The Seventh Progress Report

Total Phosphorus Load Calculations for Sites Stipulated in the SFWMD/Seminole Tribe Agreement

For the Period of
May 1, 2000 to April 30, 2001

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Introduction

The Agreement between the South Florida Water Management District (the District) and the Seminole Tribe of Florida (the Seminole Tribe), executed on January 17, 1996, required periodic monitoring of the quality of surface water entering, originating on and leaving the Big Cypress Seminole Indian Reservation (the Reservation). The objective of the monitoring was to ensure compliance with applicable water quality standards imposed by law and that the overall surface water quality within the Reservation was not adversely impacted.

Pursuant to the Agreement, the District, with the cooperation of the Seminole Tribe, initiated a water quality monitoring program in June 1996. To help the SFWMD/Seminole Agreement Working Group track the results and progress of this monitoring effort, the District has been preparing semiannual reports that summarize and analyze the water quality and flow data collected since the implementation of the program.

The following six agreement compliance sites are monitored by the District: North Feeder Canal (**NFEED**), West Feeder Canal (**WWEIR**), S190 Spillway (**S190**), L3 Canal Sampling Station (**L3BRS/USL3BRS**), U.S. Sugar Outfall (**USSO**) from the C-139 Annex, and the S140 Pump Station Complex (**S140**). Two sites monitored by the Seminole Tribe are the L28 Interceptor Canal North (**L28IN**) and L28 Canal Upstream (**L28U**). The Seminole Tribe began their water quality and nutrient data collection at these sites on August 21, 1997. The United States Geological Survey (USGS) began collecting flow data at the L28IN and L28U sites on March 1, 1997.

Although not yet one of the Agreement compliance monitoring locations, the District initiated a water quality monitoring program on June 1, 2000 at the G409 Pump Station (**G409**). The District began collection of flow data on January 12, 2001 at this site. The District receives flow and TP concentration data from the McDaniel Ranch for two landowner monitored water control structures, the G108 culvert (**G108**) and Culvert 17A (**PC17A**), discharging to the North Feeder Canal. In addition to landowner provided flow data, the District has been attempting to implement improved flow monitoring methods at these structures.

This seventh progress report includes data from May 1, 2000 through April 30, 2001 (Water Year 01). The results of TP load calculations for compliance sites are presented. Supplemental information is also provided for non-compliance sites. In addition, flows are compared between the following sites:

1) WWEIR + NFEED with S190
2) L28U with G89DS (a SFWMD UVM site) and USSO.

Water quality data collected for Water Year 2001 are summarized for each of the compliance monitoring sites. Water quality data for the G409 site are summarized separately in the appendices. As in previous years, dissolved oxygen concentrations less than the 5.0 mg/L criterion were observed periodically at all sites for Water Year 2001. This condition is typical of South Florida canals. The minimum pH criterion of 6.0 pH

units was exceeded at L28U, while the maximum pH criterion of 8.5 pH units was exceeded at L28IN. Most trace metal measurements were below the method detection limit (MDL), and no excursions from Class III criterion were observed.

Methods

Water quality sampling and flow measurement sites established for the Agreement are indicated in **Figure 1**. The NFEED, WWEIR, USSO, L3BRS/USL3BRS, S190, and S140 sites are maintained and sampled by the District. During Water Year 2001, the District began water quality sample collection and measuring structure flows at the G409 site. The G409 structure is located downstream of the L3BRS/USL3BRS site and is designed to deliver up to 190 cubic feet per second (cfs) of water to the Big Cypress Seminole Indian Reservation from the L3 Canal.

The NFEED, USSO, and L3BRS/USL3BRS sites are equipped with ultrasonic velocity meters (UVMs) to measure flow. The WWEIR site uses a weir equation to calculate flow. Flow through S190, S140, and G409 is calculated using structure-specific equations. Since the G409 structure is relatively new, the flow calculations for Water Year 2001 were still undergoing development and review, and were not available for this report. The sites at L28IN and L28U are equipped with UVMs installed and maintained by the USGS, and the flow is reported by the USGS to the District.

As indicated in previous reports, measuring reliable flows at the North Feeder Canal (NFEED) site due to the unique circulation pattern has posed an ongoing problem. The District has investigated several options to determine if inflows at structures G108 and Culvert 17A (both upstream of NFEED) can be used to supplement flow measured at the NFEED site. From these options, the District has chosen to implement a structure specific flow equation for each structure. Programming and testing of the new equations has been completed. However, several years of historic and current flow data from the new procedure for each structure will need to be computed and compared to the NFEED site. The NFEED UVM site will remain operational until the flow data based on the new equations for G108 and Culvert 17A are considered to be reliable.

The WWEIR, NFEED, USSO, and L3BRS/USL3BRS sites are equipped with automatic samplers to collect flow-proportional water quality samples. Automatic samplers were installed at the S190 and S140 structures in July 2000 and are currently collecting time-proportional samples. An automatic sampler, also time-proportional, was added to the G409 site in June 2000. The S190, S140, and G409 sites are scheduled for instrumentation upgrades during Water Year 2002 that will allow triggering of flow-proportional samples. The Seminole Tribe maintains and operates automatic samplers at the L28IN and L28U sites to collect flow-proportional samples, and reports the data to the District. Automatic samplers owned and operated by the McDaniel Ranch are located at the G108 and Culvert 17A structures and time-proportional samples are collected when the gates are opened.

In addition to the automatic samplers, grab samples are also collected at all sites to supplement the automatic sampler data. Prior to July 2000, the S190 and S140 water quality data were collected using grab sampling procedures only.

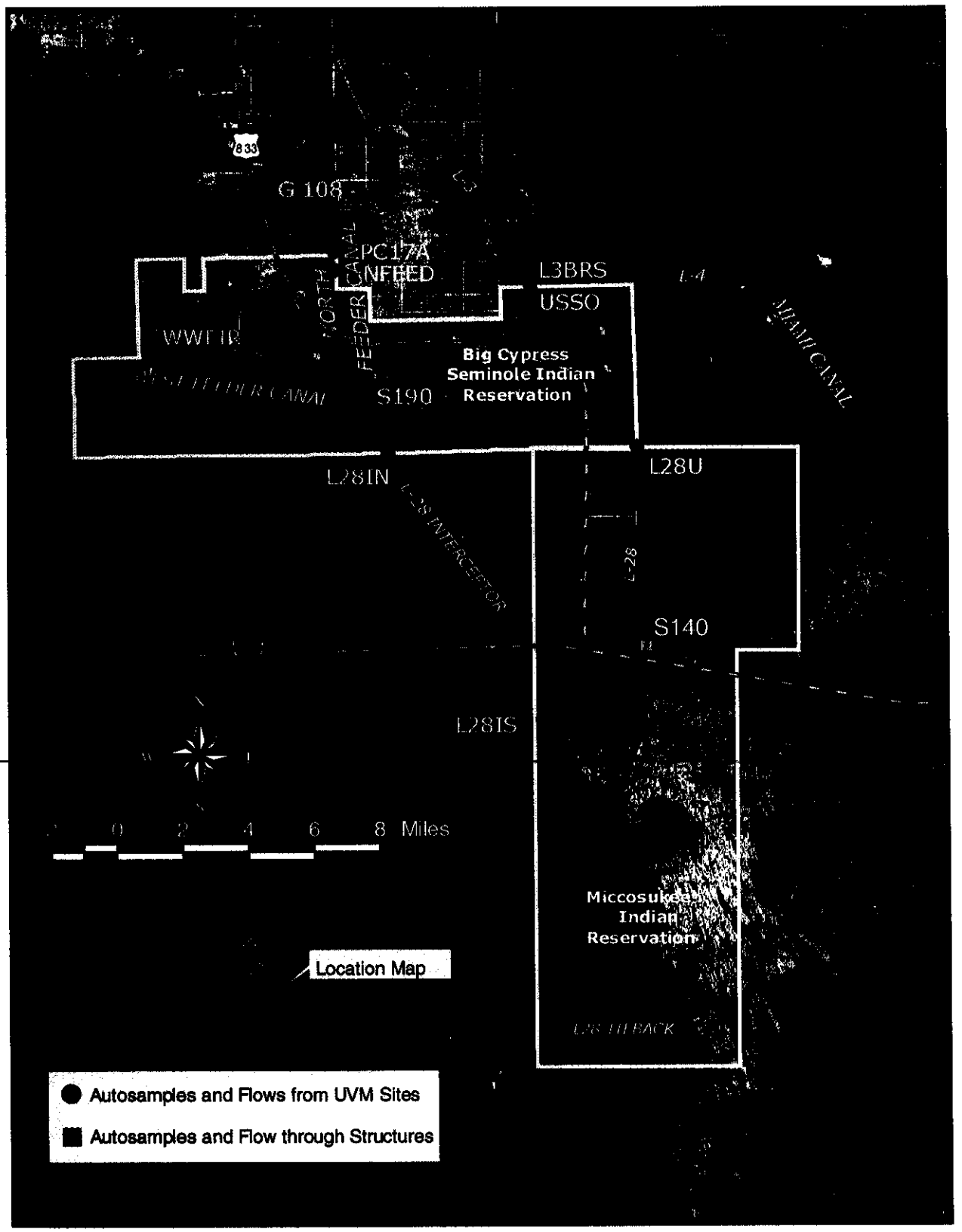

Figure 1. SFWMD/Seminole Agreement Water Quality and Flow Sampling Sites.

Results of Phosphorus Load Calculations

Water Year 2001 presented extremely dry conditions throughout the region. Additionally, calendar year 2000 tied for the second driest (with 1961) since 1938. The water year started with May 2000 experiencing only 26 percent of the normal monthly historical average. A relatively late start to the wet season, beginning in June and lasting through October, yielded 29.94 inches of rain, or 91 percent of the historic average. A direct hit early in the month of October 2000 due to a poorly organized subtropical disturbance resulted in the heaviest rainfall during the wet season, which also resulted in the highest monthly flow for the entire water year. Two District rainfall gages (S190 and BIG CY SIR), located in or near the Big Cypress Seminole Indian Reservation, each measured approximately 12.80 inches of rain during this event over a 72 hour period between the 2nd and 4th of October. Beginning in November 2000, the dry season produced five months of low rainfall, ranging from 4 percent to 51 percent of the historical monthly averages. Above average rainfall, 161 percent of the historic average, was experienced during March 2001. This period of dry months ended in April 2001, yielding the District's driest April since 1987 with rain that averaged only 0.57 inches, or 23 percent of the monthly historic average. The overall dry season rainfall from November through April was 7.24 inches, which was 51 percent of the historic average and the driest since 1971.

The analysis of measured flows and calculated total phosphorus loads are presented in **Tables 1** and **2**. The total phosphorus load graph for each site (**Figures 2** through **9**) summarizes:

1) daily mean flows, expressed in cubic feet per second (cfs),
2) individual TP concentrations in parts per billion (ppb) from auto and grab samples, and
3) the resulting calculated daily TP loads in kilograms (kg) from May 1, 2000 through April 30, 2001.

Note that the same scales for flows, TP concentrations and TP loads are used in all figures to make comparisons easy. Monthly flows, TP loads and TP flow-weighted mean concentrations for each of the eight agreement sites are presented in **Table 3**. The TP data collected at the eight sites and at G409 are presented in **Appendix II**. A monthly flow and TP summary is presented separately in **Appendix III** for the McDaniel Ranch sites (G108 and Culvert 17A). The flow data for G409 was not available for Water Year 2001 and therefore a similar monthly flow and TP summary could not be provided.

The sites established for this monitoring program are located in the North and West Feeder Canals, the L-28 Interceptor Canal and the L-28 Canal. For this report, a comparison between the G108 and PC17A non-compliance sites and the NFEED compliance site is provided. Sites within each canal system should have the following flow and total phosphorus load relationships based on the hydrologic connections between upstream and downstream sites:

1) The flow and TP load for NFEED should be similar to the sum of the flow and TP loads calculated for G108 and Culvert 17A since these two sites are the main inflow points to the North Feeder Canal. For this reporting period, the flow data provided by McDaniel Ranch indicates that G108 and PC17A operated only during October 2000. For October 2000, the G108 + PC17A TP load was 2968 kg compared to the NFEED load of 1478 kg. The October 2000 monthly flow for G108 + PC17A was 8521 ac-ft compared to 5435 ac-ft for NFEED. Due to the proximity of the upstream and downstream sites it is expected that closer agreement between the flow and TP loads would be evident. Possible discrepancies could be due to problems with measuring reliable canal flows at the NFEED UVM site, and difficulties measuring the flow through the G108 and PC17A culverts.

2) The sum of the flow and TP loads calculated for the West Feeder Canal, North Feeder Canal, and the drainage culverts between WWEIR and S190 should be close to the flow and load passing through the S190 structure. For this reporting period the WWEIR + NFEED TP load was 3142 kg compared to the S190 load of 7406 kg. Problems in estimating the net flow from the North Feeder Canal and the existence of the unmonitored drainage ditches upstream of S190 may be contributing to the large difference between the observed inflow, outflows, and TP loads.

3) The flow and TP loads at L28IN should be similar to the S190 flow and load because there are no inflow points along the L28 Interceptor Canal between S190 and L28IN. For this reporting period, a load of 8647 kg was calculated from samples at L28IN. The comparable load at S190 was 7406 kg.

4) The flow and TP load at USSO, L28U and S140 should increase in that order during wet periods due to discharges into the L28 Canal from drainage ditches along the southern and western banks of the canal. For this reporting period, the USSO load was 4607 kg compared to the L28U and S140 loads of 8391 and 9313 kg, respectively.

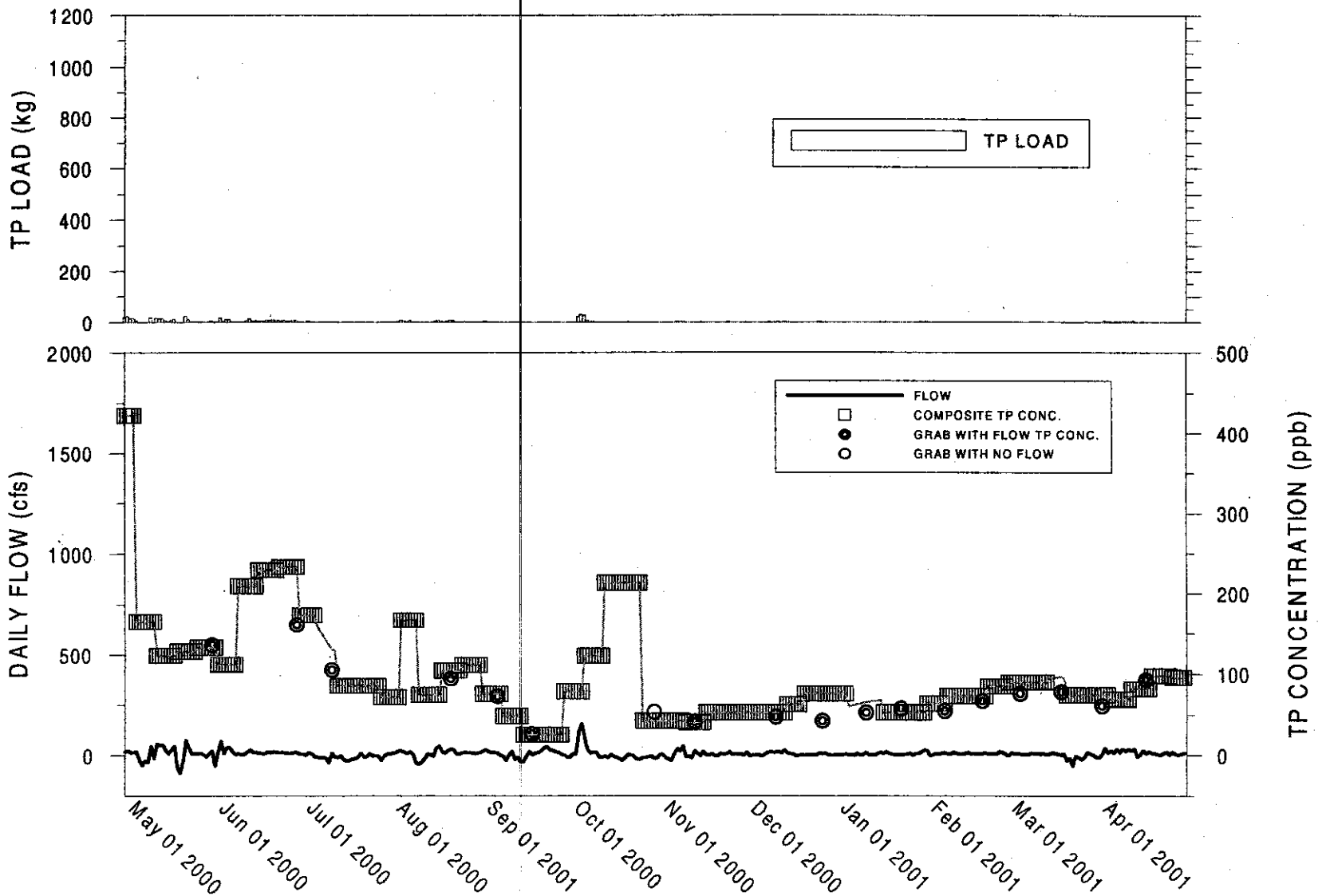

Figure 2a. Flow, total phosphorus (TP) concentration, and TP loads at L3BRS/USL3BRS.

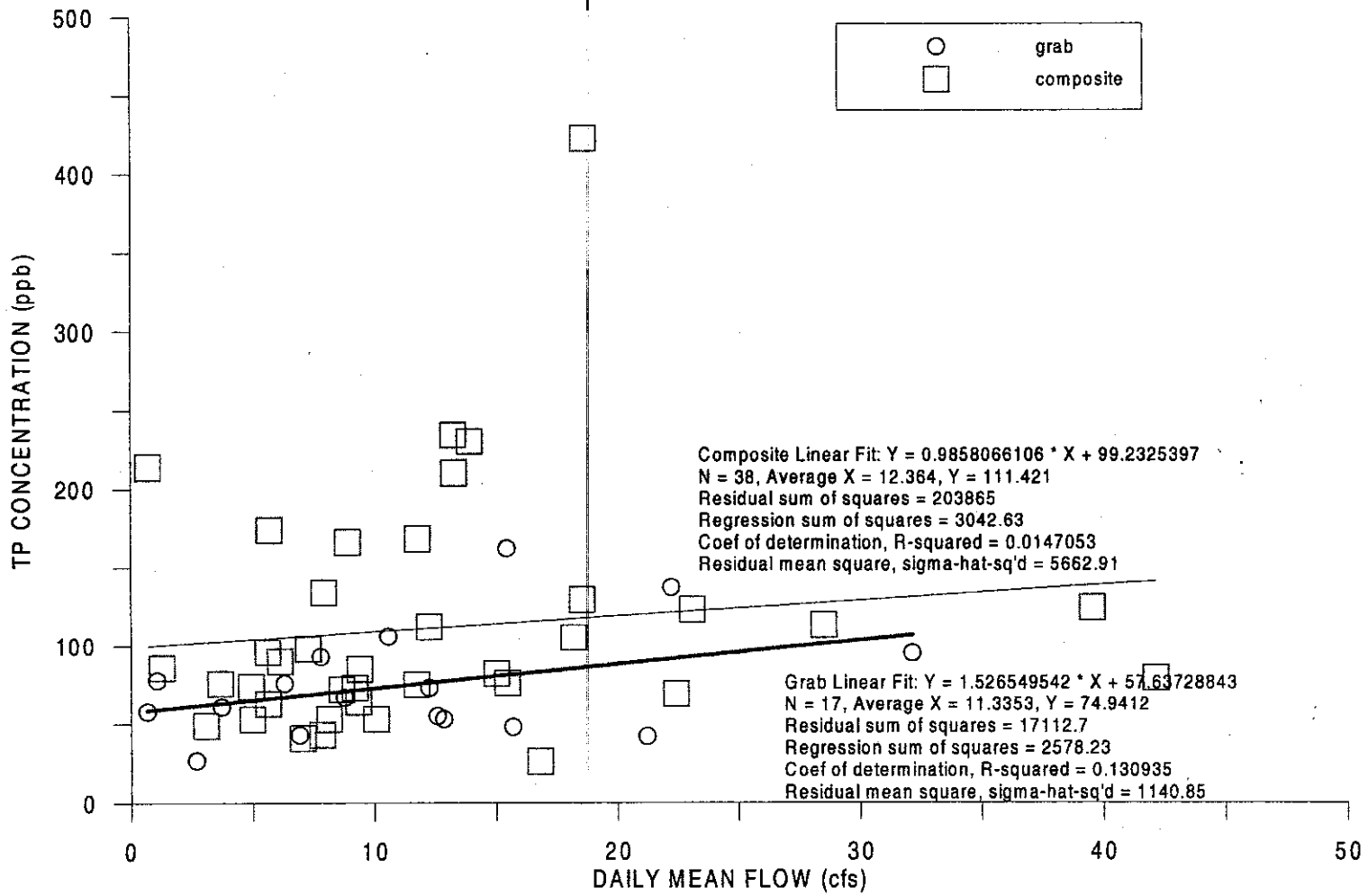

Figure 2b. Relationship between daily mean flow and total phosphorus (TP) concentration at L3BRS/USL3BRS. Flow for autosampler composite is the daily mean for the each collection period.

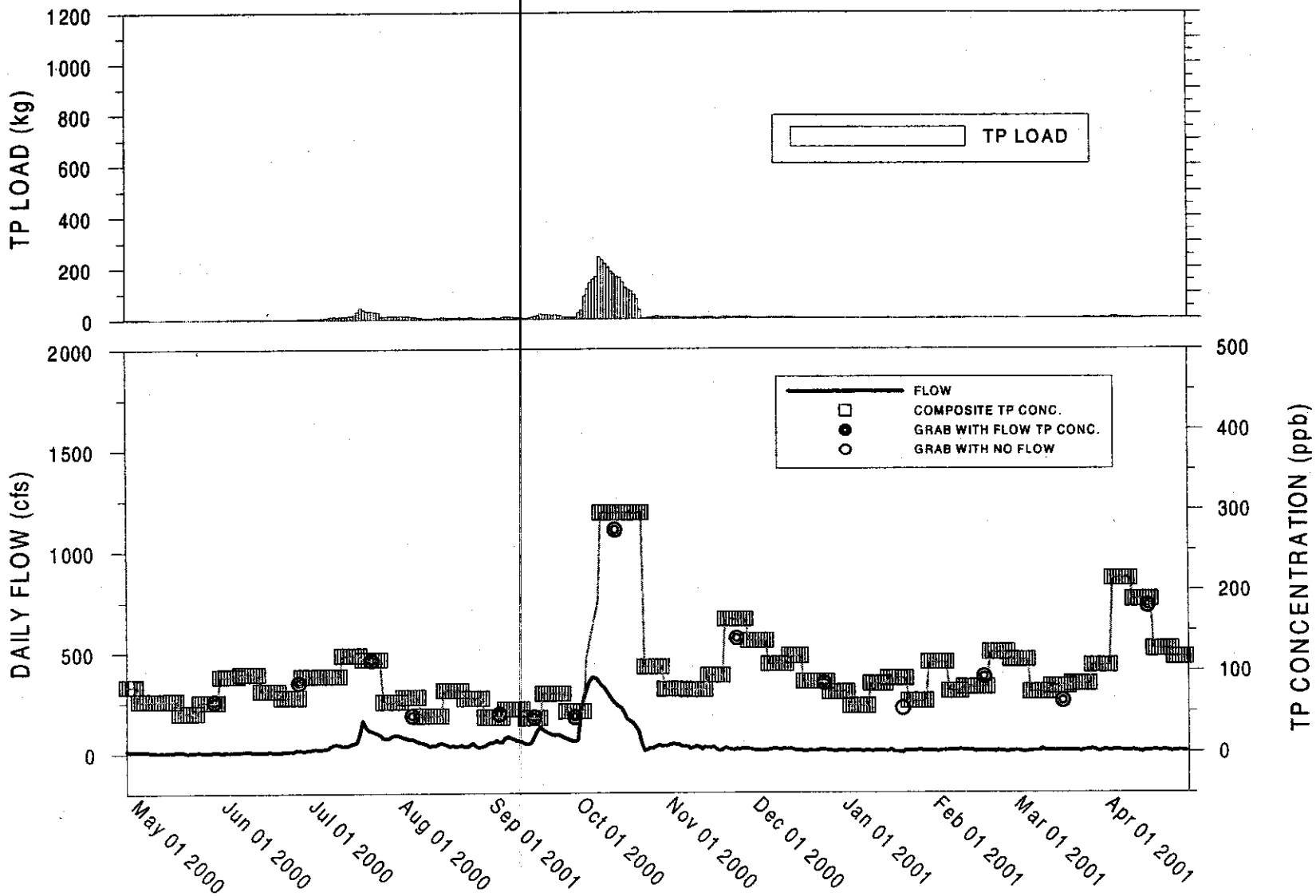

Figure 3a. Flow, total phosphorus (TP) concentration, and TP loads at USSO.

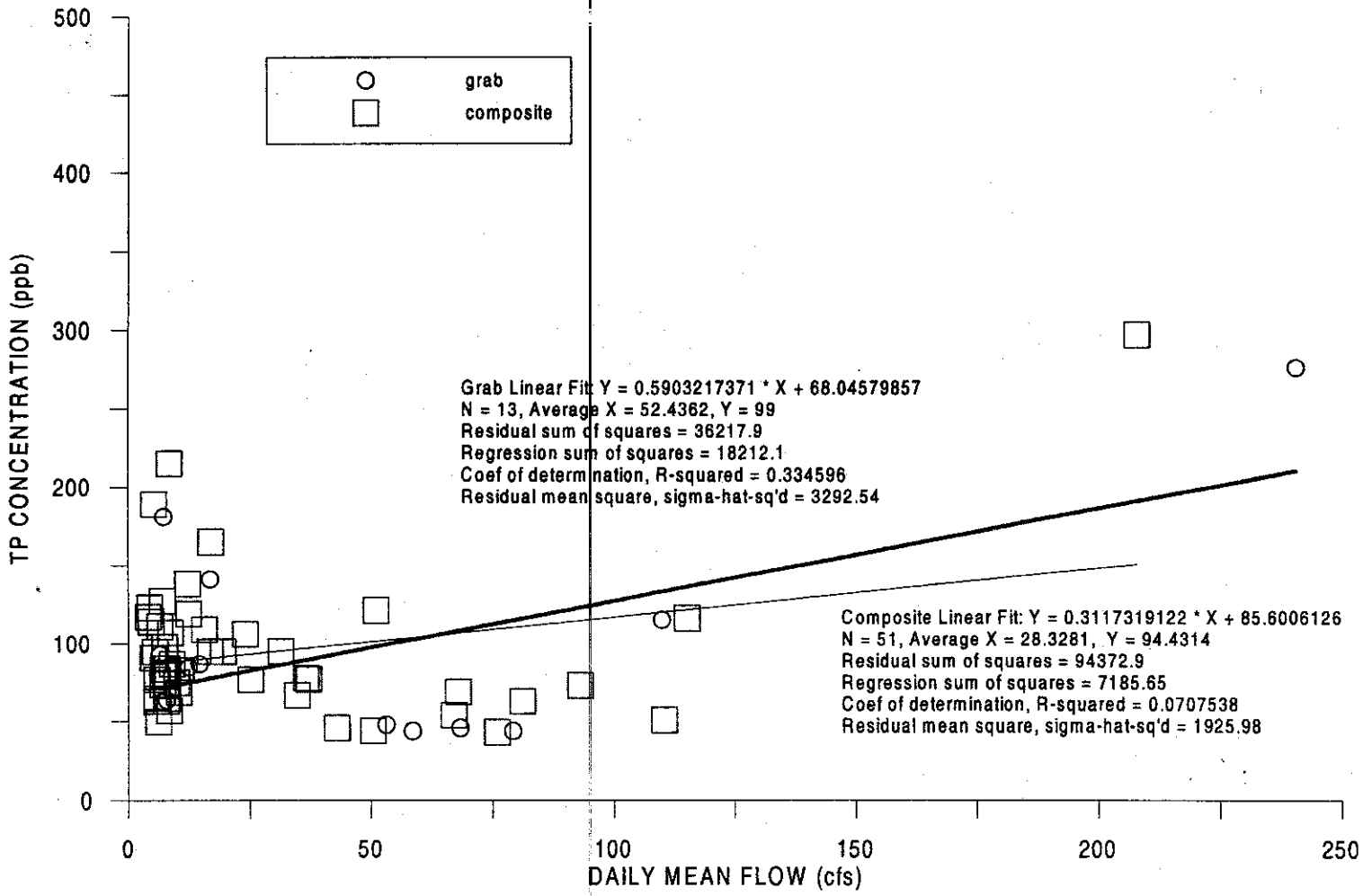

Figure 3b. Relationship between daily mean flow and total phosphorus (TP) concentration at USSO. Flow for autosampler composite is the daily mean for the each collection period.

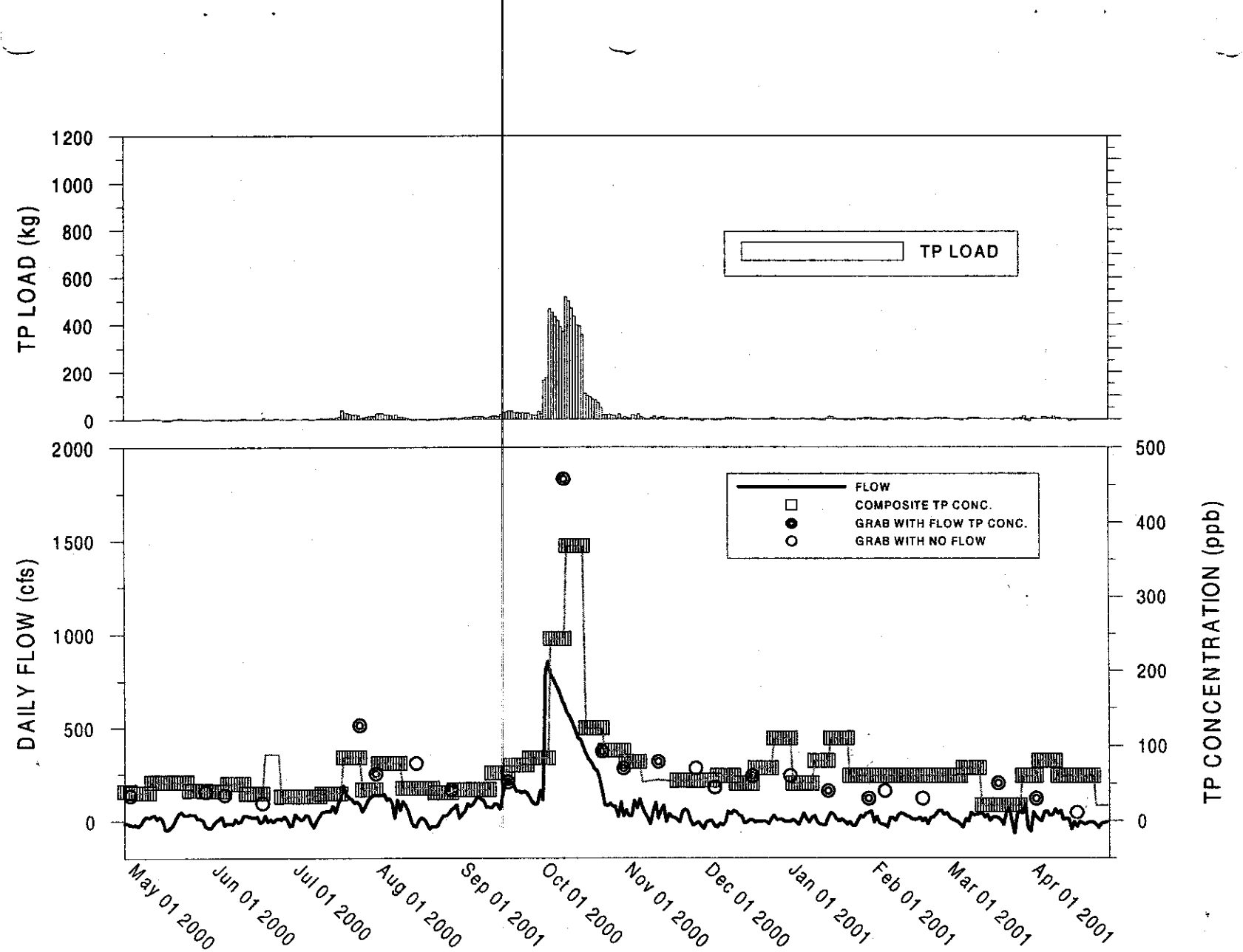

Figure 4a. Flow, total phosphorus (TP) concentration, and TP loads at L28U.

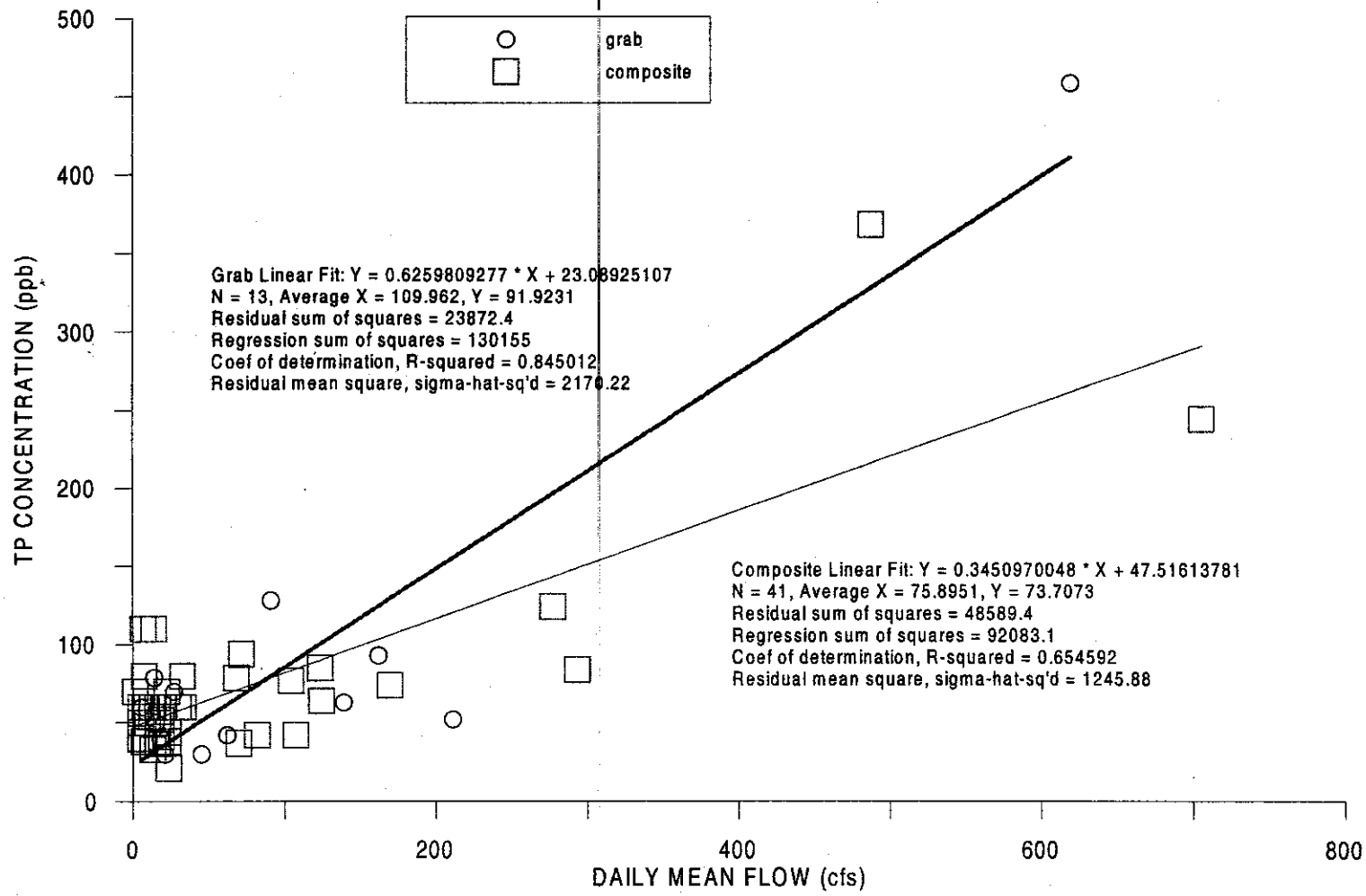

Figure 4b. Relationship between daily mean flow and total phosphorus (TP) concentration at L28U. Flow for autosampler composite is the daily mean for the each collection period.

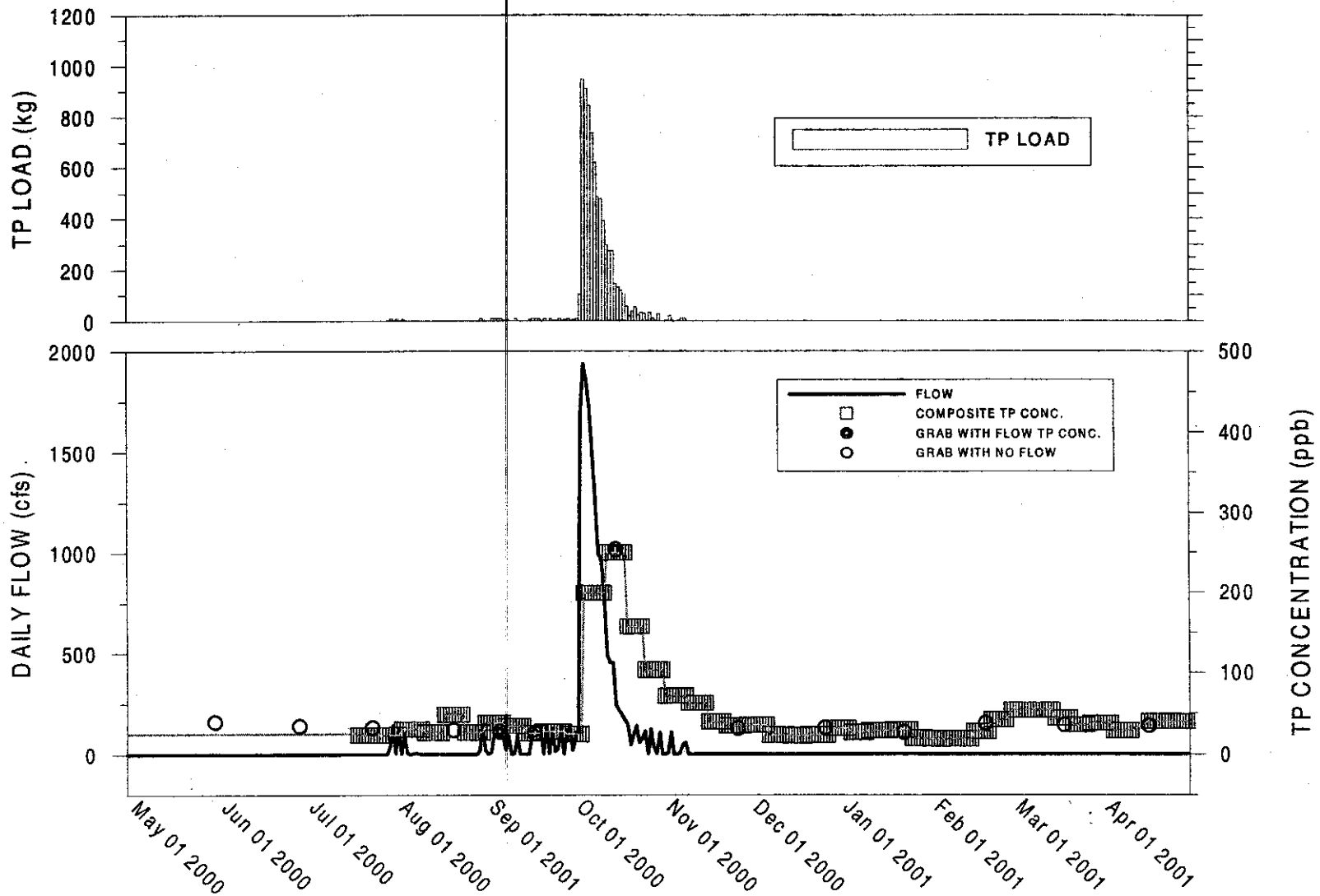

Figure 5a. Flow, total phosphorus (TP) concentration, and TP loads at S140.

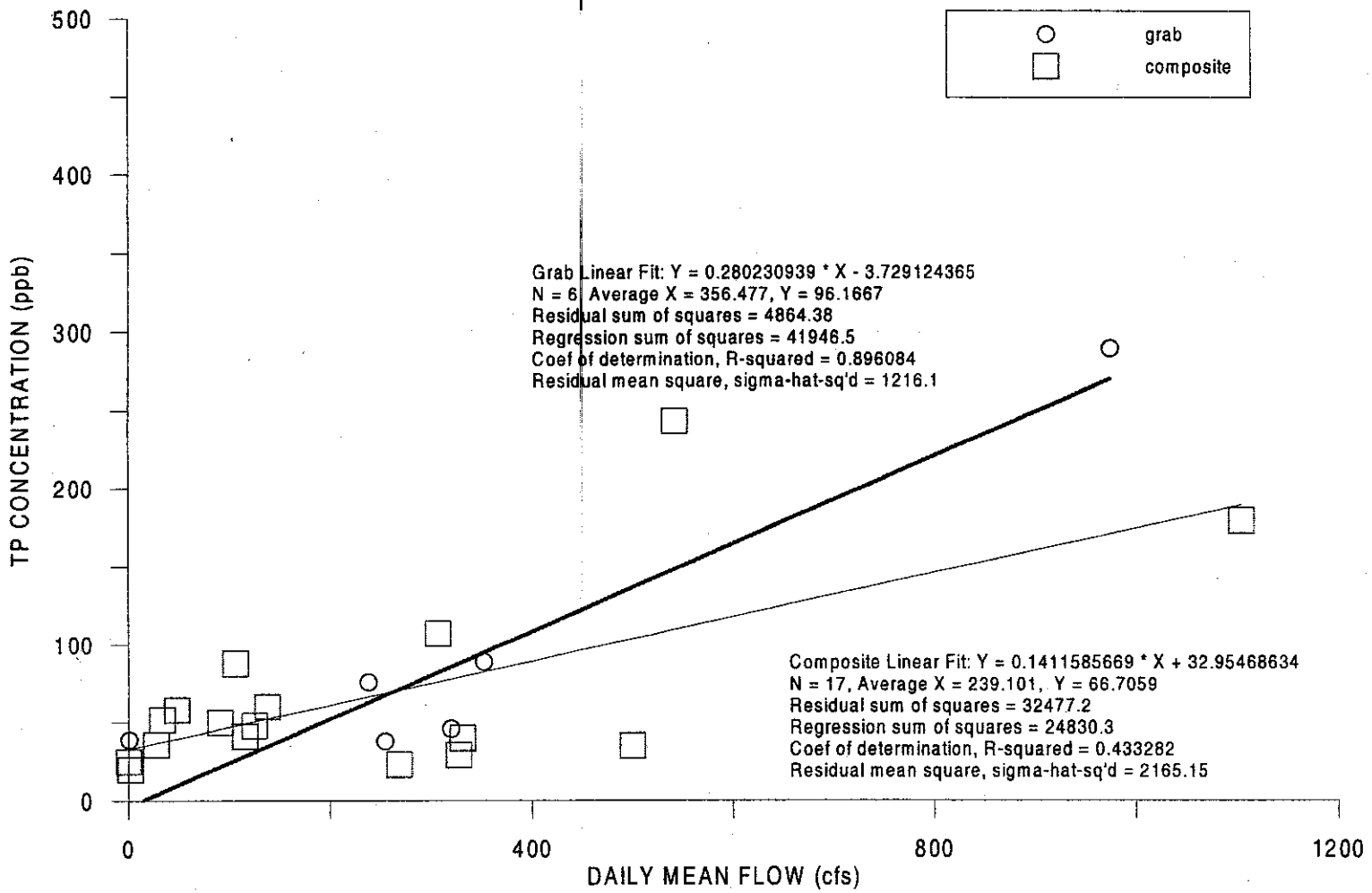

Figure 5b. Relationship between daily mean flow and total phosphorus (TP) concentration at S140. Flow for autosampler composite is the daily mean for the each collection period.

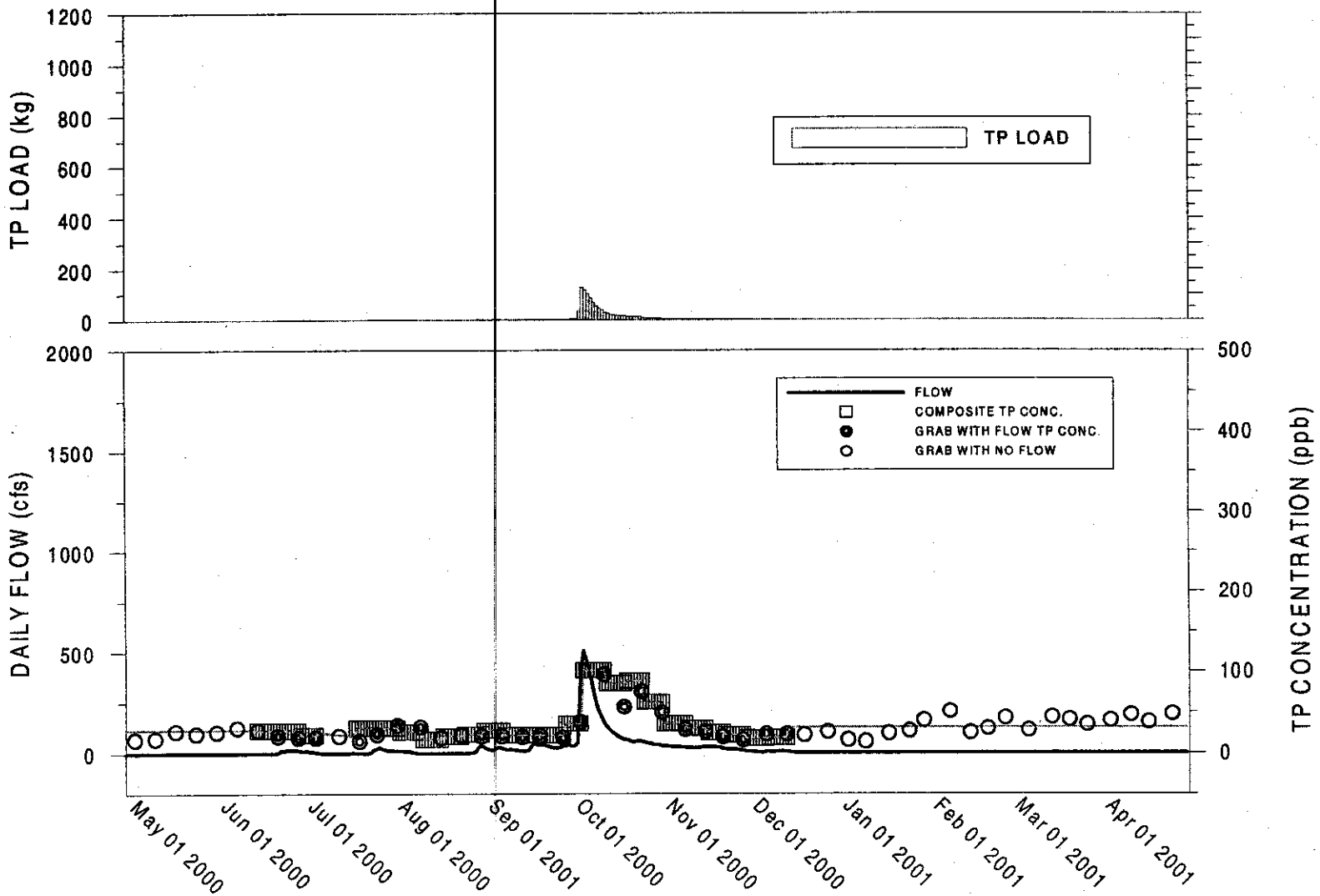

Figure 6a. Flow, total phosphorus (TP) concentration, and TP loads at WWEIR.

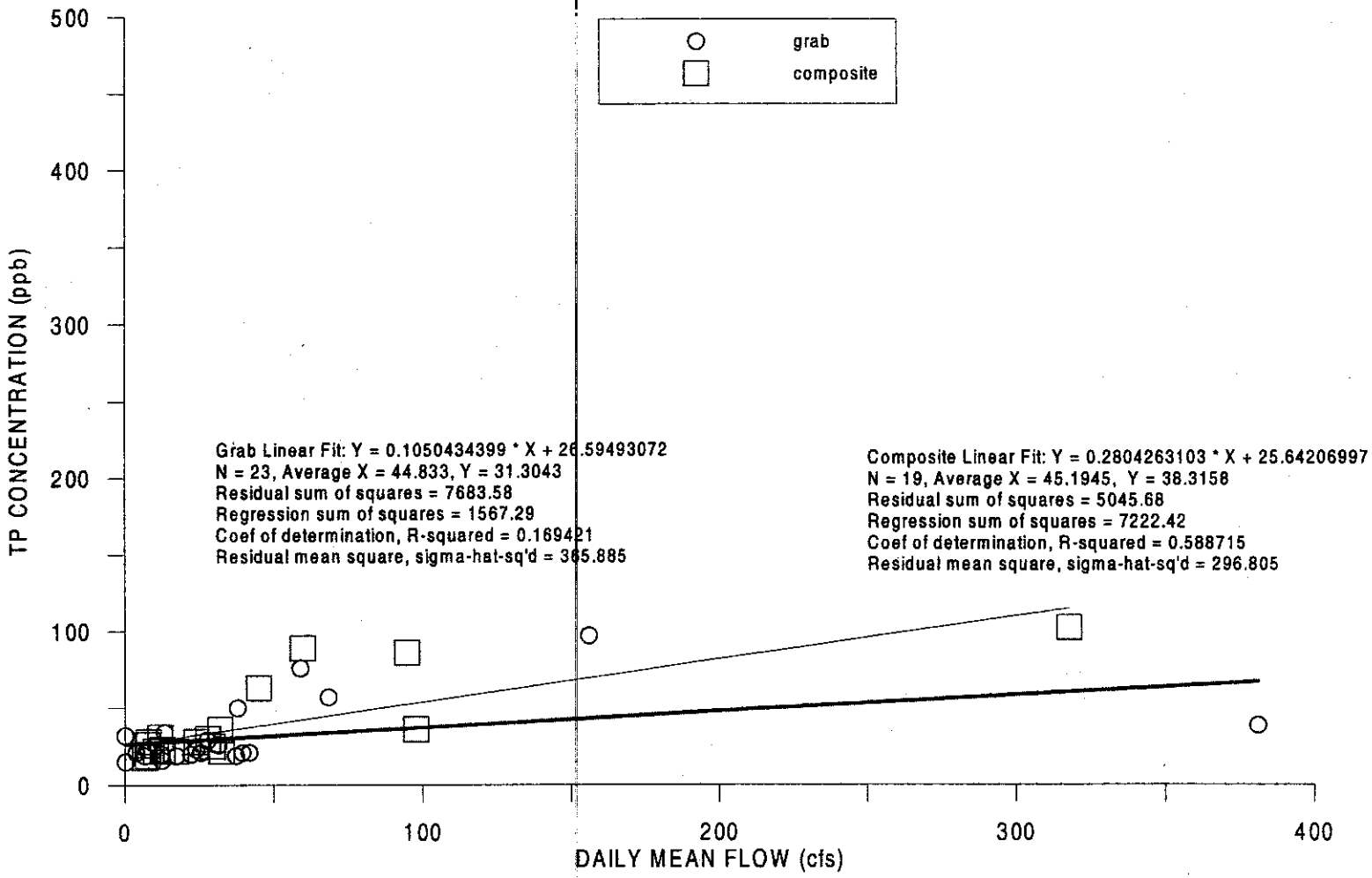

Figure 6b. Relationship between daily mean flow and total phosphorus (TP) concentration at WWEIR. Flow for autosampler composite is the daily mean for the each collection period.

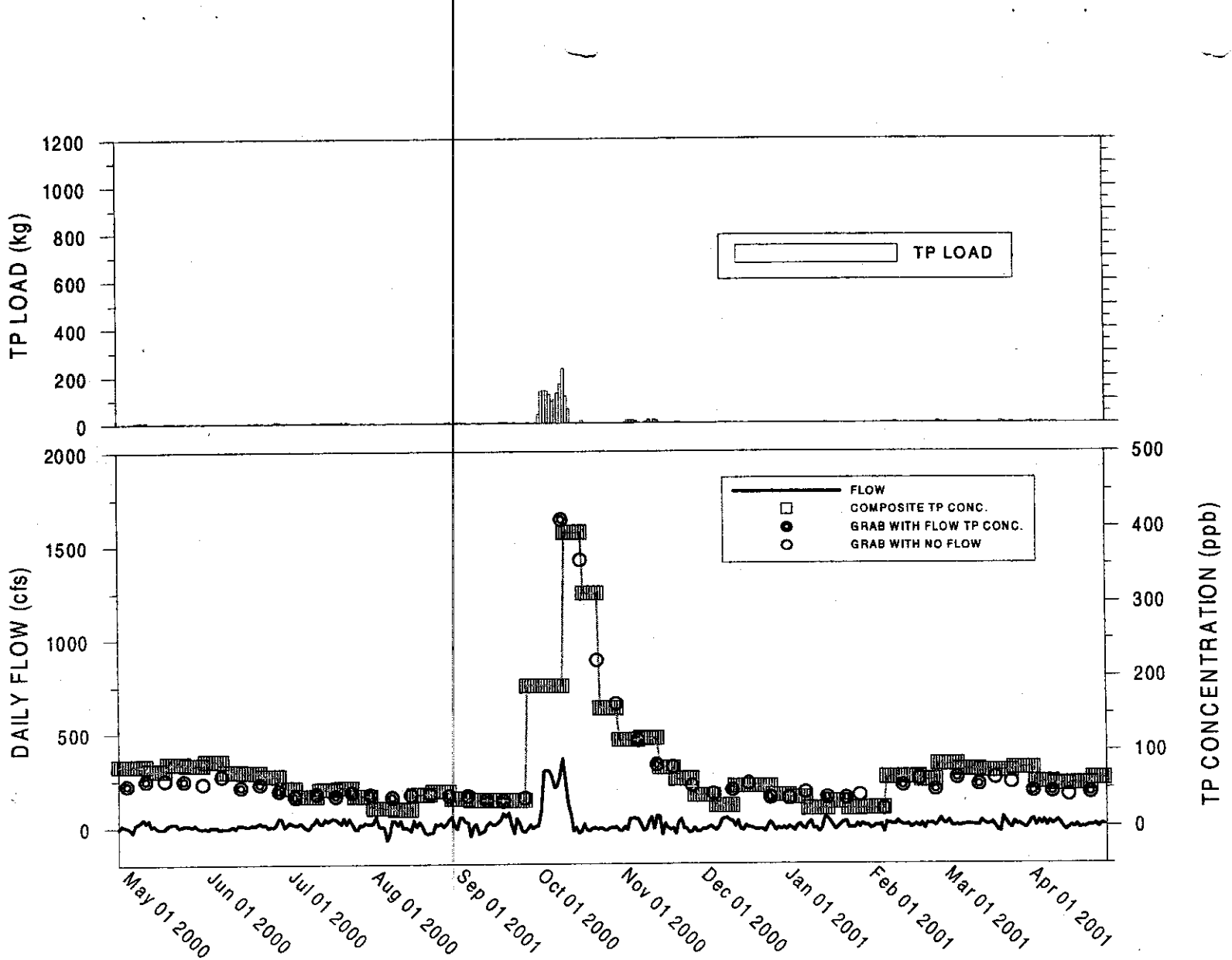

Figure 7a. Flow, total phosphorus (TP) concentration, and TP loads at NFEED.

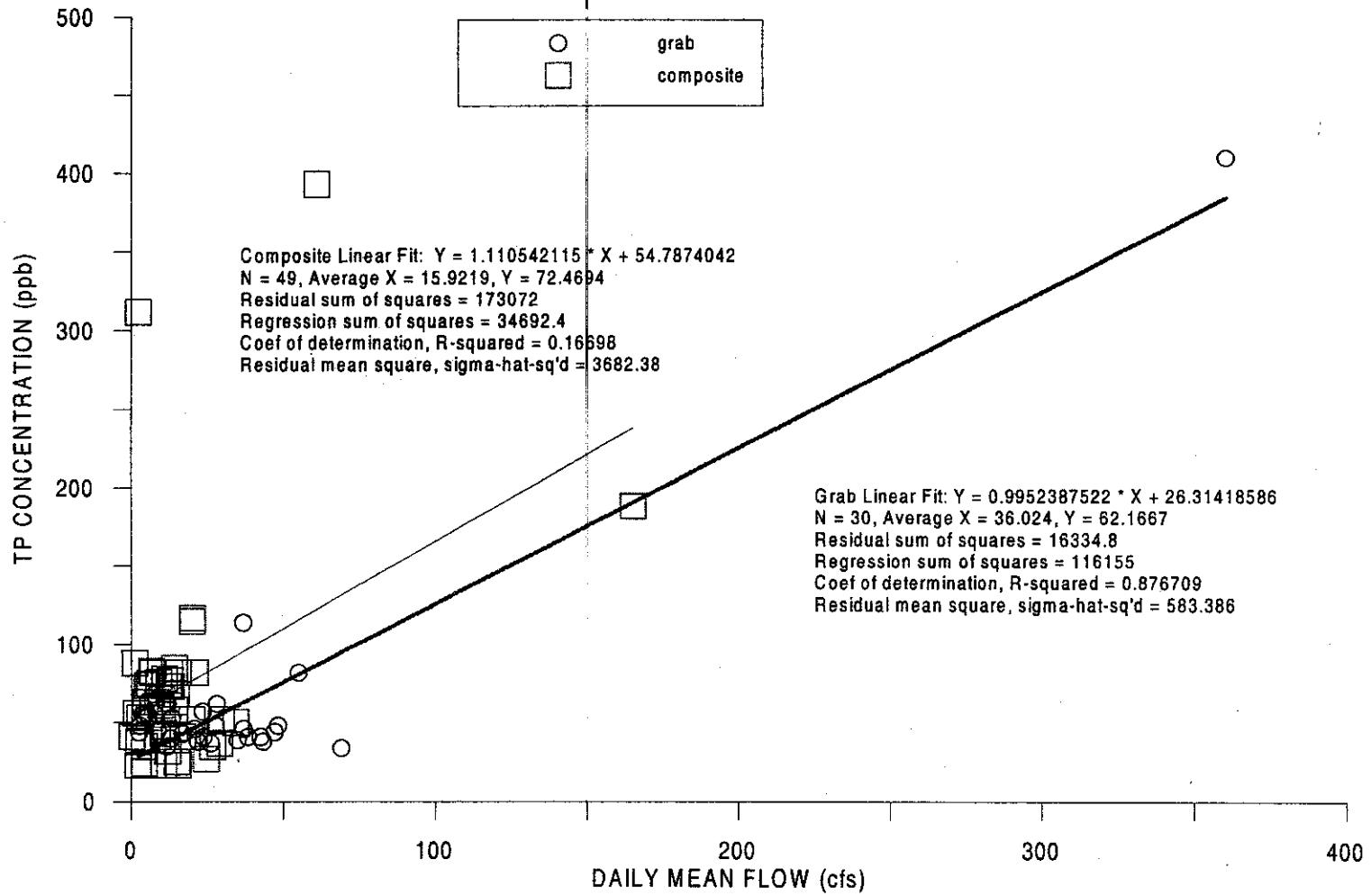

Figure 7b. Relationship between daily mean flow and total phosphorus (TP) concentration at NFEED. Flow for autosampler composite is the daily mean for the each collection period.

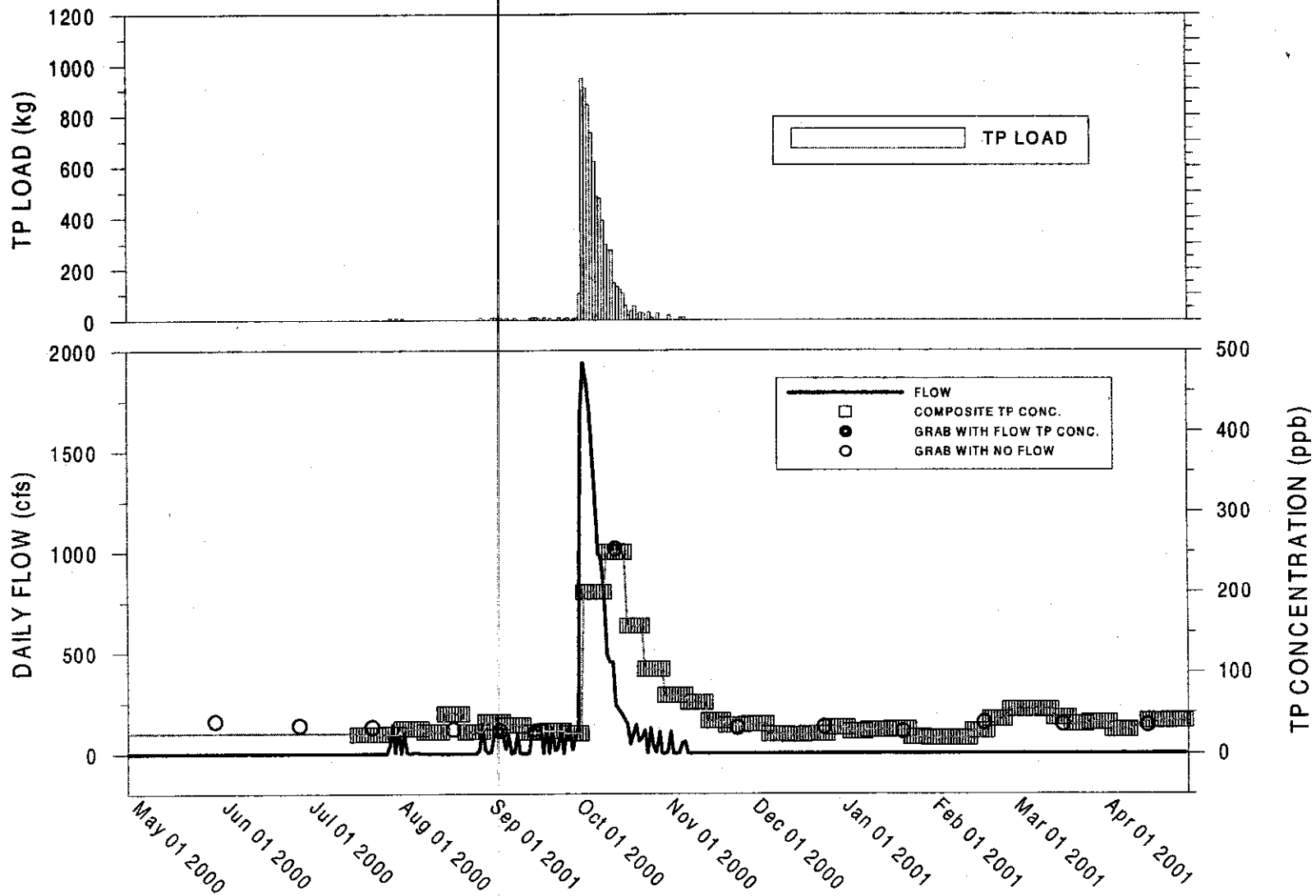

Figure 8a. Flow, total phosphorus (TP) concentration, and TP loads at S190.

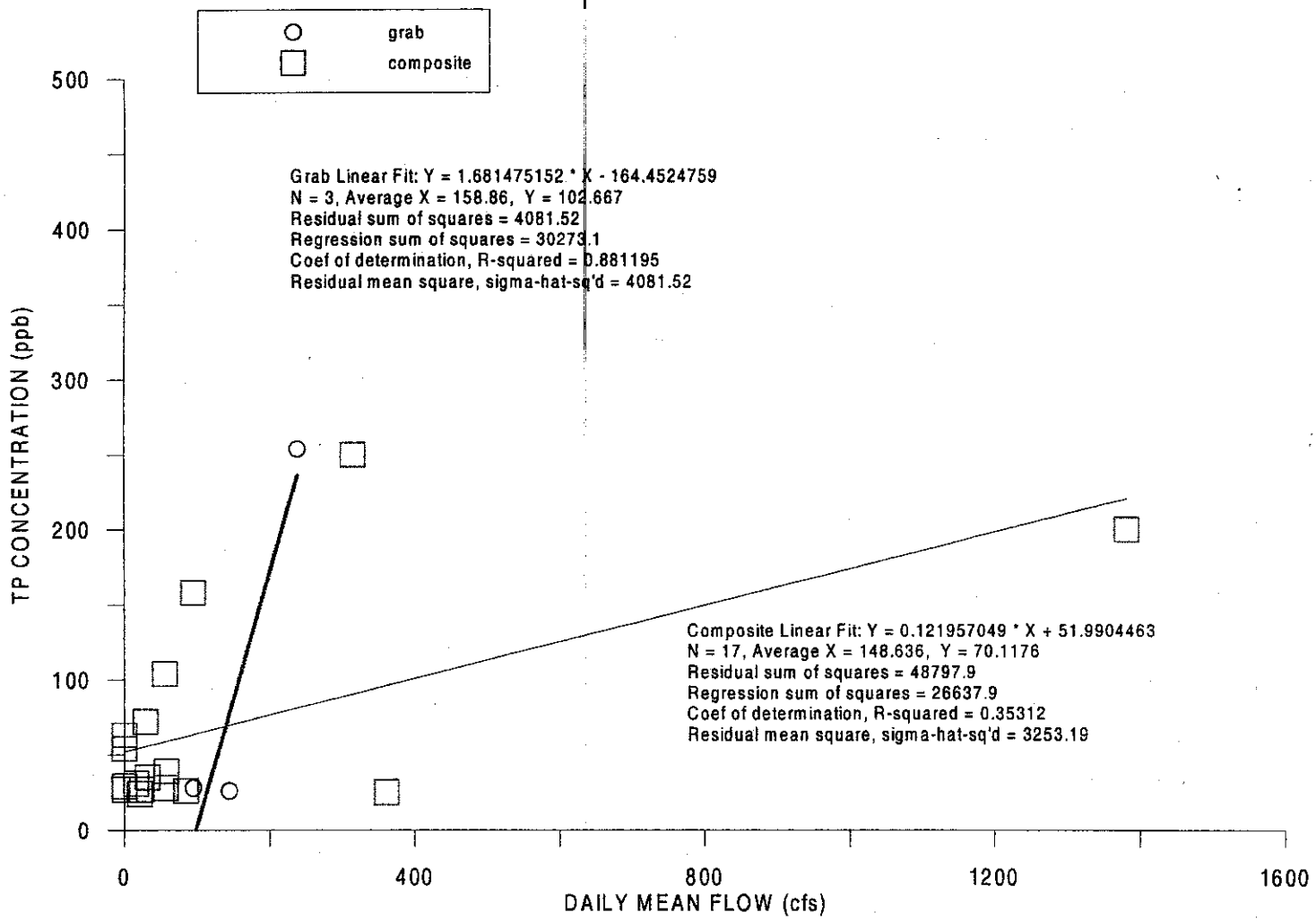

Figure 8b. Relationship between daily mean flow and total phosphorus (TP) concentration at S190. Flow for autosampler composite is the daily mean for the each collection period.

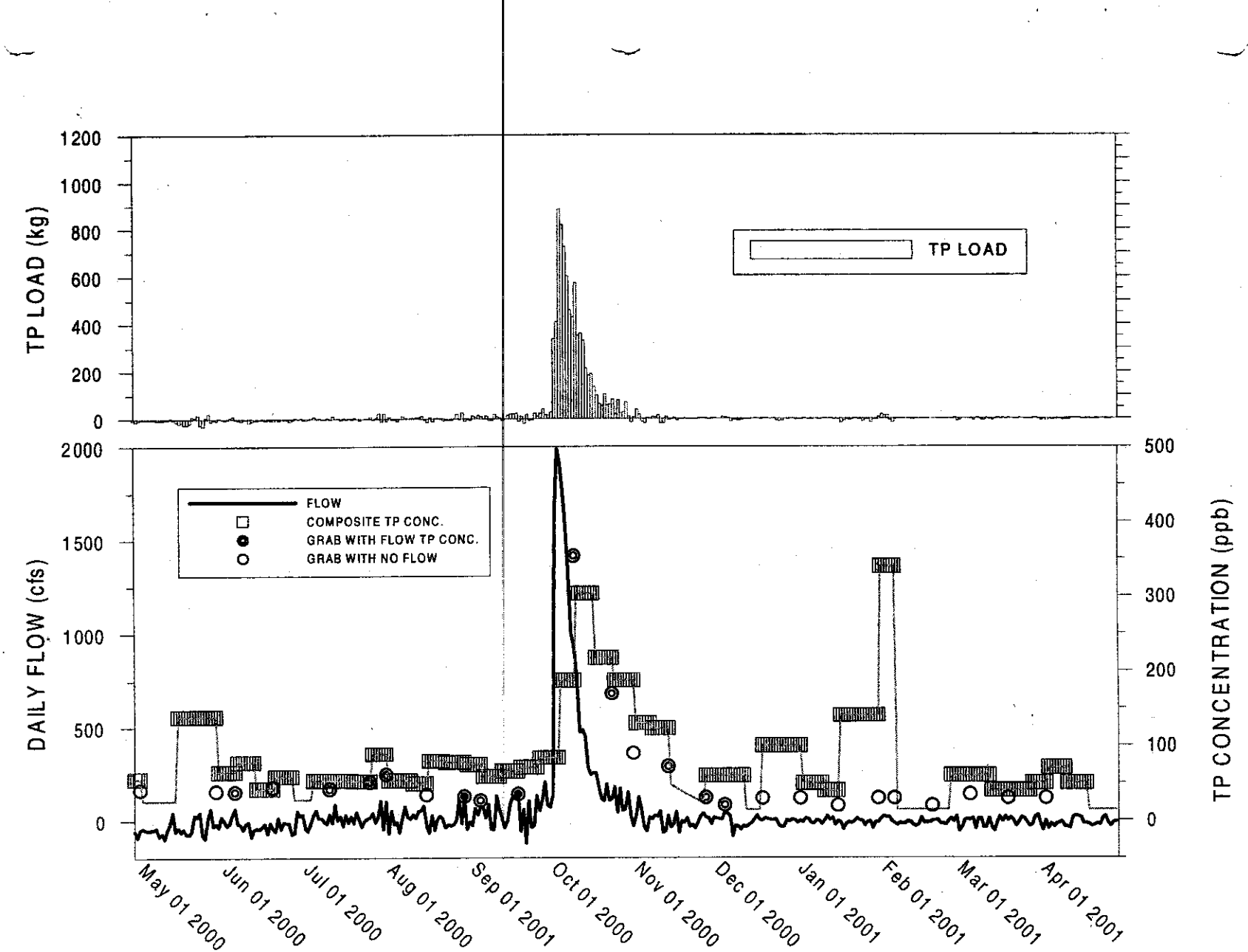

Figure 9a. Flow, total phosphorus (TP) concentration, and TP loads at L28IN.

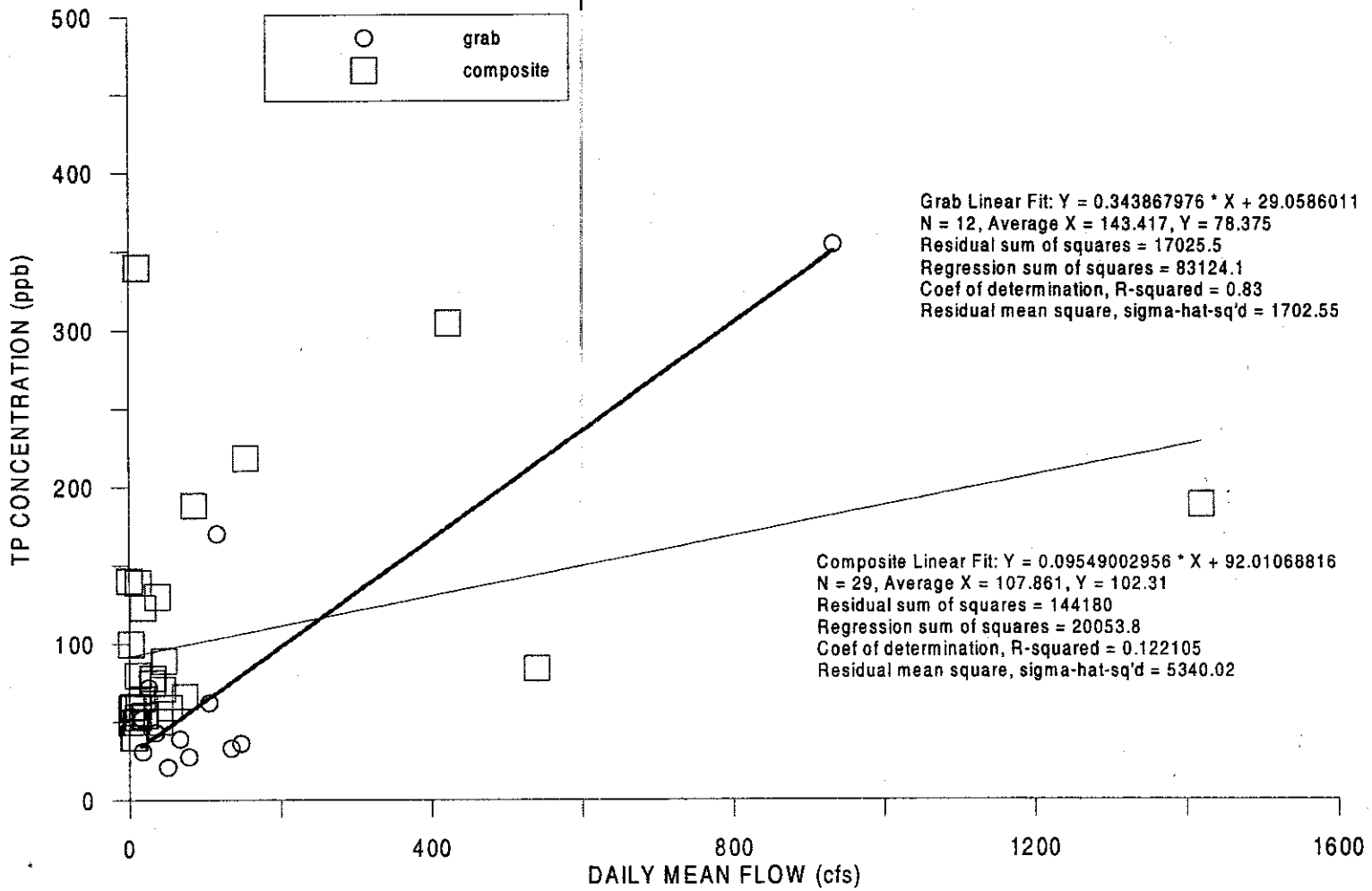

Figure 9b. Relationship between daily mean flow and total phosphorus (TP) concentration at L28IN. Flow for autosampler composite is the daily mean for the each collection period.

Table 1. Seminole/SFWMD Agreement total phosphorus (TP) data and water flow data summary for the period of May 1, 2000 through April 30, 2001.

For L3BRS:

term	clab	glab	qlab	dbkey
L3BRS	USL3BRS	L3BRS	L3BRS_O	16245

```
All grab sample n = 18
   first datum : 2000/05/31
   last datum  : 2001/04/17
   average value (arithmetic mean) = 74 ppb
   range = 27 to 162 ppb

Grab sample with positive flow flow = 17
   first datum : 2000/05/31
   last datum  : 2001/04/17
   average value (arithmetic mean) = 75 ppb
   range = 27 to 162 ppb
   flow weighted mean for data = 84 ppb
   regression: TP conc (ppb) = 57.6373 + 1.5266 * flow (cfs)

Autosampler (flow proportional composite) n = 38
   first datum : 2000/05/04
   last datum  : 2001/05/02
   average value (arithmetic mean) = 111 ppb
   range = 26 to 422 ppb
   flow weighted mean for data = 104 ppb
   regression: TP conc (ppb) = 99.2325 + 0.9858 * flow (cfs)
   load ratio of composite:grab
      for data = 1.13324 (common days = 14)
      for EAA Load Model = 1.23612 (common days = 251)

Flow data
   number of no flow days = 0
   number of positive flow days = 269
   total positive flow = 3867.88 cfs-d
   number of reverse flow days = 96
   total negative (reverse) flow = -1404.78 cfs-d
   number of missing flow data = 0
```

Table 1. (continued) Seminole/SFWMD Agreement total phosphorus (TP) data and water flow data summary for the period of May 1, 2000 through April 30, 2001.

For USSO:

```
term      clab      glab      qlab      dbkey
USSO      USSO      USSO      USSO_O    16749

All grab sample n = 14
   first datum : 2000/05/31
   last datum  : 2001/04/17
   average value (arithmetic mean) = 96 ppb
   range = 44 to 276 ppb

Grab sample with positive flow flow = 13
   first datum : 2000/05/31
   last datum  : 2001/04/17
   average value (arithmetic mean) = 99 ppb
   range = 44 to 276 ppb
   flow weighted mean for data = 144 ppb
   regression: TP conc (ppb) = 68.0458 + 0.5903 * flow (cfs)

Autosampler (flow proportional composite) n = 51
   first datum : 2000/05/04
   last datum  : 2001/05/02
   average value (arithmetic mean) = 94 ppb
   range = 43 to 297 ppb
   flow weighted mean for data = 137 ppb
   regression: TP conc (ppb) = 85.6006 + 0.3117 * flow (cfs)
   load ratio of composite:grab
      for data = 1.07231 (common days = 13)
      for EAA Load Model = 1.06869 (common days = 358)

Flow data
   number of no flow days = 0
   number of positive flow days = 363
   total positive flow = 13527.09 cfs-d
   number of reverse flow days = 2
   total negative (reverse) flow = -3.92 cfs-d
   number of missing flow data = 0
```

Table 1. (continued) Seminole/SFWMD Agreement total phosphorus (TP) data and water flow data summary for the period of May 1, 2000 through April 30, 2001.

For L28U :

term	clab	glab	qlab	dbkey
L28U	L28U	BCS7	L28U _O	FF808

```
All grab sample n = 27
   first datum : 2000/05/03
   last datum  : 2001/04/19
   average value (arithmetic mean) = 65 ppb
   range = 2 to 458 ppb

Grab sample with positive flow n = 13
   first datum : 2000/07/27
   last datum  : 2001/04/04
   average value (arithmetic mean) = 92 ppb
   range = 30 to 458 ppb
   flow weighted mean = 237 ppb
   regression: TP conc (ppb) = 23.0893 + 0.6260 * flow (cfs)

Autosampler (flow proportional composite) n = 42
   note: duplicate data on 2001/03/29
   first datum : 2000/05/03
   last datum  : 2001/04/25
   average value (arithmetic mean) = 72 ppb
   range = 2 to 368 ppb
   flow weighted mean for data = 149 ppb
   regression: TP conc (ppb) = 47.5161 + 0.3451 * flow (cfs)
   load ratio of composite:grab
      for data = 0.618194 (common days = 12)
      for EAA Load Model = 0.695806 (common days = 245)

Flow data
   number of no flow days = 0
   number of positive flow days = 260
   total positive flow = 23448.83 cfs-d
   number of reverse flow days = 105
   total negative (reverse) flow = -1876.01 cfs-d
   number of missing flow data:   0
```

Table 1. (continued) Seminole/SFWMD Agreement total phosphorus (TP) data and water flow data summary for the period of May 1, 2000 through April 30, 2001.

For S140 :

```
term      clab      glab      qlab       dbkey
S140      S140      S140      S140 _T    06754

All grab sample n = 13
   first datum : 2000/05/23
   last datum  : 2001/04/24
   average value (arithmetic mean) = 61 ppb
   range = 19 to 289 ppb

Grab sample with positive flow flow = 6
   first datum : 2000/07/18
   last datum  : 2000/10/24
   average value (arithmetic mean) = 96 ppb
   range = 38 to 289 ppb
   flow weighted mean for data = 166 ppb
   regression: TP conc (ppb) = -3.7291 + 0.2802 * flow (cfs)

Autosampler (flow proportional composite) n = 38
   first datum : 2000/08/02
   last datum  : 2001/05/01
   average value (arithmetic mean) = 46 ppb
   range = 18 to 243 ppb
   flow weighted mean for data = 120 ppb
   regression: TP conc (ppb) = 32.9547 + 0.1412 * flow (cfs)
   load ratio of composite:grab
      for data = 0.708172 (common days = 5)
      for EAA Load Model = 0.830613 (common days = 90)

Flow data
   number of no flow days = 270
   number of positive flow days = 94
   total positive flow = 31748.11 cfs-d
   number of reverse flow days = 1
   total negative (reverse) flow = -23.10 cfs-d
   number of missing flow data = 0
```

Table 1. (continued) Seminole/SFWMD Agreement total phosphorus (TP) data and water flow data summary for the period of May 1, 2000 through April 30, 2001.

For WWEIR:

term	clab	glab	qlab	dbkey
WWEIR	WWEIR	WFEED	WFEED_O	16752

```
All grab sample n = 52
   first datum : 2000/05/04
   last datum  : 2001/04/25
   average value (arithmetic mean) = 31 ppb
   range = 14 to 97 ppb

Grab sample with positive flow n = 23
   first datum : 2000/06/22
   last datum  : 2000/12/14
   average value (arithmetic mean) = 31 ppb
   range = 15 to 97 ppb
   flow weighted mean for data = 46 ppb
   regression: TP conc (ppb) = 26.5949 + 0.1050 * flow (cfs)

Autosampler (flow proportional composite) n = 21
   first datum : 2000/06/29
   last datum  : 2000/12/14
   average value (arithmetic mean) = 36 ppb
   range = 17 to 102 ppb
   flow weighted mean for data = 68 ppb
   regression: TP conc (ppb) = 25.6421 + 0.2804 * flow (cfs)
   load ratio of composite:grab
      for data = 1.09495 (common days = 23)
      for EAA Load Model = 1.34494 (common days = 145)

Flow data
   number of no flow days = 210
   number of positive flow days = 155
   total positive flow = 6584.40 cfs-d
   number of reverse flow days = 0
   number of missing flow data = 0
```

Table 1. (continued) Seminole/SFWMD Agreement total phosphorus (TP) data and water flow data summary for the period of May 1, 2000 through April 30, 2001.

For NFEED:

```
term      clab      glab      qlab      dbkey
NFEED     NFEED     NFEED     NFEED_O   16754

All Grab sample n = 51
   first datum : 2000/05/04
   last datum  : 2001/04/25
   average value (arithmetic mean) = 69 ppb
   range = 23 to 410 ppb

Grab sample with positive flow flow = 30
   first datum : 2000/05/04
   last datum  : 2001/04/25
   average value (arithmetic mean) = 62 ppb
   range = 34 to 410 ppb
   flow weighted mean for data = 170 ppb
   regression: TP conc (ppb) = 26.3142 + 0.9952 * flow (cfs)

Autosampler (flow proportional composite) n = 50
   first datum : 2000/05/04
   last datum  : 2001/05/01
   average value (arithmetic mean) = 74 ppb
   range = 23 to 393 ppb
   flow weighted mean for data = 123 ppb
   regression: TP conc (ppb) = 54.7874 + 1.1105 * flow (cfs)
   load ratio of composite:grab
      for data = 0.593863 (common days = 30)
      for EAA Load Model = 0.703272 (common days = 230)

Flow data
   number of no flow days = 0
   number of positive flow days = 230
   total positive flow = 6831.95 cfs-d
   number of reverse flow days = 135
   total negative (reverse) flow = -1844.98 cfs-d
   number of missing flow data = 0
```

Table 1. (continued) Seminole/SFWMD Agreement total phosphorus (TP) data and water flow data summary for the period of May 1, 2000 through April 30, 2001.

For S190:

term	clab	glab	qlab	dbkey
S190	S190	S190	S190_S	15987

```
All grab sample n = 13
   first datum : 2000/05/31
   last datum  : 2001/04/17
   average value (arithmetic mean) = 50 ppb
   range = 26 to 254 ppb

Grab sample with positive flow flow = 3
   first datum : 2000/09/06
   last datum  : 2000/10/16
   average value (arithmetic mean) = 103 ppb
   range = 26 to 254 ppb
   flow weighted mean for data = 140 ppb
   regression: TP conc (ppb) = 51.9904 + 1.6815 * flow (cfs)

Autosampler (flow proportional composite) n = 36
   first datum : 2000/08/02
   last datum  : 2001/05/01
   average value (arithmetic mean) = 50 ppb
   range = 19 to 250 ppb
   flow weighted mean for data = 161 ppb
   regression: TP conc (ppb) = 51.9904 + 0.1220 * flow (cfs)
   load ratio of composite:grab
      for data = 1.00127 (common days = 3)
      for EAA Load Model = 0.910878 (common days = 88)

Flow data
   number of no flow days = 276
   number of positive flow days = 89
   total positive flow = 18797.69 cfs-d
   number of reverse flow days = 0
   number of missing flow data = 0
```

Table 1. (continued) Seminole/SFWMD Agreement total phosphorus (TP) data and water flow data summary for the period of May 1, 2000 through April 30, 2001.

For L28IN:

```
term      clab      glab      qlab      dbkey
L28IN     L28IN     BSC5      L28IN_O   FF809

All grab sample n = 30
   first datum : 2000/05/03
   last datum  : 2001/04/04
   average value (arithmetic mean) = 53 ppb
   range = 20 to 354 ppb
   note: duplicate data on 2000/07/12, 2000/09/06

Grab sample wit positive flow n = 12
   first datum : 2000/06/07
   last datum  : 2000/12/06
   average value (arithmetic mean) =  78 ppb
   range = 21 to 354 ppb
   flow weighted mean for data = 219 ppb
   regression: TP conc (ppb) =  29.0586 + 0.3439 * flow (cfs)

Autosampler (flow proportional composite) n = 35
   first datum : 2000/05/03
   last datum  : 2001/04/19
   average value (arithmetic mean) = 97 ppb
   range = 40 to 340 ppb
   flow weighted mean for data = 164 ppb
   regression: TP conc (ppb) = 92.1532 + 0.0955 * flow (cfs)
   load ratio of composite grab:
       for data = 0.664098 (common days = 12)
       for EAA Load Model= 0.686056 (common days = 148)

Flow data from 2000/05/01 to 2001/04/30
   number of no flow days = 0
   number of positive flow days = 163
   total positive flow =  21904.91 cfs-d
   number of reverse flow days = 202
   total negative (reverse) flow = -6042.41 cfs-d
   number of missing flow data: 0
```

Table 2. Seminole/SFWMD Agreement TP Load calculation summary: Total flow and total loads for the period of May 1, 2000 through April 30, 2001.

For positive flow (million cubic meters):

Station	TP Data Type	Flow	TP Load (kg)	Tm	FWMC (ppb)
L3BRS	auto/grab*ratio	9.5	981.3	1	104
USSO	auto/grab*ratio	33.1	4607.2	4.5	139
L28U	auto/grab*ratio	57.4	8391.7	8	146
S140	auto/grab*ratio	77.7	9313.8	9	120
WWEIR	auto/grab*ratio	16.1	1088.6	1	68
NFEED	auto/grab*ratio	16.7	2053.5	2	123
S190	auto/grab*ratio	46.0	7406.8	7	161
L28IN	auto/grab*ratio	53.6	8681.2	8.5	162

For negative flow:

Station	TP Data Type	Flow	TP Load (kg)
L3BRS	auto/grab*ratio	-3.4	-372.7
USSO	auto/grab*ratio	0.0	-1.2
L28U	auto/grab*ratio	-4.6	-231.9
S140	auto/grab*ratio	-0.1	-5.0
WWEIR	auto/grab*ratio	0.0	0.0
NFEED	auto/grab*ratio	-4.5	-363.5
S190	auto/grab*ratio	0.0	0.0
L28IN	auto/grab*ratio	-14.8	-972.0

Table 3. Seminole/SFWMD Agreement TP Load calculation flow and loads monthly summary by station.

note: flow is in million cubic meter (and in thousand acre-feet)

station	year/month	days	flow		load(kg)	fwmc(ppb)	flow_neg		load_neg
L3BRS	2000/05	31	1.465	(1.188)	245.249	167	-0.791	(-0.641)	-115.265
L3BRS	2000/06	30	1.194	(0.968)	213.072	179	-0.123	(-0.100)	-16.510
L3BRS	2000/07	31	0.177	(0.144)	22.143	125	-0.659	(-0.535)	-69.592
L3BRS	2000/08	31	1.038	(0.841)	110.708	107	-0.317	(-0.257)	-32.215
L3BRS	2000/09	30	0.892	(0.724)	37.639	42	-0.330	(-0.268)	-14.932
L3BRS	2000/10	31	1.140	(0.924)	110.513	97	-0.537	(-0.436)	-81.012
L3BRS	2000/11	30	0.578	(0.469)	26.327	46	-0.214	(-0.174)	-9.177
L3BRS	2000/12	31	0.517	(0.419)	30.384	59	-0.024	(-0.020)	-1.342
L3BRS	2001/01	31	0.480	(0.389)	28.081	59	-0.008	(-0.007)	-0.496
L3BRS	2001/02	28	0.635	(0.515)	46.867	74	-0.008	(-0.007)	-0.517
L3BRS	2001/03	31	0.358	(0.291)	31.952	89	-0.377	(-0.306)	-28.003
L3BRS	2001/04	30	0.988	(0.801)	78.369	79	-0.047	(-0.038)	-3.627

station	year/month	days	flow		load(kg)	fwmc(ppb)	flow_neg		load_neg
USSO	2000/05	31	0.522	(0.423)	34.089	65	0.000	(0.000)	0.000
USSO	2000/06	30	0.553	(0.448)	45.854	83	0.000	(0.000)	0.000
USSO	2000/07	31	4.426	(3.588)	460.529	104	0.000	(0.000)	0.000
USSO	2000/08	31	3.705	(3.004)	236.383	64	0.000	(0.000)	0.000
USSO	2000/09	30	5.276	(4.278)	297.652	56	0.000	(0.000)	0.000
USSO	2000/10	31	13.829	(11.212)	3045.520	220	0.000	(0.000)	0.000
USSO	2000/11	30	1.844	(1.495)	179.454	97	0.000	(0.000)	0.000
USSO	2000/12	31	0.870	(0.705)	96.493	111	0.000	(0.000)	0.000
USSO	2001/01	31	0.540	(0.438)	38.570	71	-0.007	(-0.005)	-0.592
USSO	2001/02	28	0.472	(0.383)	43.844	93	0.000	(0.000)	0.000
USSO	2001/03	31	0.559	(0.453)	49.263	88	0.000	(0.000)	0.000
USSO	2001/04	30	0.499	(0.404)	79.582	160	-0.003	(-0.002)	-0.583

station	year/month	days	flow		load(kg)	fwmc(ppb)	flow_neg		load_neg
L28U	2000/05	31	1.069	(0.867)	50.371	47	-0.754	(-0.611)	-34.108
L28U	2000/06	30	0.698	(0.565)	34.934	50	-0.465	(-0.377)	-21.035
L28U	2000/07	31	4.746	(3.847)	280.119	59	-0.237	(-0.192)	-7.831
L28U	2000/08	31	4.231	(3.430)	257.749	61	-0.470	(-0.381)	-19.876
L28U	2000/09	30	8.446	(6.847)	527.457	62	0.000	(0.000)	0.000
L28U	2000/10	31	29.479	(23.899)	6703.191	227	0.000	(0.000)	0.000
L28U	2000/11	30	3.013	(2.442)	199.854	66	-0.171	(-0.139)	-9.227
L28U	2000/12	31	0.780	(0.632)	50.085	64	-0.573	(-0.465)	-33.396
L28U	2001/01	31	0.740	(0.600)	56.560	76	-0.481	(-0.390)	-35.715
L28U	2001/02	28	1.328	(1.077)	79.692	60	-0.285	(-0.231)	-17.102
L28U	2001/03	31	1.816	(1.473)	79.083	44	-0.365	(-0.296)	-14.525
L28U	2001/04	30	1.025	(0.831)	72.629	71	-0.788	(-0.639)	-39.077

station	year/month	days	flow		load(kg)	fwmc(ppb)	flow_neg		load_neg
S140	2000/05	31	0.054	(0.044)	1.741	32	0.000	(0.000)	0.000
S140	2000/06	30	0.006	(0.005)	0.192	32	0.000	(0.000)	0.000
S140	2000/07	31	2.975	(2.412)	245.037	82	-0.057	(-0.046)	-4.973
S140	2000/08	31	6.610	(5.359)	374.232	57	0.000	(0.000)	0.000
S140	2000/09	30	19.207	(15.572)	632.473	33	0.000	(0.000)	0.000
S140	2000/10	31	45.470	(36.863)	7891.842	74	0.000	(0.000)	0.000
S140	2000/11	30	3.328	(2.698)	167.737	50	0.000	(0.000)	0.000
S140	2000/12	31	0.000	(0.000)	0.000		0.000	(0.000)	0.000
S140	2001/01	31	0.023	(0.018)	0.455	20	0.000	(0.000)	0.000
S140	2001/02	28	0.000	(0.000)	0.000		0.000	(0.000)	0.000
S140	2001/03	31	0.002	(0.001)	0.045	25	0.000	(0.000)	0.000
S140	2001/04	30	0.000	(0.000)	0.000		0.000	(0.000)	0.000

Table 3. (continued) Seminole/SFWMD Agreement TP Load calculation flow and loads monthly summary by station (continued).

note: flow is in million cubic meter (and in thousand acre-feet)

station	year/month	days	flow	load(kg)	fwmc(ppb)	flow_neg	load_neg
WWEIR	2000/05	31	0.000 (0.000)	0.000		0.000 (0.000)	0.000
WWEIR	2000/06	30	0.319 (0.258)	8.733	27	0.000 (0.000)	0.000
WWEIR	2000/07	31	0.518 (0.420)	14.742	28	0.000 (0.000)	0.000
WWEIR	2000/08	31	0.426 (0.345)	10.758	25	0.000 (0.000)	0.000
WWEIR	2000/09	30	2.005 (1.625)	49.304	25	0.000 (0.000)	0.000
WWEIR	2000/10	31	10.639 (8.626)	939.662	88	0.000 (0.000)	0.000
WWEIR	2000/11	30	1.945 (1.577)	60.328	31	0.000 (0.000)	0.000
WWEIR	2000/12	31	0.258 (0.209)	5.114	20	0.000 (0.000)	0.000
WWEIR	2001/01	31	0.000 (0.000)	0.000		0.000 (0.000)	0.000
WWEIR	2001/02	28	0.000 (0.000)	0.000		0.000 (0.000)	0.000
WWEIR	2001/03	31	0.000 (0.000)	0.000		0.000 (0.000)	0.000
WWEIR	2001/04	30	0.000 (0.000)	0.000		0.000 (0.000)	0.000

station	year/month	days	flow	load(kg)	fwmc(ppb)	flow_neg	load_neg
NFEED	2000/05	31	0.933 (0.756)	76.408	82	-0.119 (-0.097)	-9.575
NFEED	2000/06	30	0.683 (0.554)	46.787	68	-0.102 (-0.083)	-8.322
NFEED	2000/07	31	1.644 (1.333)	79.479	48	-0.074 (-0.060)	-3.053
NFEED	2000/08	31	0.978 (0.793)	33.897	35	-0.660 (-0.535)	-21.927
NFEED	2000/09	30	1.510 (1.224)	57.831	38	-0.570 (-0.462)	-23.720
NFEED	2000/10	31	6.704 (5.435)	1478.216	220	-0.531 (-0.431)	-157.493
NFEED	2000/11	30	1.041 (0.844)	106.879	103	-0.735 (-0.596)	-62.373
NFEED	2000/12	31	0.571 (0.463)	19.197	34	-0.661 (-0.535)	-30.084
NFEED	2001/01	31	0.608 (0.493)	16.401	27	-0.504 (-0.408)	-15.779
NFEED	2001/02	28	0.557 (0.451)	33.895	61	-0.172 (-0.140)	-6.293
NFEED	2001/03	31	0.844 (0.685)	64.599	76	-0.157 (-0.127)	-11.496
NFEED	2001/04	30	0.642 (0.520)	39.888	62	-0.228 (-0.185)	-13.421

station	year/month	days	flow	load(kg)	fwmc(ppb)	flow_neg	load_neg
S190	2000/05	31	0.003 (0.003)	0.081	26	0.000 (0.000)	0.000
S190	2000/06	30	0.000 (0.000)	0.000		0.000 (0.000)	0.000
S190	2000/07	31	0.449 (0.364)	10.779	24	0.000 (0.000)	0.000
S190	2000/08	31	1.030 (0.835)	28.115	27	0.000 (0.000)	0.000
S190	2000/09	30	4.473 (3.626)	135.485	30	0.000 (0.000)	0.000
S190	2000/10	31	39.466 (31.995)	7191.546	182	0.000 (0.000)	0.000
S190	2000/11	30	0.564 (0.457)	40.626	72	0.000 (0.000)	0.000
S190	2000/12	31	0.000 (0.000)	0.000		0.000 (0.000)	0.000
S190	2001/01	31	0.000 (0.000)	0.000		0.000 (0.000)	0.000
S190	2001/02	28	0.000 (0.000)	0.000		0.000 (0.000)	0.000
S190	2001/03	31	0.001 (0.001)	0.055	54	0.000 (0.000)	0.000
S190	2001/04	30	0.004 (0.003)	0.120	29	0.000 (0.000)	0.000

station	year/month	days	flow	load(kg)	fwmc(ppb)	flow_neg	load_neg
L28IN	2000/05	31	0.541 (0.438)	63.073	117	-3.415 (-2.769)	-258.152
L28IN	2000/06	30	0.448 (0.363)	24.231	54	-2.095 (-1.699)	-121.110
L28IN	2000/07	31	1.512 (1.226)	92.121	61	-0.587 (-0.476)	-25.828
L28IN	2000/08	31	2.019 (1.637)	134.243	66	-1.162 (-0.942)	-81.098
L28IN	2000/09	30	4.237 (3.435)	297.393	70	-1.096 (-0.888)	-75.409
L28IN	2000/10	31	41.998 (34.048)	7813.006	186	0.000 (0.000)	0.000
L28IN	2000/11	30	1.257 (1.019)	131.902	105	-1.207 (-0.978)	-102.476
L28IN	2000/12	31	0.512 (0.415)	29.964	58	-1.040 (-0.843)	-64.466
L28IN	2001/01	31	0.163 (0.132)	9.405	58	-0.836 (-0.678)	-91.783
L28IN	2001/02	28	0.216 (0.175)	54.409	252	-0.805 (-0.652)	-32.259
L28IN	2001/03	31	0.368 (0.298)	18.070	49	-1.145 (-0.928)	-57.713
L28IN	2001/04	30	0.322 (0.261)	13.430	42	-1.396 (-1.132)	-61.739

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Results of Flow Comparisons

Flow measurements at compliance sites and non-compliance sites vary in the method of calculation and the current system of instrumentation. Some sites are measured by UVMs, and others are measured by utilizing hydraulic structure equations to estimate flows. Similarity of flow data at different sampling locations moving from upstream to downstream within a canal is one indication as to whether different measuring methods are providing essentially the same data.

Because small water movements will be almost always present, flow estimated from the UVM produced line velocities will never be exactly zero and, in general, will be less reliable at low velocities. Some of the small readings, both positive and negative flows, are caused by local circulation at no flow condition.

West Feeder Canal, North Feeder Canal and S190

Because S190 is fed by the West and North Feeder Canals, an expectation is that flow at S190 would be greater than or equal to the sum of these two flows. Additionally, during periods of low flow the differences between the sites would be smaller and during periods of higher flow, the differences would become more pronounced as drainage ditches between the upstream and downstream monitored sites produce a substantial amount of runoff. The graphs for the daily flows at the three sites and the sum of WWEIR + NFEED compared with S190 flow show that the peak flows match well (**Figure 10**), although there is a difference in the magnitudes. During low flow conditions, WWEIR + NFEED flows frequently exceeded the S190 flows, indicating wind-driven circulations that are not all discharged through S190. In addition, low positive and negative flows occur in the North Feeder Canal when the S190 gates are closed, also indicating wind driven circulations.

S190 and L28IN

Flow in the L28 Interceptor Canal is measured by the USGS at the southern boundary of the Big Cypress Seminole Indian Reservation (site L28IN). The S-190 spillway located within the Seminole Reservation is operated by the District and determines the flow in the L28 Interceptor canal. It can be observed in **Figure 11** that the flow at L28IN correlates very well when there is flow from S190, but becomes more variable when the S190 gates are closed. During closed gate conditions, flows at L28IN can be both positive and negative, indicating wind driven flow conditions and/or instrumentation signal noise (**Figure 9a**). From approximately +100 cfs to -100 cfs the data are more variable, reflecting predominantly wind driven circulations.

USSO, G89DS and L28U

The L28 Canal flow, which originates at the USSO site, was compared with flow measured at SFWMD UVM site G89DS and L28U (**Figure 12**). The high and low flow periods correlate fairly well between the sites with high flow periods having the greatest differences in flow rates, *i.e.* cfs, between the sites. Flows increase between USSO and L28U during rainfall events is probably due to discharges from drainage ditches along the

canal. Dry periods in May and June 2000 and from November through April 2001 resulted in no discharges from USSO. Flow data from July, September and October 2000 at USSO and L28U show that the flows at L28U are consistently greater than those at USSO indicating that even moderate rainfall contributes inflows to the L28U Canal from the drainage ditches.

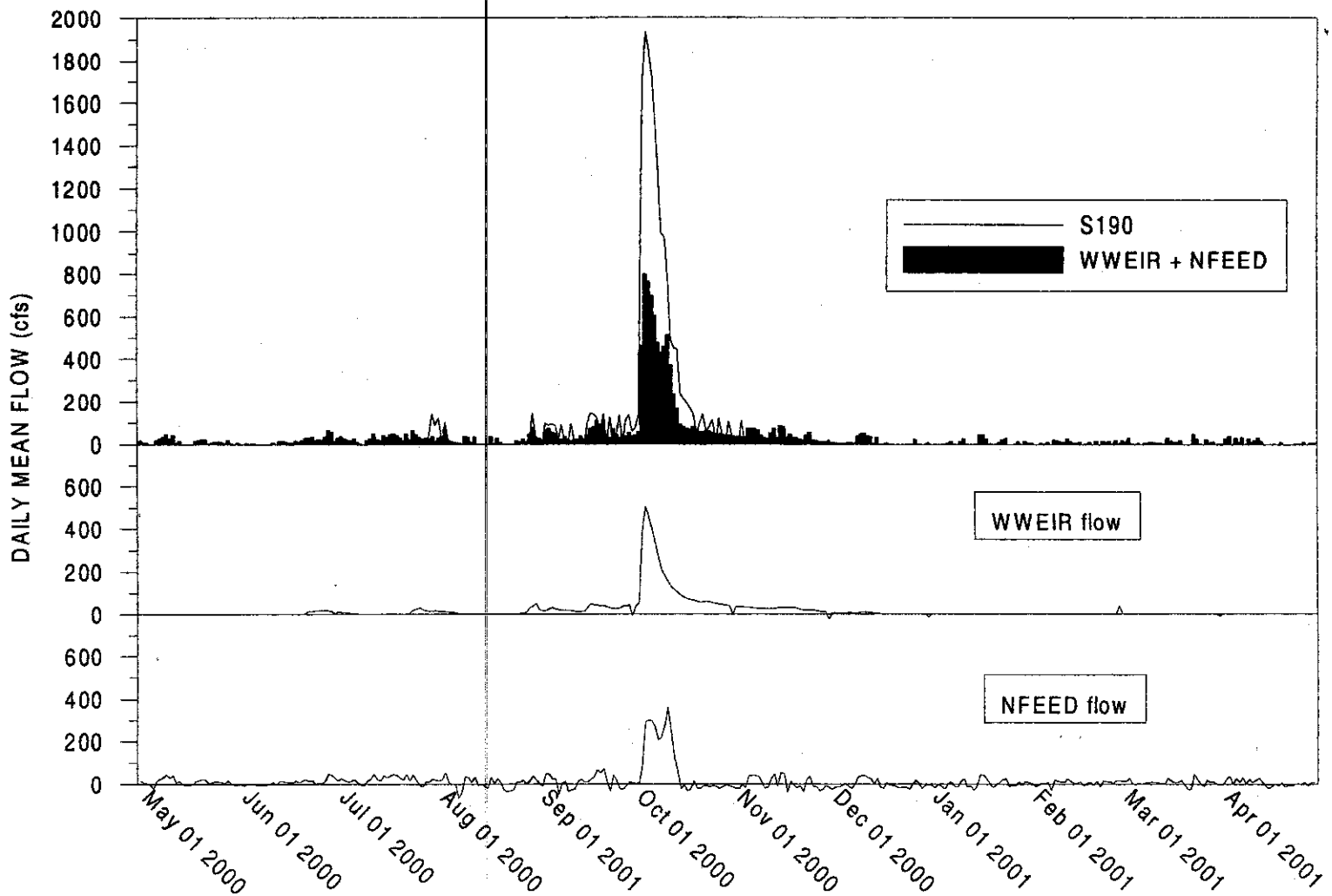

Figure 10. Comparison of flow at S190 with flows at WWEIR and NFEED.

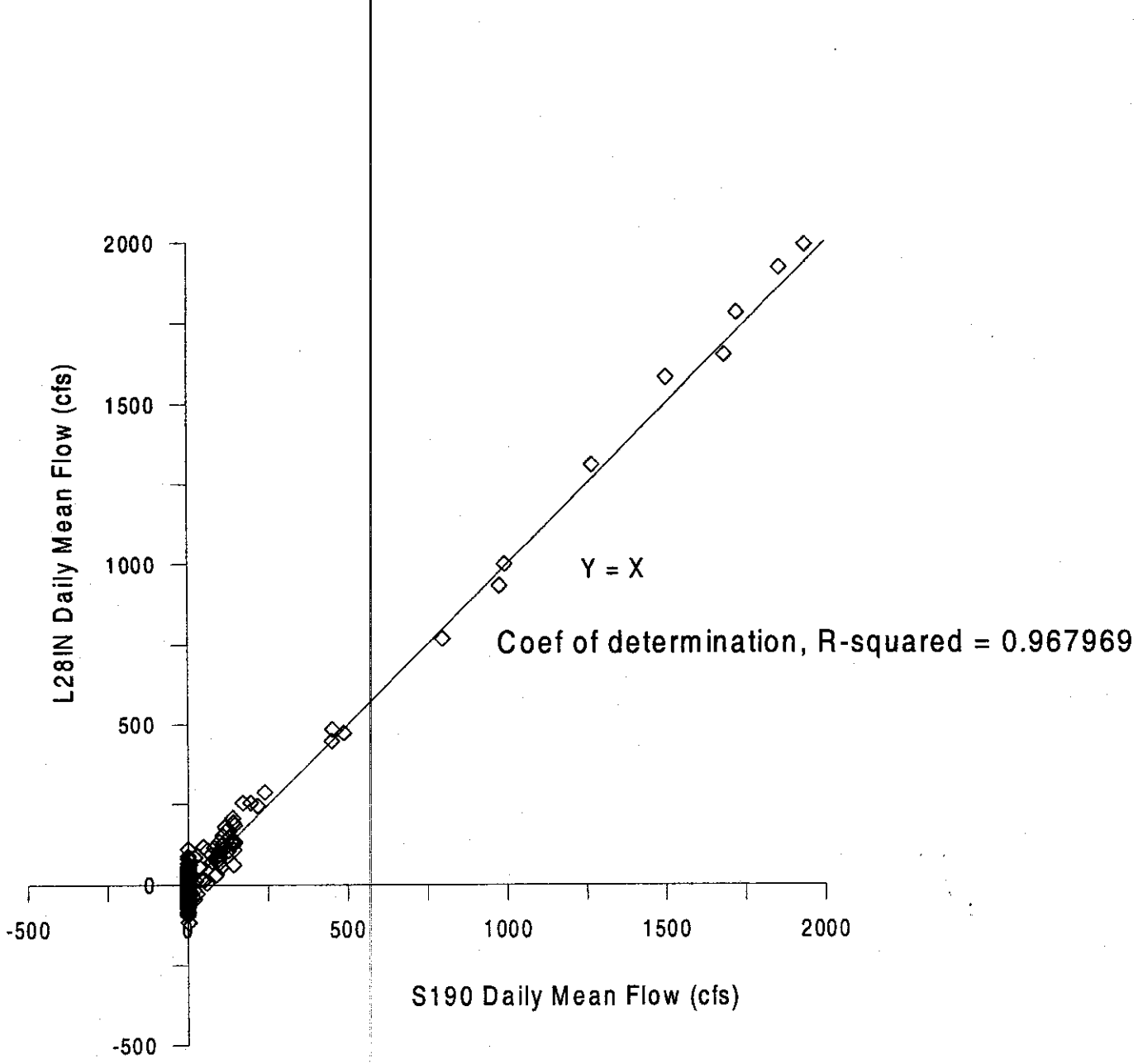

Figure 11. Comparison of flow at S190 with flow at L28IN.

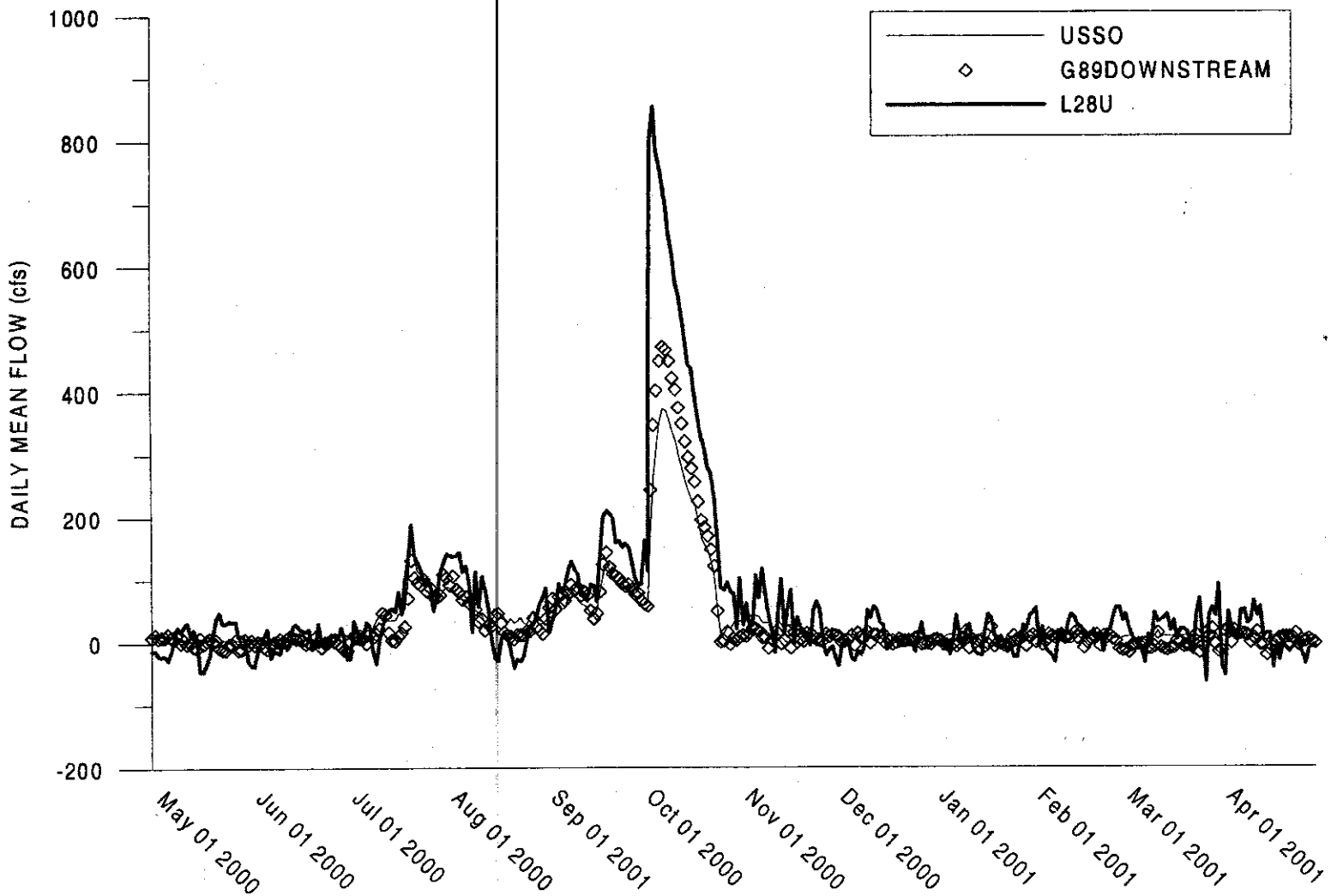

Figure 12. Comparison of flow at L28U with flows at USSO and G89 downstreasm.

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Water Quality Data

Water quality data collected from May 1, 2000 through April 30, 2001 are summarized for each of the monitoring sites by water year (**Tables 4** through **11**). The water quality data collected for G409 is summarized in **Appendix IV**. Each water quality parameter measured at the nine sites was compared with the Class III Criteria (Florida Administrative Code 62-302.530, Criteria for Surface Water Quality Classifications) and the Sub-Class 2-B Criteria (Seminole Tribe of Florida, Water Quality Standards for the Big Cypress Indian Reservation) to determine if any criterion were exceeded.

For Water Year 2001, dissolved oxygen concentrations less than the 5.0 mg/L criterion were observed periodically at all sites. This condition is typical of South Florida canals. The minimum pH criterion of 6.0 pH units was exceeded L28IU (**Table 6**). The maximum pH criterion of 8.5 pH units was exceeded at L28IN (**Table 11**).

Most trace metal measurements were below the method detection limit (MDL). Cadmium, copper and zinc were detected above the MDL at three of the eight monitoring sites a total of 4 times (**Table 12**). When the measured concentrations were compared with the Class III criteria, which is a function of water hardness, no excursions from the respective criterion were observed (**Table 12**). Hardness is calculated using the magnesium and calcium concentrations of the same water sample used to measure the trace metals.

Total phosphorus (TP) concentration data and total nitrogen (TN) data, calculated by summing total Kjeldahl nitrogen (TKN) and total nitrite and nitrate (NOX), for the eight sampling sites are presented as box plots in **Figures 13** and **14**, respectively. The horizontal line in the box represents the median concentration. The top and bottom of the box represent the 75th and 25th percentiles, respectively. The whiskers show the range of values falling within 1.5 times the absolute value of the difference between the 75th and 25th percentiles. Values outside the whiskers, plotted with plus signs, are greater than 1.5 times the absolute value of the difference between the 75th and 25th percentiles

WWEIR and S190 had the lowest median TP concentrations. The L3BRS, USSO, and L28U sites had the highest median concentrations (**Figure 13**). The box plots indicate that less variation continues to be evident between the sites for TN concentrations than for TP concentrations (**Figure 14**).

Table 4. Summary of Water Quality Parameters Collected at Stations L3BRS/USL3BRS from May 2000 through April 2001.

PARAMETER	SAMPLE TYPE	PERIOD	SAMPLE N	MINIMUM	MAXIMUM	AVERAGE	STANDARD DEVIATION	CLASS III CRITERIA
PHYSICAL								
Water Temperature (°C)	field	05/31/00 - 04/17/01	18	14.95	30.30	24.24	4.80	Not applicable
Specific Conductance (µmhos/cm)	field	05/31/00 - 04/17/01	18	500.00	681.00	591.15	46.34	Not greater than 50% above background or 1,275u mhos/cm
Dissolved Oxygen (mg/L)	field	05/31/00 - 04/17/01	18	3.2	10.3	6.6	1.8	Not be less than 5.0 mg/L
pH (SU)	field	05/31/00 - 04/17/01	18	7.36	8.29	7.78	0.29	Not less than 6.0 or greater than 8.5
Turbidity (NTU)	field	05/31/00 - 04/17/01	18	1.9	7.1	4.7	1.7	Less than or equal to 29 NTU above background
Color (PSU)	field	05/31/00 - 04/17/01	18	40	110	72	21	Not applicable
Total Suspended Solids (mg/L)	grab	07/11/00 - 04/17/01	16	<3.0	12.400	6.681	3.367	Not applicable
Hardness (as CaCO3 mg/L)	calculated	07/11/00 - 04/02/01	5	222.4	274.0	243.3	19.7	Not applicable
Alkalinity (as CaCO3 mg/L)	grab	05/31/00 - 04/17/01	18	120.1	250.0	218.9	30.9	Not less than 20 mg/L
NUTRIENTS								
Total Nitrogen (mg/L)	grab	05/31/00 - 04/17/01	18	1.2	2.0	1.5	0.2	
	composite	05/11/00 - 04/25/01	32	1.2	2.3	1.6	0.3	
Total Kjeldahl Nitrogen (mg/L)	grab	05/31/00 - 04/17/01	18	1.1	1.9	1.5	0.2	
	composite	05/04/00 - 04/25/01	37	1.2	2.0	1.5	0.2	
Nitrate/Nitrite (as N mg/L)	grab	05/31/00 - 04/17/01	18	<0.004	0.030	0.009	0.007	
	composite	05/11/00 - 04/25/01	32	<0.004	0.530	0.052	0.112	
Nitrite (mg/L)	grab	05/31/00 - 04/17/01	18	<0.004	<0.004	<0.004		
Nitrate (mg/L)	grab	05/31/00 - 12/11/00	4	<0.004	0.026	0.013	0.010	
Ammonia (as N mg/L)	grab	05/31/00 - 04/17/01	18	<0.009	0.106	0.015	0.023	
Unionized Ammonia (mg NH3)	calculated	05/31/00 - 04/17/01	18	0.000	0.002	0.001	0.001	Less than or equal to 0.02 mg/L
Total Phosphorus (mg/L)	grab	05/31/00 - 04/17/01	18	0.027	0.162	0.074	0.034	
	composite	05/04/00 - 04/25/01	37	0.026	0.422	0.112	0.076	
Ortho-Phosphate (as P mg/L)	grab	05/31/00 - 04/17/01	18	<0.004	0.071	0.016	0.022	
Dissolved Silica (mg/L)	grab	07/11/00 - 04/17/01	6	0.977	7.400	4.609	2.626	
MAJOR IONS								
Chlorides (mg/L)	grab	05/31/00 - 04/17/01	18	39.520	58.640	48.502	5.237	Not applicable
Sulfate (mg/L)	grab	07/11/00 - 04/17/01	6	13.510	26.250	19.457	5.125	Not applicable
Dissolved Sodium (mg/L)	grab	07/11/00 - 04/02/01	5	26.500	37.860	31.983	4.107	Not applicable
Dissolved Potassium (mg/L)	grab	07/11/00 - 04/02/01	5	3.718	7.690	5.206	1.725	Not applicable
Dissolved Calcium (mg/L)	grab	07/11/00 - 04/02/01	5	76.377	97.354	85.411	7.700	Not applicable
Dissolved Magnesium (mg/L)	grab	07/11/00 - 04/02/01	5	6.140	7.772	7.300	0.665	Not applicable
TRACE ELEMENTS								
Total Arsenic (µg/L)	grab	07/11/00 - 07/11/00	1			3.900		Less than or equal to 50 mg/L
Total Cadmium (µg/L)	grab	07/11/00 - 07/11/00	1			0.465		Less than or equal to calculated value
Total Copper (µg/L)	grab	07/11/00 - 07/11/00	1			<1.2		Less than or equal to calculated value
Total Iron (µg/L)	grab	07/11/00 - 04/02/01	5	180.000	358.735	262.655	64.740	Less than or equal to 1,000 ug/L
Total Lead (µg/L)	grab	07/11/00 - 07/11/00	1			<0.8		Less than or equal to calculated value
Total Zinc (µg/L)	grab	07/11/00 - 07/11/00	1			<4.0		Less than or equal to calculated value

Table 5. Summary of Water Quality Parameters Collected at Stations USSO from May 2000 through April 2001.

PARAMETER	SAMPLE TYPE	PERIOD	SAMPLE N	MINIMUM	MAXIMUM	AVERAGE	STANDARD DEVIATION	CLASS III CRITERIA
PHYSICAL								
Water Temperature (°C)	field	05/31/00 - 04/17/01	14	15.06	29.62	24.43	4.10	Not applicable
Specific Conductance (µmhos/cm)	field	05/31/00 - 04/17/01	14	375.00	659.00	533.48	70.95	Not greater than 50% above background or 1,275 µmhos/cm
Dissolved Oxygen (mg/L)	field	05/31/00 - 04/17/01	14	0.5	10.3	5.0	2.7	Not be less than 5.0 mg/L
pH (SU)	field	05/31/00 - 04/17/01	14	6.86	8.08	7.33	0.44	Not less than 6.0 or greater than 8.5
Turbidity (NTU)	field	05/31/00 - 04/17/01	14	0.7	12.7	3.5	3.5	Less than or equal to 29 NTU above background
Color (PSU)	field	05/31/00 - 04/17/01	14	62	168	97	35	Not applicable
Total Suspended Solids (mg/L)	grab	07/24/00 - 04/17/01	6	<3.0	7.400	2.167	2.614	Not applicable
Hardness (as CaCO3 mg/L)	calculated	07/24/00 - 04/17/01	4	182.7	253.5	224.1	32.5	Not applicable
Alkalinity (as CaCO3 mg/L)	grab	05/31/00 - 04/17/01	14	139.2	247.7	199.9	30.6	Not less than 20 mg/L
NUTRIENTS								
Total Nitrogen (mg/L)	grab	05/31/00 - 04/17/01	14	1.1	2.0	1.4	0.3	
	composite	05/04/00 - 04/25/01	50	1.0	3.0	1.5	0.4	
Total Kjeldahl Nitrogen (mg/L)	grab	05/31/00 - 04/17/01	14	1.0	1.9	1.4	0.3	
	composite	05/04/00 - 04/25/01	50	1.0	3.0	1.5	0.4	
Nitrate/Nitrite (as N mg/L)	grab	05/31/00 - 04/17/01	14	<0.004	0.219	0.030	0.056	
	composite	05/04/00 - 04/25/01	50	<0.004	0.189	0.029	0.042	
Nitrite (mg/L)	grab	05/31/00 - 04/17/01	14	<0.004	0.039	0.005	0.010	
Nitrate (mg/L)	grab	07/24/00 - 03/19/01	6	0.004	0.180	0.044	0.067	
Ammonia (as N mg/L)	grab	05/31/00 - 04/17/01	14	0.015	0.140	0.061	0.036	
Unionized Ammonia (mg NH3)	calculated	05/31/00 - 04/17/01	14	0.000	0.006	0.001	0.002	Less than or equal to 0.02 mg/L
Total Phosphorus (mg/L)	grab	05/31/00 - 04/17/01	14	0.044	0.276	0.096	0.066	
	composite	05/04/00 - 04/25/01	50	0.043	0.297	0.094	0.045	
Ortho-Phosphate (as P mg/L)	grab	05/31/00 - 04/17/01	14	0.005	0.246	0.049	0.06	
Dissolved Silica (mg/L)	grab	07/24/00 - 04/17/01	5	4.572	9.973	8.059	2.266	
MAJOR IONS								
Chlorides (mg/L)	grab	07/24/00 - 04/17/01	14	22.200	54.410	39.433	8.500	Not applicable
Sulfate (mg/L)	grab	07/24/00 - 04/17/01	5	11.750	22.180	14.364	4.466	Not applicable
Dissolved Sodium (mg/L)	grab	07/24/00 - 04/17/01	4	17.988	36.679	27.085	7.994	Not applicable
Dissolved Potassium (mg/L)	grab	07/24/00 - 04/17/01	4	3.916	6.769	5.008	1.254	Not applicable
Dissolved Calcium (mg/L)	grab	07/24/00 - 04/17/01	4	65.567	87.998	79.736	10.480	Not applicable
Dissolved Magnesium (mg/L)	grab	07/24/00 - 04/17/01	4	4.602	8.206	6.066	1.757	Not applicable
TRACE ELEMENTS								
Total Arsenic (µg/L)	grab	07/24/00 - 07/24/00	1			<1.5		Less than or equal to 50 mg/L
Total Cadmium (µg/L)	grab	07/24/00 - 07/24/00	1			<0.3		Less than or equal to calculated value
Total Copper (µg/L)	grab	07/24/00 - 07/24/00	1			<1.2		Less than or equal to calculated value
Total Iron (µg/L)	grab	07/24/00 - 04/17/01	4	94.100	469.303	290.355	169.497	Less than or equal to 1,000 ug/L
Total Lead (µg/L)	grab	07/24/00 - 07/24/00	1			<0.8		Less than or equal to calculated value
Total Zinc (µg/L)	grab	07/24/00 - 07/24/00	1			<4.0		Less than or equal to calculated value

Table 6. Summary of Water Quality Parameters Collected at Stations L28U from May 2000 through April 2001.

PARAMETER	SAMPLE TYPE	PERIOD	SAMPLE N	MINIMUM	MAXIMUM	AVERAGE	STANDARD DEVIATION	CLASS III CRITERIA
PHYSICAL								
Water Temperature (°C)	field	07/27/00 - 02/07/01	5	15.80	28.80	21.43	5.82	Not applicable
Specific Conductance (µmhos/cm)	field	05/03/00 - 02/21/01	19	258.00	591.00	500.42	78.33	Not greater than 50% above background or 1,275µmhos/cm
Dissolved Oxygen (mg/L)	field	07/27/00 - 02/07/01	5	0.9	10.0	6.3	4.0	Not be less than 5.0 mg/L
pH (SU)	field	07/27/00 - 02/21/01	6	5.13	9.78	7.71	1.54	Not less than 6.0 or greater than 8.5
Turbidity (NTU)	field	05/03/00 - 04/19/01	26	0.1	7.6	2.0	1.7	Less than or equal to 29 NTU above background
Color (PSU)	field	05/03/00 - 04/19/01	26	<5	140	79	36	Not applicable
Total Suspended Solids (mg/L)	grab	05/03/00 - 10/11/00	4	1.600	5.300	3.450	1.524	Not applicable
Hardness (as CaCO3 mg/L)	calculated	10/11/00 - 04/04/01	3	115.1	248.2	198.9	72.9	Not applicable
Alkalinity (as CaCO3 mg/L)	grab	05/03/00 - 04/19/01	26	2.5	250.0	193.9	63.7	Not less than 20 mg/L
NUTRIENTS								
Total Nitrogen (mg/L)	grab	05/03/00 - 04/19/01	26	<0.2	2.0	1.3	0.4	
Total Kjeldahl Nitrogen (mg/L)	grab	05/03/00 - 04/19/01	26	<0.2	2.0	1.3	0.4	
Nitrate/Nitrite (as N mg/L)	grab	05/03/00 - 04/19/01	26	<0.002	0.160	0.029	0.046	
Nitrite (mg/L)	grab	05/03/00 - 04/19/01	26	<0.003	0.020	0.004	0.005	
Ammonia (as N mg/L)	grab	05/03/00 - 04/19/01	26	<0.002	0.888	0.105	0.175	
Unionized Ammonia (mg NH3)	calculated	07/27/00 - 02/07/01	5	0.000	0.050	0.012	0.021	Less than or equal to 0.02 mg/L
Total Phosphorus (mg/L)	grab	05/03/00 - 04/19/01	27	<0.002	0.458	0.065	0.083	
	composite	05/03/00 - 04/25/01	43	<0.002	0.368	0.072	0.059	
Ortho-Phosphate (as P mg/L)	grab	05/03/00 - 04/19/01	26	<0.002	0.349	0.031	0.068	
Dissolved Silica (mg/L)	grab	10/11/00 - 01/03/01	2	5.0	5.8	5.4		
MAJOR IONS								
Chlorides (mg/L)	grab	05/03/00 - 04/19/01	26	<0.1	49.000	34.825	13.343	Not applicable
Sulfate (mg/L)	grab	10/11/00 - 04/04/01	3	5.600	9.600	7.967	2.098	Not applicable
Dissolved Sodium (mg/L)	grab	10/11/00 - 04/04/01	3	9.700	35.000	24.233	13.064	Not applicable
Dissolved Potassium (mg/L)	grab	10/11/00 - 04/04/01	3	3.500	3.800	3.667	0.153	Not applicable
Dissolved Calcium (mg/L)	grab	10/11/00 - 04/04/01	3	41.000	88.000	70.000	25.357	Not applicable
Dissolved Magnesium (mg/L)	grab	10/11/00 - 04/04/01	3	3.100	7.600	5.867	2.421	Not applicable
TRACE ELEMENTS								
Total Arsenic (µg/L)	grab	01/03/01 - 01/03/01	1			1.300		Less than or equal to 50 mg/L
Total Cadmium (µg/L)	grab	01/03/01 - 01/03/01	1			<0.5		Less than or equal to calculated value
Total Copper (µg/L)	grab	01/03/01 - 01/03/01	1			<2.0		Less than or equal to calculated value
Total Lead (µg/L)	grab	01/03/01 - 01/03/01	1			<2.0		Less than or equal to calculated value
Total Zinc (µg/L)	grab	01/03/01 - 01/03/01	1			<2.0		Less than or equal to calculated value

Table 7. Summary of Water Quality Parameters Collected at Stations S140 from May 2000 through April 2001.

PARAMETER	SAMPLE TYPE	PERIOD	SAMPLE N	MINIMUM	MAXIMUM	AVERAGE	STANDARD DEVIATION	CLASS III CRITERIA
PHYSICAL								
Water Temperature (°C)	field	05/23/00 - 04/24/01	14	17.55	29.77	25.45	3.55	Not applicable
Specific Conductance (µmhos/cm)	field	05/23/00 - 04/24/01	14	263.00	574.90	475.11	107.97	Not greater than 50% above background or 1,275µmhos/cm
Dissolved Oxygen (mg/L)	field	05/23/00 - 04/24/01	14	1.6	8.4	4.4	2.3	Not be less than 5.0 mg/L
pH (SU)	field	05/23/00 - 04/24/01	14	6.63	8.10	7.39	0.50	Not less than 6.0 or greater than 8.5
Turbidity (NTU)	field	05/23/00 - 04/24/01	14	0.9	3.6	1.9	0.7	Less than or equal to 29 NTU above background
Color (PSU)	field	05/23/00 - 04/24/01	13	46	129	76	26	Not applicable
Total Suspended Solids (mg/L)	grab	05/23/00 - 04/24/01	13	<3.0	4.400	<3.0	1.287	Not applicable
Hardness (as CaCO3 mg/L)	calculated	07/18/00 - 02/13/01	3	113.3	225.9	178.6	58.4	Not applicable
Alkalinity (as CaCO3 mg/L)	grab	05/23/00 - 04/24/01	14	108.2	226.9	185.5	37.5	Not less than 20 mg/L
NUTRIENTS								
Total Nitrogen (mg/L)	grab	05/23/00 - 04/24/01	13	1.1	1.4	1.2	0.1	
	composite	04/17/01 - 04/17/01	1			1.4		
Total Kjeldahl Nitrogen (mg/L)	grab	05/23/00 - 04/24/01	13	1.1	1.3	1.2	0.1	
	composite	04/17/01 - 04/17/01	1			1.4		
Nitrate/Nitrite (as N mg/L)	grab	05/23/00 - 04/24/01	13	<0.004	0.147	0.038	0.050	
	composite	04/17/01 - 04/17/01	1			0.005		
Nitrite (mg/L)	grab	05/23/00 - 04/24/01	14	<0.004	0.009	0.004	0.002	
Nitrate (mg/L)	grab	06/20/00 - 12/19/00	8	0.012	0.140	0.052	0.054	
Ammonia (as N mg/L)	grab	05/23/00 - 04/24/01	13	<0.009	0.148	0.062	0.052	
Unionized Ammonia (mg/L NH3)	calculated	05/23/00 - 04/24/01	13	0.000	0.002	0.001		Less than or equal to 0.02 mg/L
Total Phosphorus (mg/L)	grab	05/23/00 - 04/24/01	13	0.019	0.289	0.061	0.072	
	composite	08/02/00 - 04/25/01	37	0.018	0.243	0.047	0.045	
Ortho-Phosphate (as P mg/L)	grab	05/23/00 - 04/24/01	14	<0.004	0.253	0.034	0.066	
Dissolved Silica (mg/L)	grab	07/18/00 - 04/24/01	5	3.276	8.073	5.863	1.877	
MAJOR IONS								
Chlorides (mg/L)	grab	05/23/00 - 04/24/01	14	12.020	45.060	32.539	10.115	Not applicable
Sulfate (mg/L)	grab	07/18/00 - 04/24/01	5	4.770	10.200	7.942	2.099	Not applicable
Dissolved Sodium (mg/L)	grab	07/18/00 - 02/13/01	3	8.772	31.585	22.195	11.929	Not applicable
Dissolved Potassium (mg/L)	grab	07/18/00 - 02/13/01	3	2.871	3.547	3.261	0.350	Not applicable
Dissolved Calcium (mg/L)	grab	07/18/00 - 02/13/01	3	40.701	79.227	62.757	19.861	Not applicable
Dissolved Magnesium (mg/L)	grab	07/18/00 - 02/13/01	3	2.845	6.808	5.310	2.151	Not applicable
TRACE ELEMENTS								
Total Arsenic (µg/L)	grab	07/18/00 - 07/18/00	1			<1.5		Less than or equal to 50 mg/L
Total Cadmium (µg/L)	grab	07/18/00 - 02/13/01	2	<0.3	<0.3	<0.3		Less than or equal to calculated value
Total Copper (µg/L)	grab	07/18/00 - 02/13/01	2	<1.2	<1.2	<1.2		Less than or equal to calculated value
Total Iron (µg/L)	grab	07/18/00 - 02/13/01	3	34.355	323.465	208.623	153.443	Less than or equal to 1,000 ug/L
Total Lead (µg/L)	grab	07/18/00 - 07/18/00	1			<0.8		Less than or equal to calculated value
Total Zinc (µg/L)	grab	07/18/00 - 02/13/01	2	<4.0	<4.0	<4.0		Less than or equal to calculated value

Table 8. Summary of Water Quality Parameters Collected at Stations WWEIR from May 2000 through April 2001.

PARAMETER	SAMPLE TYPE	PERIOD	SAMPLE N	MINIMUM	MAXIMUM	AVERAGE	STANDARD DEVIATION	CLASS III CRITERIA
PHYSICAL								
Water Temperature (°C)	field	05/04/00 - 04/25/01	52	13.55	29.89	23.44	4.33	Not applicable
Specific Conductance (µmhos/cm)	field	05/04/00 - 04/25/01	51	153.00	884.40	720.90	146.20	Not greater than 50% above background or 1,275 µmhos/cm
Dissolved Oxygen (mg/L)	field	05/04/00 - 04/25/01	52	0.1	8.0	3.4	2.2	Not be less than 5.0 mg/L
pH (SU)	field	05/04/00 - 04/25/01	52	6.45	7.95	7.27	0.30	Not less than 6.0 or greater than 8.5
NUTRIENTS								
Total Nitrogen (mg/L)	composite	06/29/00 - 12/14/00	21	0.7	1.6	1.0	0.2	
Total Kjeldahl Nitrogen (mg/L)	composite	06/29/00 - 12/14/00	21	0.7	1.6	1.0	0.2	
Nitrate/Nitrite (as N mg/L)	composite	06/29/00 - 12/14/00	21	<0.004	0.030	0.010	0.006	
Total Phosphorus (mg/L)	grab	05/04/00 - 04/25/01	52	0.014	0.097	0.031	0.016	
	composite	06/29/00 - 12/14/00	21	0.017	0.102	0.036	0.025	

Table 9. Summary of Water Quality Parameters Collected at Stations NFEED from May 2000 through April 2001.

PARAMETER	SAMPLE TYPE	PERIOD	SAMPLE N	MINIMUM	MAXIMUM	AVERAGE	STANDARD DEVIATION	CLASS III CRITERIA
PHYSICAL								
Water Temperature (°C)	field	05/04/00 - 04/25/01	51	14.99	31.61	25.58	4.84	Not applicable
Specific Conductance (µmhos/cm)	field	05/04/00 - 04/25/01	50	178.00	771.00	511.84	71.55	Not greater than 50% above background or 1,275µmhos/cm
Dissolved Oxygen (mg/L)	field	05/04/00 - 04/25/01	51	3.3	10.5	6.9	1.7	Not be less than 5.0 mg/L
pH (SU)	field	05/04/00 - 04/25/01	51	6.97	8.34	7.82	0.34	Not less than 6.0 or greater than 8.5
NUTRIENTS								
Total Nitrogen (mg/L)	composite	05/04/00 - 04/25/01	49	0.7	2.0	1.2	0.3	
Total Kjeldahl Nitrogen (mg/L)	composite	05/04/00 - 04/25/01	49	0.7	2.0	1.2	0.3	
Nitrate/Nitrite (as N mg/L)	composite	05/04/00 - 04/25/01	49	<0.004	0.068	0.013	0.014	
Total Phosphorus (mg/L)	grab	05/04/00 - 04/25/01	51	0.023	0.410	0.069	0.072	
	composite	05/04/00 - 04/25/01	49	0.023	0.393	0.074	0.067	

Table 10. Summary of Water Quality Parameters Collected at Stations S190 from May 2000 through April 2001.

PARAMETER	SAMPLE TYPE	PERIOD	SAMPLE N	MINIMUM	MAXIMUM	AVERAGE	STANDARD DEVIATION	CLASS III CRITERIA
PHYSICAL								
Water Temperature (°C)	field	05/31/00 - 04/17/01	13	15.91	31.49	26.09	4.86	Not applicable
Specific Conductance (µmhos/cm)	field	05/31/00 - 04/17/01	13	403.00	673.00	587.86	69.42	Not greater than 50% above background or 1,275µmhos/cm
Dissolved Oxygen (mg/L)	field	05/31/00 - 04/17/01	13	2.3	8.6	6.2	1.9	Not be less than 5.0 mg/L
pH (SU)	field	05/31/00 - 04/17/01	13	7.04	8.42	7.88	0.36	Not less than 6.0 or greater than 8.5
Turbidity (NTU)	field	05/31/00 - 04/17/01	13	1.2	4.7	2.8	1.1	Less than or equal to 29 NTU above background
Color (PSU)	field	05/31/00 - 04/17/01	13	32	136	54	27	Not applicable
Total Suspended Solids (mg/L)	grab	05/31/00 - 04/17/01	12	<3.0	5.200	3.133	1.291	Not applicable
Hardness (as CaCO3 mg/L)	calculated	07/24/00 - 04/17/01	5	172.0	263.7	234.7	36.5	Not applicable
Alkalinity (as CaCO3 mg/L)	grab	05/31/00 - 04/17/01	13	163.8	248.5	233.9	22.3	Not less than 20 mg/L
NUTRIENTS								
Total Nitrogen (mg/L)	grab	05/31/00 - 04/17/01	13	0.7	1.5	1.0	0.2	
	composite	12/20/00 - 12/20/00	1			0.8		
Total Kjeldahl Nitrogen (mg/L)	grab	05/31/00 - 04/17/01	13	0.7	1.5	1.0	0.2	
	composite	12/20/00 - 12/20/00	1			0.8		
Nitrate/Nitrite (as N mg/L)	grab	05/31/00 - 04/17/01	13	<0.004	0.024	0.006	0.007	
	composite	12/20/00 - 12/20/00	1			0.008		
Nitrite (mg/L)	grab	05/31/00 - 04/17/01	13	<0.004	0.005	<0.004	0.001	
Nitrate (mg/L)	grab	10/16/00 - 11/27/00	2	0.016	0.019	0.018		
Ammonia (as N mg/L)	grab	05/31/00 - 04/17/01	13	<0.009	0.146	0.020	0.039	
Unionized Ammonia (mg/L NH3)	calculated	05/31/00 - 04/17/01	13	0.000	0.001	0.001		Less than or equal to 0.02 mg/L
Total Phosphorus (mg/L)	grab	05/31/00 - 04/17/01	13	0.026	0.254	0.050	0.062	
	composite	08/02/00 - 04/11/01	35	0.019	0.250	0.051	0.051	
Ortho-Phosphate (as P mg/L)	grab	05/31/00 - 04/17/01	13	<0.004	0.217	0.022	0.059	
Dissolved Silica (mg/L)	grab	07/24/00 - 04/17/01	4	0.246	12.178	7.426	5.156	
MAJOR IONS								
Chlorides (mg/L)	grab	05/31/00 - 04/17/01	13	20.640	59.470	41.883	10.825	Not applicable
Sulfate (mg/L)	grab	07/24/00 - 04/17/01	4	6.700	14.180	11.965	3.550	Not applicable
Dissolved Sodium (mg/L)	grab	07/24/00 - 04/17/01	4	16.562	31.798	25.711	6.973	Not applicable
Dissolved Potassium (mg/L)	grab	07/24/00 - 04/17/01	4	2.302	3.100	2.690	0.328	Not applicable
Dissolved Calcium (mg/L)	grab	07/24/00 - 04/17/01	5	60.278	93.303	82.779	13.471	Not applicable
Dissolved Magnesium (mg/L)	grab	07/24/00 - 04/17/01	5	5.227	8.269	6.791	1.154	Not applicable
TRACE ELEMENTS								
Total Arsenic (µg/L)	grab	07/24/00 - 07/24/00	1			<1.5		Less than or equal to 50 mg/L
Total Cadmium (µg/L)	grab	07/24/00 - 02/13/01	2	<0.3	<0.3	<0.3		Less than or equal to calculated value
Total Copper (µg/L)	grab	07/24/00 - 02/13/01	2	<1.2	1.264	<1.2		Less than or equal to calculated value
Total Iron (µg/L)	grab	07/24/00 - 04/17/01	4	46.039	298.349	119.125	119.858	Less than or equal to 1,000 ug/L
Total Lead (µg/L)	grab	07/24/00 - 07/24/00	1			<0.8		Less than or equal to calculated value
Total Zinc (µg/L)	grab	07/24/00 - 02/13/01	2	<4.0	<4.0	<4.0		Less than or equal to calculated value

Table 11. Summary of Water Quality Parameters Collected at Stations L28IN from May 2000 through April 2001.

PARAMETER	SAMPLE TYPE	PERIOD	SAMPLE N	MINIMUM	MAXIMUM	AVERAGE	STANDARD DEVIATION	CLASS III CRITERIA
PHYSICAL								
Water Temperature (°C)	field	07/27/00 - 02/07/01	4	19.00	30.10	23.23	5.11	Not applicable
Specific Conductance (µmhos/cm)	field	05/03/00 - 03/07/01	24	290.00	597.00	488.63	88.34	Not greater than 50% above background or 1,275µmhos/cm
Dissolved Oxygen (mg/L)	field	07/27/00 - 02/07/01	4	6.6	8.2	7.5	0.7	Not be less than 5.0 mg/L
pH (SU)	field	07/27/00 - 03/07/01	7	7.38	10.00	8.41	0.80	Not less than 6.0 or greater than 8.5
Turbidity (NTU)	field	05/03/00 - 04/04/01	29	1.2	15.0	4.1	2.5	Less than or equal to 29 NTU above background
Color (PSU)	field	05/03/00 - 04/04/01	29	8	120	46	23	Not applicable
Total Suspended Solids (mg/L)	grab	05/03/00 - 10/11/00	6	1.300	23.000	7.450	7.852	Not applicable
Hardness (as CaCO3 mg/L)	calculated	07/12/00 - 04/04/01	5	102.1	265.7	179.8	63.6	Not applicable
Alkalinity (as CaCO3 mg/L)	grab	05/03/00 - 04/04/01	29	108.0	260.0	210.7	43.2	Not less than 20 mg/L
NUTRIENTS								
Total Nitrogen (mg/L)	grab	05/03/00 - 04/04/01	29	0.7	1.4	1.1	0.2	
Total Kjeldahl Nitrogen (mg/L)	grab	05/03/00 - 04/04/01	29	0.7	1.4	1.0	0.2	
Nitrate/Nitrite (as N mg/L)	grab	05/03/00 - 04/04/01	29	<0.002	0.020	0.003	0.004	
Nitrite (mg/L)	grab	05/03/00 - 04/04/01	29	<0.003	0.006	0.002	0.001	
Ammonia (as N mg/L)	grab	05/03/00 - 04/04/01	29	<0.002	0.198	0.025	0.036	
Unionized Ammonia (mg NH3)	calculated	07/27/00 - 02/07/01	4	0.000	0.094	0.025	0.046	Less than or equal to 0.02 mg/L
Total Phosphorus (mg/L)	grab	05/03/00 - 04/04/01	30	0.020	0.354	0.053	0.064	
	composite	05/03/00 - 04/19/01	35	0.040	0.340	0.097	0.072	
Ortho-Phosphate (as P mg/L)	grab	05/03/00 - 04/04/01	29	<0.002	0.224	0.015	0.048	
Dissolved Silica (mg/L)	grab	07/12/00 - 01/03/01	4	0.1	6.7	3.3	3.3	
MAJOR IONS								
Chlorides (mg/L)	grab	05/03/00 - 04/04/01	29	15.000	49.000	34.241	7.818	Not applicable
Sulfate (mg/L)	grab	07/12/00 - 04/04/01	5	3.900	9.600	7.260	2.290	Not applicable
Dissolved Sodium (mg/L)	grab	07/12/00 - 04/04/01	5	11.000	34.000	22.600	8.264	Not applicable
Dissolved Potassium (mg/L)	grab	07/12/00 - 04/04/01	5	1.800	3.900	2.840	0.934	Not applicable
Dissolved Calcium (mg/L)	grab	07/12/00 - 04/04/01	5	30.000	96.000	62.000	24.950	Not applicable
Dissolved Magnesium (mg/L)	grab	07/12/00 - 04/04/01	5	4.100	6.700	6.020	1.085	Not applicable
TRACE ELEMENTS								
Total Arsenic (µg/L)	grab	07/12/00 - 01/03/01	3	1.500	2.700	2.067	0.603	Less than or equal to 50 mg/L
Total Cadmium (µg/L)	grab	07/12/00 - 01/03/01	3	<0.5	<0.5	<0.5		Less than or equal to calculated value
Total Copper (µg/L)	grab	07/12/00 - 01/03/01	3	<2.0	<2.0	<2.0		Less than or equal to calculated value
Total Lead (µg/L)	grab	07/12/00 - 01/03/01	3	<2.0	<2.0	<2.0		Less than or equal to calculated value
Total Zinc (µg/L)	grab	07/12/00 - 01/03/01	3	<2.0	3.700	2.733	1.504	Less than or equal to calculated value

Table 12. Trace Metal Concentrations above Method Detection Limits and Compared with Class III Standards.

STATION	PARAMETER	DATE	CONC. (mg/L)	WATER HARDNESS (mg/L CaCO3)	CLASS III	EXCEEDANCE
S190	TOTCU	2/13/2001	1.264	253.111	26.145	no
L3BRS	TOTCD	7/11/2000	0.465	222.360	2.124	no
L28IN	TOTZN	7/12/2000	3.700	196.975	188.246	no
L28IN	TOTZN	7/12/2000	3.500	196.975	188.246	no

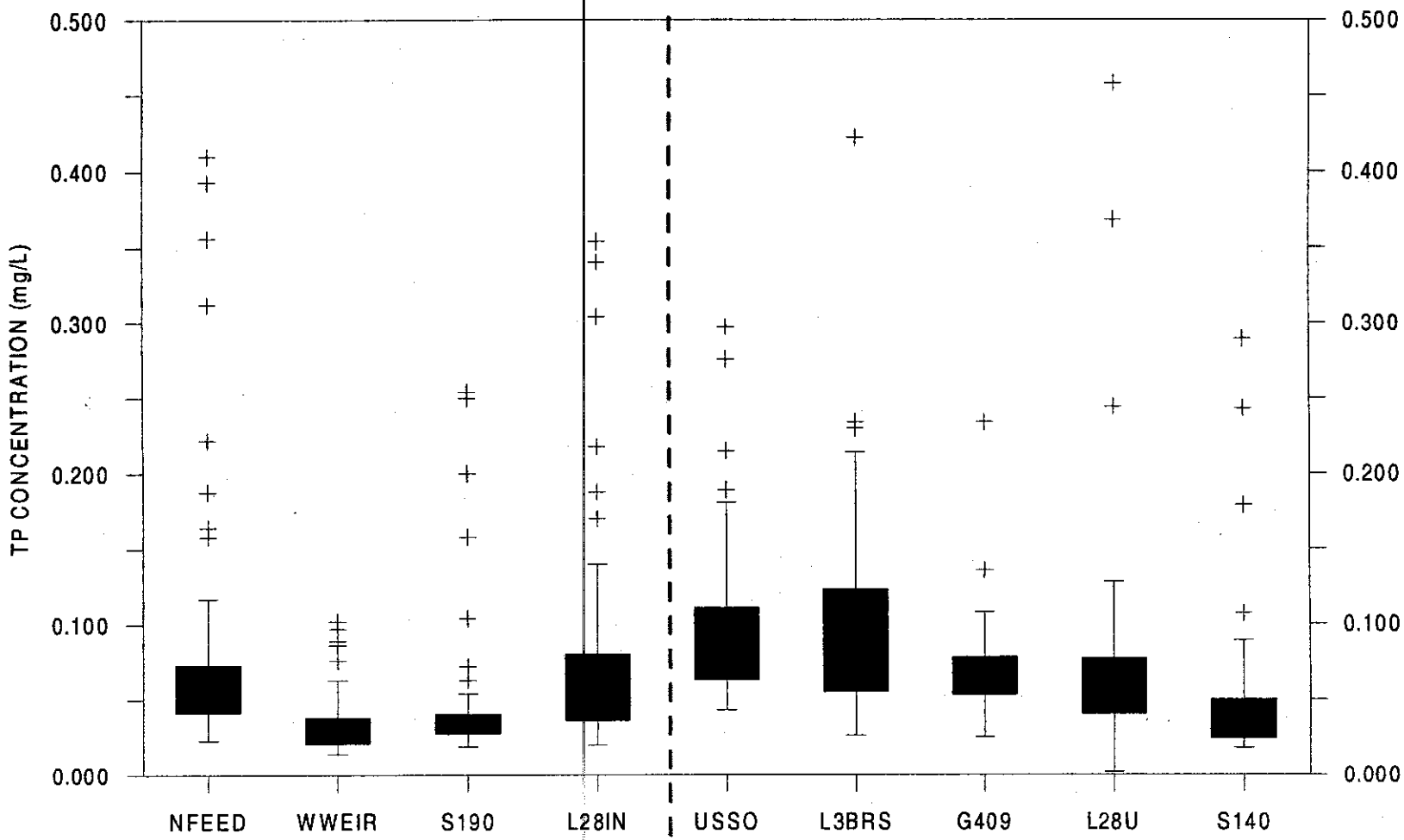


Figure 13. Comparison of total phosphorus (TP) concentrations among monitoring sites.

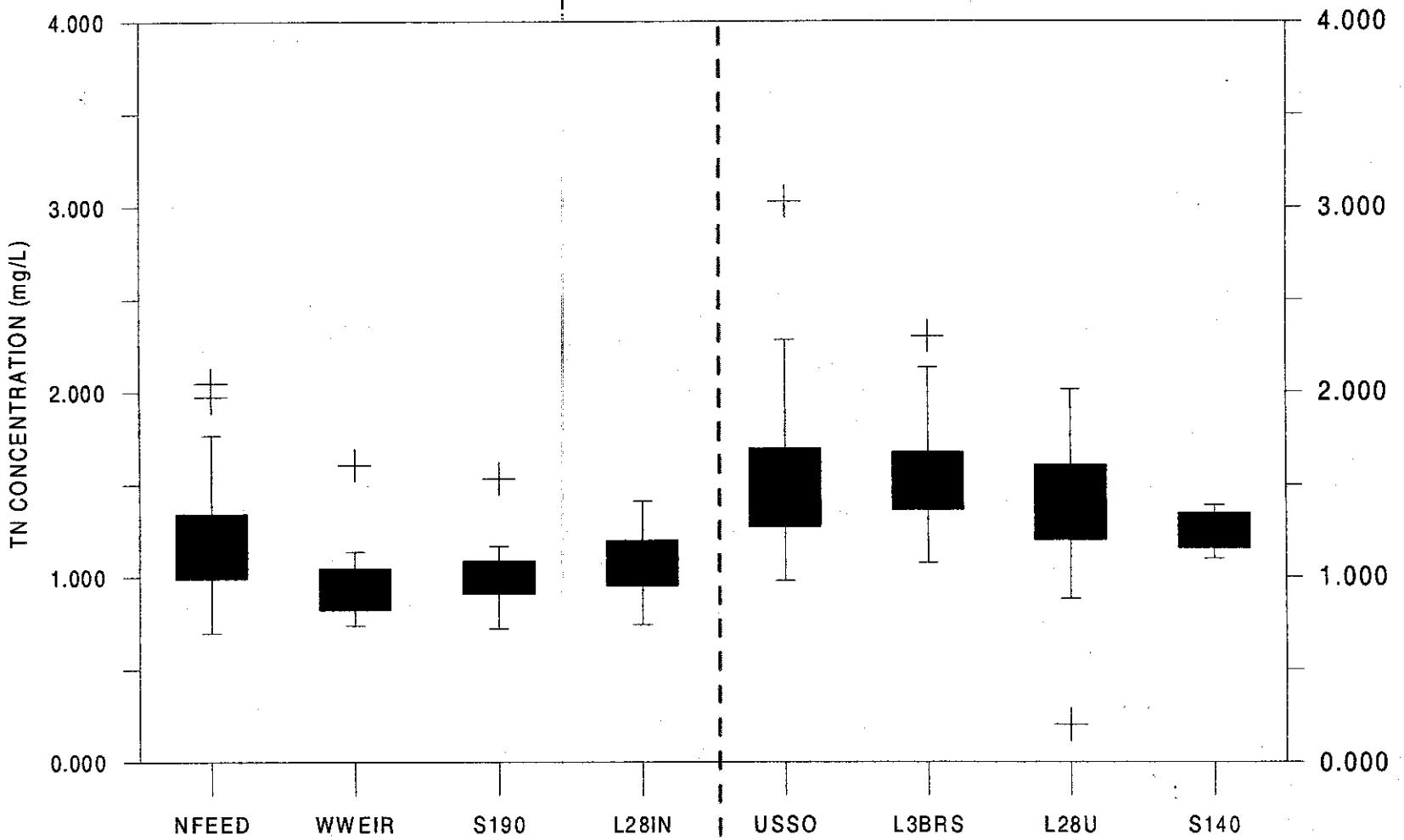
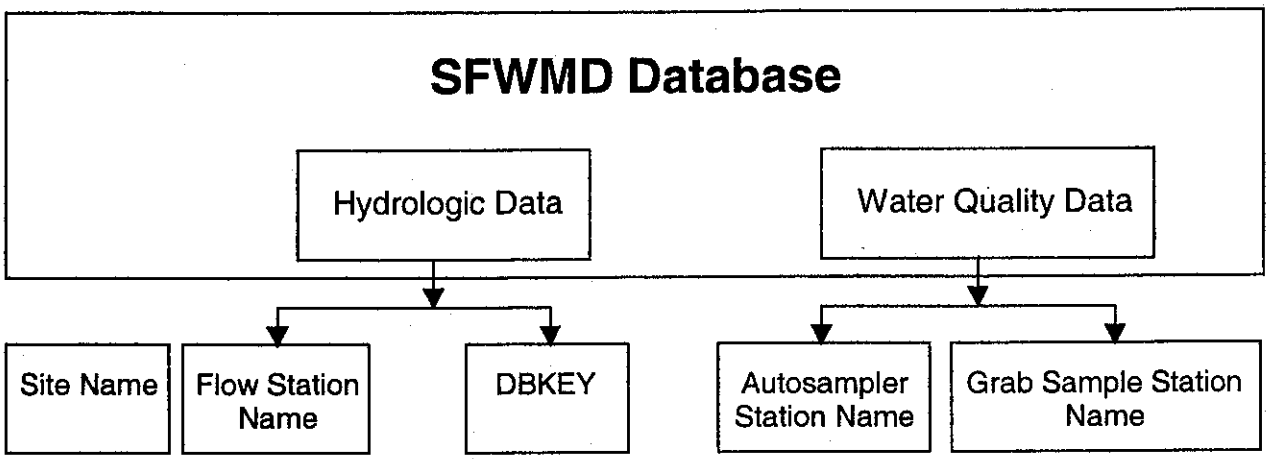


Figure 14. Comparison of total nitrogen (TN) concentrations among monitoring sites.

Appendix I. SFWMD/Seminole Agreement Sampling Station Names



Site Name	Flow Station Name	DBKEY	Autosampler Station Name	Grab Sample Station Name
NFEED	NFEED_O	16754	NFEED	NFEED
WWEIR	WWEIR_W	16752	WWEIR	WWEIR
L3BRS	L3BRS_O	16245	USL3BRS	L3BRS
USSO	USSO_O	16749	USSO	USSO
S190	S190_S	15987	S190	S190
S140	S140_T	06754	S140	S140
L28U	L28U_O	FF808 (FF811 USGS Preferred)	L28U	L28U (Seminole BCS7)
L28IN	L28IN_O	FF809 (FF810 USGS Preferred)	L28IN	L28IN (Seminole BCS5)
L28IS	L28IS_O	FF812 (FF813 USGS Preferred)	L28IS	L28IS (Miccosukee L28I @ I75)

(Flow Measurements at L28IS by the USGS were discontinued on 9/30/99)

Appendix II. Total phosphorus (TP) concentration data for the period of May 2000 through April 2001.

A1. L3BRS/USL3BRS grab sample TP concentration data.

Station	Project	Date	Type	value	Sample_ID	LIMS No.	Souce
L3BRS	CAMB	05/31/2000	0	0.137	P4978-8	L14828-8	SFWMD
L3BRS	CAMB	06/29/2000	0	0.162	P5220-9	L15030-9	SFWMD
L3BRS	CAMB	07/11/2000	0	0.106	P5365-8	L15089-6	SFWMD
L3BRS	CAMB	08/21/2000	0	0.095	P5695-9	L15380-8	SFWMD
L3BRS	CAMB	09/06/2000	0	0.073	P5949-9	L15490-9	SFWMD
L3BRS	CAMB	09/18/2000	0	0.027	P6014-9	L15570-9	SFWMD
L3BRS	CAMB	10/30/2000	0	0.054	P6486-9	L15903-9	SFWMD
L3BRS	CAMB	11/13/2000	0	0.042	P6502-9	L16001-9	SFWMD
L3BRS	CAMB	12/11/2000	0	0.048	P6746-9	L16181-8	SFWMD
L3BRS	CAMB	12/27/2000	0	0.043	P6883-9	L16271-9	SFWMD
L3BRS	CAMB	01/11/2001	0	0.053	P7114-8	L16373-8	SFWMD
L3BRS	CAMB	01/23/2001	0	0.058	P7171-8	L16434-8	SFWMD
L3BRS	CAMB	02/07/2001	0	0.055	P7411-10	L16539-10	SFWMD
L3BRS	CAMB	02/20/2001	0	0.067	P7422-10	L16616-10	SFWMD
L3BRS	CAMB	03/05/2001	0	0.076	P7601-10	L16692-10	SFWMD
L3BRS	CAMB	03/19/2001	0	0.078	P7624-10	L16778-10	SFWMD
L3BRS	CAMB	04/02/2001	0	0.061	P7862-8	L16852-8	SFWMD
L3BRS	CAMB	04/17/2001	0	0.093	P7881-8	L16959-8	SFWMD
L3BRS	CAMB	05/02/2001	0	0.069	P8114-10	L17062-8	SFWMD
L3BRS	CAMB	05/14/2001	0	0.067	P8134-10	L17111-10	SFWMD
L3BRS	CAMB	05/31/2001	0	0.086	P8149-10	L17230-8	SFWMD
L3BRS	CAMB	06/12/2001	0	0.038	P8474-10	L17321-8	SFWMD
L3BRS	CAMB	06/26/2001	0	0.073	P8515-10	L17424-5	SFWMD
USL3BRS	CAMB	07/02/2001	0	0.071	P8703-19	L17457-16	SFWMD
USL3BRS	CAMB	07/11/2001	0	0.085	P8708-19	L17530-17	SFWMD
L3BRS	CAMB	07/11/2001	0	0.109	P8707-5	L17529-5	SFWMD
L3BRS	CAMB	07/23/2001	0	0.034	P8718-5	L17609-5	SFWMD
L3BRS	CAMB	08/06/2001	0	0.015	P9049-10	L17737-5	SFWMD
L3BRS	CAMB	08/20/2001	0	0.059	P9057-5	L17851-5	SFWMD

A2. USL3BRS auto sampler flow proportional composite TP concentration data.

Station	Project	Date	Type	value	Sample_ID	LIMS No.	Souce
USL3BRS	CAMB	05/04/2000	24	0.422	P3960-4	L14598-4	SFWMD
USL3BRS	CAMB	05/11/2000	24	0.166	P4739-4	L14663-4	SFWMD
USL3BRS	CAMB	05/18/2000	24	0.124	P4827-4	L14736-4	SFWMD
USL3BRS	CAMB	05/25/2000	24	0.129	P4919-4	L14797-4	SFWMD
USL3BRS	CAMB	06/01/2000	24	0.134	P5033-4	L14844-4	SFWMD
USL3BRS	CAMB	06/08/2000	24	0.113	P5045-4	L14898-4	SFWMD
USL3BRS	CAMB	06/15/2000	24	0.210	P5108-4	L14940-4	SFWMD
USL3BRS	CAMB	06/22/2000	24	0.230	P5120-4	L14987-4	SFWMD
USL3BRS	CAMB	06/29/2000	24	0.234	P5219-4	L15029-4	SFWMD
USL3BRS	CAMB	07/05/2000	24	0.174	P5317-4	L15048-4	SFWMD
USL3BRS	CAMB	07/27/2000	24	0.086	P5534-4	L15232-4	SFWMD
USL3BRS	CAMB	08/03/2000	24	0.072	P5541-4	L15279-4	SFWMD
USL3BRS	CAMB	08/09/2000	24	0.168	P5641-4	L15312-4	SFWMD
USL3BRS	CAMB	08/17/2000	24	0.075	P5370-4	L15373-4	SFWMD
USL3BRS	CAMB	08/24/2000	24	0.105	P5700-4	L15425-4	SFWMD
USL3BRS	CAMB	08/31/2000	24	0.112	P5706-4	L15468-4	SFWMD
USL3BRS	CAMB	09/07/2000	24	0.076	P5950-4	L15502-4	SFWMD
USL3BRS	CAMB	09/14/2000	24	0.049	P5955-4	L15563-4	SFWMD
USL3BRS	CAMB	09/28/2000	24	0.026	P6024-5	L15672-4	SFWMD
USL3BRS	CAMB	10/05/2000	24	0.079	P6128-5	L15722-5	SFWMD
USL3BRS	CAMB	10/12/2000	24	0.123	P6066-5	L15785-4	SFWMD
USL3BRS	CAMB	10/25/2000	24	0.214	P6454-5	L15883-4	SFWMD
USL3BRS	CAMB	11/09/2000	24	0.043	P6494-5	L15995-4	SFWMD
USL3BRS	CAMB	11/16/2000	24	0.041	P6509-5	L16040-4	SFWMD
USL3BRS	CAMB	11/30/2000	24	0.053	P6662-5	L16119-4	SFWMD
USL3BRS	CAMB	12/14/2000	24	0.053	P6872-5	L16216-4	SFWMD
USL3BRS	CAMB	12/19/2000	24	0.063	P6877-5	L16235-4	SFWMD
USL3BRS	CAMB	01/04/2001	24	0.076	P7105-5	L16328-4	SFWMD
USL3BRS	CAMB	01/31/2001	24	0.053	P7182-5	L16498-5	SFWMD
USL3BRS	CAMB	02/07/2001	24	0.064	P7413-5	L16542-4	SFWMD
USL3BRS	CAMB	02/21/2001	24	0.073	P7423-5	L16632-5	SFWMD
USL3BRS	CAMB	02/28/2001	24	0.085	P7429-5	L16672-5	SFWMD
USL3BRS	CAMB	03/14/2001	24	0.090	P7611-5	L16761-5	SFWMD
USL3BRS	CAMB	04/04/2001	24	0.074	P7866-5	L16876-4	SFWMD
USL3BRS	CAMB	04/11/2001	24	0.069	P7877-5	L16929-5	SFWMD
USL3BRS	CAMB	04/18/2001	24	0.082	P7883-5	L16973-5	SFWMD
USL3BRS	CAMB	04/25/2001	24	0.098	P7889-5	L17013-5	SFWMD
USL3BRS	CAMB	05/02/2001	24	0.096	P8112-5	L17063-4	SFWMD
USL3BRS	CAMB	05/16/2001	24	0.086	P8126-5	L17134-4	SFWMD
USL3BRS	CAMB	07/30/2001	24	0.042	P9047-11	L17671-11	SFWMD
USL3BRS	CAMB	08/07/2001	24	0.045	P9051-11	L17752-8	SFWMD
USL3BRS	CAMB	08/21/2001	24	0.066	P9058-11	L17867-8	SFWMD

A3. USSO grab sample TP concentration data.

Station	Project	Date	Type	value	Sample_ID	LIMS No.	Souce
USSO	CAMB	05/31/2000	0	0.064	P4978-9	L14828-9	SFWMD
USSO	CAMB	06/29/2000	0	0.087	P5220-11	L15030-11	SFWMD
USSO	CAMB	07/24/2000	0	0.115	P5529-9	L15185-9	SFWMD
USSO	CAMB	08/07/2000	0	0.046	P5635-11	L15282-11	SFWMD
USSO	CAMB	09/06/2000	0	0.048	P5949-11	L15490-11	SFWMD
USSO	CAMB	09/18/2000	0	0.044	P6014-11	L15570-11	SFWMD
USSO	CAMB	10/02/2000	0	0.044	P6062-9	L15675-9	SFWMD
USSO	CAMB	10/16/2000	0	0.276	P6361-9	L15800-9	SFWMD
USSO	CAMB	11/27/2000	0	0.141	P6657-11	L16081-11	SFWMD
USSO	CAMB	12/27/2000	0	0.085	P6883-11	L16271-11	SFWMD
USSO	CAMB	01/23/2001	0	0.054	P7171-9	L16434-9	SFWMD
USSO	CAMB	02/20/2001	0	0.093	P7422-12	L16616-12	SFWMD
USSO	CAMB	03/19/2001	0	0.063	P7624-12	L16778-12	SFWMD
USSO	CAMB	04/17/2001	0	0.181	P7881-9	L16959-9	SFWMD
USSO	CAMB	05/31/2001	0	0.052	P8149-12	L17230-9	SFWMD
USSO	CAMB	06/12/2001	0	0.157	P8474-12	L17321-9	SFWMD
USSO	CAMB	06/26/2001	0	0.041	P8515-12	L17424-6	SFWMD
USSO	CAMB	07/11/2001	0	0.082	P8707-6	L17529-6	SFWMD
USSO	CAMB	07/23/2001	0	0.077	P8718-6	L17609-6	SFWMD
USSO	CAMB	08/06/2001	0	0.088	P9049-12	L17737-6	SFWMD
USSO	CAMB	08/20/2001	0	0.111	P9057-6	L17851-6	SFWMD
USSO	CAMB	05/04/2000	24	0.083	P3960-5	L14598-5	SFWMD

A4. USSO auto sampler flow proportional composite TP concentration data.

Station	Project	Date	Type	value	Sample_ID	LIMS No.	Souce
USSO	CAMB	05/11/2000	24	0.065	P4739-5	L14663-5	SFWMD
USSO	CAMB	05/18/2000	24	0.065	P4827-5	L14736-5	SFWMD
USSO	CAMB	05/25/2000	24	0.050	P4919-5	L14797-5	SFWMD
USSO	CAMB	06/01/2000	24	0.063	P5033-5	L14844-5	SFWMD
USSO	CAMB	06/08/2000	24	0.095	P5045-5	L14898-5	SFWMD
USSO	CAMB	06/15/2000	24	0.098	P5108-5	L14940-5	SFWMD
USSO	CAMB	06/22/2000	24	0.077	P5120-5	L14987-5	SFWMD
USSO	CAMB	06/29/2000	24	0.069	P5219-5	L15029-5	SFWMD
USSO	CAMB	07/05/2000	24	0.095	P5317-5	L15048-5	SFWMD
USSO	CAMB	07/13/2000	24	0.095	P5386-5	L15127-5	SFWMD
USSO	CAMB	07/20/2000	24	0.121	P5377-5	L15177-5	SFWMD
USSO	CAMB	07/27/2000	24	0.116	P5534-5	L15232-5	SFWMD
USSO	CAMB	08/03/2000	24	0.063	P5541-5	L15279-5	SFWMD
USSO	CAMB	08/09/2000	24	0.069	P5641-5	L15312-5	SFWMD
USSO	CAMB	08/17/2000	24	0.046	P5370-5	L15373-5	SFWMD
USSO	CAMB	08/24/2000	24	0.077	P5700-5	L15425-5	SFWMD
USSO	CAMB	08/31/2000	24	0.067	P5706-5	L15468-5	SFWMD
USSO	CAMB	09/07/2000	24	0.044	P5950-5	L15502-5	SFWMD
USSO	CAMB	09/14/2000	24	0.054	P5955-5	L15563-5	SFWMD
USSO	CAMB	09/20/2000	24	0.043	P6018-6	L15605-5	SFWMD
USSO	CAMB	09/28/2000	24	0.073	P6024-6	L15672-5	SFWMD
USSO	CAMB	10/05/2000	24	0.051	P6128-6	L15722-6	SFWMD
USSO	CAMB	10/25/2000	24	0.297	P6454-6	L15883-5	SFWMD
USSO	CAMB	11/01/2000	24	0.106	P6372-6	L15931-5	SFWMD
USSO	CAMB	11/09/2000	24	0.078	P6494-6	L15995-5	SFWMD
USSO	CAMB	11/16/2000	24	0.077	P6509-6	L16040-5	SFWMD
USSO	CAMB	11/22/2000	24	0.095	P6656-6	L16072-5	SFWMD
USSO	CAMB	11/30/2000	24	0.165	P6662-6	L16119-5	SFWMD
USSO	CAMB	12/07/2000	24	0.138	P6821-6	L16177-5	SFWMD
USSO	CAMB	12/14/2000	24	0.109	P6872-6	L16216-5	SFWMD
USSO	CAMB	12/19/2000	24	0.119	P6877-6	L16235-5	SFWMD
USSO	CAMB	12/28/2000	24	0.087	P6884-6	L16281-5	SFWMD
USSO	CAMB	01/04/2001	24	0.074	P7105-6	L16328-5	SFWMD
USSO	CAMB	01/11/2001	24	0.057	P7113-6	L16371-5	SFWMD
USSO	CAMB	01/17/2001	24	0.084	P7168-6	L16403-6	SFWMD
USSO	CAMB	01/24/2001	24	0.091	P7176-6	L16455-6	SFWMD
USSO	CAMB	01/31/2001	24	0.063	P7182-6	L16498-6	SFWMD
USSO	CAMB	02/07/2001	24	0.111	P7413-6	L16542-5	SFWMD
USSO	CAMB	02/12/2001	24	0.075	P7416-6	L16560-6	SFWMD
USSO	CAMB	02/21/2001	24	0.080	P7423-6	L16632-6	SFWMD
USSO	CAMB	02/28/2001	24	0.123	P7429-6	L16672-6	SFWMD
USSO	CAMB	03/07/2001	24	0.114	P7605-6	L16720-6	SFWMD
USSO	CAMB	03/14/2001	24	0.074	P7611-6	L16761-6	SFWMD
USSO	CAMB	03/21/2001	24	0.081	P7627-6	L16800-5	SFWMD
USSO	CAMB	03/28/2001	24	0.084	P7632-6	L16839-5	SFWMD
USSO	CAMB	04/04/2001	24	0.107	P7866-6	L16876-5	SFWMD
USSO	CAMB	04/11/2001	24	0.215	P7877-6	L16929-6	SFWMD
USSO	CAMB	04/18/2001	24	0.189	P7883-6	L16973-6	SFWMD
USSO	CAMB	04/25/2001	24	0.127	P7889-6	L17013-6	SFWMD
USSO	CAMB	05/02/2001	24	0.117	P8112-6	L17063-5	SFWMD
USSO	CAMB	05/09/2001	24	0.109	P8118-6	L17095-6	SFWMD
USSO	CAMB	05/16/2001	24	0.084	P8126-6	L17134-5	SFWMD
USSO	CAMB	05/23/2001	24	0.089	P8144-6	L17178-5	SFWMD
USSO	CAMB	05/30/2001	24	0.088	P8148-6	L17220-4	SFWMD
USSO	CAMB	06/06/2001	24	0.246	P8511-12	L17284-11	SFWMD
USSO	CAMB	06/13/2001	24	0.163	P8509-12	L17341-10	SFWMD
USSO	CAMB	06/20/2001	24	0.111	P8513-12	L17392-11	SFWMD
USSO	CAMB	06/27/2001	24	0.054	P8725-12	L17444-9	SFWMD
USSO	CAMB	07/02/2001	24	0.044	P8703-12	L17457-9	SFWMD
USSO	CAMB	07/11/2001	24	0.055	P8708-12	L17530-10	SFWMD
USSO	CAMB	07/18/2001	24	0.064	P8714-12	L17584-7	SFWMD
USSO	CAMB	07/23/2001	24	0.075	P8717-12	L17608-7	SFWMD
USSO	CAMB	08/07/2001	24	0.059	P9051-10	L17752-7	SFWMD
USSO	CAMB	08/14/2001	24	0.072	P9053-10	L17809-10	SFWMD
USSO	CAMB	08/21/2001	24	0.082	P9058-10	L17867-7	SFWMD
USSO	CAMB	08/28/2001	24	0.075	P9065-10	L17914-10	SFWMD

A5. L28U grab sample TP concentration data.

Station	Project	Date	Type	value	Sample_ID LIMS No.	Souce
L28U	BCSB	05/03/2000	0	0.034	884	USGS
L28U	BCSB	05/31/2000	0	0.039	900	USGS
L28U	BCSB	06/07/2000	0	0.035	904	USGS
L28U	BCSB	06/21/2000	0	0.024	916	USGS
L28U	BCSB	07/27/2000	0	0.128	939	USGS
L28U	BCSB	08/02/2000	0	0.063	943	USGS
L28U	BCSB	08/17/2000	0	0.075	955	USGS
L28U	BCSB	08/17/2000	0	0.079	956	USGS
L28U	BCSB	08/30/2000	0	0.042	965	USGS
L28U	BCSB	09/20/2000	0	0.052	985	USGS
L28U	BCSB	10/11/2000	0	0.458	999	USGS
L28U	BCSB	10/25/2000	0	0.093	1015	USGS
L28U	BCSB	11/02/2000	0	0.070	1019	USGS
L28U	BCSB	11/15/2000	0	0.079	1031	USGS
L28U	BCBS	11/29/2000	0	0.070	1037	USGS
L28U	BCSB	12/06/2000	0	0.045	1040	USGS
L28U	BCSB	12/20/2000	0	0.060	1051	USGS
L28U	BCSB	01/03/2001	0	0.060	1059	USGS
L28U	BCSB	01/17/2001	0	0.040	1071	USGS
L28U	BCSB	02/01/2001	0	0.030	1080	USGS
L28U	BCSB	02/07/2001	0	0.040	1090	USGS
L28U	BCSB	02/21/2001	0	0.030	1098	USGS
L28U	BCSB	03/21/2001	0	0.050	1117	USGS
L28U	BCSB	04/04/2001	0	0.030	1125	USGS
L28U	BCSB	04/19/2001	0	-0.002	1135	USGS
L28U	BCSB	04/19/2001	0	-0.002	1136	USGS
L28U	BCSB	04/19/2001	0	0.030	1137	USGS

A6. L28U auto sampler flow proportional composite TP concentration data.

Station	Project	Date	Type	value	Sample_ID	LIMS No.	Souce
L28U	BCSB	05/03/2000	24	0.040	887		USGS
L28U	BCSB	05/10/2000	24	0.038	892		USGS
L28U	BCSB	05/24/2000	24	0.052	895		USGS
L28U	BCSB	05/31/2000	24	0.041	901		USGS
L28U	BCSB	06/07/2000	24	0.040	907		USGS
L28U	BCSB	06/14/2000	24	0.050	913		USGS
L28U	BCSB	06/21/2000	24	0.037	917		USGS
L28U	BCSB	07/12/2000	24	0.033	930		USGS
L28U	BCSB	07/20/2000	24	0.037	933		USGS
L28U	BCSB	07/27/2000	24	0.085	940		USGS
L28U	BCSB	08/02/2000	24	0.042	946		USGS
L28U	BCSB	08/11/2000	24	0.077	952		USGS
L28U	BCSB	08/23/2000	24	0.044	962		USGS
L28U	BCSB	08/30/2000	24	0.038	966		USGS
L28U	BCSB	09/13/2000	24	0.042	979		USGS
L28U	BCSB	09/20/2000	24	0.064	986		USGS
L28U	BCSB	09/27/2000	24	0.074	989		USGS
L28U	BCSB	10/05/2000	24	0.084	994		USGS
L28U	BCSB	10/11/2000	24	0.244	1004		USGS
L28U	BCSB	10/18/2000	24	0.368	1010		USGS
L28U	BCSB	10/25/2000	24	0.124	1016		USGS
L28U	BCSB	11/02/2000	24	0.094	1022		USGS
L28U	BCSB	11/08/2000	24	0.079	1028		USGS
L28U	BCSB	12/06/2000	24	0.054	1043		USGS
L28U	BCSB	12/13/2000	24	0.060	1048		USGS
L28U	BCSB	12/20/2000	24	0.050	1052		USGS
L28U	BCSB	12/27/2000	24	0.070	1056		USGS
L28U	BCSB	01/03/2001	24	0.110	1062		USGS
L28U	BCSB	01/11/2001	24	0.050	1068		USGS
L28U	BCSB	01/17/2001	24	0.080	1072		USGS
L28U	BCSB	01/24/2001	24	0.110	1077		USGS
L28U	BCSB	02/01/2001	24	0.060	1081		USGS
L28U	BCSB	02/07/2001	24	0.060	1091		USGS
L28U	BCSB	02/11/2001	24	0.060	1094		USGS
L28U	BCSB	02/21/2001	24	0.060	1099		USGS
L28U	BCSB	03/02/2001	24	0.060	1102		USGS
L28U	BCSB	03/07/2001	24	0.060	1109		USGS
L28U	BCSB	03/14/2001	24	0.070	1112		USGS
L28U	BCSB	03/29/2001	24	-0.002	1120		USGS
L28U	BCSB	03/29/2001	24	0.040	1122		USGS
L28U	BCSB	04/04/2001	24	0.060	1128		USGS
L28U	BCSB	04/11/2001	24	0.080	1134		USGS

A7. S140 grab sample TP concentration data.

Station	Project	Date	Type	value	Sample_ID	LIMS No.	Souce
S140	CAMB	05/23/2000	0	0.033	P3996-4	L14775-4	SFWMD
S140	CAMB	06/20/2000	0	0.031	P4666-4	L14970-4	SFWMD
S140	CAMB	07/18/2000	0	0.039	P4026-4	L15151-4	SFWMD
S140	CAMB	08/01/2000	0	0.076	P4667-4	L15259-4	SFWMD
S140	CAMB	09/12/2000	0	0.038	P5908-4	L15540-4	SFWMD
S140	CAMB	09/26/2000	0	0.046	P5909-4	L15647-4	SFWMD
S140	CAMB	10/10/2000	0	0.289	P6281-4	L15757-4	SFWMD
S140	CAMB	10/24/2000	0	0.089	P6282-4	L15880-4	SFWMD
S140	CAMB	11/21/2000	0	0.044	P5911-4	L16063-4	SFWMD
S140	CAMB	12/19/2000	0	0.036	P6358-5	L16242-4	SFWMD
S140	CAMB	01/30/2001	0	0.021	P6359-5	L16487-4	SFWMD
S140	CAMB	02/27/2001	0	0.019	P7319-5	L16663-4	SFWMD
S140	CAMB	04/24/2001	0	0.026	P7760-5	L17001-4	SFWMD
S140	CAMB	05/22/2001	0	0.030	P7323-5	L17168-4	SFWMD
S140	CAMB	06/19/2001	0	0.137	P8338-5	L17381-5	SFWMD
S140	CAMB	07/05/2001	0	0.065	P8361-5	L17487-5	SFWMD
S140	CAMB	07/17/2001	0	0.049	P8362-5	L17569-5	SFWMD
S140	CAMB	07/31/2001	0	0.038	P8370-5	L17694-5	SFWMD
S140	CAMB	08/14/2001	0	0.036	P8339-5	L17816-5	SFWMD

A8. S140 auto sampler time composite TP concentration data.

Station	Project	Date	Type	value	Sample_ID	LIMS No.	Souce
S140	CAMB	08/02/2000	7	0.088	P5543-9	L15267-9	SFWMD
S140	CAMB	08/17/2000	7	0.048	P5369-9	L15371-9	SFWMD
S140	CAMB	08/24/2000	7	0.069	P5701-9	L15428-9	SFWMD
S140	CAMB	08/31/2000	7	0.058	P5707-9	L15469-9	SFWMD
S140	CAMB	09/07/2000	7	0.041	P5951-9	L15504-9	SFWMD
S140	CAMB	09/14/2000	7	0.023	P5960-9	L15564-9	SFWMD
S140	CAMB	09/20/2000	7	0.029	P6017-12	L15606-12	SFWMD
S140	CAMB	09/28/2000	7	0.040	P6025-12	L15667-12	SFWMD
S140	CAMB	10/04/2000	7	0.035	P6067-12	L15715-12	SFWMD
S140	CAMB	10/12/2000	7	0.179	P6129-12	L15784-12	SFWMD
S140	CAMB	10/23/2000	7	0.243	P6368-21	L15855-20	SFWMD
S140	CAMB	10/25/2000	7	0.107	P6395-12	L15886-12	SFWMD
S140	CAMB	11/01/2000	7	0.060	P6489-12	L15936-12	SFWMD
S140	CAMB	11/09/2000	7	0.050	P6496-12	L15993-12	SFWMD
S140	CAMB	11/16/2000	7	0.052	P6505-12	L16041-12	SFWMD
S140	CAMB	11/22/2000	7	0.036	P6654-12	L16076-12	SFWMD
S140	CAMB	11/29/2000	7	0.036	P6661-12	L16111-12	SFWMD
S140	CAMB	12/07/2000	7	0.034	P6822-12	L16172-10	SFWMD
S140	CAMB	12/14/2000	7	0.037	P6871-12	L16212-12	SFWMD
S140	CAMB	12/20/2000	7	0.036	P6878-12	L16257-11	SFWMD
S140	CAMB	12/28/2000	7	0.026	P6886-12	L16280-12	SFWMD
S140	CAMB	01/04/2001	7	0.026	P7106-12	L16329-12	SFWMD
S140	CAMB	01/10/2001	7	0.024	P7111-12	L16365-12	SFWMD
S140	CAMB	01/18/2001	7	0.018	P7169-12	L16421-10	SFWMD
S140	CAMB	01/25/2001	7	0.022	P7177-12	L16464-10	SFWMD
S140	CAMB	01/30/2001	7	0.020	P7180-12	L16485-12	SFWMD
S140	CAMB	02/15/2001	7	0.019	P7418-12	L16607-10	SFWMD
S140	CAMB	02/21/2001	7	0.021	P7424-12	L16636-12	SFWMD
S140	CAMB	02/27/2001	7	0.022	P7599-12	L16661-9	SFWMD
S140	CAMB	03/07/2001	7	0.024	P7606-12	L16721-12	SFWMD
S140	CAMB	03/15/2001	7	0.024	P7612-12	L16768-10	SFWMD
S140	CAMB	03/21/2001	7	0.025	P7628-12	L16802-12	SFWMD
S140	CAMB	03/27/2001	7	0.022	P7633-12	L16822-12	SFWMD
S140	CAMB	04/04/2001	7	0.022	P7867-12	L16879-12	SFWMD
S140	CAMB	04/11/2001	7	0.028	P7878-12	L16924-12	SFWMD
S140	CAMB	04/17/2001	7	0.050	P7884-12	L16960-11	SFWMD
S140	CAMB	04/25/2001	7	0.029	P7888-12	L17011-12	SFWMD
S140	CAMB	05/01/2001	7	0.029	P8111-12	L17043-12	SFWMD
S140	CAMB	05/09/2001	7	0.026	P8117-12	L17098-11	SFWMD
S140	CAMB	05/15/2001	7	0.028	P8133-12	L17121-11	SFWMD
S140	CAMB	05/22/2001	7	0.032	P8142-12	L17163-11	SFWMD
S140	CAMB	05/30/2001	7	0.033	P8147-12	L17219-11	SFWMD
S140	CAMB	06/05/2001	7	0.040	P7324-11	L17272-7	SFWMD
S140	CAMB	06/12/2001	7	0.099	P8317-11	L17326-10	SFWMD
S140	CAMB	06/19/2001	7	0.123	P8338-11	L17381-9	SFWMD
S140	CAMB	06/26/2001	7	0.100	P8318-11	L17434-11	SFWMD
S140	CAMB	07/03/2001	7	0.051	P8361-10	L17487-10	SFWMD
S140	CAMB	07/10/2001	7	0.055	P8351-10	L17519-10	SFWMD
S140	CAMB	07/17/2001	7	0.054	P8362-10	L17569-9	SFWMD
S140	CAMB	07/24/2001	7	0.050	P8352-10	L17631-10	SFWMD
S140	CAMB	07/31/2001	7	0.041	P8370-10	L17694-10	SFWMD
S140	CAMB	08/07/2001	7	0.037	P8319-11	L17760-10	SFWMD
S140	CAMB	08/14/2001	7	0.047	P8339-11	L17816-10	SFWMD
S140	CAMB	08/21/2001	7	0.054	P8320-11	L17873-11	SFWMD
S140	CAMB	08/28/2001	7	0.052	P8340-11	L17923-5	SFWMD

A9. WWEIR grab sample TP concentration data.

Station	Project	Date	Type	value	Sample_ID	LIMS No.	Souce
WWEIR	SEMI	05/04/2000	0	0.017	P3960-11	L14598-11	SFWMD
WWEIR	SEMI	05/11/2000	0	0.018	P4739-11	L14663-11	SFWMD
WWEIR	SEMI	05/18/2000	0	0.027	P4827-11	L14736-11	SFWMD
WWEIR	SEMI	05/25/2000	0	0.024	P4919-9	L14797-9	SFWMD
WWEIR	SEMI	06/01/2000	0	0.026	P5033-9	L14844-9	SFWMD
WWEIR	SEMI	06/08/2000	0	0.031	P5045-9	L14898-9	SFWMD
WWEIR	SEMI	06/15/2000	0	0.028	P5108-9	L14940-9	SFWMD
WWEIR	SEMI	06/22/2000	0	0.021	P5120-9	L14987-9	SFWMD
WWEIR	SEMI	06/29/2000	0	0.019	P5219-9	L15029-9	SFWMD
WWEIR	SEMI	07/05/2000	0	0.019	P5317-9	L15048-9	SFWMD
WWEIR	SEMI	07/13/2000	0	0.021	P5386-15	L15127-14	SFWMD
WWEIR	SEMI	07/20/2000	0	0.015	P5378-5	L15178-5	SFWMD
WWEIR	SEMI	07/26/2000	0	0.023	P5542-5	L15219-5	SFWMD
WWEIR	SEMI	08/02/2000	0	0.034	P5543-5	L15267-5	SFWMD
WWEIR	SEMI	08/10/2000	0	0.032	P5642-5	L15322-5	SFWMD
WWEIR	SEMI	08/17/2000	0	0.019	P5369-5	L15371-5	SFWMD
WWEIR	SEMI	08/24/2000	0	0.022	P5701-5	L15428-5	SFWMD
WWEIR	SEMI	08/31/2000	0	0.021	P5707-5	L15469-5	SFWMD
WWEIR	SEMI	09/07/2000	0	0.021	P5951-5	L15504-5	SFWMD
WWEIR	SEMI	09/14/2000	0	0.020	P5960-5	L15564-5	SFWMD
WWEIR	SEMI	09/20/2000	0	0.021	P6017-6	L15606-6	SFWMD
WWEIR	SEMI	09/28/2000	0	0.019	P6025-6	L15667-6	SFWMD
WWEIR	SEMI	10/04/2000	0	0.038	P6067-6	L15715-6	SFWMD
WWEIR	SEMI	10/12/2000	0	0.097	P6129-6	L15784-6	SFWMD
WWEIR	SEMI	10/19/2000	0	0.057	P6367-6	L15842-6	SFWMD
WWEIR	SEMI	10/25/2000	0	0.076	P6395-6	L15886-6	SFWMD
WWEIR	SEMI	11/01/2000	0	0.050	P6489-6	L15936-6	SFWMD
WWEIR	SEMI	11/09/2000	0	0.029	P6496-6	L15993-6	SFWMD
WWEIR	SEMI	11/16/2000	0	0.026	P6505-6	L16041-6	SFWMD
WWEIR	SEMI	11/22/2000	0	0.020	P6654-6	L16076-6	SFWMD
WWEIR	SEMI	11/29/2000	0	0.016	P6661-6	L16111-6	SFWMD
WWEIR	SEMI	12/07/2000	0	0.023	P6822-6	L16172-5	SFWMD
WWEIR	SEMI	12/14/2000	0	0.023	P6871-6	L16212-6	SFWMD
WWEIR	SEMI	12/20/2000	0	0.022	P6878-6	L16257-6	SFWMD
WWEIR	SEMI	12/28/2000	0	0.026	P6886-6	L16280-6	SFWMD

A9. (continued) WWEIR grab sample TP concentration data.

Station	Project	Date	Type	value	Sample_ID	LIMS No.	Souce
WWEIR	SEMI	01/04/2001	0	0.016	P7106-6	L16329-6	SFWMD
WWEIR	SEMI	01/10/2001	0	0.014	P7111-6	L16365-6	SFWMD
WWEIR	SEMI	01/18/2001	0	0.024	P7169-6	L16421-5	SFWMD
WWEIR	SEMI	01/25/2001	0	0.027	P7177-6	L16464-5	SFWMD
WWEIR	SEMI	01/30/2001	0	0.040	P7180-6	L16485-6	SFWMD
WWEIR	SEMI	02/08/2001	0	0.051	P7414-6	L16550-6	SFWMD
WWEIR	SEMI	02/15/2001	0	0.025	P7418-6	L16607-5	SFWMD
WWEIR	SEMI	02/21/2001	0	0.030	P7424-6	L16636-6	SFWMD
WWEIR	SEMI	02/27/2001	0	0.043	P7599-6	L16661-5	SFWMD
WWEIR	SEMI	03/07/2001	0	0.028	P7606-6	L16721-6	SFWMD
WWEIR	SEMI	03/15/2001	0	0.044	P7612-6	L16768-5	SFWMD
WWEIR	SEMI	03/21/2001	0	0.041	P7628-6	L16802-6	SFWMD
WWEIR	SEMI	03/27/2001	0	0.035	P7633-6	L16822-6	SFWMD
WWEIR	SEMI	04/04/2001	0	0.040	P7867-6	L16879-6	SFWMD
WWEIR	SEMI	04/11/2001	0	0.047	P7878-6	L16924-6	SFWMD
WWEIR	SEMI	04/17/2001	0	0.038	P7884-6	L16960-6	SFWMD
WWEIR	SEMI	04/25/2001	0	0.048	P7888-6	L17011-6	SFWMD
WWEIR	SEMI	05/01/2001	0	0.031	P8111-6	L17043-6	SFWMD
WWEIR	SEMI	05/09/2001	0	0.040	P8117-6	L17098-6	SFWMD
WWEIR	SEMI	05/15/2001	0	0.061	P8133-6	L17121-6	SFWMD
WWEIR	SEMI	05/22/2001	0	0.056	P8142-6	L17163-6	SFWMD
WWEIR	SEMI	05/30/2001	0	0.064	P8147-6	L17219-6	SFWMD
WWEIR	SEMI	06/06/2001	0	0.055	P8452-6	L17286-6	SFWMD
WWEIR	SEMI	06/14/2001	0	0.032	P8468-6	L17348-4	SFWMD
WWEIR	SEMI	06/19/2001	0	0.026	P8470-6	L17375-5	SFWMD
WWEIR	SEMI	06/25/2001	0	0.019	P8475-6	L17410-5	SFWMD
WWEIR	SEMI	07/02/2001	0	0.023	P8729-5	L17458-5	SFWMD
WWEIR	SEMI	07/10/2001	0	0.023	P8730-5	L17513-5	SFWMD
WWEIR	SEMI	07/17/2001	0	0.020	P8731-5	L17563-5	SFWMD
WWEIR	SEMI	07/24/2001	0	0.032	P8732-5	L17620-5	SFWMD
WWEIR	SEMI	07/31/2001	0	0.056	P8733-5	L17689-5	SFWMD
WWEIR	SEMI	08/07/2001	0	0.042	P9050-6	L17751-6	SFWMD
WWEIR	SEMI	08/15/2001	0	0.049	P9054-6	L17831-6	SFWMD
WWEIR	SEMI	08/20/2001	0	0.054	P9059-6	L17854-6	SFWMD

A10. WWEIR auto sampler flow proportional composite TP concentration data.

Station	Project	Date	Type	value	Sample_ID	LIMS No.	Souce
WWEIR	SEMI	06/29/2000	24	0.028	P5219-8	L15029-8	SFWMD
WWEIR	SEMI	07/05/2000	24	0.022	P5317-8	L15048-8	SFWMD
WWEIR	SEMI	08/02/2000	24	0.031	P5543-4	L15267-4	SFWMD
WWEIR	SEMI	08/10/2000	24	0.026	P5642-4	L15322-4	SFWMD
WWEIR	SEMI	08/17/2000	24	0.017	P5369-4	L15371-4	SFWMD
WWEIR	SEMI	08/24/2000	24	0.021	P5701-4	L15428-4	SFWMD
WWEIR	SEMI	08/31/2000	24	0.023	P5707-4	L15469-4	SFWMD
WWEIR	SEMI	09/07/2000	24	0.028	P5951-4	L15504-4	SFWMD
WWEIR	SEMI	09/14/2000	24	0.022	P5960-4	L15564-4	SFWMD
WWEIR	SEMI	09/28/2000	24	0.022	P6025-5	L15667-5	SFWMD
WWEIR	SEMI	10/04/2000	24	0.036	P6067-5	L15715-5	SFWMD
WWEIR	SEMI	10/12/2000	24	0.102	P6129-5	L15784-5	SFWMD
WWEIR	SEMI	10/19/2000	24	0.086	P6367-5	L15842-5	SFWMD
WWEIR	SEMI	10/25/2000	24	0.089	P6395-5	L15886-5	SFWMD
WWEIR	SEMI	11/01/2000	24	0.063	P6489-5	L15936-5	SFWMD
WWEIR	SEMI	11/09/2000	24	0.036	P6496-5	L15993-5	SFWMD
WWEIR	SEMI	11/16/2000	24	0.030	P6505-5	L16041-5	SFWMD
WWEIR	SEMI	11/22/2000	24	0.025	P6654-5	L16076-5	SFWMD
WWEIR	SEMI	11/29/2000	24	0.022	P6661-5	L16111-5	SFWMD
WWEIR	SEMI	12/07/2000	24	0.018	P6822-5	L16172-4	SFWMD
WWEIR	SEMI	12/14/2000	24	0.019	P6871-5	L16212-5	SFWMD
WWEIR	SEMI	06/14/2001	24	0.047	P8468-5	L17348-3	SFWMD
WWEIR	SEMI	06/19/2001	24	0.033	P8470-5	L17375-4	SFWMD
WWEIR	SEMI	06/25/2001	24	0.030	P8475-5	L17410-4	SFWMD
WWEIR	SEMI	07/02/2001	24	0.020	P8729-4	L17458-4	SFWMD
WWEIR	SEMI	07/10/2001	24	0.028	P8730-4	L17513-4	SFWMD
WWEIR	SEMI	07/17/2001	24	0.024	P8731-4	L17563-4	SFWMD
WWEIR	SEMI	07/24/2001	24	0.030	P8732-4	L17620-4	SFWMD
WWEIR	SEMI	07/31/2001	24	0.081	P8733-4	L17689-4	SFWMD
WWEIR	SEMI	08/15/2001	24	0.065	P9054-5	L17831-5	SFWMD
WWEIR	SEMI	08/20/2001	24	0.074	P9059-5	L17854-5	SFWMD

A11. NFEED grab sample TP concentration data.

Station	Project	Date	Type	value	Sample_ID	LIMS No.	Souce
NFEED	SEMI	05/04/2000	0	0.056	P3960-9	L14598-9	SFWMD
NFEED	SEMI	05/11/2000	0	0.062	P4739-9	L14663-9	SFWMD
NFEED	SEMI	05/18/2000	0	0.063	P4827-9	L14736-9	SFWMD
NFEED	SEMI	05/25/2000	0	0.062	P4919-7	L14797-7	SFWMD
NFEED	SEMI	06/01/2000	0	0.058	P5033-7	L14844-7	SFWMD
NFEED	SEMI	06/08/2000	0	0.068	P5045-7	L14898-7	SFWMD
NFEED	SEMI	06/15/2000	0	0.053	P5108-7	L14940-7	SFWMD
NFEED	SEMI	06/22/2000	0	0.057	P5120-7	L14987-7	SFWMD
NFEED	SEMI	06/29/2000	0	0.048	P5219-7	L15029-7	SFWMD
NFEED	SEMI	07/05/2000	0	0.040	P5317-7	L15048-7	SFWMD
NFEED	SEMI	07/13/2000	0	0.044	P5386-13	L15127-12	SFWMD
NFEED	SEMI	07/20/2000	0	0.041	P5378-3	L15178-3	SFWMD
NFEED	SEMI	07/26/2000	0	0.046	P5542-3	L15219-3	SFWMD
NFEED	SEMI	08/02/2000	0	0.043	P5543-3	L15267-3	SFWMD
NFEED	SEMI	08/10/2000	0	0.039	P5642-3	L15322-3	SFWMD
NFEED	SEMI	08/17/2000	0	0.042	P5369-3	L15371-3	SFWMD
NFEED	SEMI	08/24/2000	0	0.043	P5701-3	L15428-3	SFWMD
NFEED	SEMI	08/31/2000	0	0.041	P5707-3	L15469-3	SFWMD
NFEED	SEMI	09/07/2000	0	0.041	P5951-3	L15504-3	SFWMD
NFEED	SEMI	09/14/2000	0	0.035	P5960-3	L15564-3	SFWMD
NFEED	SEMI	09/20/2000	0	0.034	P6017-4	L15606-4	SFWMD
NFEED	SEMI	09/28/2000	0	0.038	P6025-4	L15667-4	SFWMD
NFEED	SEMI	10/12/2000	0	0.410	P6129-4	L15784-4	SFWMD
NFEED	SEMI	10/19/2000	0	0.356	P6367-4	L15842-4	SFWMD
NFEED	SEMI	10/25/2000	0	0.222	P6395-4	L15886-4	SFWMD
NFEED	SEMI	11/01/2000	0	0.164	P6489-4	L15936-4	SFWMD
NFEED	SEMI	11/09/2000	0	0.114	P6496-4	L15993-4	SFWMD
NFEED	SEMI	11/16/2000	0	0.082	P6505-4	L16041-4	SFWMD
NFEED	SEMI	11/22/2000	0	0.079	P6654-4	L16076-4	SFWMD
NFEED	SEMI	11/29/2000	0	0.054	P6661-4	L16111-4	SFWMD
NFEED	SEMI	12/07/2000	0	0.043	P6822-4	L16172-3	SFWMD
NFEED	SEMI	12/14/2000	0	0.048	P6871-4	L16212-4	SFWMD
NFEED	SEMI	12/20/2000	0	0.057	P6878-4	L16257-4	SFWMD
NFEED	SEMI	12/28/2000	0	0.038	P6886-4	L16280-4	SFWMD
NFEED	SEMI	01/04/2001	0	0.037	P7106-4	L16329-4	SFWMD
NFEED	SEMI	01/10/2001	0	0.045	P7111-4	L16365-4	SFWMD
NFEED	SEMI	01/18/2001	0	0.038	P7169-4	L16421-3	SFWMD
NFEED	SEMI	01/25/2001	0	0.037	P7177-4	L16464-3	SFWMD
NFEED	SEMI	01/30/2001	0	0.041	P7180-4	L16485-4	SFWMD
NFEED	SEMI	02/08/2001	0	0.023	P7414-4	L16550-4	SFWMD
NFEED	SEMI	02/15/2001	0	0.054	P7418-4	L16607-3	SFWMD
NFEED	SEMI	02/21/2001	0	0.063	P7424-4	L16636-4	SFWMD
NFEED	SEMI	02/27/2001	0	0.048	P7599-4	L16661-3	SFWMD
NFEED	SEMI	03/07/2001	0	0.064	P7606-4	L16721-4	SFWMD
NFEED	SEMI	03/15/2001	0	0.055	P7612-4	L16768-3	SFWMD
NFEED	SEMI	03/21/2001	0	0.064	P7628-4	L16802-4	SFWMD
NFEED	SEMI	03/27/2001	0	0.058	P7633-4	L16822-4	SFWMD
NFEED	SEMI	04/04/2001	0	0.046	P7867-4	L16879-4	SFWMD
NFEED	SEMI	04/11/2001	0	0.045	P7878-4	L16924-4	SFWMD
NFEED	SEMI	04/17/2001	0	0.041	P7884-4	L16960-4	SFWMD
NFEED	SEMI	04/25/2001	0	0.044	P7888-4	L17011-4	SFWMD
NFEED	SEMI	05/01/2001	0	0.058	P8111-4	L17043-4	SFWMD
NFEED	SEMI	05/09/2001	0	0.049	P8117-4	L17098-4	SFWMD
NFEED	SEMI	05/15/2001	0	0.052	P8133-4	L17121-4	SFWMD
NFEED	SEMI	05/22/2001	0	0.066	P8142-4	L17163-4	SFWMD
NFEED	SEMI	05/30/2001	0	0.051	P8147-4	L17219-4	SFWMD
NFEED	SEMI	06/06/2001	0	0.045	P8452-8	L17286-8	SFWMD
NFEED	SEMI	06/14/2001	0	0.039	P8468-8	L17348-6	SFWMD
NFEED	SEMI	06/19/2001	0	0.037	P8470-8	L17375-7	SFWMD
NFEED	SEMI	06/25/2001	0	0.046	P8475-8	L17410-7	SFWMD
NFEED	SEMI	07/02/2001	0	0.040	P8729-7	L17458-7	SFWMD
NFEED	SEMI	07/10/2001	0	0.037	P8730-7	L17513-7	SFWMD
NFEED	SEMI	07/17/2001	0	0.036	P8731-7	L17563-7	SFWMD
NFEED	SEMI	07/24/2001	0	0.053	P8732-7	L17620-7	SFWMD
NFEED	SEMI	07/31/2001	0	0.185	P8733-7	L17689-7	SFWMD
NFEED	SEMI	08/07/2001	0	0.143	P9050-8	L17751-8	SFWMD
NFEED	SEMI	08/15/2001	0	0.095	P9054-8	L17831-8	SFWMD
NFEED	SEMI	08/20/2001	0	0.064	P9059-8	L17854-8	SFWMD

A12. NFEED auto sampler flow proportional composite TP concentration data.

Station	Project	Date	Type	value	Sample_ID	LIMS No.	Souce
NFEED	SEMI	05/04/2000	24	0.082	P3960-8	L14598-8	SFWMD
NFEED	SEMI	05/11/2000	24	0.082	P4739-8	L14663-8	SFWMD
NFEED	SEMI	05/18/2000	24	0.076	P4827-8	L14736-8	SFWMD
NFEED	SEMI	05/25/2000	24	0.085	P4919-6	L14797-6	SFWMD
NFEED	SEMI	06/01/2000	24	0.083	P5033-6	L14844-6	SFWMD
NFEED	SEMI	06/08/2000	24	0.088	P5045-6	L14898-6	SFWMD
NFEED	SEMI	06/15/2000	24	0.074	P5108-6	L14940-6	SFWMD
NFEED	SEMI	06/22/2000	24	0.073	P5120-6	L14987-6	SFWMD
NFEED	SEMI	06/29/2000	24	0.068	P5219-6	L15029-6	SFWMD
NFEED	SEMI	07/05/2000	24	0.052	P5317-6	L15048-6	SFWMD
NFEED	SEMI	07/13/2000	24	0.041	P5386-12	L15127-11	SFWMD
NFEED	SEMI	07/20/2000	24	0.050	P5378-2	L15178-2	SFWMD
NFEED	SEMI	07/26/2000	24	0.052	P5542-2	L15219-2	SFWMD
NFEED	SEMI	08/02/2000	24	0.041	P5543-2	L15267-2	SFWMD
NFEED	SEMI	08/10/2000	24	0.025	P5642-2	L15322-2	SFWMD
NFEED	SEMI	08/17/2000	24	0.023	P5369-2	L15371-2	SFWMD
NFEED	SEMI	08/24/2000	24	0.043	P5701-2	L15428-2	SFWMD
NFEED	SEMI	08/31/2000	24	0.047	P5707-2	L15469-2	SFWMD
NFEED	SEMI	09/07/2000	24	0.037	P5951-2	L15504-2	SFWMD
NFEED	SEMI	09/14/2000	24	0.035	P5960-2	L15564-2	SFWMD
NFEED	SEMI	09/28/2000	24	0.035	P6025-3	L15667-3	SFWMD
NFEED	SEMI	10/12/2000	24	0.188	P6129-3	L15784-3	SFWMD
NFEED	SEMI	10/19/2000	24	0.393	P6367-3	L15842-3	SFWMD
NFEED	SEMI	10/25/2000	24	0.312	P6395-3	L15886-3	SFWMD
NFEED	SEMI	11/01/2000	24	0.158	P6489-3	L15936-3	SFWMD
NFEED	SEMI	11/09/2000	24	0.115	P6496-3	L15993-3	SFWMD
NFEED	SEMI	11/16/2000	24	0.117	P6505-3	L16041-3	SFWMD
NFEED	SEMI	11/22/2000	24	0.078	P6654-3	L16076-3	SFWMD
NFEED	SEMI	11/29/2000	24	0.063	P6661-3	L16111-3	SFWMD
NFEED	SEMI	12/07/2000	24	0.041	P6822-3	L16172-2	SFWMD
NFEED	SEMI	12/14/2000	24	0.027	P6871-3	L16212-3	SFWMD
NFEED	SEMI	12/20/2000	24	0.053	P6878-3	L16257-3	SFWMD
NFEED	SEMI	12/28/2000	24	0.053	P6886-3	L16280-3	SFWMD
NFEED	SEMI	01/04/2001	24	0.041	P7106-3	L16329-3	SFWMD
NFEED	SEMI	01/10/2001	24	0.038	P7111-3	L16365-3	SFWMD
NFEED	SEMI	01/18/2001	24	0.023	P7169-3	L16421-2	SFWMD
NFEED	SEMI	01/25/2001	24	0.032	P7177-3	L16464-2	SFWMD
NFEED	SEMI	01/30/2001	24	0.023	P7180-3	L16485-3	SFWMD
NFEED	SEMI	02/08/2001	24	0.024	P7414-3	L16550-3	SFWMD
NFEED	SEMI	02/21/2001	24	0.065	P7424-3	L16636-3	SFWMD
NFEED	SEMI	02/27/2001	24	0.061	P7599-3	L16661-2	SFWMD
NFEED	SEMI	03/07/2001	24	0.082	P7606-3	L16721-3	SFWMD
NFEED	SEMI	03/15/2001	24	0.075	P7612-3	L16768-2	SFWMD
NFEED	SEMI	03/21/2001	24	0.073	P7628-3	L16802-3	SFWMD
NFEED	SEMI	03/27/2001	24	0.073	P7633-3	L16822-3	SFWMD
NFEED	SEMI	04/04/2001	24	0.077	P7867-3	L16879-3	SFWMD
NFEED	SEMI	04/11/2001	24	0.058	P7878-3	L16924-3	SFWMD
NFEED	SEMI	04/17/2001	24	0.055	P7884-3	L16960-3	SFWMD
NFEED	SEMI	04/25/2001	24	0.056	P7888-3	L17011-3	SFWMD
NFEED	SEMI	05/01/2001	24	0.063	P8111-3	L17043-3	SFWMD
NFEED	SEMI	05/09/2001	24	0.067	P8117-3	L17098-3	SFWMD
NFEED	SEMI	05/15/2001	24	0.061	P8133-3	L17121-3	SFWMD
NFEED	SEMI	05/22/2001	24	0.066	P8142-3	L17163-3	SFWMD
NFEED	SEMI	06/14/2001	24	0.049	P8468-7	L17348-5	SFWMD
NFEED	SEMI	06/19/2001	24	0.041	P8470-7	L17375-6	SFWMD
NFEED	SEMI	06/25/2001	24	0.042	P8475-7	L17410-6	SFWMD
NFEED	SEMI	07/02/2001	24	0.044	P8729-6	L17458-6	SFWMD
NFEED	SEMI	07/10/2001	24	0.056	P8730-6	L17513-6	SFWMD
NFEED	SEMI	07/17/2001	24	0.051	P8731-6	L17563-6	SFWMD
NFEED	SEMI	07/24/2001	24	0.058	P8732-6	L17620-6	SFWMD
NFEED	SEMI	07/31/2001	24	0.140	P8733-6	L17689-6	SFWMD
NFEED	SEMI	08/15/2001	24	0.099	P9054-7	L17831-7	SFWMD
NFEED	SEMI	08/20/2001	24	0.083	P9059-7	L17854-7	SFWMD

A13. S190 grab sample TP concentration data.

Station	Project	Date	Type	value	Sample_ID	LIMS No.	Souce
S190	CAMB	05/31/2000	0	0.040	P4978-10	L14828-10	SFWMD
S190	CAMB	06/29/2000	0	0.035	P5220-12	L15030-12	SFWMD
S190	CAMB	07/24/2000	0	0.033	P5529-10	L15185-10	SFWMD
S190	CAMB	08/21/2000	0	0.030	P5695-12	L15380-10	SFWMD
S190	CAMB	09/06/2000	0	0.028	P5949-12	L15490-12	SFWMD
S190	CAMB	09/18/2000	0	0.026	P6014-12	L15570-12	SFWMD
S190	CAMB	10/16/2000	0	0.254	P6361-10	L15800-10	SFWMD
S190	CAMB	11/27/2000	0	0.032	P6657-12	L16081-12	SFWMD
S190	CAMB	12/27/2000	0	0.033	P6883-12	L16271-12	SFWMD
S190	CAMB	01/23/2001	0	0.027	P7171-10	L16434-10	SFWMD
S190	CAMB	02/20/2001	0	0.038	P7422-13	L16616-13	SFWMD
S190	CAMB	03/19/2001	0	0.036	P7624-13	L16778-13	SFWMD
S190	CAMB	04/17/2001	0	0.035	P7881-10	L16959-10	SFWMD
S190	CAMB	05/31/2001	0	0.045	P8149-13	L17230-10	SFWMD
S190	CAMB	06/26/2001	0	0.025	P8515-13	L17424-7	SFWMD
S190	CAMB	07/17/2001	0	0.018	P8731-14	L17563-13	SFWMD
S190	CAMB	07/24/2001	0	0.030	P8994-2	L17621-2	SFWMD
S190	CAMB	08/06/2001	0	0.096	P9049-13	L17737-7	SFWMD

A14. S190 auto sampler time composite TP concentration data.

Station	Project	Date	Type	value	Sample_ID	LIMS No.	Souce
S190	CAMB	08/02/2000	7	0.024	P5543-8	L15267-8	SFWMD
S190	CAMB	08/10/2000	7	0.031	P5642-8	L15322-8	SFWMD
S190	CAMB	08/17/2000	7	0.027	P5369-8	L15371-8	SFWMD
S190	CAMB	08/24/2000	7	0.049	P5701-8	L15428-8	SFWMD
S190	CAMB	08/31/2000	7	0.027	P5707-8	L15469-8	SFWMD
S190	CAMB	09/07/2000	7	0.039	P5951-8	L15504-8	SFWMD
S190	CAMB	09/14/2000	7	0.035	P5960-8	L15564-8	SFWMD
S190	CAMB	09/20/2000	7	0.026	P6017-11	L15606-11	SFWMD
S190	CAMB	09/28/2000	7	0.028	P6025-11	L15667-11	SFWMD
S190	CAMB	10/04/2000	7	0.025	P6067-11	L15715-11	SFWMD
S190	CAMB	10/12/2000	7	0.200	P6129-11	L15784-11	SFWMD
S190	CAMB	10/19/2000	7	0.250	P6367-11	L15842-11	SFWMD
S190	CAMB	10/25/2000	7	0.158	P6395-11	L15886-11	SFWMD
S190	CAMB	11/01/2000	7	0.104	P6489-11	L15936-11	SFWMD
S190	CAMB	11/09/2000	7	0.072	P6496-11	L15993-11	SFWMD
S190	CAMB	11/16/2000	7	0.063	P6505-11	L16041-11	SFWMD
S190	CAMB	11/22/2000	7	0.040	P6654-11	L16076-11	SFWMD
S190	CAMB	11/29/2000	7	0.035	P6661-11	L16111-11	SFWMD
S190	CAMB	12/07/2000	7	0.036	P6822-11	L16172-9	SFWMD
S190	CAMB	12/14/2000	7	0.024	P6871-11	L16212-11	SFWMD
S190	CAMB	12/20/2000	7	0.023	P6878-11	L16257-10	SFWMD
S190	CAMB	12/28/2000	7	0.024	P6886-11	L16280-11	SFWMD
S190	CAMB	01/04/2001	7	0.032	P7106-11	L16329-11	SFWMD
S190	CAMB	01/10/2001	7	0.027	P7111-11	L16365-11	SFWMD
S190	CAMB	01/18/2001	7	0.029	P7169-11	L16421-9	SFWMD
S190	CAMB	01/25/2001	7	0.030	P7177-11	L16464-9	SFWMD
S190	CAMB	01/30/2001	7	0.020	P7180-11	L16485-11	SFWMD
S190	CAMB	02/15/2001	7	0.019	P7418-11	L16607-9	SFWMD
S190	CAMB	02/21/2001	7	0.028	P7424-11	L16636-11	SFWMD
S190	CAMB	02/27/2001	7	0.042	P7599-11	L16661-8	SFWMD
S190	CAMB	03/15/2001	7	0.054	P7612-11	L16768-9	SFWMD
S190	CAMB	03/21/2001	7	0.044	P7628-11	L16802-11	SFWMD
S190	CAMB	03/27/2001	7	0.036	P7633-11	L16822-11	SFWMD
S190	CAMB	04/04/2001	7	0.038	P7867-11	L16879-11	SFWMD
S190	CAMB	04/11/2001	7	0.029	P7878-11	L16924-11	SFWMD
S190	CAMB	05/01/2001	7	0.040	P8111-11	L17043-11	SFWMD
S190	CAMB	05/09/2001	7	0.040	P8117-11	L17098-10	SFWMD
S190	CAMB	05/15/2001	7	0.044	P8133-11	L17121-10	SFWMD
S190	CAMB	05/22/2001	7	0.056	P8142-11	L17163-10	SFWMD
S190	CAMB	05/30/2001	7	0.046	P8147-11	L17219-10	SFWMD
S190	CAMB	06/06/2001	7	0.052	P8452-9	L17286-9	SFWMD
S190	CAMB	06/14/2001	7	0.056	P8468-9	L17348-7	SFWMD
S190	CAMB	06/19/2001	7	0.050	P8470-9	L17375-8	SFWMD
S190	CAMB	06/25/2001	7	0.033	P8475-9	L17410-8	SFWMD
S190	CAMB	07/02/2001	7	0.032	P8729-8	L17458-8	SFWMD
S190	CAMB	07/10/2001	7	0.027	P8730-8	L17513-8	SFWMD
S190	CAMB	07/17/2001	7	0.028	P8731-8	L17563-8	SFWMD
S190	CAMB	07/24/2001	7	0.030	P8732-8	L17620-8	SFWMD
S190	CAMB	07/31/2001	7	0.060	P8733-8	L17689-8	SFWMD
S190	CAMB	08/07/2001	7	0.066	P9050-9	L17751-9	SFWMD
S190	CAMB	08/15/2001	7	0.060	P9054-9	L17831-9	SFWMD
S190	CAMB	08/20/2001	7	0.080	P9059-9	L17854-9	SFWMD

A15. L28IN grab sample TP concentration data.

Station	Project	Date	Type	value	Sample_ID	LIMS No.	Souce
L28IN	BCSB	05/03/2000	0	0.042	888		USGS
L28IN	BCSB	05/31/2000	0	0.040	898		USGS
L28IN	BCSB	06/07/2000	0	0.039	908		USGS
L28IN	BCSB	06/21/2000	0	0.045	918		USGS
L28IN	BCSB	07/12/2000	0	0.049	925		USGS
L28IN	BCSB	07/12/2000	0	0.027	928		USGS
L28IN	BCSB	07/12/2000	0	0.053	928		USGS
L28IN	BCSB	07/27/2000	0	0.052	937		USGS
L28IN	BCSB	08/02/2000	0	0.062	947		USGS
L28IN	BCSB	08/17/2000	0	0.035	957		USGS
L28IN	BCSB	08/31/2000	0	0.033	969		USGS
L28IN	BCSB	09/06/2000	0	0.028	973		USGS
L28IN	BCSB	09/06/2000	0	0.027	975		USGS
L28IN	BCSB	09/20/2000	0	0.036	983		USGS
L28IN	BCSB	10/11/2000	0	0.354	1005		USGS
L28IN	BCSB	10/25/2000	0	0.170	1013		USGS
L28IN	BCSB	11/02/2000	0	0.090	1023		USGS
L28IN	BCSB	11/15/2000	0	0.072	1032		USGS
L28IN	BCBS	11/29/2000	0	0.031	1036		USGS
L28IN	BCSB	12/06/2000	0	0.021	1044		USGS
L28IN	BCSB	12/20/2000	0	0.030	1053		USGS
L28IN	BCSB	01/03/2001	0	0.030	1063		USGS
L28IN	BCSB	01/17/2001	0	0.020	1073		USGS
L28IN	BCSB	02/01/2001	0	0.030	1082		USGS
L28IN	BCSB	02/07/2001	0	0.030	1086		USGS
L28IN	BCSB	02/21/2001	0	0.020	1097		USGS
L28IN	BCSB	03/07/2001	0	0.030	1105		USGS
L28IN	BCSB	03/07/2001	0	0.040	1107		USGS
L28IN	BCSB	03/21/2001	0	0.030	1116		USGS
L28IN	BCSB	04/04/2001	0	0.030	1129		USGS

A16. L28IN auto sampler flow proportional composite TP concentration data.

Station	Project	Date	Type	value	Sample_ID	LIMS No.	Souce
L28IN	BCSB	05/03/2000	24	0.056	889		USGS
L28IN	BCSB	05/31/2000	24	0.139	899		USGS
L28IN	BCSB	06/07/2000	24	0.065	909		USGS
L28IN	BCSB	06/14/2000	24	0.078	912		USGS
L28IN	BCSB	06/21/2000	24	0.043	919		USGS
L28IN	BCSB	06/28/2000	24	0.059	922		USGS
L28IN	BCSB	07/20/2000	24	0.054	934		USGS
L28IN	BCSB	07/27/2000	24	0.053	938		USGS
L28IN	BCSB	08/02/2000	24	0.089	948		USGS
L28IN	BCSB	08/11/2000	24	0.054	951		USGS
L28IN	BCSB	08/17/2000	24	0.050	958		USGS
L28IN	BCSB	08/23/2000	24	0.080	961		USGS
L28IN	BCSB	08/31/2000	24	0.078	970		USGS
L28IN	BCSB	09/06/2000	24	0.075	976		USGS
L28IN	BCSB	09/13/2000	24	0.059	980		USGS
L28IN	BCSB	09/20/2000	24	0.066	984		USGS
L28IN	BCSB	09/27/2000	24	0.071	990		USGS
L28IN	BCSB	10/05/2000	24	0.084	993		USGS
L28IN	BCSB	10/11/2000	24	0.188	1006		USGS
L28IN	BCSB	10/18/2000	24	0.304	1009		USGS
L28IN	BCSB	10/25/2000	24	0.218	1014		USGS
L28IN	BCSB	11/02/2000	24	0.188	1024		USGS
L28IN	BCSB	11/08/2000	24	0.130	1027		USGS
L28IN	BCSB	11/15/2000	24	0.123	1033		USGS
L28IN	BCSB	12/13/2000	24	0.060	1047		USGS
L28IN	BCSB	01/03/2001	24	0.100	1064		USGS
L28IN	BCSB	01/11/2001	24	0.050	1067		USGS
L28IN	BCSB	01/17/2001	24	0.040	1074		USGS
L28IN	BCSB	02/01/2001	24	0.140	1083		USGS
L28IN	BCSB	02/07/2001	24	0.340	1087		USGS
L28IN	BCSB	03/14/2001	24	0.060	1113		USGS
L28IN	BCSB	03/29/2001	24	0.040	1121		USGS
L28IN	BCSB	04/04/2001	24	0.050	1130		USGS
L28IN	BCSB	04/11/2001	24	0.070	1133		USGS
L28IN	BCSB	04/19/2001	24	0.050	1140		USGS

A17. G409 grab sample TP concentration data.

Station	Project	Date	Type	value	Sample_ID	LIMS No.	Souce
G409	SEMI	06/01/2000	0	0.136	P5033-13	L14844-12	SFWMD
G409	SEMI	06/27/2000	0	0.234	P5274-4	L15006-4	SFWMD
G409	SEMI	08/03/2000	0	0.025	P5541-7	L15279-7	SFWMD
G409	SEMI	01/12/2001	0	0.058	P7217-8	L16377-3	SFWMD
G409	SEMI	01/17/2001	0	0.042	P7168-8	L16403-8	SFWMD
G409	SEMI	01/24/2001	0	0.028	P7176-8	L16455-7	SFWMD
G409	SEMI	01/31/2001	0	0.056	P7182-8	L16498-8	SFWMD
G409	SEMI	02/07/2001	0	0.053	P7411-11	L16539-11	SFWMD
G409	SEMI	02/12/2001	0	0.078	P7416-8	L16560-8	SFWMD
G409	SEMI	02/20/2001	0	0.068	P7422-11	L16616-11	SFWMD
G409	SEMI	02/28/2001	0	0.059	P7429-8	L16672-8	SFWMD
G409	SEMI	03/05/2001	0	0.049	P7601-11	L16692-11	SFWMD
G409	SEMI	03/14/2001	0	0.061	P7611-8	L16761-8	SFWMD
G409	SEMI	03/19/2001	0	0.075	P7624-11	L16778-11	SFWMD
G409	SEMI	03/26/2001	0	0.108	P7631-4	L16817-3	SFWMD
G409	SEMI	04/02/2001	0	0.056	P7862-16	L16852-16	SFWMD
G409	SEMI	04/11/2001	0	0.065	P7877-8	L16929-8	SFWMD
G409	SEMI	04/18/2001	0	0.088	P7883-8	L16973-7	SFWMD
G409	SEMI	04/25/2001	0	0.064	P7889-8	L17013-8	SFWMD

Appendix III. Flow and Total Phosphorous Summary for PC17A and G108.

STATION	PC #17-A (NF04.0TW)					G-108 (NF05.5TN)				
	FLOW		RAIN	TP LOAD	FWMC	FLOW		RAIN	TP LOAD	FWMC
MONTH	q (cfs-days)	(acre-feet)	(inches)	(kg)	(ppb)	q (cfs-days)	(acre-feet)	(inches)	(kg)	(ppb)
May-00	0.0	0.0	2.7	0.0		0.0	0.0	2.7	0.0	
Jun-00	0.0	0.0	6.9	0.0		0.0	0.0	6.9	0.0	
Jul-00	0.0	0.0	6.8	0.0		0.0	0.0	6.8	0.0	
Aug-00	0.0	0.0	7.0	0.0		0.0	0.0	7.0	0.0	
Sep-00	0.0	0.0	4.4	0.0		0.0	0.0	4.4	0.0	
Oct-00	1627.0	3227.1	8.0	688.0	173	2669.2	5294.3	8.0	2279.9	349
Nov-00	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
Dec-00	0.0	0.0	0.2	0.0		0.0	0.0	0.2	0.0	
Jan-01	0.0	0.0	0.6	0.0		0.0	0.0	0.6	0.0	
Feb-01	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
Mar-01	0.0	0.0	6.8	0.0		0.0	0.0	6.8	0.0	
Apr-01	0.0	0.0	0.2	0.0		0.0	0.0	0.2	0.0	

Appendix IV. Summary of Water Quality Parameters Collected at G409.

PARAMETER	SAMPLE TYPE	PERIOD	SAMPLE N	MINIMUM	MAXIMUM	AVERAGE	STANDARD DEVIATION	CLASS III CRITERIA
PHYSICAL								
Water Temperature (°C)	field	06/01/00 - 04/25/01	18	15.76	28.88	23.01	4.11	Not applicable
Specific Conductance (µmhos/cm)	field	06/01/00 - 04/25/01	18	497.00	707.00	610.54	55.09	Not greater than 50% above background or 1,275u mhos/cm
Dissolved Oxygen (mg/L)	field	06/01/00 - 04/25/01	18	2.2	11.3	6.9	2.4	Not be less than 5.0 mg/L
pH (SU)	field	06/01/00 - 04/25/01	18	6.85	8.23	7.81	0.35	Not less than 6.0 or greater than 8.5
NUTRIENTS								
Total Phosphorus (mg/L)	grab	06/01/00 - 04/25/01	19	0.025	0.234	0.074	0.047	

- The Seminole Tribe requests that the SFWMD address the following concerns immediately in order to address both the temporary deviations underway by the Corps and any future plans of the SFWMD to modify the WSE schedule.

- District's obligation to mitigate for any increased frequency of Brighton water supply demands not being met due to any changes in the WSE schedule when LO is serving as the Tribe's only viable alternative source for water during a drought…

- SFWMD is required to study "the potential effect of revising the LO regulation schedule on available water supply for the Big Cypress per our agreement.

- Please provide that info and indicate timeframe

- Tribe requests that the District calculate the demands-not-met percentage specifically for the Brighton Reservation (without the other regions and Big Cypress included)

- Tribe request clarification on how the District will maintain optimum levels of the Miami Canal to sustain the integrity of the G-409 and G-404 pumps which supply water to the Big Cypress Reservation in light of the temporary deviations and any future modifications to the WSE schedule.

- If the entitlement cannot be made what will the District do to provide or mitigate for.

- The Tribe remains supportive

Cheol Mo-will be presenting report 3/17 that will indicate that there is a water quality problem entering Brighton from the north

This is in addition to the water quality issues entering Brighton from the Mos Canal.

Although the Tribe did not mention the water quality issues in lowering the lake level letter they did discuss it during the meeting on Feb. 25.