Middle Little Wood River Water Quality Monitoring Report

Technical Results Summary #5
Twin Falls Idaho

Mark Dallon

January 2005

Introduction

The Idaho Association of Soil Conservation Districts (IASCD) conducts surface water quality monitoring throughout the state to provide information on water quality conditions and the effectiveness of agricultural best management practices (BMPs) in improving water quality. At the request of the Wood River Soil and Water Conservation District (SWCD), IASCD conducted water quality monitoring in the Richfield area in the spring of 2004. The purpose of the project was to assess sediment, nutrient and bacteria levels in several agricultural return drains and the Little Wood River and compare the results with data collected from 1988 -1994 and again in 2000.

Background

Water quality monitoring conducted in 1988 and 1989 in the Richfield area indicated potential impacts to water quality in the Little Wood River from agriculture. The Wood River SWCD identified pollutants, and prioritized practices aimed at improving water quality in a report in 1993 (WRSWCD, 1993). The Wood River SWCD received funding through the State Agricultural Water Quality Program (SAWQP) to implement agricultural BMPs in a 130,000-acre area between 1994 and 2004. The area north of Richfield was included among the areas given the highest priority for project implementation. The sites sampled for this project include 10 sites that were monitored in 1988 and 1989 and drain the area between Cottonwood Slough, Jim Byrns Slough and the Little Wood River. Implemented conservation practices focused on conversion to sprinkler irrigation and installation of a minimum base flow flume at the Dietrich Canal diversion.

Monitoring Schedule and Site Descriptions

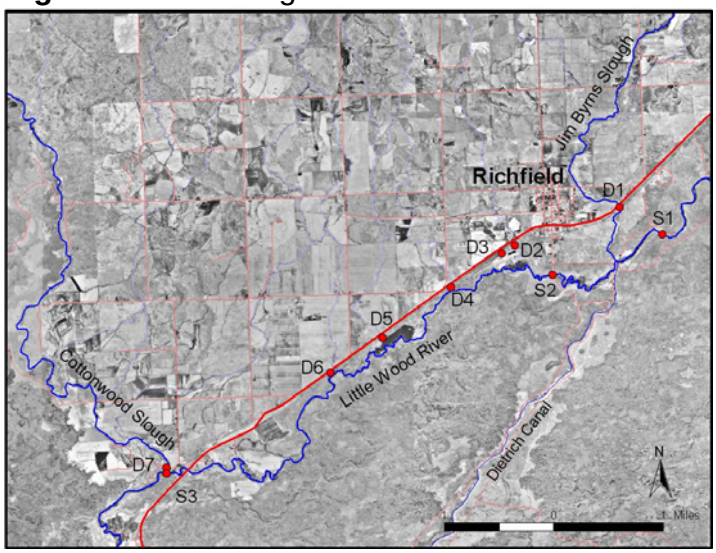
IASCD began discussions with the Wood River SWCD in January of 2004 about monitoring during the irrigation season. A warm, dry spring reduced the anticipated runoff into Magic Reservoir and irrigation water was only available during May and June. Four samples were collected at each site for the two months water was flowing in the system.

The 10 monitoring sites sampled during 2004 are the same sites sampled at various times between 1988 and 1994 and again in 2000. The sites include seven agricultural drains, (sites D1 – D7), and three sites on the Little Wood River, (S1 – S3) (figure 1). The drains were sampled near their confluences with the Little Wood River.

During each visit, samples were collected for total suspended solids (TSS), volatile suspended solids (VSS), total phosphorous (total P), ortho phosphorous (ortho P), and *E. Coli*. Phosphorous data was not collected during the year 2000. Field measurements were taken for

stream discharge (Q), dissolved oxygen, pH, and conductivity.

Figure 1. Monitoring Site Locations



Results

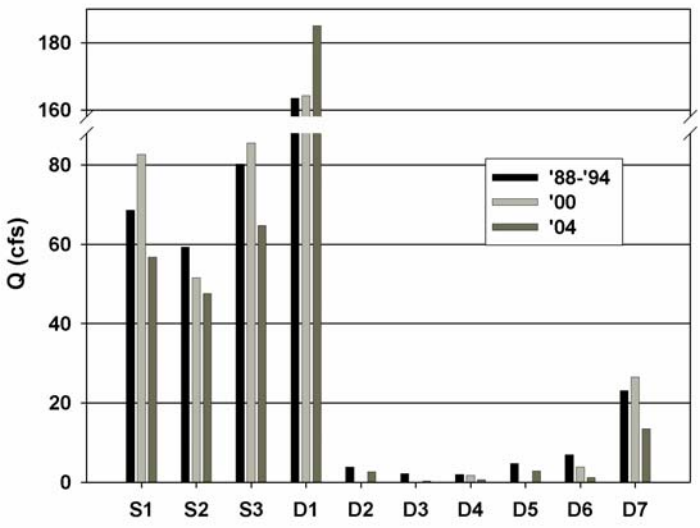
Since a short irrigation season in 2004 allowed sample collection only during May and June, data from 1988 – 1994 and 2000 was averaged for the same time period (May-June) for all parameters (TSS, TP, OP, Q). Mean values for the three monitoring periods (1988 – 1994, 2000, and 2004) are shown in Table 1. All results for the project include data from May-June of the years indicated.

Table 1. Average Values for May – June of Indicated Years

Stream Discharge

Average stream discharge in all the drains and the Little Wood River was lower in 2004 than 1988-1994 except at site D1 (Table 1 and Figure 1). Flow at D1 and D7 (Jim Byrns and Cottonwood Sloughs) depends on management of irrigation supply water to the area and for the most part do not have tailwater from agricultural fields. Changes in their levels are due to changes in management of the Richfield Canal system, not in irrigation management or implemented BMPs from the SAWQP. Between the 1988-94 period and 2004, the total flow to the Little Wood River from these two sloughs (sites D1 and D7) increased from 187 cfs to 199 cfs, including an increase of 22 cfs at D1 and a drop of 10 cfs at D7.

Figure 2. Average Stream Discharge (May-June)



Site	Q			TSS			Total P		Ortho P		Fecal Col		*E Coli*	
	'88-'94	'00	'04	'88-'94	'00	'04	'88-'94	'04	'88-'94	'04	'88-'94	'00	'00	'04
S1	68.6	82.7	56.7	3	2	3	0.06	0.01	0.05	0.01	51	16	9	19
S2	59.3	51.5	47.6	37	7	8	0.31	0.05	0.05	0.03	432	38	38	254
S3	80.2	85.5	64.7	11		4	0.13	0.07	0.08	0.05	272			61
D1	163.5	164.3	185.0	41	24	46	0.17	0.14	0.09	0.06	557	128	58	743
D2	3.9		2.6	24		4	0.41	0.38	0.32	0.34	9630			758
D3	2.2		0.3	74		19	0.49	0.51	0.30	0.38	1785			937
D4	2.0	1.7	0.6	27	25	5	0.26	0.15	0.15	0.11	592	575	425	307
D5	4.7		2.9	61		29	0.21	0.15	0.10	0.08	1213			678
D6	6.9	3.9	1.2	75	23	8	0.20	0.10	0.09	0.07	80	150	53	294
D7	23.1	26.5	13.5	11	19	8	0.13	0.16	0.08	0.12	1296	528	193	473

The discharge in the drains (D2-D6) is runoff from agricultural land between Jim Byrns and Cottonwood Sloughs. No natural flow exists in the drains, and levels are dependant entirely on supply from the Richfield Canal and agricultural practices. A reduction in runoff into the drains was a main focus of the BMPs implemented through the Mid Little Wood SAWQP. Drains D2 – D6 all saw reductions between 1994 and 2004, and the two drains that were also sampled in 2000 (D4 and D6) showed declines from 1994 to 2000 and again from 2000 to 2004. The combined runoff returning to the Little Wood River decreased from 19.6 cfs in 88-94 to 7.6 cfs in 2004, even though the average flow in the supply canals (Jim Byrns and Cottonwood Sloughs) increased over the same period. This indicates that practices implemented through the SAWQP, together with those implemented privately with no SAWQP assistance, were successful in contributing to reduced runoff from agricultural fields into the Little Wood River.

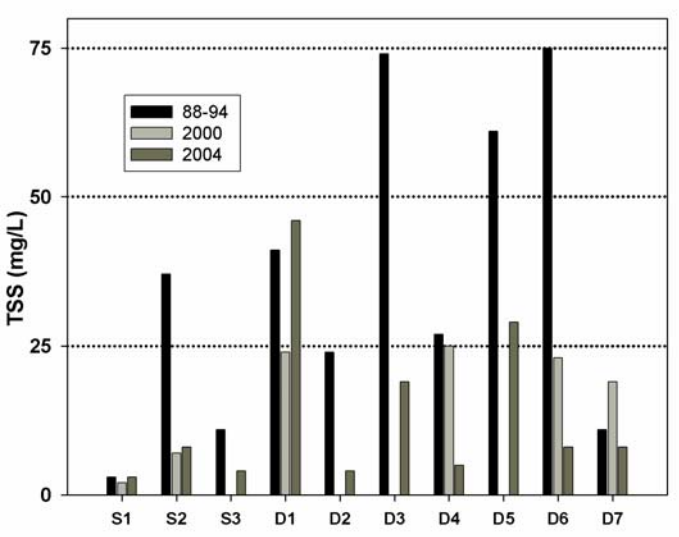
Flow at the sites on the Little Wood River also showed an overall decrease between 1988-94 and 2004. Two of the sites (S1 and S3) rose from 1988-94 to 2000 and then dropped between 2000 and 2004. Site S2 showed a decrease between each period. Since the majority of flow in the Little Wood River approaching Richfield is from Silver Creek, flows from Silver Creek are the primary influence on levels of the Little Wood River. Data from the USGS stream flow gage on Silver Creek near Picabo show similar flow patterns to the Little Wood River at site S1 (USGS, 2004). Discharge at the gage averaged 117.8 cfs in the 1988-1994 period, 145 cfs in 2000, and 105.6 cfs in 2003 (the last year flow was available). The lower flow in the river in 2003 is likely the result of drought conditions over the past 5 years and subsequent declines in spring discharges in the Silver Creek drainage.

Total Suspended Solids

TSS concentrations from Table 1 indicate no change or a decrease in TSS between 1988-94 and 2004 at all sites except site D1 (Jim Byrns Slough), which did not have BMPs implemented through the SAWQP. All 10 of the sites had average TSS concentrations below 50 mg/L in 2004. Average TSS concentrations for May-June for the three monitoring periods are shown in Figure 2.

Only three monitoring sites had average values over 10 mg/L in 2004: D1, D3, and D5. Water at D1 (Jim Byrns Slough) is delivery water from the Richfield Canal. No BMPs from the SAWQP were implemented in its drainage. Sites D3 and D5 are located in the areas where significant BMP implementation occurred. Although these sites had the highest average TSS concentrations in 2004, they have both seen dramatic reductions since monitoring in 1988-94, with concentration reductions of 75% for D3 and 52% for D5.

Figure 3. Average TSS Concentrations (May-June)



On the 5 drains targeted by the SAWQP (D2-D6), TSS loads decreased considerably over the course of the project. The combined stream discharge from the five drains decreased from 19.6 cfs to 7.6 cfs, a 62% reduction. TSS concentrations decreased by 77% between 1988-1994 and 2004, with 2004 concentrations ranging from 4 mg/L to 29 mg/L. Overall, the TSS loads decreased 92%, from 6005 lbs/day in 1988-1994 to 492 lbs/day in 2004.

Three monitoring sites are located on the Little Wood River (S1, S2, and S3). Site S1 is above Richfield, S2 is at the south edge of town just downstream of the Dietrich Canal diversion and S3 is just above the confluence with Cottonwood Slough. Part of the funding from the SAWQP, combined with other funding sources, paid for construction of a flume at the Dietrich Canal diversion between sites S1 and S2. The flume was designed to move water from the Jim Byrns Slough to the Dietrich Canal. The Dietrich Canal historically diverted clear water from the river and more turbid water from the Jim Byrns Slough was discharged to the river. The intent was to leave more of the flow in the Little Wood River in place and send water from the Jim Byrns Slough through the Dietrich Canal. The difference is most evident in the drop in average TSS concentrations at site S2 between 1988-94 and 2000, from 37 mg/L to 7 mg/L. The average at site S1 remained almost unchanged over the same period, indicating the entire

reduction in TSS was due to the change in management at the Dietrich Canal diversion with the flume. Although a large percentage of the water from Jim Byrns Slough is diverted into the Dietrich Canal, a significant amount of discharge continues to flow into the Little Wood River.

The draft Little Wood River TMDL (Claire, 2004) identifies bed load sediment as a problem in this stretch of the Little Wood River and identifies the period April-June as the critical period for sediment. The TMDL sets targets for percent bank stability to address the elevated fine sediments. No targets were made for suspend solids. The data from 2000 and 2004 suggest that elevated levels of TSS in the Little Wood River below the Jim Byrns Slough occur primarily during the initial flush of the canal system in late April or early May. High TSS levels in the Little Wood River above Richfield occur only during high runoff events and are not related to agricultural practices of the irrigated fields near Richfield. Grazing BMPs along the Little Wood River above Richfield and efforts to reduce the amount of sediment moved during the initial flush of the canal system should be emphasized to reduce high sediment loads during the April-June critical period.

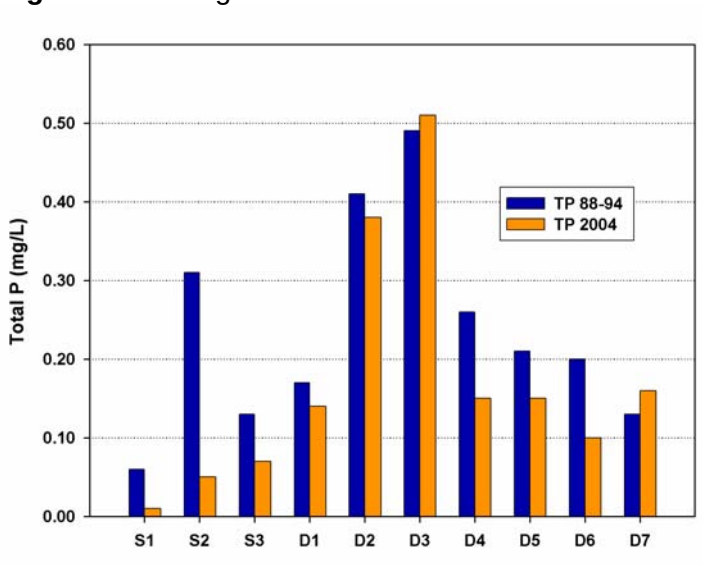
Total suspended solids do not currently appear to be a significant problem in the drains discharging into the river, with the exception of Jim Byrns Slough. Further studies should be done on the Jim Byrns Slough to determine the source of high TSS levels, which are likely related to canal bank conditions. Implementation of BMPs in the Richfield area would be most useful in the areas that drain to sites D3, D5, and the Jim Byrns Slough (site D1). Current management should be maintained in the remaining areas.

Total Phosphorous

Total P concentrations in the Little Wood River and the drains near Richfield were identified as a problem in the Mid Little Wood River Water Quality Project Planning Report. Average concentrations at 9 of the 10 sites from 1988-1994 exceeded the EPA Gold Book Criteria of 0.10 mg/L, the only exception being the upper site on the Little Wood River (S1).

In the 1988-1994 period, there was a significant increase in total P concentration on the Little Wood River between sites S1 and S2 (from 0.06 mg/L to 0.31 mg/L) from inflow of turbid water from the Jim Byrns Slough. In 2004, after the installation of the flume at the Dietrich Canal diversion, the increase between S1 and S2 was much less (0.01mg/L to 0.05 mg/L) and both sites have averages below the EPA Gold Book criteria of 0.10 mg/L. The reduction was likely caused by the reduction of sediment concentrations, which typically reduces sediment related phosphorous concentrations. Concentrations at site S3, the lowest on the Little Wood River, decreased by 49% between 1994 and 2004 and are also below the EPA criteria.

Figure 4. Average Total P Concentrations



Concentrations of total P at sites D2-D6 generally decreased between 1994 and 2004. Of the five sites, two remained fairly high and unchanged (D2 and D3), and three decreased significantly (D4, D5, D6). However, all of the sites remain above the EPA criteria of 0.10-mg/L. Sites D2 and D3 were significantly higher. Due somewhat to the reduced total P concentrations, but primarily to the reduced stream discharge, combined phosphorous loads from the five drains decreased by 69% (from 29.1 lbs/day to 8.9 lbs/day) between 1988-1994 and 2004.

Sites D2 and D3 both have high concentrations of total P. The significantly higher discharge of site D2 makes its load contribution to the Little Wood River much higher. Site D2 had an average load of 5.3 lbs/day, compared to a load of 0.8 lbs/day for D3. The load of D2 was higher than the other four drains combined.

The total P load in the five drains (D2-D6), and at site D2 in particular, is predominantly comprised of dissolved phosphorous (ortho P), which is a fraction of the total P in the water column. With average TSS concentrations generally less than 20 mg/L, the high total P in the drains does not appear to be related to sediment. There is a large difference in the percentage of total phosphorous made up by ortho P from 1988-94 to 2004. In 1988-94, ortho P accounted for 57% of total P. In 2004, that percentage increased to 71%. This is

reasonable since TSS concentrations decreased over the same period, reducing the amount of particulate phosphorous attached to soil particles. Further work should be done to determine the source of the high total P concentrations (71% of which is dissolved ortho P), and BMPs should be implemented to reduce the total P load delivered to the Little Wood River.

Bacteria

State standards for bacteria changed in approximately 2000 from fecal coliform to E. Coli. As such, samples collected between 1988 and 1994 were analyzed for fecal coliform, samples collected in 2000 were analyzed for fecal coliform and *E. Coli*, and samples in 2004 were analyzed only for *E. Coli*. To determine changes in bacteria levels over the project period, comparisons of the percent of samples that exceed the applicable state standard are shown in Table 3.

Table 3. Percent of Bacteria Samples Above State Standards

Site	F Col 88-94	F Col 2000	E Coli 2000	E Coli 2004
S1	0%	0%	0%	0%
S2	17%	0%	0%	25%
S3	17%	0%	0%	0%
D1	13%	0%	0%	25%
D2	57%			50%
D3	43%			75%
D4	25%	25%	25%	25%
D5	43%			25%
D6	0%	0%	0%	25%
D7	14%	25%	0%	25%

Comparisons between fecal coliform samples from 1988-94 and 2000 show a significant drop in the percent of samples exceeding state standards. From 2000 to 2004, however, the percent of *E. Coli* samples that exceeded the state's one time measurement standard increased. Overall, bacteria levels remain relatively high and sporadic. High-level samples were collected at several sites on a variety of dates. The high bacteria levels occurred mostly on the drains, particularly at sites D2 and D3. These are the same sites that had particularly high phosphorous levels in 2004 as well. The Little Wood River itself had only one sample collected above standards in 2004. Bacteria levels have not decreased in the agricultural drains and are at times well above state standards.

Conclusions and Recommendations

Water quality of the Middle Little Wood River and several agricultural drains in the Richfield area has improved between 1994 and 2004. A major focus of the Mid Little Wood SAWQP was to apply BMPs in the drainage of 5 agricultural drains between Jim Byrns Slough and Cottonwood Slough. As a whole, stream discharge, TSS concentrations and total P concentrations decreased, and TSS and total P loads delivered into the Little Wood River decreased substantially and the water quality of the Little Wood River has improved.

A flume was constructed on the Little Wood River to reuse water from the Jim Byrns Slough in the Dietrich Canal and leave cleaner river water in place to flow downstream. TSS concentrations have decreased at the two river monitoring sites below the flume. TSS concentrations have decreased at all five of the drains targeted by practices through the SAWQP. The combined TSS load delivered to the Little Wood River from the five drains has decreased by 90% between 1994 and 2004.

Total P concentrations, while lower than before the project, are typically above 0.10 mg/L in the agricultural drains. Two drains have extremely high levels (D2 and D3) and an effort to determine the source of the high concentrations in those drains should be made in the near future. Fortunately, however, the combined phosphorous load delivered to the Little Wood River from the five drains (sites D2-D6) has decreased by 68% between 1994 and 2004.

Bacteria levels were lower in 2000 than in 1994, but in 2004 were at levels similar to 1988-1994. For the most part, bacteria levels remained somewhat elevated, and at times are well above state standards. Concentrations are particularly high at sites D1, D2, D3, and D5. The source(s) of the bacterial contamination is/are unknown. Additional monitoring at sites on the drains upstream of current monitoring sites should be done to isolate possible sources of bacteria.

Overall, water quality problems exist primarily in the Jim Byrns Slough (TSS, total P, *E. Coli*), at site D2 (total P, *E. Coli*), site D3 (total P, *E. Coli*). Further investigation should be done to determine the source(s) of phosphorous and bacteria at sites D2 and D3 and BMPs should be implemented on the Jim Byrns Slough to reduce TSS concentrations.

Acknowledgements

A big thanks goes out to the Wood River SWCD for their help with getting familiar with the Richfield area and providing suggestions. The technical support of Kirk Campbell and Gary Bahr of ISDA and the comments and suggestions provided by Amy Jenkins and Ken Clark of IASCD were invaluable.

References

1. USEPA. U.S. Environmental Protection Agency. 1987. Quality Criteria for Water. EPA Publication 440/5-86-001. U.S. Gov. Printing Office, Washington D.C.

2. Claire, J., 2004. Little Wood River Subbasin Assessment and Total Maximum Daily Load. Idaho Department of Environmental Quality.

3. WRSWCD. Wood River Soil and Water Conservation District. 1993. Middle Little Wood River Watershed Final Planning Report.

4. USGS. United States Geological Survey, January 2004. http://nwis.waterdata.usgs.gov/nwis/discharge/?site_no=13150430

Appendix A

2004 Raw Data Sheets

S1 - Little Wood River

Date	Site	Flow ft3/s	DO mg/L	Temp °C	% Sat	Cond µS	TDS mg/L	pH	TSS mg/L	TVSS mg/L	Total P mg/L	Ortho P mg/L	E. Coli CFU/100mL	Time
6-May-04	S1	41.6	11.09	20.4	123.1	314	164	8.01	4	3	0.007	0.007	7	15:20
18-May-04	S1	65.1	8.16	13.6	78.5	348	173	7.74	<3	<3	0.007	<0.005	20	10:00
10-Jun-04	S1	69.0	11.20	17.7	117.6	89	155	7.94	4	<3	0.005	0.005	10	15:20
24-Jun-04	S1	51.0	9.11	20.2	100.6	311	157	7.64	<3	<3	0.006	0.006	40	10:00

S2 - Little Wood River

Date	Site	Flow ft3/s	DO mg/L	Temp °C	% Sat	Cond µS	TDS mg/L	pH	TSS mg/L	TVSS mg/L	Total P mg/L	Ortho P mg/L	E. Coli CFU/100mL	Time
6-May-04	S2	57.2	10.30	16.0	104.5	270	145	7.81	25	5	0.094	0.042	180	14:00
18-May-04	S2	85.1	8.84	13.4	84.7	277	140	7.82	5	4	0.060	0.040	770	12:30
10-Jun-04	S2	28.0	14.77	16.0	149.7	284	147	8.32	<3	<3	0.031	0.024	26	14:15
24-Jun-04	S2	20.0	8.41	21.3	94.9	298	151	7.65	<3	<3	0.027	0.023	39	11:15

S3 - Little Wood River

Date	Site	Flow ft3/s	DO mg/L	Temp °C	% Sat	Cond µS	TDS mg/L	pH	TSS mg/L	TVSS mg/L	Total P mg/L	Ortho P mg/L	E. Coli CFU/100mL	Time
6-May-04	S3	47.8	9.68	15.3	96.7			7.68	5	4	0.045	0.026	140	10:40
18-May-04	S3	81.5	10.15	15.9	102.7	273	140	8.03	<3	<3	0.049	0.036	24	15:30
10-Jun-04	S3	49.8	10.86	15.8	109.6	281	147	8.16	<3	<3	0.016	0.011	32	13:40
24-Jun-04	S3	25.7	13.65	23.3	160.1	280	145	8.18	<3	<3	0.044	0.038	47	14:00

D1 – Jim Byrns Slough

Date	Site	Flow	DO	Temp	% Sat	Cond	TDS	pH	TSS	TVSS	Total P	Ortho P	E. Coli	Time
		ft3/s	mg/L	°C		µS	mg/L		mg/L	mg/L	mg/L	mg/L	CFU/100mL	
6-May-04	D1	194.0	8.99	16.1	91.3	240	126	7.68	112	9	0.209	0.065	440	14:45
18-May-04	D1	203.0	8.81	12.8	83.2	257	128	7.95	26	3	0.115	0.051	2000	11:50
10-Jun-04	D1	156.0	9.09	15.4	91.0	199	132	7.67	30	8	0.125	0.061	370	15:00
24-Jun-04	D1	187.0	8.61	18.3	91.7	276	141	7.72	15	8	0.113	0.065	160	10:45

D2

Date	Site	Flow	DO	Temp	% Sat	Cond	TDS	pH	TSS	TVSS	Total P	Ortho P	E. Coli	Time
		ft3/s	mg/L	°C		µS	mg/L		mg/L	mg/L	mg/L	mg/L	CFU/100mL	
6-May-04	D2	1.2	7.95	17.6	83.3	260	132	7.25	<3	<3	0.490	0.411	110	13:30
18-May-04	D2	4.8	8.53	12.5	80.0	276	140	7.35	7	<3	0.355	0.347	550	13:00
10-Jun-04	D2	2.4	8.20	11.4	79.7	282	145	7.39	4	<3	0.334	0.274	1600	10:00
24-Jun-04	D2	1.9	7.61	19.6	83.1	318	164	7.04	<3	<3	0.343	0.310	770	11:40

D3

Date	Site	Flow	DO	Temp	% Sat	Cond	TDS	pH	TSS	TVSS	Total P	Ortho P	E. Coli	Time
		ft3/s	mg/L	°C		µS	mg/L		mg/L	mg/L	mg/L	mg/L	CFU/100mL	
6-May-04	D3	0.2	7.49	17.1	77.6	283	148	7.22	<3	<3	1.000	0.788	>2400	13:00
18-May-04	D3	0.3	7.84	12.6	73.7	268	139	7.21	68	10	0.373	0.173	920	13:25
10-Jun-04	D3	0.2	7.81	11.5	71.6	277	142	7.35	<3	<3	0.183	0.147	290	10:30
24-Jun-04	D3	0.4	6.95	18.8	74.6	313	164	6.87	3	<3	0.474	0.430	1600	12:10

D4

Date	Site	Flow	DO	Temp	% Sat	Cond	TDS	pH	TSS	TVSS	Total P	Ortho P	E. Coli	Time
		ft3/s	mg/L	°C		µS	mg/L		mg/L	mg/L	mg/L	mg/L	CFU/100mL	
6-May-04	D4	0.2	7.37	20.6	82.1	248	126	7.70	<3	<3	0.138	0.101	520	12:40
18-May-04	D4	0.6	7.91	17.2	82.2	263	134	7.43	4	4	0.206	0.159	46	13:55
10-Jun-04	D4	0.2	8.28	13.5	79.4	279	143	7.52	<3	<3	0.133	0.104	51	11:00
24-Jun-04	D4	1.4	7.70	21.5	87.1	285	147	7.46	12	4	0.121	0.078	610	12:30

D5

Date	Site	Flow	DO	Temp	% Sat	Cond	TDS	pH	TSS	TVSS	Total P	Ortho P	E. Coli	Time
		ft3/s	mg/L	°C		µS	mg/L		mg/L	mg/L	mg/L	mg/L	CFU/100mL	
6-May-04	D5	3.1	9.28	16.1	94.3	242	129	7.44	6	<3	0.170	0.123	150	11:50
18-May-04	D5	3.5	9.48	15.6	95.2	245	125	7.97	6	<3	0.068	0.038	12	14:40
10-Jun-04	D5	3.7	9.07	14.0	88.0	276	145	7.58	26	6	0.123	0.067	150	11:20
24-Jun-04	D5	1.3	8.97	22.9	104.3	273	145	7.83	79	10	0.229	0.081	2400	12:45

D6

Date	Site	Flow	DO	Temp	% Sat	Cond	TDS	pH	TSS	TVSS	Total P	Ortho P	E. Coli	Time
		ft3/s	mg/L	°C		µS	mg/L		mg/L	mg/L	mg/L	mg/L	CFU/100mL	
6-May-04	D6	1.9	8.99	14.9	89.0	293	147	7.62	12	4	0.113	0.058	920	11:15
18-May-04	D6	1.5	8.99	15.5	90.2	242	124	7.97	<3	<3	0.075	0.042	60	15:10
10-Jun-04	D6	0.8	9.01	14.7	88.8	258	133	7.76	15	4	0.137	0.094	140	11:50
24-Jun-04	D6	0.7	9.27	23.9	110.0	260	139	7.87	<3	<3	0.092	0.073	55	13:10

D7 – Cottonwood Slough

Date	Site	Flow	DO	Temp	% Sat	Cond	TDS	pH	TSS	TVSS	Total P	Ortho P	E. Coli	Time
		ft3/s	mg/L	°C		µS	mg/L		mg/L	mg/L	mg/L	mg/L	CFU/100mL	
6-May-04	D7	9.0	9.59	13.1	91.2	250	132	7.22	9	4	0.138	0.090	920	10:00
18-May-04	D7	16.0	9.98	15.0	99.0	269	132	7.81	7	<3	0.177	0.124	280	16:15
10-Jun-04	D7	20.0	8.91	14.5	87.5	286	142	7.70	8	<3	0.191	0.148	440	13:00
24-Jun-04	D7	9.0	8.19	21.6	92.9	316	153	7.32	8	<3	0.149	0.127	250	15:00