29 | 27.80 | 25.90 | 26.30 |
| Station D: | Sep-21-2006 | 0.27 | 0.28 | 0.33 | 0.16 | 0.16 | 0.17 | 27.64 | 27.26 | 24.53 |
| Mud Slough North | Dec-07-2006 | 0.12 | 0.18 | 0.35 | 0.10 | 0.13 | 0.25 | 25.60 | 22.10 | 25.80 |
| downstream of | Sep-21-2006 | 0.27 | 0.28 | 0.33 | 0.16 | 0.16 | 0.17 | 27.64 | 27.26 | 24.53 |
| drainage discharges | Dec-07-2006 | 0.12 | 0.18 | 0.35 | 0.10 | 0.13 | 0.25 | 25.60 | 22.10 | 25.80 |
| | Mar-13-2007 | 0.17 | 0.13 | 0.30 | 0.11 | 0.08 | 0.19 | 23.20 | 16.60 | 19.40 |
| | Nov-05-2007 | 0.30 | 0.20 | 0.20 | 0.05 | 0.23 | 0.23 | 26.80 | 26.10 | 26.20 |
| | Mar-03-2008 | 0.10 | 0.20 | 0.10 | 0.26 | 0.16 | 0.09 | 23.30 | 22.50 | 20.80 |
| | Jun-01-2008 | 0.10 | 0.10 | 0.10 | 0.15 | 0.16 | 0.25 | 76.50 | 19.90 | 21.60 |
| | Sep-09-2008 | 0.20 | 0.20 | 0.20 | 0.14 | 0.17 | 0.16 | 27.20 | 22.10 | 23.30 |
| | Nov-04-2008 | 0.30 | 0.20 | 0.10 | 0.28 | 0.24 | 0.17 | 31.10 | 26.10 | 19.60 |
| | Mar-10-2009 | 0.20 | 0.20 | 0.10 | 0.15 | 0.20 | 0.14 | 25.80 | 25.90 | 23.90 |
| | Jun-03-2009 | P | P | P | 0.17 | 0.01 | 0.13 | 20.90 | 24.00 | 27.40 |
| | Sep-03-2009 | P | P | P | 0.22 | 0.14 | 0.16 | 27.70 | 19.00 | 20.00 |
| Station E: | Sep-21-2006 | 0.34 | 0.50 | 0.54 | 0.26 | 0.25 | 0.30 | 27.48 | 26.87 | 31.26 |
| Mud Slough at Highway 140 | Dec-07-2006 | 0.75 | 0.23 | 0.15 | 0.59 | 0.33 | 0.24 | 37.40 | 33.20 | 28.40 |
| | Mar-13-2007 | 0.60 | 0.99 | 0.79 | 0.35 | 0.34 | 0.17 | 32.20 | 27.60 | 25.30 |
| | Jun-27-2007 | 0.77 | 0.92 | 0.47 | 0.57 | 0.47 | 0.31 | 39.82 | 35.66 | 30.88 |
| | Sep-04-2007 | 0.40 | 0.50 | 0.40 | 0.20 | 0.22 | 0.38 | n/a | n/a | n/a |
| | Nov-05-2007 | 0.40 | 0.40 | 0.30 | 0.25 | 0.39 | 0.31 | 16.80 | 29.10 | 28.50 |
| | Mar-03-2008 | 0.70 | 1.30 | 1.00 | 0.22 | 0.21 | 0.22 | 27.80 | 27.60 | 30.40 |
| | Jun-01-2008 | 0.30 | 0.50 | 1.30 | 0.38 | 0.34 | 0.63 | 32.80 | 22.60 | 38.30 |
| | Sep-09-2008 | 0.60 | 1.50 | 1.30 | 0.52 | 0.66 | 0.56 | 37.10 | 47.20 | 36.60 |
| | Nov-04-2008 | 0.70 | 0.70 | 1.20 | 0.43 | 0.47 | 0.63 | 30.50 | 37.80 | 40.30 |
| | Mar-10-2009 | 0.60 | 0.70 | 0.70 | 0.22 | 0.39 | 0.45 | 29.10 | 30.70 | 31.00 |
| | Jun-03-2009 | P | P | P | 0.17 | 0.17 | 0.30 | 20.00 | 20.10 | 32.70 |
| | Aug-31-2009 | P | P | P | 0.46 | 0.31 | 0.40 | 39.90 | 32.40 | 32.90 |
| Station F: | Sep-22-2006 | 0.46 | 0.38 | 0.36 | 0.27 | 0.22 | 0.21 | 32.28 | 28.82 | 25.75 |
| Salt Slough at Highway 165 | Dec-07-2006 | 0.20 | 0.31 | 0.46 | 0.25 | 0.24 | 0.19 | 27.90 | 27.30 | 25.60 |
| | Mar-14-2007 | 0.30 | 0.45 | 0.42 | 0.24 | 0.15 | 0.16 | 27.70 | 28.10 | 17.90 |
| | Jun-27-2007 | 0.18 | 0.44 | 0.30 | 0.19 | 0.24 | 0.17 | 26.38 | 30.21 | 24.69 |
| | Sep-05-2007 | 0.20 | 0.20 | 0.30 | 0.29 | 0.31 | 0.17 | 28.80 | 21.20 | 25.80 |
| | Nov-05-2007 | 0.40 | 0.50 | 0.50 | 0.27 | 0.26 | 0.32 | 30.00 | 30.50 | 27.90 |
| | Mar-04-2008 | 0.20 | 0.50 | 0.30 | 0.22 | 0.24 | 0.23 | 28.00 | 27.20 | 20.60 |
| | Jun-01-2008 | 0.10 | 0.20 | 0.20 | 0.23 | 0.26 | 0.34 | 21.00 | 23.00 | 23.00 |
| | Sep-09-2008 | 0.20 | 0.40 | 0.70 | 0.27 | 0.18 | 0.38 | 23.80 | 25.40 | 26.90 |
| | Nov-04-2008 | 0.20 | 0.20 | 0.50 | 0.28 | 0.22 | 0.26 | 27.10 | 27.00 | 22.40 |
| | Mar-10-2009 | 0.40 | 0.50 | 0.40 | 0.27 | 0.22 | 0.21 | 29.60 | 29.10 | 25.90 |
| | Jun-03-2009 | P | P | P | 0.25 | 0.22 | 0.21 | 20.80 | 24.40 | 24.30 |
| | Aug-31-2009 | P | P | P | 0.29 | 0.23 | 0.20 | 29.20 | 28.30 | 28.50 |
| Station I2: | Sep-13-2006 | 3.20 | 3.10 | 3.00 | 1.99 | 2.07 | 1.71 | 51.59 | 51.03 | 42.34 |
| Mud Slough: | Dec-07-2006 | 4.30 | 4.90 | 3.30 | 2.37 | 3.38 | 2.24 | 59.80 | 62.30 | 53.80 |
| Seasonal backwater tributary | Mar-13-2007 | 5.30 | 4.50 | 2.50 | 2.27 | 2.08 | 1.55 | 59.70 | 55.90 | 46.30 |
| | Jun-27-2007 | 4.40 | 5.20 | 6.40 | 2.10 | 2.04 | 2.39 | 45.43 | 48.41 | 52.32 |
| | Sep-05-2007 | 7.00 | 7.90 | 5.30 | 2.14 | 2.55 | 2.92 | n/a | n/a | n/a |
| | Jun-27-2007 | 4.40 | 5.20 | 6.40 | 2.10 | 2.04 | 2.39 | 45.43 | 48.41 | 52.32 |
| | Sep-05-2007 | 7.00 | 7.90 | 5.30 | 2.14 | 2.55 | 2.92 | n/a | n/a | n/a |
| | Nov-05-2007 | 4.30 | 3.00 | 3.70 | 2.77 | 2.50 | 2.40 | 51.60 | 48.90 | 49.10 |
| | Sep-08-2008 | **15 | **11 | 5.60 | 1.75 | 1.82 | 2.19 | 4.18 | 13.10 | 26.80 |
| | Nov-04-2008 | 4.80 | 3.70 | 3.00 | 2.59 | 2.23 | 2.33 | 51.10 | 50.90 | 49.40 |
| | Mar-10-2009 | 5.50 | 6.20 | 2.60 | 2.71 | 3.05 | 2.11 | 50.40 | 52.80 | 49.60 |
| | Jun-03-2009 | P | P | P | 1.78 | 1.95 | 2.28 | 35.70 | 41.50 | 47.40 |
| | Sep-03-2009 | P | P | P | 2.22 | 2.21 | 1.82 | 4.05 | 16.30 | 21.80 |

Table 33. Explanations of footnotes and agency abbreviations.

| Footnote | Explanation |
|-----------------|--|
| CVRWQCB | California Regional Water Quality Control Board, Central Valley Region |
| SLDMWA | San Luis & Delta-Mendota Water Authority |
| USBR | U.S. Bureau of Reclamation |
| USGS | U.S. Geological Survey |
| e | Estimated value |
| . | Not applicable |
| < | Less than MDL. If needed in calculation, use 1/2 MDL |
| NA | Not analyzed - operator error, data will not be available in the future |
| NP | Not Provided. Data may be available in the future. |
| NT | Not tested |
| P | Pending, data not available at this time but will be available in the future |
| * | Significantly reduced from Delta Mendota Canal (p<0.05) |
| ** | Sample re-analyzed and result confirmed. |
| † | DMC/Lab CI water failed to meet the survival (>80%) acceptability criteria. |
| †† | Data from records of the Grassland Water District. Data is not subjected to the criteria documented in the Compliance Monitoring Program for the Use and Operation of the Grassland Bypass Project (1996) nor the Quality Assurance Project Plan for the GBP (1997 draft). |
| ††† | DMC water failed to meet the reproduction (>10 neonates/adult) acceptability criteria. |
| †††† | DMC water failed to meet minimum growth (10 ⁹ cell/mL) acceptability criteria. |
| ‡ | Control value exceeds suggested maximum variance (20%) acceptability criteria. |
| ‡‡ | Fungal growth observed on test organisms. |
| # | New testing laboratory with reporting limit of 0.4 µg/L as of June 1998. |
| ❖ | Based on definitive bioassay, NOEC is 50 percent |
| S | Source |
| EC | Electrical conductivity |
| FW | Flow-weighted average concentration |
| G | US Geological Survey published data |
| L | Lawrence Berkeley Laboratory 15 minute flow and EC data |
| TDS | Total dissolved solids |