

# Settlement Agreement

January - March 2005 Report

and

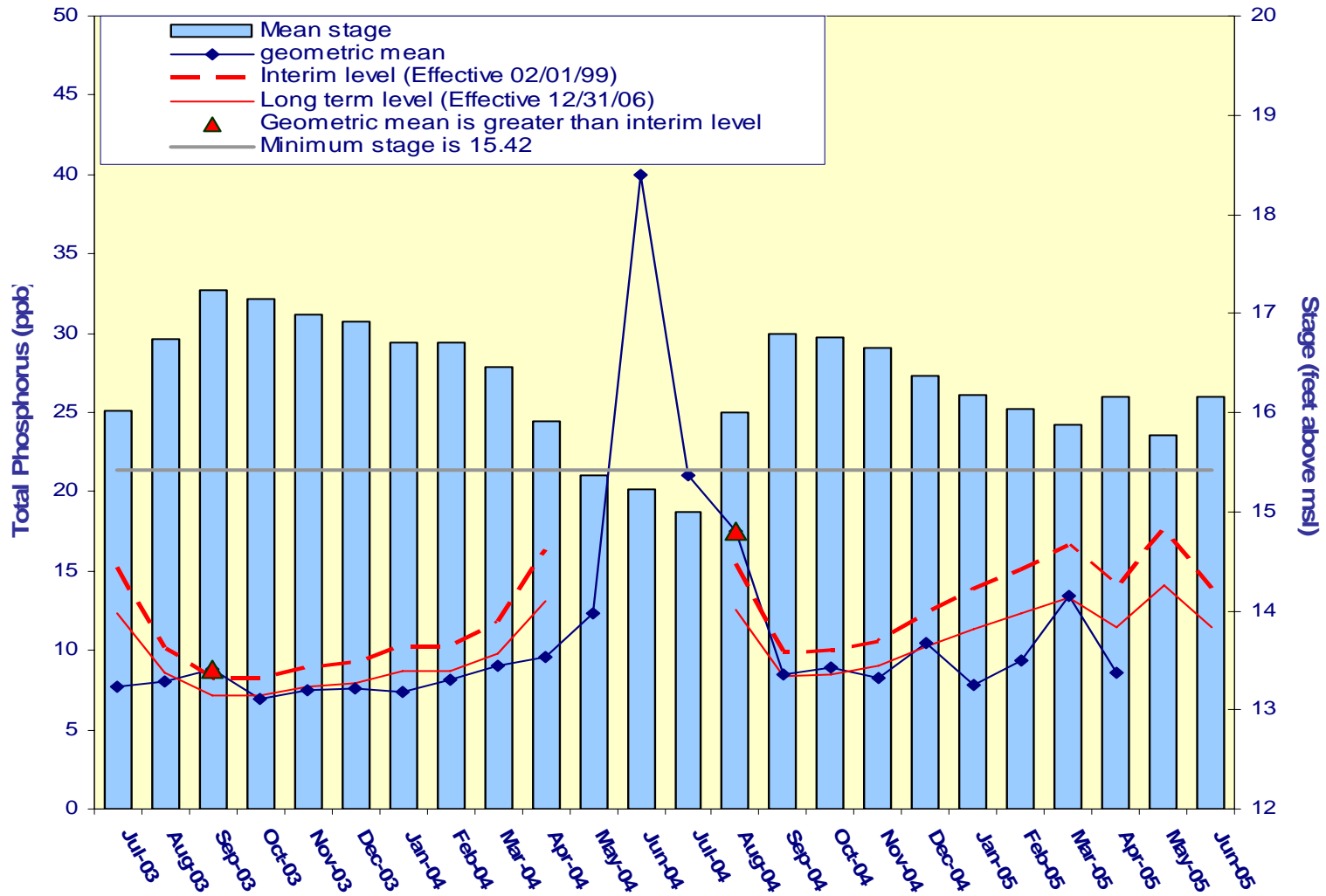
April - June 2005 Report

Prepared for the

Technical Oversight Committee

August 16, 2005

# 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 Measurements
	(ppb)	Effective 2/1/99	Effective 12/31/06	(ft NGVD)		
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
Jan-2004	7.4	10.3	8.7	16.71	14	3
Feb-2004	8.2	10.3	8.7	16.71	14	3
Mar-2004	9.0	11.8	9.8	16.46	14	3
Apr-2004	9.6	16.3	13.1	15.91	9	3
May-2004	12.4	N/A	N/A	15.37	9	3
Jun-2004	40.0	N/A	N/A	15.22	2	3
Jul-2004	21.0	N/A	N/A	15.00	1	3
Aug-2004	17.5	15.4	12.5	16.00	12	3
Sep-2004	8.5	9.9	8.4	16.79	14	3
Oct-2004	8.9	10.0	8.5	16.76	13	3
Nov-2004	8.3	10.6	9.0	16.65	14	3
Dec-2004	10.4	12.4	10.3	16.37	13	3
Jan-2005	7.9	13.9	11.4	16.17	12	3
Feb-2005	9.4	15.1	12.3	16.03	11	3
Mar-2005	13.4	16.6	13.4	15.88	11	3
Apr-2005	8.6	13.9	11.4	16.17	11	3
May-2005*	Data Rejected	17.7	14.1	15.78	10	3
Jun-2005*	Data Rejected	13.9	11.4	16.17	14	3

## Refuge TP Compliance Tracking for January – July 2005

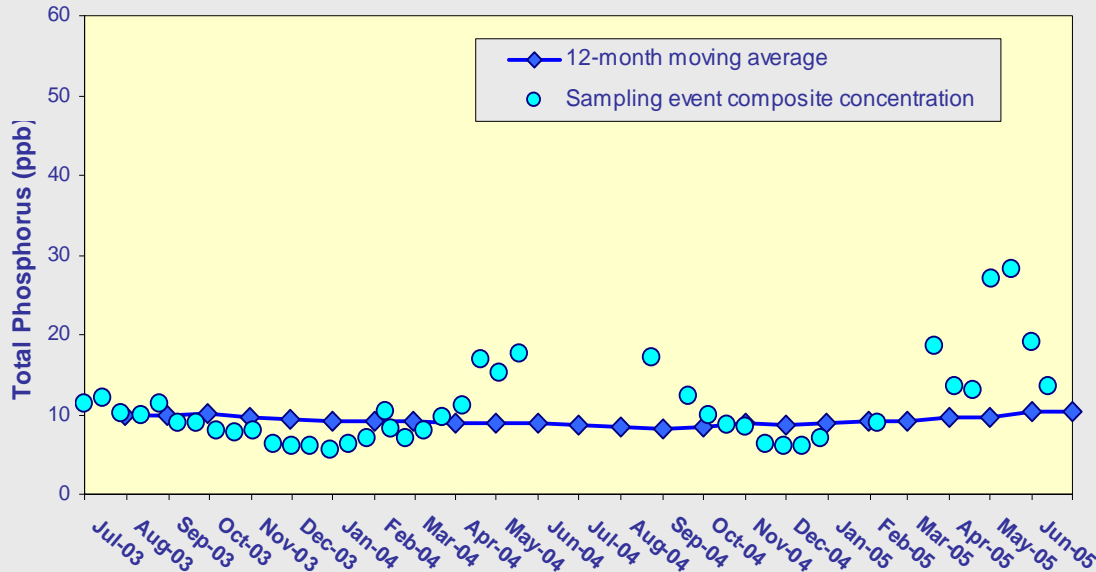
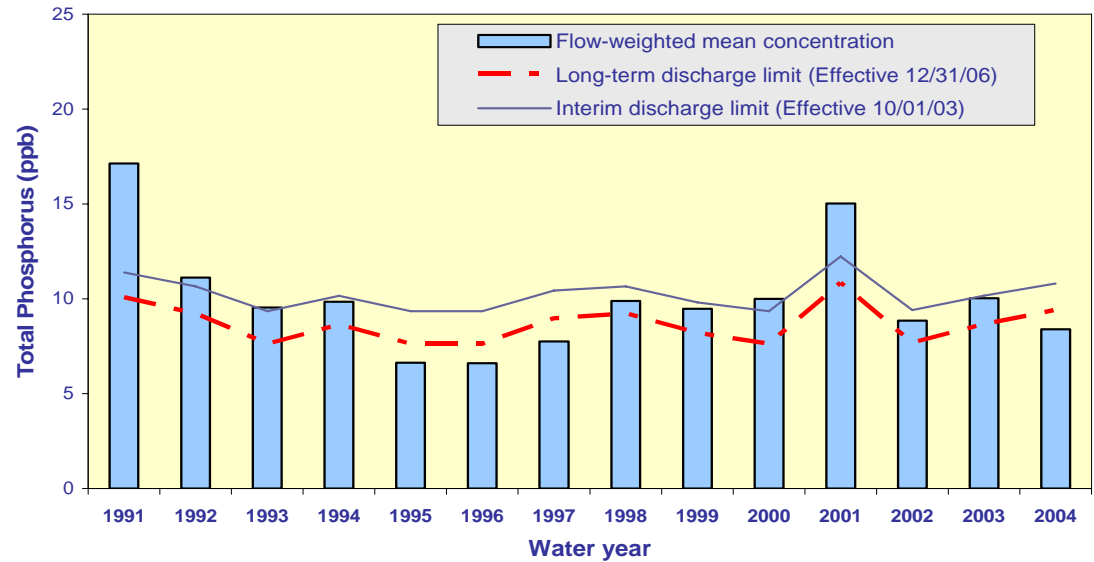
Month - Year	Geometric Mean Concentration	Interim Level (ppb)	Long Term Level (ppb)	Average Stage (ft NGVD)	Number of TP Samples	Number of Stage Measurements
	(ppb)	Effective 2/1/99	Effective 12/31/06			
Jan-2005	7.9	13.9	11.4	16.17	12	3
Feb-2005	9.4	15.1	12.3	16.03	11	3
Mar-2005	13.4	16.6	13.4	15.88	11	3
Apr-2005	8.6	13.9	11.4	16.17	11	3
May-2005*	Data Rejected	17.7	14.1	15.78	10	3
Jun-2005*	Data Rejected	13.9	11.4	16.17	14	3
Jul-2005**	7.4	14.9	12.2	16.05	14	3

\* Data rejected due to improper sampling techniques.

\*\* July 2005 stage data are **preliminary** values.

# 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 TP interim and long-term limits.



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

# Shark River Slough TP Concentration Compliance Tracking

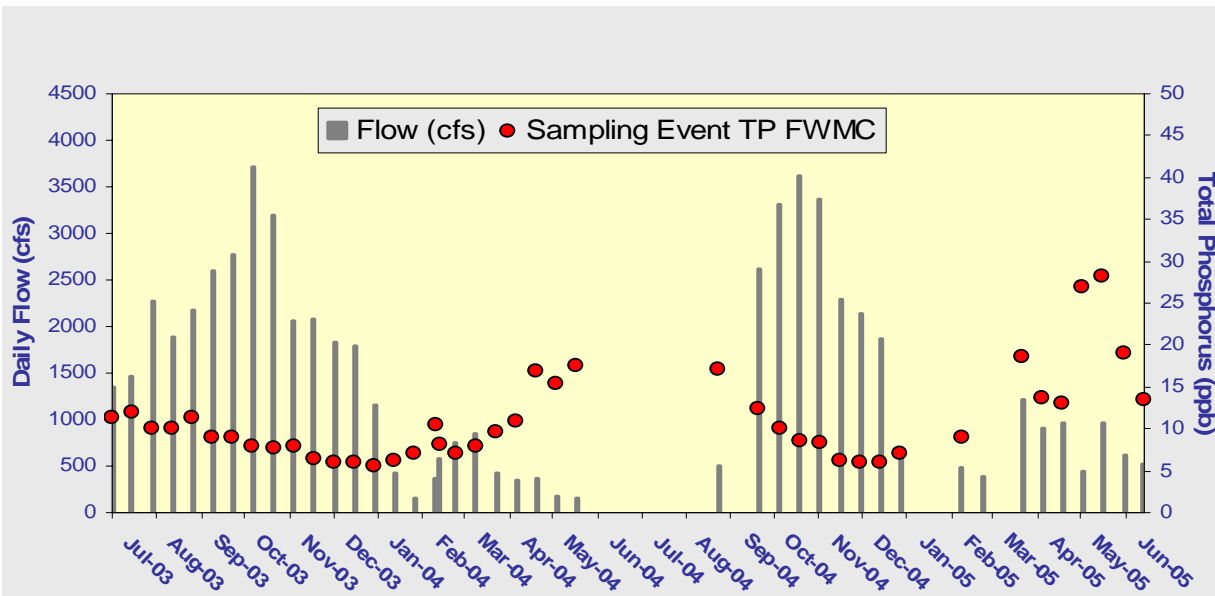
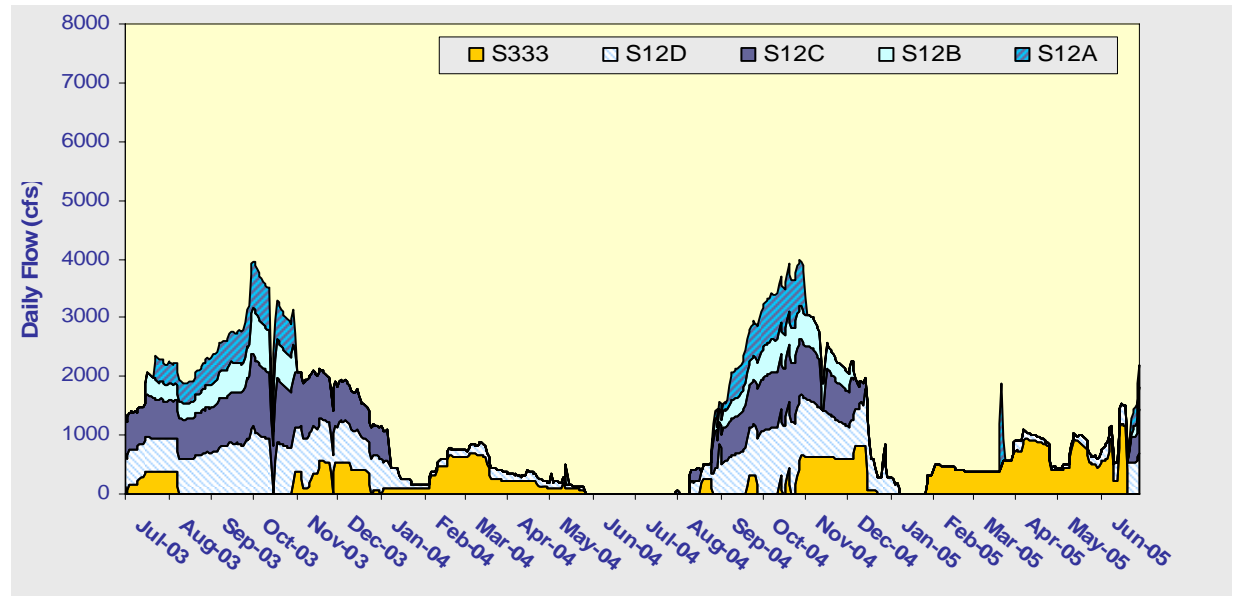
12-Month Period Ending On	Total Period Flow  (Kac-ft)	Flow Weighted Mean Total Phosphorus  (ppb)	Interim Limit (ppb)	Long Term Limit (ppb)	Percent of Sampling Events Greater than 10 ppb	
			Effective 10/1/2003	Effective 12/31/2006	( %)	
	Guideline	Observed				
31-Jul-03	891.3	9.8	10.0	8.5	44.0	<b>50.0</b>
31-Aug-03	839.3	9.9	10.2	8.7	45.3	<b>50.0</b>
30-Sep-03	850.1	10.0	10.2	8.7	45.1	<b>50.0</b>
31-Oct-03	921.8	9.7	9.9	8.3	43.3	<b>50.0</b>
30-Nov-03	1001.5	9.5	9.6	7.9	41.4	<b>46.2</b>
31-Dec-03	1076.8	9.1	9.4	7.6	40.1	<b>46.2</b>
31-Jan-04	1049.0	9.2	9.4	7.7	40.4	<b>46.2</b>
29-Feb-04	1033.9	9.1	9.5	7.8	40.7	<b>44.4</b>
31-Mar-04	1036.7	8.9	9.4	7.7	40.7	37.0
30-Apr-04	1012.9	9.0	9.5	7.9	41.2	40.7
31-May-04	980.2	9.0	9.7	8.0	41.9	40.7
30-Jun-04	942.5	8.7	9.8	8.2	42.8	36.0
31-Jul-04	832.0	8.4	10.2	8.8	45.5	27.3
31-Aug-04	733.0	8.2	10.7	9.3	48.2	28.6
30-Sep-04	704.4	8.4	10.8	9.4	49.0	35.0
31-Oct-04	727.8	8.9	10.7	9.3	48.3	35.0
30-Nov-04	760.3	8.7	10.6	9.1	47.4	33.3
31-Dec-04	738.5	9.0	10.7	9.2	48.0	35.0
31-Jan-05	717.3	9.0	10.7	9.3	48.6	38.9
28-Feb-05	709.8	9.1	10.8	9.4	48.8	37.5
31-Mar-05	703.4	9.6	10.8	9.4	49.0	46.7
30-Apr-05	737.8	9.5	10.7	9.2	48.1	46.7
31-May-05	772.2	10.3	10.5	9.1	47.1	<b>50.0</b>
30-Jun-05	841.2	10.4	10.2	8.7	45.3	<b>52.9</b>

## Shark River Slough TP Concentration Compliance Tracking for January – June 2005

12-Month Period Ending On	Total Period Flow (Kac-ft)	Flow Weighted Mean Total Phosphorus (ppb)	Interim Limit (ppb)	Long Term Limit (ppb)	Percent of Sampling Events Greater than 10 ppb	
			Effective 10/1/2003	Effective 12/31/2006	( <b>%</b> )	
					Guideline	Observed
<b>31-Jan-05</b>	717.3	9.0	10.7	9.3	48.6	38.9
<b>28-Feb-05</b>	709.8	9.1	10.8	9.4	48.8	37.5
<b>31-Mar-05</b>	703.4	9.6	10.8	9.4	49.0	46.7
<b>30-Apr-05</b>	737.8	9.5	10.7	9.2	48.1	46.7
<b>31-May-05</b>	772.2	10.3	10.5	9.1	47.1	<b>50.0</b>
<b>30-Jun-05</b>	841.2	10.4	10.2	8.7	45.3	<b>52.9</b>

# Shark River Slough – Daily Flows and Sampling Event FWMC

Daily flows into Shark River Slough by structure

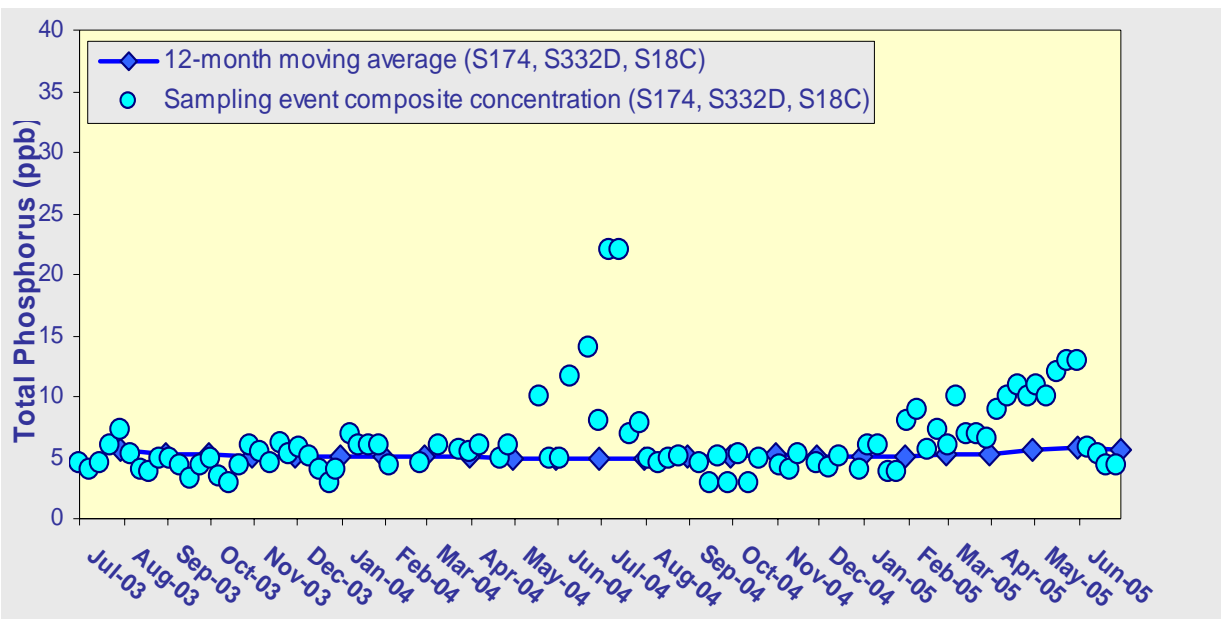
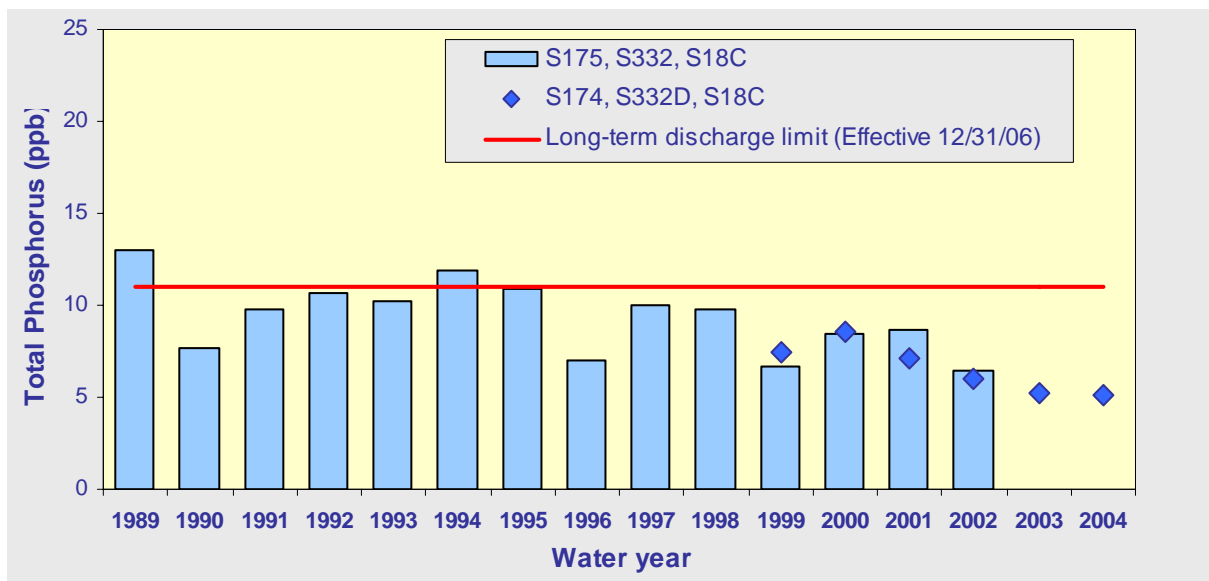


Daily flow at Shark River Slough structures and the corresponding TP FWMCs for individual sampling events.



# TP flow-weighted mean concentrations in inflows to the ENP through Taylor Slough and the Coastal Basins

The 12-month moving average FWMC at the end of each water year compared to the 11 ppb long-term total phosphorus limit.



The 12-month moving average FWMC at the end of each month and the composite TP concentration for each sampling event.

**Taylor Slough and the Coastal Basins  
TP Concentration  
Compliance Tracking**

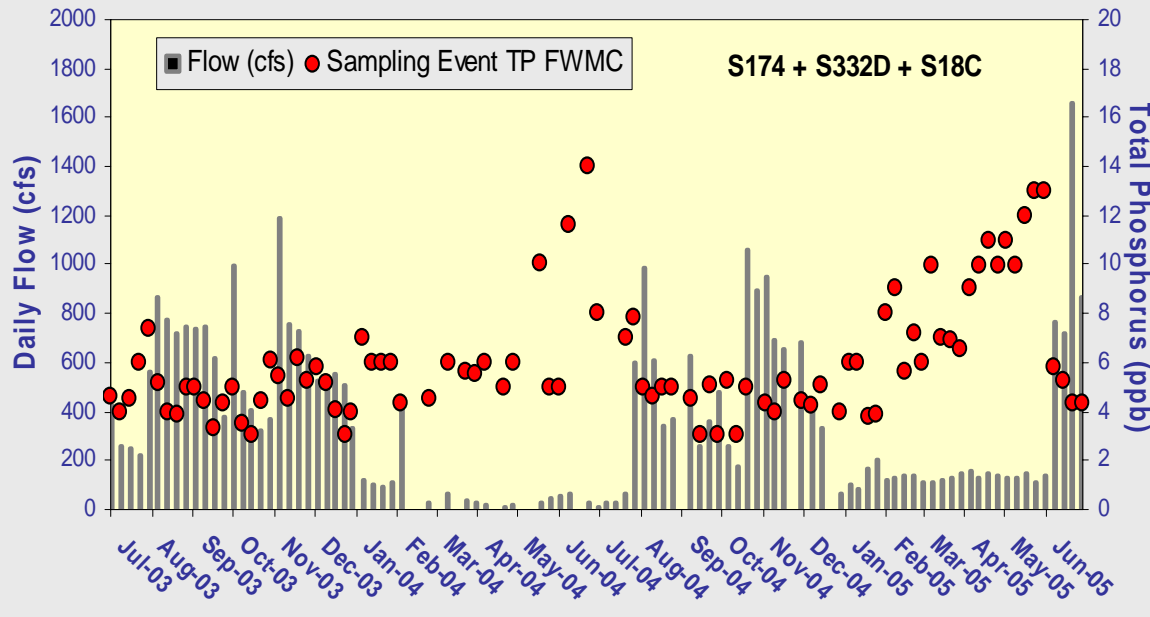
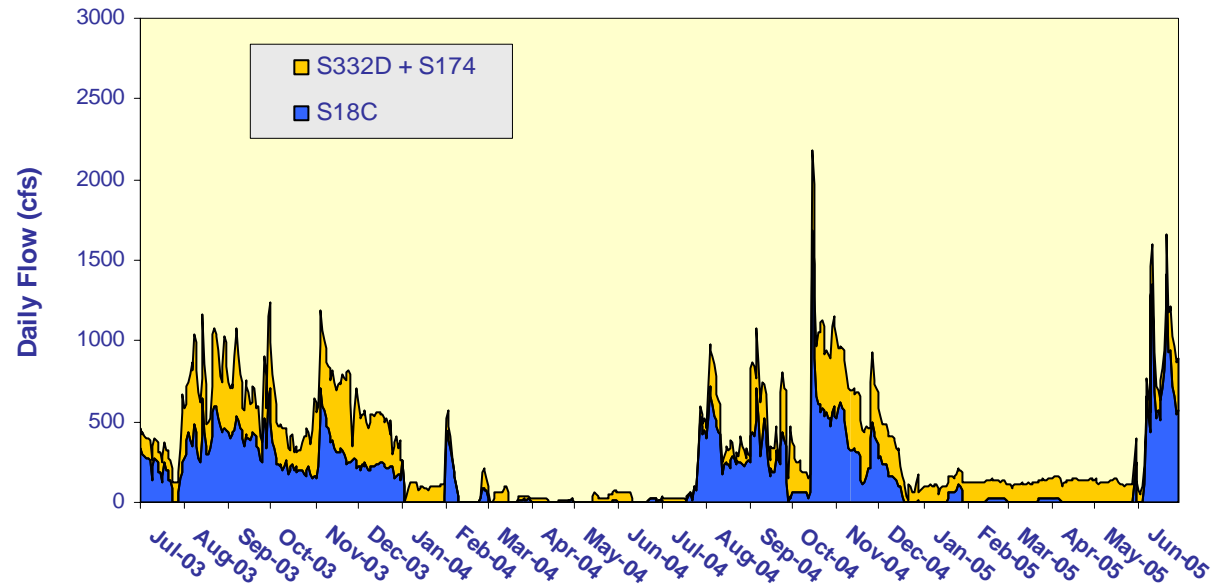
12-Month Period Ending On	Total Period Flow  (Kac-ft)	Flow Weighted Mean Total Phosphorus  (ppb)	Long Term Limit (Effective 12/31/06)  (ppb)	Percent of Sampling Events Greater than 10 ppb  (%)	
				Guideline	Observed
31-Jul-03	209.0	5.6	11.0	53.1	0.0
31-Aug-03	216.1	5.3	11.0	53.1	0.0
30-Sep-03	221.9	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
31-Jan-04	295.9	5.1	11.0	53.1	0.0
29-Feb-04	301.4	5.0	11.0	53.1	0.0
31-Mar-04	297.9	5.0	11.0	53.1	0.0
30-Apr-04	292.3	5.0	11.0	53.1	0.0
31-May-04	274.8	4.9	11.0	53.1	2.2
30-Jun-04	238.0	4.9	11.0	53.1	6.8
31-Jul-04	224.3	5.0	11.0	53.1	11.4
31-Aug-04	202.7	5.1	11.0	53.1	11.4
30-Sep-04	192.6	5.2	11.0	53.1	11.4
31-Oct-04	210.1	5.3	11.0	53.1	11.9
30-Nov-04	206.7	5.1	11.0	53.1	11.9
31-Dec-04	193.0	5.2	11.0	53.1	12.5
31-Jan-05	194.4	5.1	11.0	53.1	12.5
28-Feb-05	194.7	5.2	11.0	53.1	11.9
31-Mar-05	199.6	5.3	11.0	53.1	11.4
30-Apr-05	207.2	5.6	11.0	53.1	13.3
31-May-05	214.1	5.9	11.0	53.1	18.8
30-Jun-05	261.0	5.5	11.0	53.1	14.6

## Taylor Slough and the Coastal Basins TP Concentration Compliance Tracking for January – June 2005

12-Month Period Ending On	Total Period Flow  (Kac-ft)	Flow Weighted Mean Total Phosphorus  (ppb)	Long Term Limit (Effective 12/31/06)  (ppb)	Percent of Sampling Events Greater than 10 ppb  (%)	
				Guideline	Observed
31-Jan-05	194.4	5.1	11.0	53.1	12.5
28-Feb-05	194.7	5.2	11.0	53.1	11.9
31-Mar-05	199.6	5.3	11.0	53.1	11.4
30-Apr-05	207.2	5.6	11.0	53.1	13.3
31-May-05	214.1	5.9	11.0	53.1	18.8
30-Jun-05	261.0	5.5	11.0	53.1	14.6

# Taylor Slough and S18C – Daily Flows and Sampling Event FWMC

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



Daily flows at Taylor Slough structures and S18C and the corresponding TP for individual sampling events.