

Settlement Agreement

October – December 2003 Report

Prepared for the

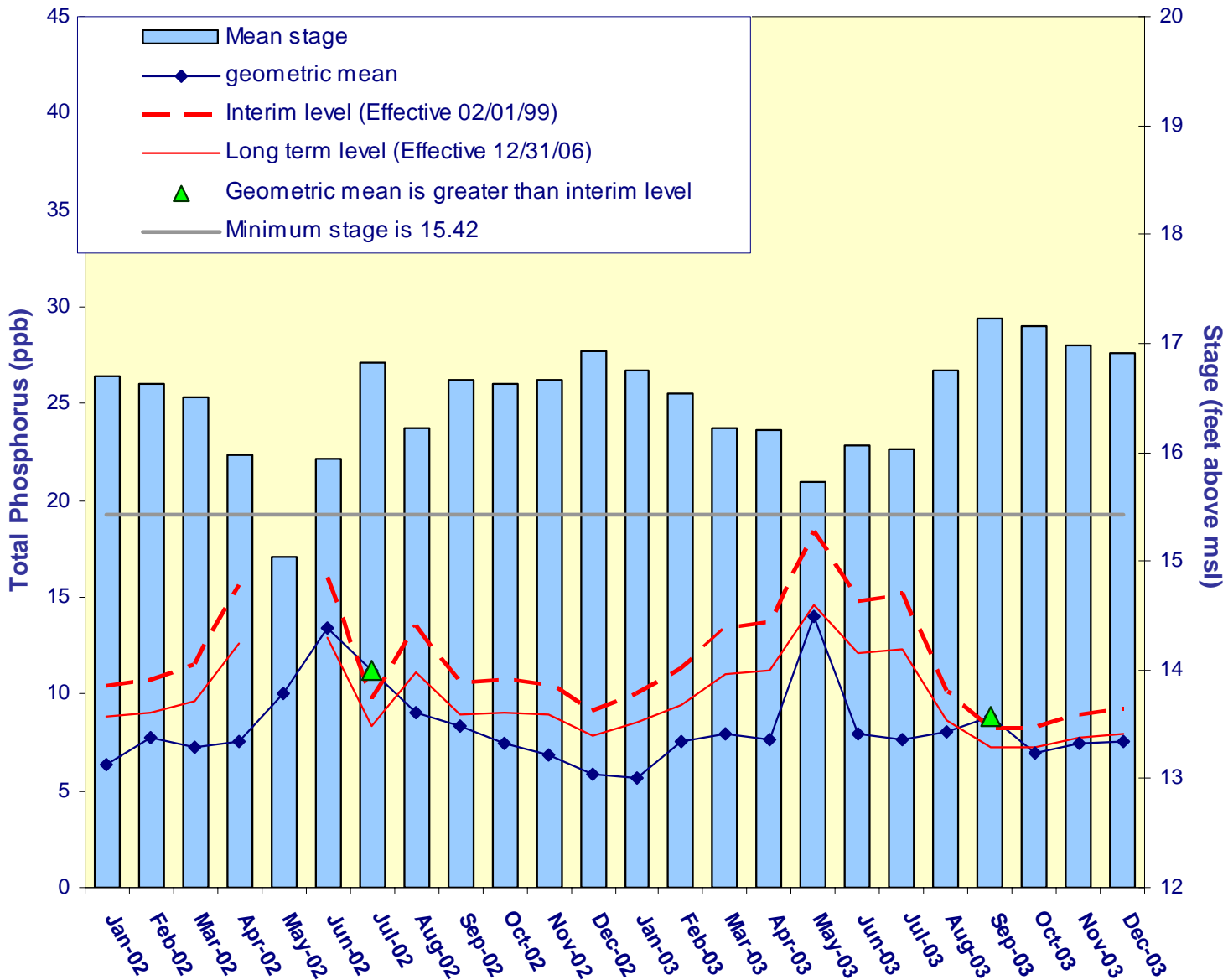
Technical Oversight Committee

May 25, 2004



A.R.M. Loxahatchee National Wildlife Refuge

Monthly Total Phosphorus Geometric Mean Concentrations



**Loxahatchee National
Wildlife Refuge**

Total Phosphorus

Compliance Tracking

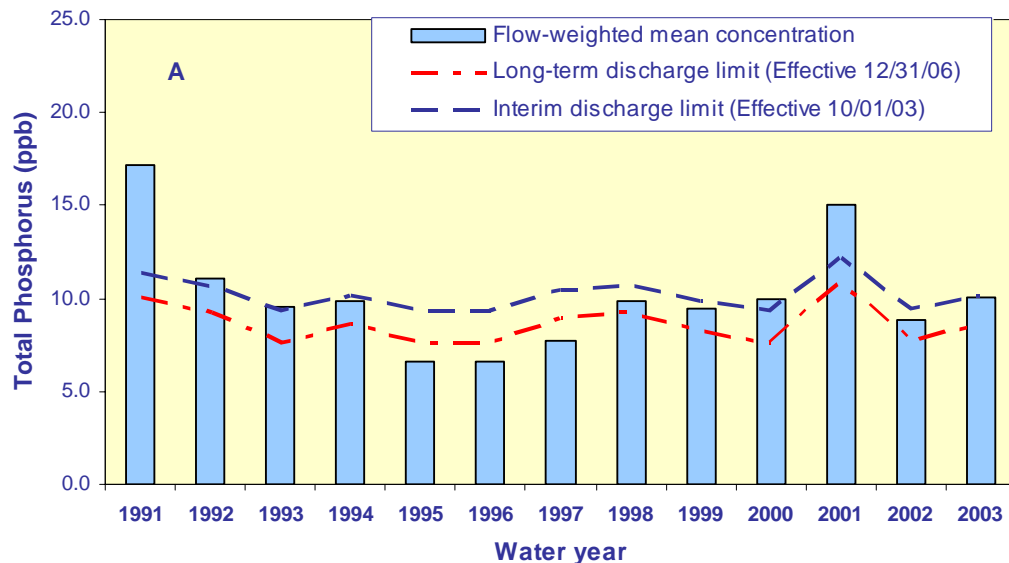
Month - Year	Geometric Mean Concentration	Interim Level (ppb)	Long Term Level (ppb)	Average Stage	Number of TP Samples	Number of Stage Measure- ments
	(ppb)	Effective 2/1/99	Effective 12/31/06	(ft, NGVD)		
Jan-2002	6.4	10.4	8.8	16.69	14	3
Feb-2002	7.8	10.7	9.1	16.63	14	3
Mar-2002	7.3	11.5	9.7	16.50	14	3
Apr-2002	7.5	15.6	12.7	15.98	11	3
May-2002	10.0	N/A	N/A	15.04	3	3
Jun-2002	13.4	16.0	12.9	15.94	10	3
Jul-2002	11.2	9.7	8.3	16.82	14	3
Aug-2002	9.0	13.5	11.1	16.22	12	3
Sep-2002	8.3	10.6	8.9	16.66	11	3
Oct-2002	7.5	10.7	9.0	16.64	12	3
Nov-2002	6.9	10.5	8.9	16.66	12	3
Dec-2002	5.9	9.2	7.9	16.93	14	3
Jan-2003	5.7	10.0	8.5	16.76	13	3
Feb-2003	7.5	11.3	9.5	16.54	11	3
Mar-2003	8.0	13.4	11.1	16.23	9	3
Apr-2003	7.6	13.7	11.2	16.20	12	3
May-2003	14.0	18.3	14.6	15.72	7	3
Jun-2003	7.9	14.8	12.1	16.06	11	3
Jul-2003	7.7	15.2	12.3	16.02	9	3
Aug-2003	8.0	10.1	8.6	16.74	14	3
Sep-2003	8.8	8.3	7.2	17.23	13	3
Oct-2003	7.0	8.3	7.2	17.15	14	3
Nov-2003	7.5	8.9	7.7	16.98	11	3
Dec-2003	7.6	9.3	8.0	16.91	14	3

Notes:

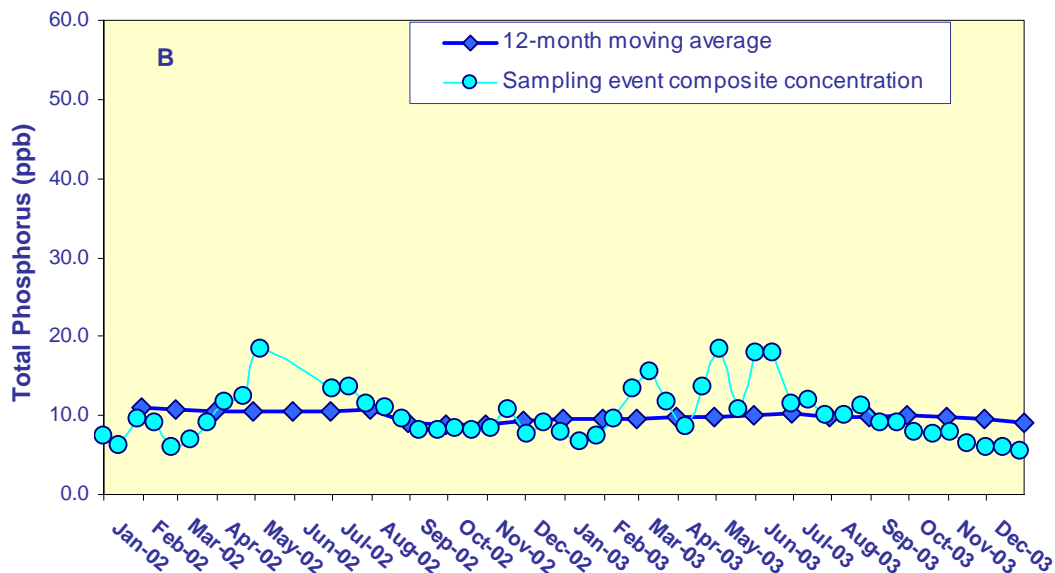
- (1) Average Stage is calculated using stage elevations at three stations on the sampling date
- (2) Highlighted rows indicate months when excursions occurred

Flow-weighted Mean Concentrations Inflows to Everglades National Park through Shark River Slough

12-month moving average at the end of each water year compared to the total phosphorus interim and long-term limits.



12-month moving average at the end of each month and the composite total phosphorus concentration for each sampling event.



Shark River Slough

Total Phosphorus Concentration

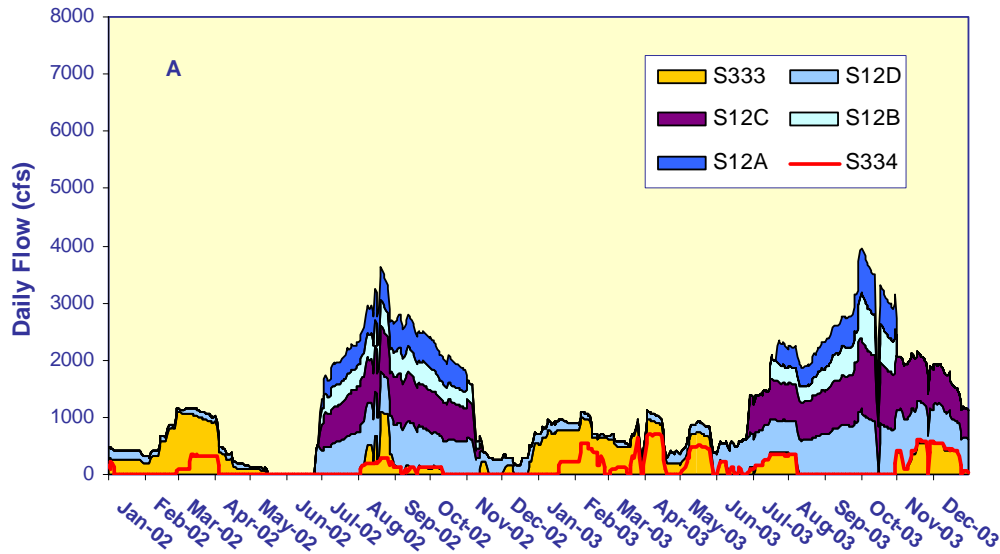
Compliance Tracking

12-Month Period Ending On	Total Period Flow	Flow Weighted Mean Total Phosphorus	Interim Limit (ppb)	Long Term Limit (ppb)	Percent of Sampling Events Greater than 10 ppb	
			Effective	Effective	(%)	
	(Kac-ft)	(ppb)	10/1/2003	12/31/2006	Guideline	Observed
31-Jan-02	707.8	10.9	10.8	9.4	48.9	52.6
28-Feb-02	741.3	10.7	10.6	9.2	48.0	45.0
31-Mar-02	809.5	10.5	10.3	8.9	46.1	40.9
30-Apr-02	829.9	10.5	10.3	8.8	45.6	40.9
31-May-02	833.5	10.5	10.2	8.7	45.5	43.5
30-Jun-02	839.6	10.5	10.2	8.7	45.3	40.9
31-Jul-02	958.5	10.9	9.7	8.1	42.4	45.8
31-Aug-02	1003.2	9.1	9.6	7.9	41.4	39.1
30-Sep-02	1048.1	8.8	9.4	7.7	40.4	30.4
31-Oct-02	999.9	8.9	9.6	7.9	41.5	30.4
30-Nov-02	884.5	9.4	10.0	8.5	44.2	34.8
31-Dec-02	802.2	9.6	10.4	8.9	46.3	33.3
31-Jan-03	831.1	9.5	10.3	8.8	45.6	34.8
28-Feb-03	843.6	9.7	10.2	8.7	45.2	39.1
31-Mar-03	812.1	9.9	10.3	8.9	46.1	47.8
30-Apr-03	832.1	9.9	10.2	8.8	45.5	43.5
31-May-03	871.3	10.0	10.1	8.6	44.5	45.8
30-Jun-03	901.1	10.2	10.0	8.4	43.8	50.0
31-Jul-03	891.3	9.8	10.0	8.5	44.0	50.0
31-Aug-03	839.3	9.9	10.2	8.7	45.3	50.0
30-Sep-03	850.1	10.0	10.2	8.7	45.1	50.0
31-Oct-03	921.8	9.7	9.9	8.3	43.3	50.0
30-Nov-03	1001.5	9.5	9.6	7.9	41.4	46.2
31-Dec-03	1076.8	9.2	9.4	7.6	40.1	46.2

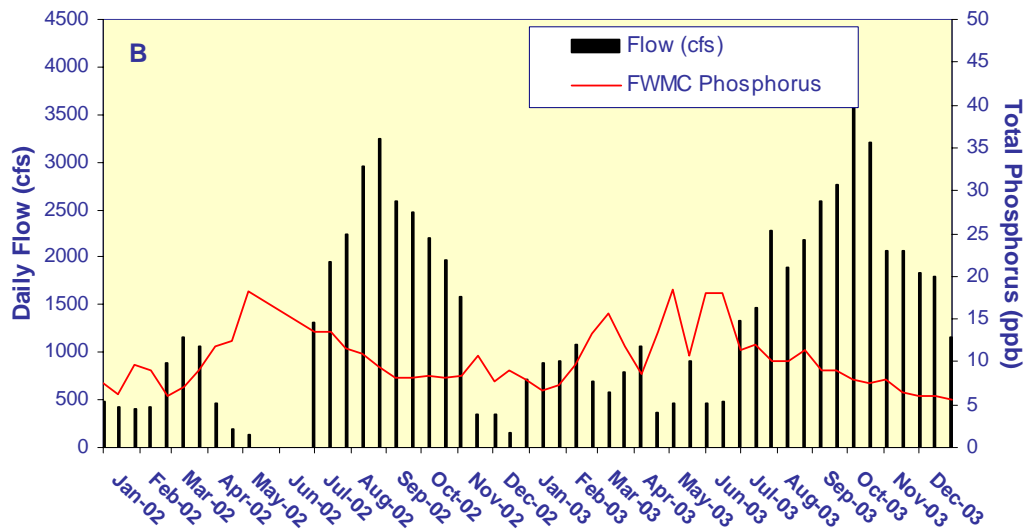
Notes:

Bold italicized values exceeded guideline percentage

Shark River Slough -- Daily Flows and Sampling Event FWMC

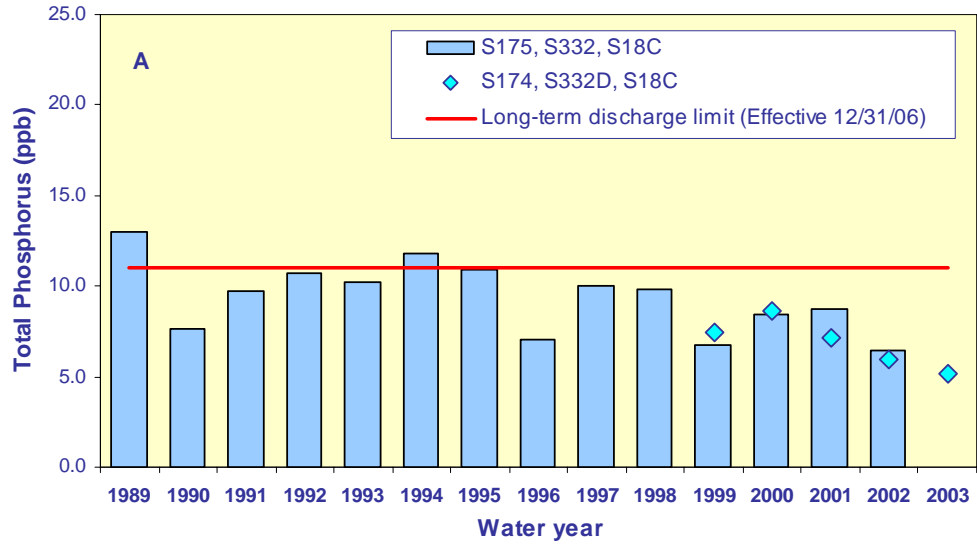


Daily flows into Shark River Slough by structure

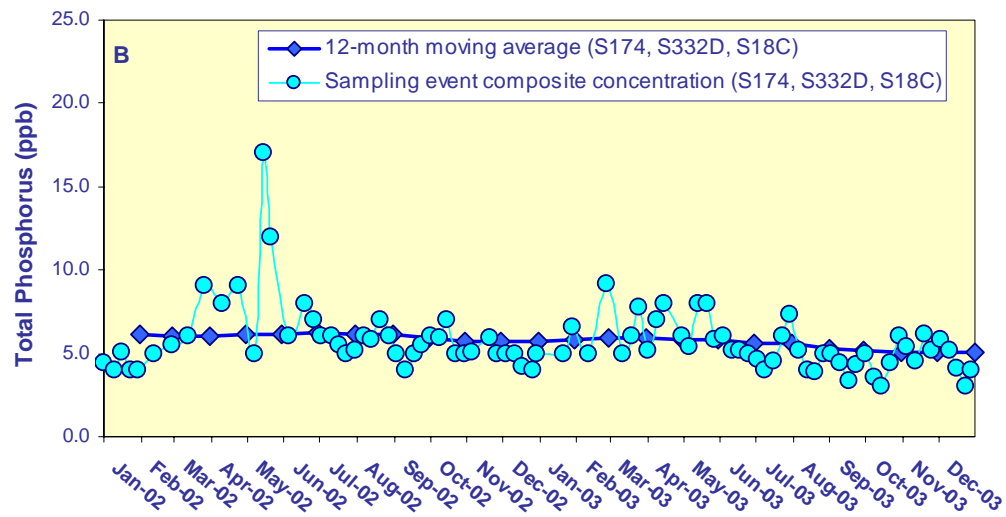


The relationship between daily flow at Shark River Slough structures and the corresponding flow-weighted mean total phosphorus concentrations for individual sampling events

Total phosphorus flow-weighted mean concentrations in inflows to Everglades National Park through Taylor Slough and the Coastal Basins



12-month moving average fwmc at the end of each water year compared to the 11 ppb long-term limit



12-month moving average fwmc at the end of each month and the composite total phosphorus concentration for each sampling event

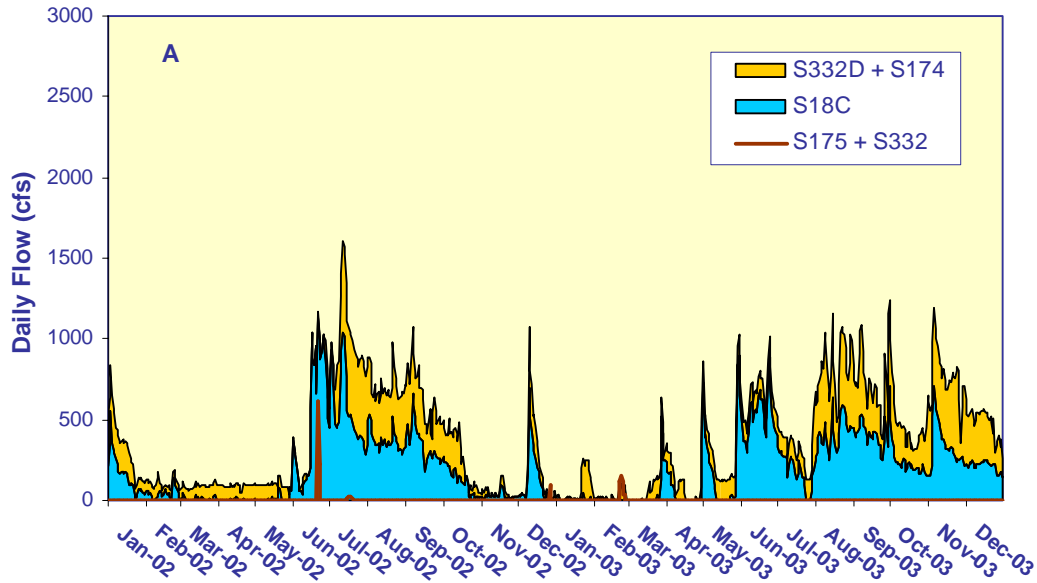
Taylor Slough and the Coastal Basins

Total Phosphorus Concentration

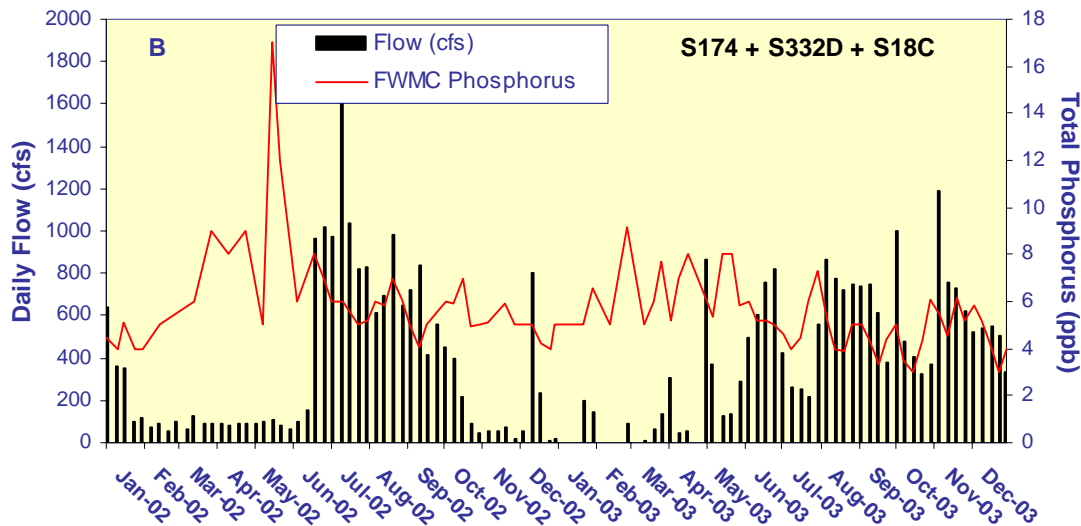
Compliance Tracking

12-Month Period Ending On	Total Period Flow	Flow Weighted Mean Total Phosphorus	Limit (Effective 12/31/06)	Percent of Sampling Events Greater than 10 ppb	
			(ppb)	(%)	
	(Kac-ft)	(ppb)	Long Term	Guideline	Observed
31-Jan-02	316.0	6.1	11.0	53.1	5.9
28-Feb-02	320.6	6.1	11.0	53.1	0.0
31-Mar-02	325.9	6.1	11.0	53.1	0.0
30-Apr-02	331.1	6.1	11.0	53.1	0.0
31-May-02	336.4	6.1	11.0	53.1	5.0
30-Jun-02	364.3	6.2	11.0	53.1	4.9
31-Jul-02	392.1	6.1	11.0	53.1	4.7
31-Aug-02	388.3	6.1	11.0	53.1	4.7
30-Sep-02	371.8	6.0	11.0	53.1	4.7
31-Oct-02	316.0	5.7	11.0	53.1	4.5
30-Nov-02	271.6	5.8	11.0	53.1	4.8
31-Dec-02	249.8	5.7	11.0	53.1	4.7
31-Jan-03	234.2	5.8	11.0	53.1	5.0
28-Feb-03	229.9	5.9	11.0	53.1	5.0
31-Mar-03	230.5	5.9	11.0	53.1	4.9
30-Apr-03	231.5	5.8	11.0	53.1	4.8
31-May-03	244.2	5.8	11.0	53.1	0.0
30-Jun-03	249.8	5.6	11.0	53.1	0.0
31-Jul-03	209.0	5.6	11.0	53.1	0.0
31-Aug-03	216.1	5.3	11.0	53.1	0.0
30-Sep-03	221.9	5.2	11.0	53.1	0.0
31-Oct-03	233.8	5.0	11.0	53.1	0.0
30-Nov-03	276.6	5.1	11.0	53.1	0.0
31-Dec-03	293.9	5.0	11.0	53.1	0.0

Taylor Slough and S18C -- Daily Flows and Sampling Event FWMC



Daily flows into Everglades National Park through Taylor Slough and S18C.



The relationship between daily flows at Taylor Slough structures and S18C and the corresponding flow-weighted mean total phosphorus concentrations for individual sampling events.