

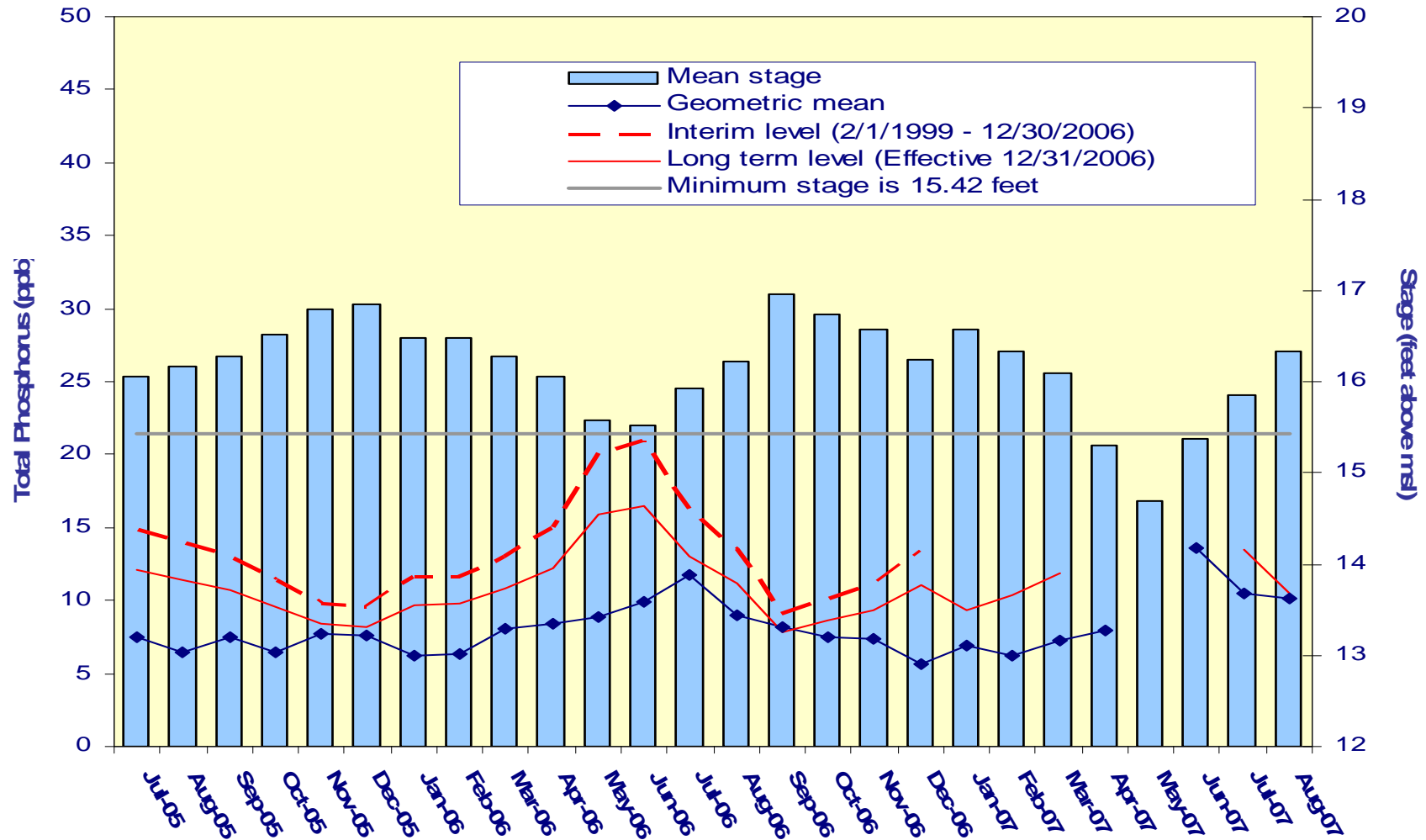
# Settlement Agreement

April 2007 - June 2007

Prepared for the  
Technical Oversight Committee

August 28, 2007

## A.R.M Loxahatchee National Wildlife Refuge Monthly Total Phosphorus Geometric Mean Concentrations



**Loxahatchee  
National Wildlife  
Refuge**

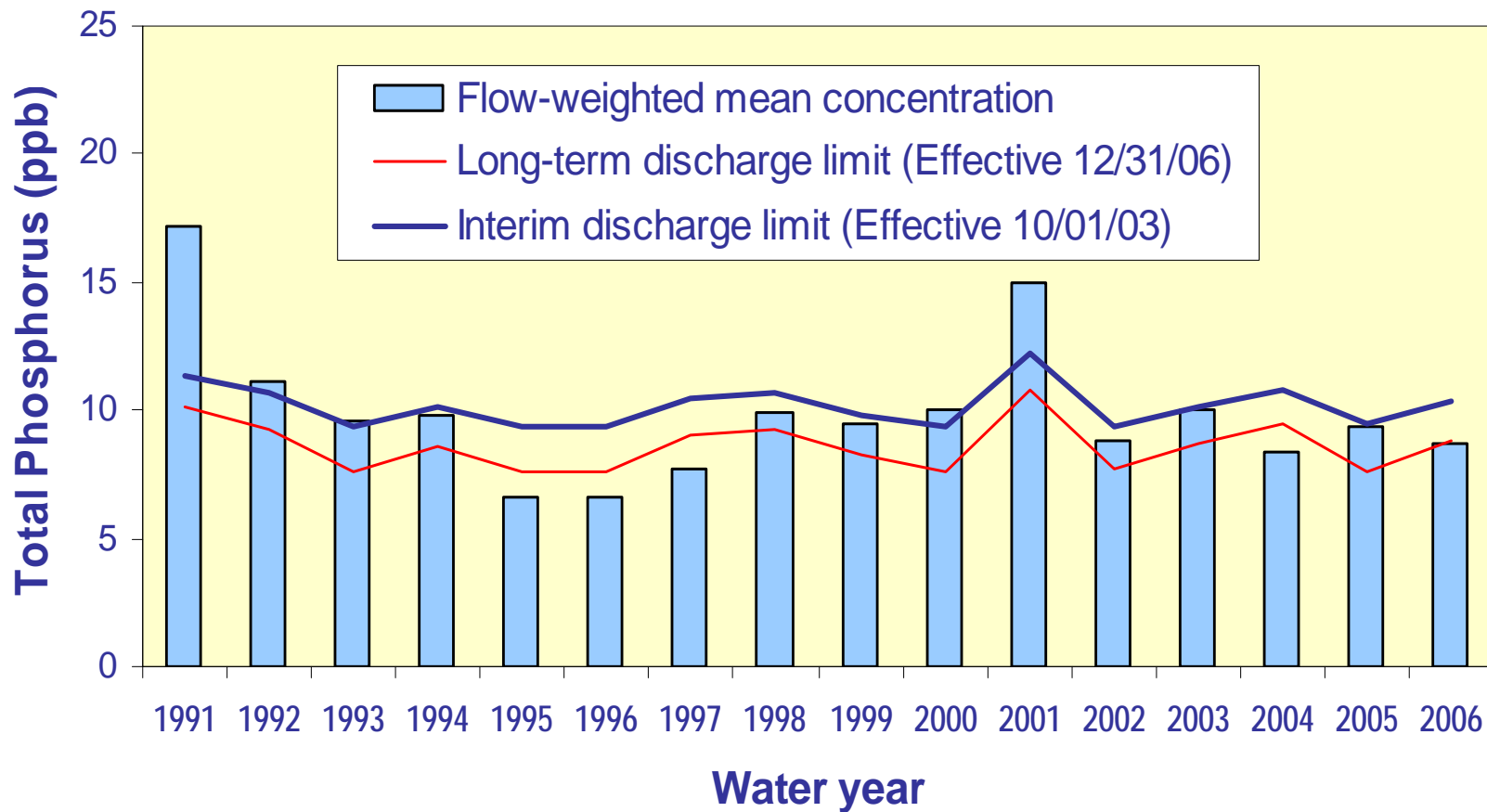
**Total Phosphorus  
Compliance  
Tracking**

Month - Year	Geometric Mean Concentration	Interim Level (ppb)	Long Term Level (ppb)	Average Stage <sup>a</sup>	Number of TP Samples	Number of Stage Measurements
	(ppb)	Effective 2/1/99	Effective 12/31/06	(ft NGVD)		
Jul-2005	7.4	14.9	12.1	16.05	14	3
Aug-2005	6.5	13.9	11.4	16.17	12	3
Sep-2005	7.5	13.0	10.8	16.28	11	3
Oct-2005	6.5	11.4	9.6	16.52	13	3
Nov-2005	7.8	9.8	8.4	16.79	14	3
Dec-2005	7.6	9.6	8.2	16.85	14	3
Jan-2006	6.3	11.6	9.7	16.49	13	3
Feb-2006	6.4	11.7	9.8	16.48	13	3
Mar-2006	8.1	13.1	10.8	16.28	12	3
Apr-2006	8.4	14.9	12.2	16.05	12	3
May-2006	8.8	20.1	15.9	15.58	10	3
Jun-2006	9.9	21.0	16.5	15.51	5	3
Jul-2006	11.7	16.1	13.0	15.92	9	3
Aug-2006	9.0	13.5	11.1	16.22	11	3
Sep-2006	8.2	9.1	7.8	16.96	14	3
Oct-2006	7.5	10.1	8.6	16.74	14	3
Nov-2006	7.4	11.1	9.4	16.56	14	3
Dec-2006	5.6	13.4	11.0	16.23	11	3
Jan-2007	6.9	11.1	9.3	16.57	14	3
Feb-2007	6.2	12.6	10.4	16.34	13	3
Mar-2007	7.3	14.5	11.8	16.10	10	3
Apr-2007	8.0	N/A <sup>b</sup>	N/A <sup>b</sup>	15.30	3	3
May-2007	n/a	N/A <sup>b</sup>	N/A <sup>b</sup>	14.68	0	3
Jun-2007	13.6	N/A <sup>b</sup>	N/A <sup>b</sup>	15.37	4	3

## Refuge TP Compliance Tracking for April 2007 – August 2007

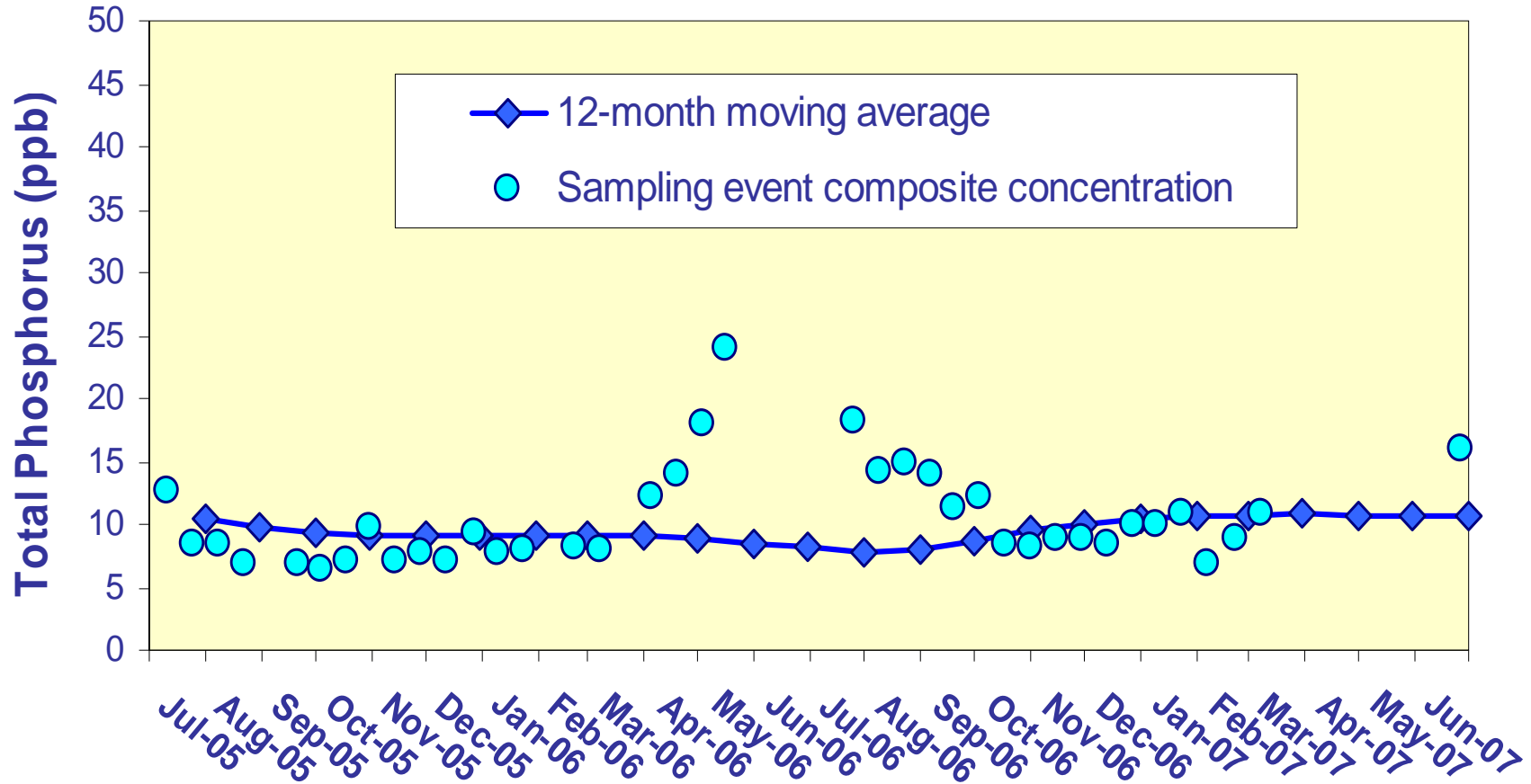
Month - Year	Geometric Mean Concentration	Interim Level (ppb)	Long Term Level (ppb)	Average Stage (ft NGVD)	Number of TP Samples	Number of Stage Measurements
	(ppb)	Effective 2/1/99	Effective 12/31/06			
Apr-2007	8.0	N/A	N/A	15.30	3	3
May-2007	n/a	N/A	N/A	14.68	0	3
Jun-2007	13.6	N/A	N/A	15.37	4	3
Jul-2007	10.4	N/A	13.5	15.86	13	3
Aug-2007	10.1	N/A	10.5	16.33	14	3

## Flow-weighted Mean Concentrations Inflows to ENP through Shark River Slough



12-month FWMC at the end of each water year compared to the TP interim and long-term limits.

## Flow-Weighted Mean Concentrations Inflows to ENP through Shark River Slough



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

**Shark River Slough  
TP Concentration  
Compliance Tracking**

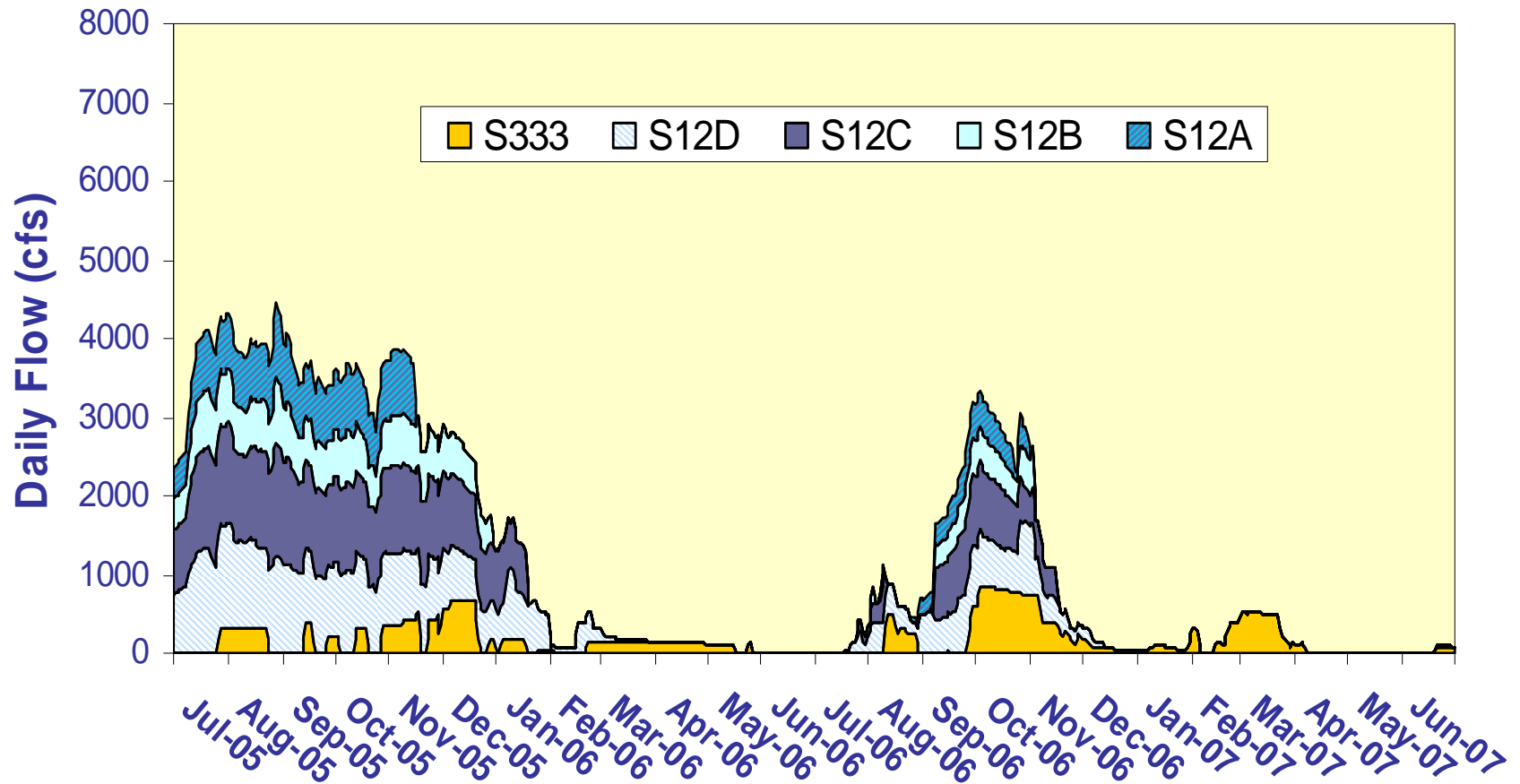
12-Month Period Ending On	Total Period Flow  (kac-ft)	Flow Weighted Mean Total Phosphorus  (ppb)	Interim Limit (ppb)	Long Term Limit (ppb)	Percent of Sampling Events Greater than 10 ppb	
			Effective 10/1/2003	Effective 12/31/2006	( %)	
					Guideline	Observed
31-Jul-05	1054.7	10.5	9.4	7.7	40.3	<i>55.0</i>
31-Aug-05	1269.2	9.8	9.4	7.6	40.1	<i>47.6</i>
<b>30-Sep-05</b>	<b>1345.9</b>	<b>9.4</b>	<b>9.4</b>	<b>7.6</b>	<b>40.1</b>	<b>42.9</b>
31-Oct-05	1338.1	9.0	9.4	7.6	40.1	<i>40.9</i>
30-Nov-05	1381.7	9.1	9.4	7.6	40.1	<i>42.9</i>
31-Dec-05	1447.6	9.1	9.4	7.6	40.1	<i>42.9</i>
31-Jan-06	1507.7	9.1	9.4	7.6	40.1	39.1
28-Feb-06 <sup>a</sup>	1497.6	9.0	9.4	7.6	40.1	39.1
31-Mar-06 <sup>a</sup>	1481.0	9.0	9.4	7.6	40.1	34.8
30-Apr-06 <sup>a</sup>	1436.1	9.0	9.4	7.6	40.1	34.8
31-May-06 <sup>a</sup>	1395.5	8.5	9.4	7.6	40.1	31.8
30-Jun-06 <sup>a</sup>	1326.6	8.2	9.4	7.6	40.1	25.0
31-Jul-06 <sup>a</sup>	1113.3	7.7	9.4	7.6	40.1	26.3
31-Aug-06 <sup>b</sup>	914.7	8.1	9.9	8.3	43.5	36.8
<b>30-Sep-06<sup>b</sup></b>	<b>814.1</b>	<b>8.7</b>	<b>10.3</b>	<b>8.8</b>	<b>46.0</b>	<b>45.0</b>
31-Oct-06 <sup>b</sup>	779.6	9.5	10.5	9.0	46.9	<i>50.0</i>
30-Nov-06 <sup>b</sup>	642.8	10.0	11.1	9.7	50.8	50.0
31-Dec-06 <sup>b</sup>	507.9	10.3	11.8	10.5	55.0	50.0
31-Jan-07 <sup>b</sup>	446.1	10.7	12.1	10.9	57.0	55.0
28-Feb-07 <sup>c</sup>	442.4	10.8	12.1	10.9	57.2	52.4
31-Mar-07 <sup>c</sup>	456.0	10.8	12.0	10.8	56.7	<i>57.1</i>
30-Apr-07 <sup>c</sup>	449.5	10.8	12.1	10.8	56.9	52.6
31-May-07 <sup>c</sup>	445.5	10.7	12.1	10.9	57.1	47.1
30-Jun-07 <sup>c</sup>	447.6	10.8	12.1	10.8	57.0	50.0

## Shark River Slough TP Concentration Compliance Tracking for April 2007 – June 2007

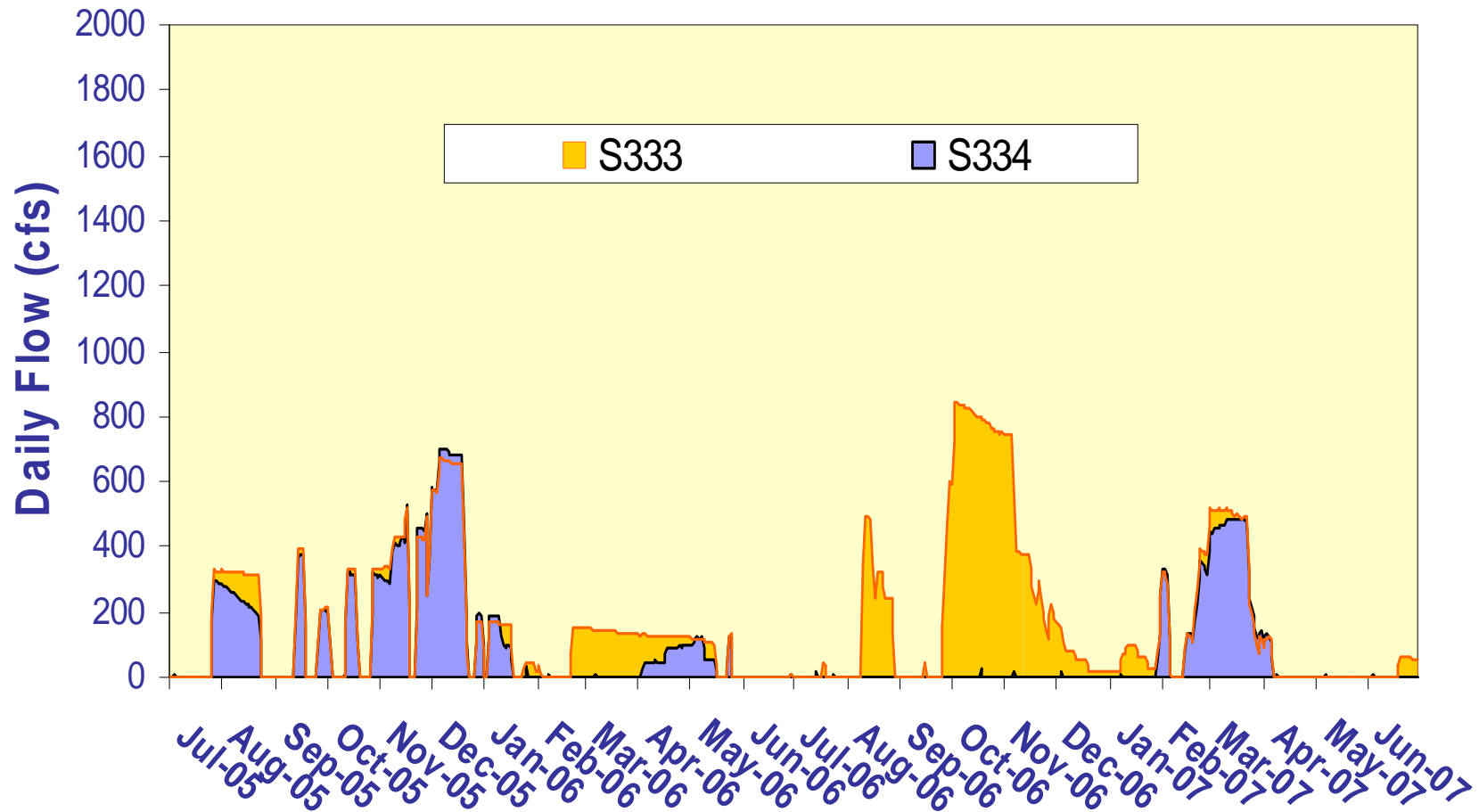
12-Month Period Ending On	Total Period Flow  (kac-ft)	Flow Weighted Mean Total Phosphorus  (ppb)	Interim Limit (ppb)	Long Term Limit (ppb)	Percent of Sampling Events Greater than 10 ppb	
			Effective 10/1/2003	Effective 12/31/2006	(%)	
					Guideline	Observed
30-Apr-07 <sup>c</sup>	449.5	10.8	12.1	10.8	56.9	52.6
31-May-07 <sup>c</sup>	445.5	10.7	12.1	10.9	57.1	47.1
30-Jun-07 <sup>c</sup>	447.6	10.8	12.1	10.8	57.0	50.0



## Shark River Slough Daily Flows by Structure

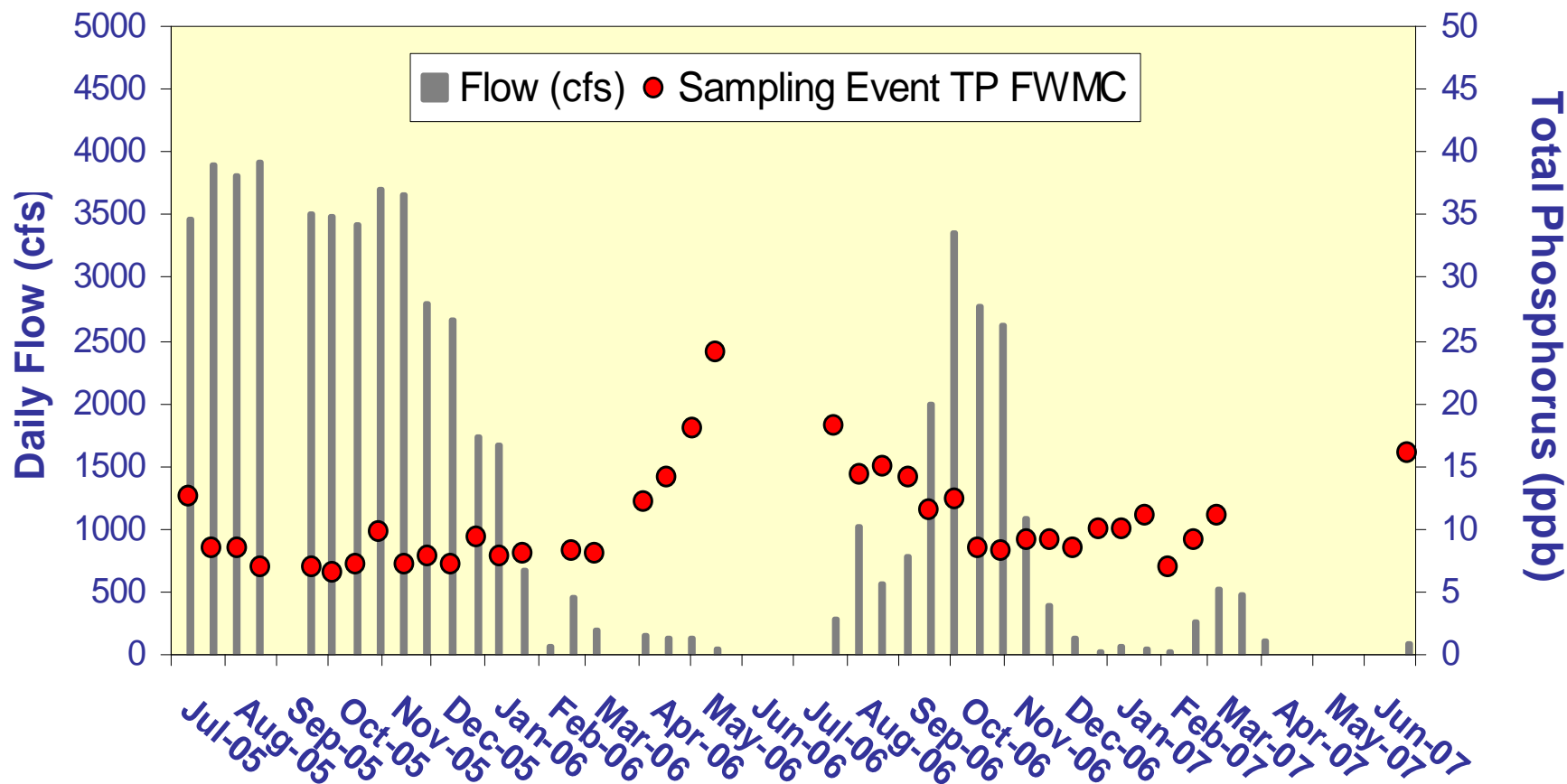


## Daily flow at S333 and S334



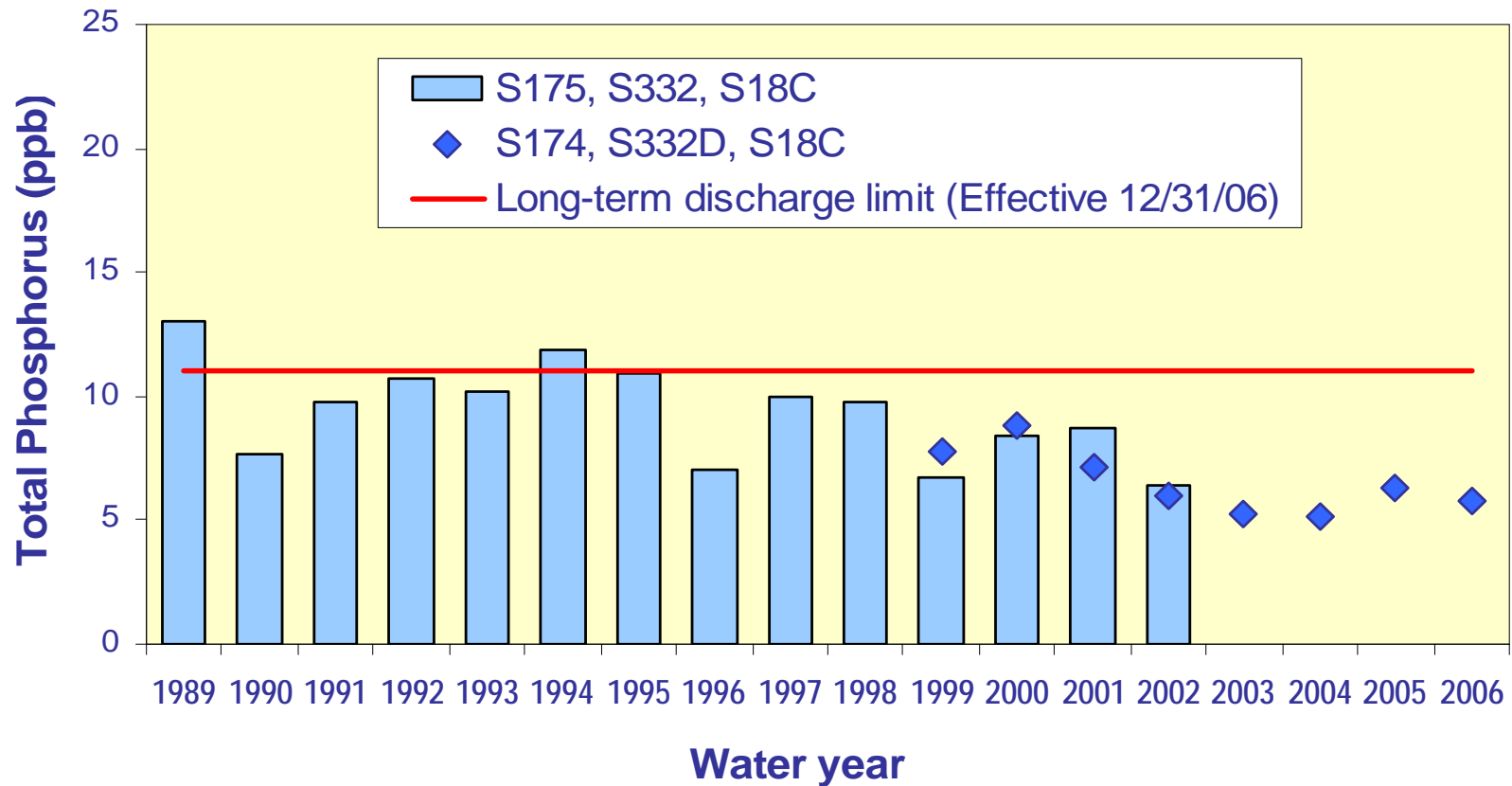
## Shark River Slough

### Sampling Event Daily Flows and FWMC



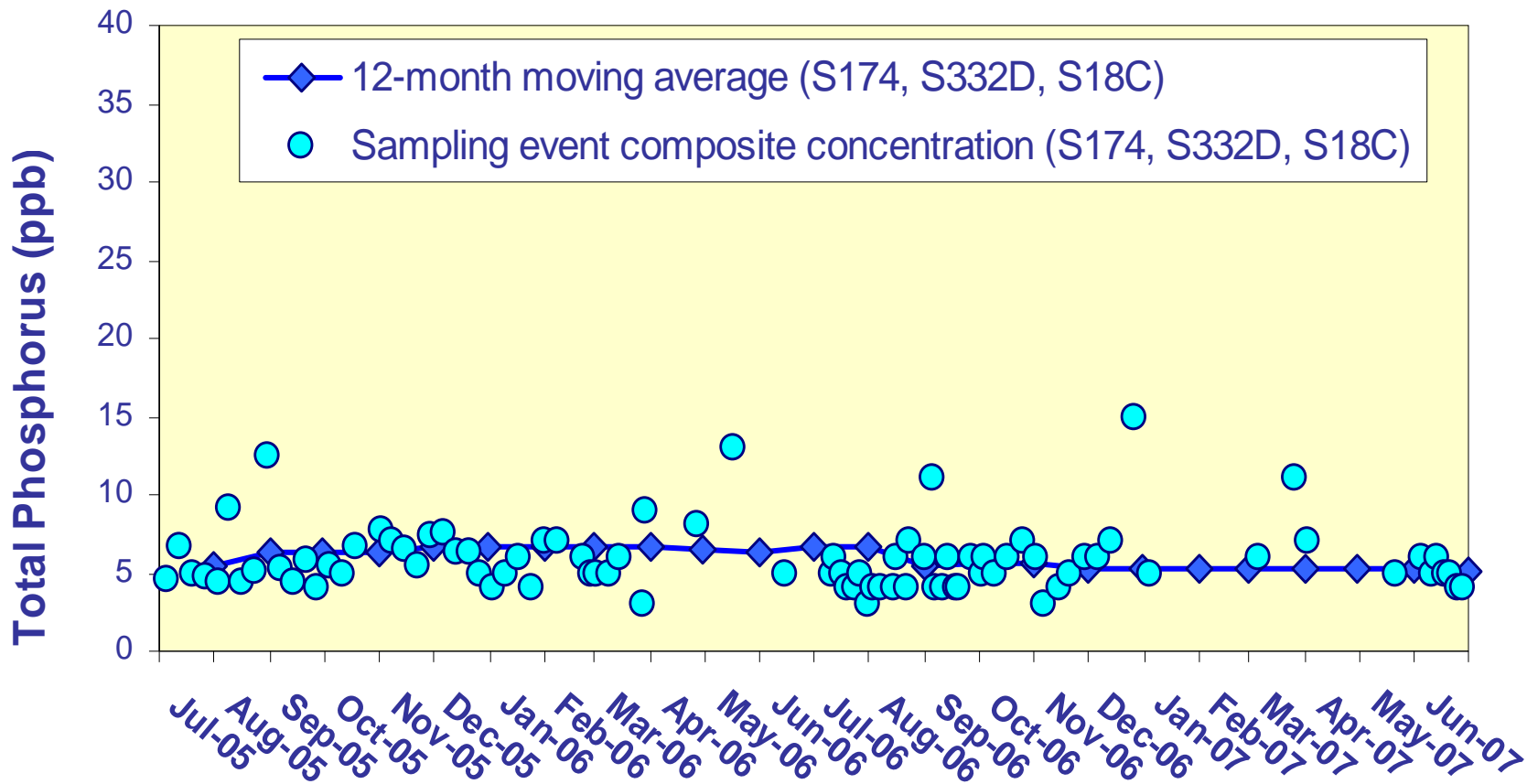
Daily flow at Shark River Slough structures and the corresponding TP FWMCs for individual sampling events.

## TP Flow-Weighted Mean Concentrations Inflows to the ENP through Taylor Slough and the Coastal Basins



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

## TP Flow-Weighted Mean Concentrations Inflows to the ENP through Taylor Slough and the Coastal Basins



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

# Taylor Slough and the Coastal Basins

## TP Concentration

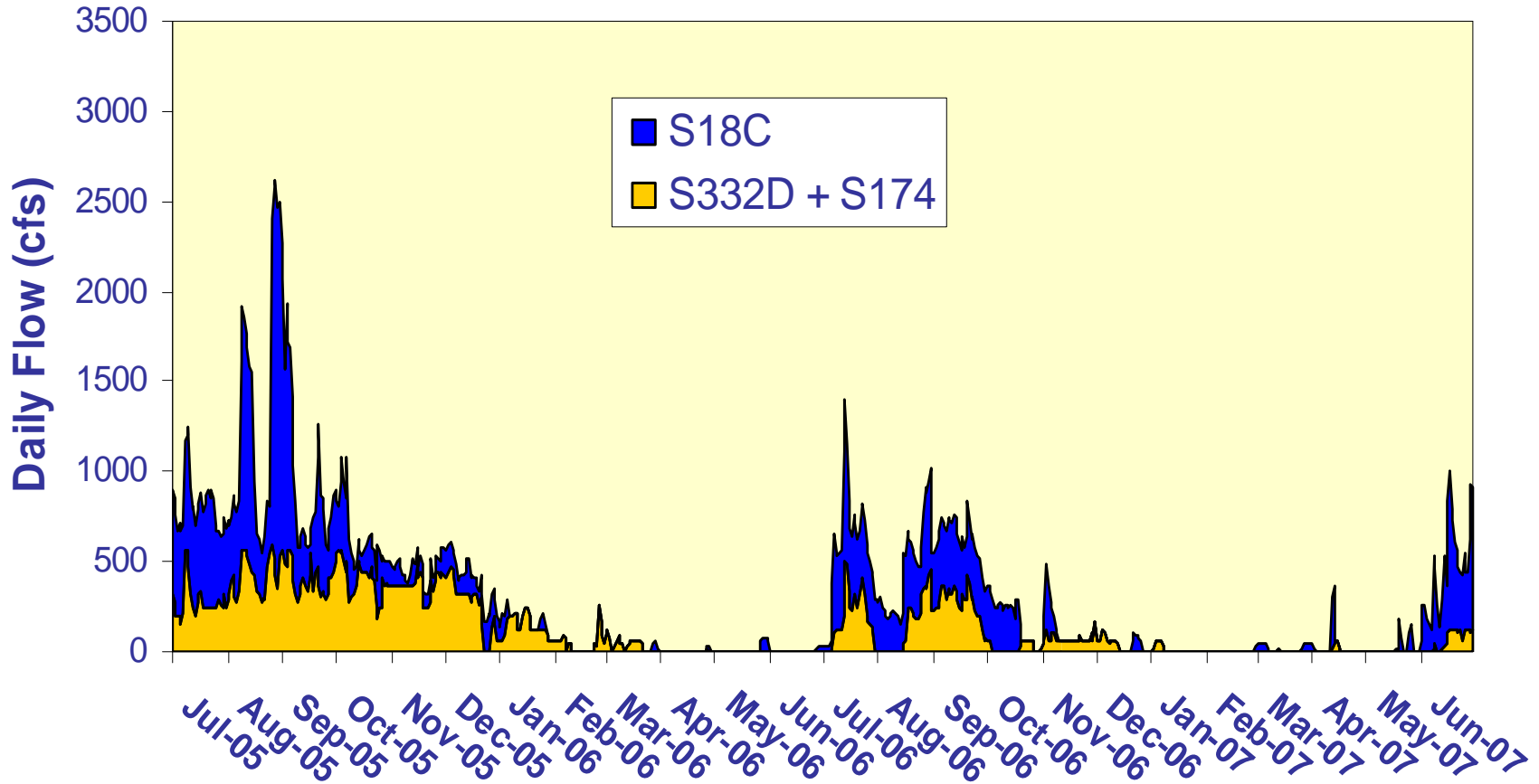
## Compliance Tracking

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	
				( <b>%</b> )	
				Guideline	Observed
31-Jul-05	304.6	5.4	11.0	53.1	10.4
31-Aug-05	357.1	6.4	11.0	53.1	12.2
30-Sep-05	380.0	6.3	11.0	53.1	12.2
31-Oct-05	373.4	6.3	11.0	53.1	12.2
30-Nov-05	358.6	6.6	11.0	53.1	12.0
31-Dec-05	366.9	6.6	11.0	53.1	11.8
31-Jan-06	369.5	6.6	11.0	53.1	11.8
28-Feb-06	364.6	6.6	11.0	53.1	11.8
31-Mar-06	359.7	6.6	11.0	53.1	11.8
30-Apr-06	351.5	6.5	11.0	53.1	10.4
31-May-06	343.7	6.4	11.0	53.1	4.5
30-Jun-06	295.5	6.7	11.0	53.1	4.9
31-Jul-06	280.0	6.6	11.0	53.1	4.5
31-Aug-06	227.0	5.5	11.0	53.1	2.2
30-Sep-06	207.4	5.7	11.0	53.1	4.1
31-Oct-06	179.5	5.6	11.0	53.1	3.9
30-Nov-06	158.8	5.3	11.0	53.1	3.9
31-Dec-06	137.4	5.2	11.0	53.1	6.0
31-Jan-07	127.6	5.2	11.0	53.1	6.4
28-Feb-07	125.4	5.2	11.0	53.1	7.0
31-Mar-07	123.8	5.2	11.0	53.1	10.0
30-Apr-07	125.4	5.2	11.0	53.1	10.0
31-May-07	126.1	5.2	11.0	53.1	7.5
30-Jun-07	153.0	5.1	11.0	53.1	6.5

## Taylor Slough and the Coastal Basins TP Concentration Compliance Tracking for April 2007 – June 2007

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
30-Apr-07	125.4	5.2	11.0	53.1	10.0
31-May-07	126.1	5.2	11.0	53.1	7.5
30-Jun-07	153.0	5.1	11.0	53.1	6.5

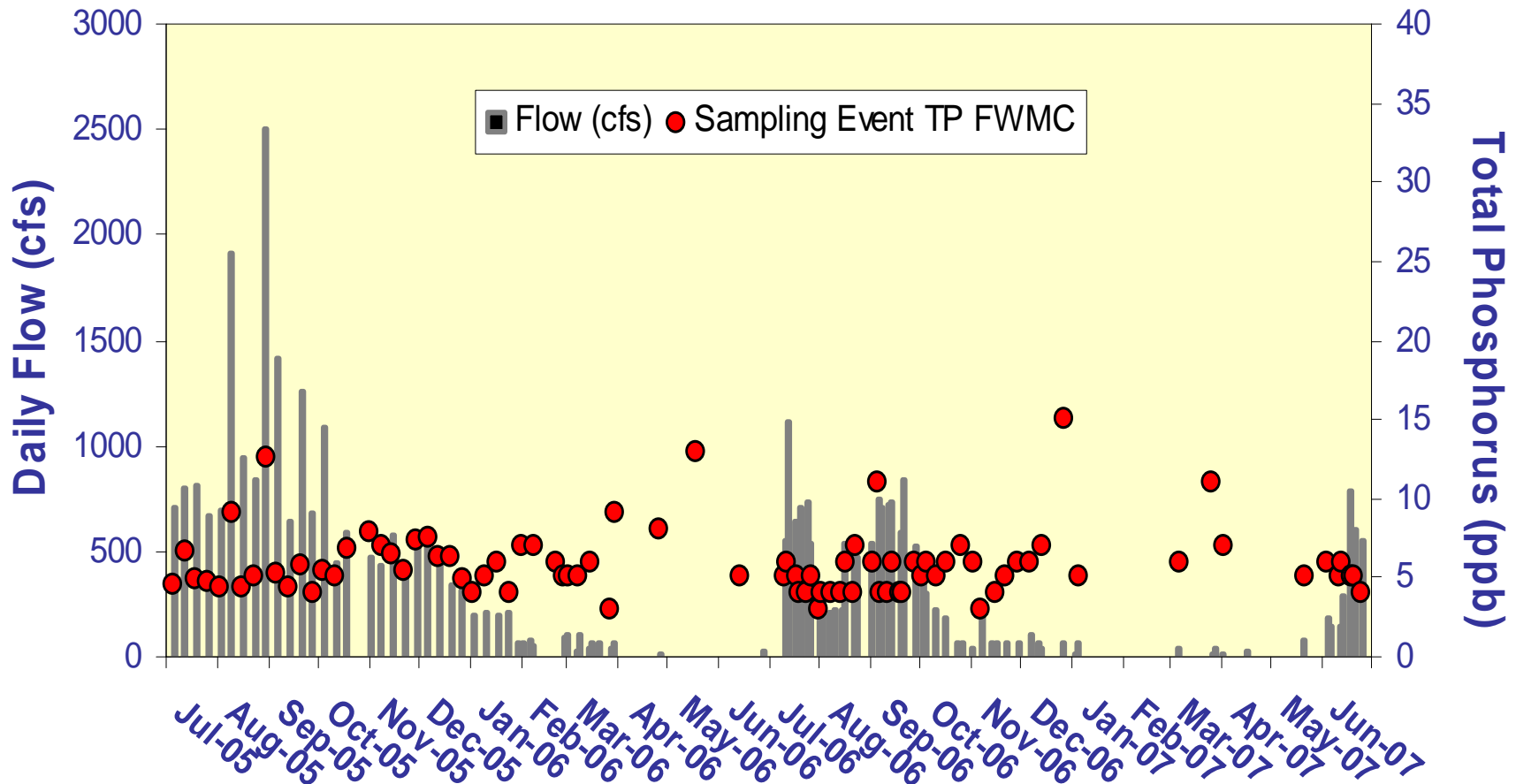
## Taylor Slough and S18C Daily Flows



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



## Taylor Slough and S18C Sampling Event Flows and FWMC



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