

# Appendix 3A-5: Summary of Annual Flows and Total Phosphorus Loads by Structure for Water Year 2010

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**Table 1.** Annual flows and total phosphorus loads by structure for Water Year 2010 (WY2010) (May 1, 2009–April 30, 2010).

## Into STA1 Inflow Basin

Structure	Flow	Phosphorus	
	1000 ac-ft	Load (kg)	FWMC (ppb)
S5A_P	292.035	68,506	190
<i>S5A from EAA</i>	<i>267.969</i>	<i>50,825</i>	<i>154</i>
<i>S5A from East Beach</i>	<i>13.999</i>	<i>13,672</i>	<i>792</i>
<i>S5A from Lake</i>	<i>9.252</i>	<i>820</i>	<i>72</i>
<i>S5AW from Lake</i>	<i>0.046</i>	<i>4</i>	<i>73</i>
<i>S5AW from L8 Basin</i>	<i>0.105</i>	<i>12</i>	<i>94</i>
<i>Mass Balance Adjustment</i>	<i>1</i>	<i>3,173</i>	<i>3870</i>
S5AS	0.000	0	196
<i>S5AS from Lake</i>	<i>0.000</i>	<i>0</i>	<i>n/a</i>
<i>S5AS from L8 Basin</i>	<i>0.000</i>	<i>0</i>	<i>n/a</i>
G300	1.801	218	98
G301	0.014	2	95
G311	0.000	0	146
<b>Total</b>	<b>293.851</b>	<b>68,725</b>	<b>190</b>

## From STA1 Inflow Basin

Structure	Flow	Phosphorus	
	1000 ac-ft	Load (kg)	FWMC (ppb)
S-5AS	48.044	9,172	155
<i>From S-5A</i>	<i>46.187</i>	<i>8023</i>	<i>141</i>
<i>from EAA</i>	<i>42.385</i>	<i>6227</i>	<i>119</i>
<i>from East Beach</i>	<i>2.214</i>	<i>1675</i>	<i>613</i>
<i>from Lake</i>	<i>1.471</i>	<i>101</i>	<i>56</i>
<i>from L8 Basin</i>	<i>0.017</i>	<i>1</i>	<i>n/a</i>
<i>From WCA-1</i>	<i>1.601</i>	<i>188</i>	<i>n/a</i>
<i>From G-311</i>	<i>0.000</i>	<i>0</i>	<i>n/a</i>
<i>Mass Balance Adjustment</i>	<i>-0.126</i>	<i>-604</i>	
Net S-5AS	47.918	8,568	145
G-300	0.000	0	304
G-301	0.000	0	n/a
G-302	202.243	57,635	231
<i>From S-5A</i>	<i>206.119</i>	<i>50789</i>	<i>200</i>
<i>from EAA</i>	<i>189.150</i>	<i>39419</i>	<i>169</i>
<i>from East Beach</i>	<i>9.882</i>	<i>10604</i>	<i>870</i>
<i>from Lake</i>	<i>6.563</i>	<i>639</i>	<i>79</i>
<i>from L8 Basin</i>	<i>0.074</i>	<i>9</i>	<i>103</i>
<i>From WCA-1</i>	<i>0.072</i>	<i>17</i>	<i>195</i>
<i>From G-311</i>	<i>0.000</i>	<i>0</i>	<i>n/a</i>
<i>Mass Balance Adjustment</i>	<i>4.490</i>	<i>-4587</i>	<i>-828</i>
Net G-302	206.734	53,048	217
G-311	48.562	15,131	253
<i>From S-5A</i>	<i>39.703</i>	<i>6672</i>	<i>136</i>
<i>from EAA</i>	<i>36.434</i>	<i>5178</i>	<i>115</i>
<i>from East Beach</i>	<i>1.903</i>	<i>1393</i>	<i>593</i>
<i>from Lake</i>	<i>1.264</i>	<i>84</i>	<i>54</i>
<i>from L8 Basin</i>	<i>0.014</i>	<i>1</i>	<i>n/a</i>
<i>From WCA-1</i>	<i>0.005</i>	<i>1</i>	<i>101</i>
<i>Mass Balance Adjustment</i>	<i>-8.724</i>	<i>-7871</i>	<i>731</i>
Net G-311	39.838	7,261	163
<b>Total</b>	<b>294.489</b>	<b>68,877</b>	<b>190</b>

Table 1. Continued.

## Into WCA1

Structure	Flow	Phosphorus	
	1000 ac-ft	Load (kg)	FWMC (ppb)
G300 & G301	0.000	0	304
<i>from EAA</i>	0.000	0	247
<i>from East Beach</i>	0.000	0	1269
<i>from Lake</i>	0.000	0	115
<i>from L8 Basin</i>	0.000	0	150
<i>From WCA1</i>	0.000	0	157
<i>from G311</i>	0.000	0	234
<i>Mass Balance Adjustment</i>	0.000	0	6203
S362 (from STA-1E)	89.093	10,309	94
<i>from EAA</i>	24.881	2,879	94
<i>from East Beach</i>	1.300	150	94
<i>from Lake</i>	5.487	635	94
<i>from L8 Basin</i>	16.485	1,908	94
<i>From WCA1</i>	0.063	7	94
<i>from G311</i>	0.000	0	94
<i>C51W and Wellington</i>	31.408	3,634	94
<i>From S361</i>	3.770	436	94
<i>Mass Balance Adjustment</i>	5.700	659	94
G251 (from STA-1W)	5.387	200	30
<i>from EAA</i>	4.929	183	30
<i>from East Beach</i>	0.258	10	30
<i>from Lake</i>	0.171	6	30
<i>from L8 Basin</i>	0.002	0	30
<i>From WCA1</i>	0.002	0	30
<i>from G311</i>	0.000	0	30
<i>Mass Balance Adjustment</i>	0.026	1	30
G310 (from STA-1W)	215.698	10,777	41
<i>from EAA</i>	197.352	9,860	41
<i>from East Beach</i>	10.310	515	41
<i>from Lake</i>	6.848	342	41
<i>from L8 Basin</i>	0.077	4	41
<i>From WCA1</i>	0.075	4	41
<i>from G311</i>	0.000	0	41
<i>Mass Balance Adjustment</i>	1.036	52	41
<b>Total</b>	<b>310.179</b>	<b>21,286</b>	<b>56</b>

## From WCA1

Structure	Flow	Phosphorus	
	1000 ac-ft	Load (kg)	FWMC (ppb)
S10A	101.062	5,391	43
S10C	127.377	2,453	16
S10D	227.954	8,665	31
S39	13.030	649	40
G300	1.801	218	98
G301	0.014	2	95
G94A	7.456	385	42
G94B	0.000	0	n/a
G94C	9.089	403	36
G94D	0.000	0	n/a
<b>Total</b>	<b>487.783</b>	<b>18,165</b>	<b>30</b>

Table 1. Continued.

## Into WCA2

Structure	Flow	Phosphorus	
	1000 ac-ft	Load (kg)	FWMC (ppb)
G335 (from STA-2)	371.342	16,804	37
<i>from EAA</i>	336.436	15,224	37
<i>from East Shore</i>	34.535	1,563	37
<i>from Lake</i>	0.371	17	37
<i>Mass Balance Adjustment</i>	0.000	0	37
S7	438.048	8,080	15
<i>from STA 3/4</i>	337.838	6,229	15 <sup>1</sup>
<i>From Lake O</i>	0.915	17	15
<i>from EAA</i>	308.725	5,692	15
<i>From C-139</i>	12.888	238	15
<i>From SFCD</i>	9.938	183	15
<i>From SSDD</i>	5.373	99	15
<i>From G371</i>	2.386	119	40
<i>from Lake O</i>	1.708	85	40
<i>from EAA</i>	0.678	34	40
<i>Back flow (S7(-)+S150(-) +S8(-)+G357(-)-G371(-)-G373(-))</i>	1.349	25	15
<i>Mass Balance Adjustment</i>	96.476	1,707	14
S10A (from WCA1)	101.062	5,391	43
S10C (from WCA1)	127.377	2,453	16
S10D (from WCA1)	227.954	8,665	31
N. Springs Improv. District	0.000	0	n/a
<b>Total</b>	<b>1265.783</b>	<b>41,392</b>	<b>27</b>

## From WCA2

Structure	Flow	Phosphorus	
	1000 ac-ft	Load (kg)	FWMC (ppb)
S7	9.911	290	24
S11A (from WCA2)	371.946	4,372	10
S11B (from WCA2)	145.204	2,082	12
S11C (from WCA2)	132.331	2,011	12
S38	120.366	1,437	10
S34	26.791	376	11
<b>Total</b>	<b>806.551</b>	<b>10,568</b>	<b>11</b>

Table 1. Continued.

## Into WCA3

Structure	Flow	Phosphorus	
	1000 ac-ft	Load (kg)	FWMC (ppb)
S140 (from L28 Canal)	136.937	9,213	55
S190 (from Feeder Canal)	84.763	7,623	73
G407	0.110	13	100
STA6	74.825	4,554	49
S8	291.866	8,318	23
From STA3/4	225.097	4,150	15
From Lake O	0.609	11	15
From EAA	205.699	3,792	15
From C-139	8.587	158	15
From SFCD	6.621	122	15
From SSDD	3.580	66	15
From G373	5.959	384	52
From Lake O	5.405	349	52
From EAA	0.425	27	52
From C-139	0.001	0	52
From SFCD	0.103	7	52
From SSDD	0.026	2	52
STA5	83.403	5,271	51
Back flow (S7(-)+S150(-) +S8(-)+G357(-)-G371(-)-G373(-))	0.899	17	15
Mass Balance Adjustment	-23.492	-1,504	52
S150	50.028	903	15
from STA 3/4	38.583	711	15
From Lake O	0.104	2	15
From EAA	35.258	650	15
From C-139	1.472	27	15
From SFCD	1.135	21	15
From SSDD	0.614	11	15
From G371	0.272	14	40
from Lake O	0.195	10	40
from EAA	0.077	4	40
Back flow (S7(-)+S150(-) +S8(-)+G357(-)-G371(-)-G373(-))	0.154	8	40
Mass Balance Adjustment	11.018	170	13
G404 & G357	46.285	742	13
From STA3/4	35.696	658	15
From Lake O to G409	0.097	2	15
From EAA	32.620	601	15
From C-139	1.362	25	15
From SFCD	1.050	19	15
From SSDD	0.568	10	15
From G373	0.945	61	52
From Lake O	0.857	55	52
From EAA	0.067	4	52
From C-139	0.000	0	52
From SFCD	0.016	1	52
From SSDD	0.004	0	52
STA5	13.226	836	51
Back flow (S7(-)+S150(-) +S8(-)+G357(-)-G371(-)-G373(-))	0.143	2	13
Mass Balance Adjustment	-3.725	-815	177
S11A (from WCA2)	371.946	4,372	10
S11B (from WCA2)	145.204	2,082	12
S11C (from WCA2)	132.331	2,011	12
G123 (from N. New River)	0.000	0	n/a
S9 (from C-11 West)	119.296	2,953	20
S9A (from C-11 West)	56.048	906	13
<b>Total</b>	<b>1509.638</b>	<b>43,690</b>	<b>23</b>

## From WCA3

Structure	Flow	Phosphorus	
	1000 ac-ft	Load (kg)	FWMC (ppb)
S150	1.438	23	13
S8	0.000	0	n/a
S31	39.043	583	12
S337	3.418	111	26
S343A	23.766	342	12
S343B	35.114	510	12
S344	30.947	383	10
S12A	55.312	455	7
S12B	65.669	511	6
S12C	126.962	1,184	8
S12D	196.844	2,124	9
S333 <sup>2</sup>	346.063	7,559	18
S355A/S355B	0.000	0	n/a
G409	8.856	551	50
<b>Total</b>	<b>933.433</b>	<b>14,337</b>	<b>12</b>

**Table 1.** Continued.**Into Everglades National Park**

Structure	Flow 1000 ac-ft	Phosphorus	
		Load (kg)	FWMC (ppb)
S12A (from WCA3)	55.312	455	7
S12B (from WCA3)	65.669	511	6
S12C (from WCA3)	126.962	1,184	8
S12D (from WCA3)	196.844	2,124	9
S-333-S334 (from WCA3) <sup>3</sup>	223.424	4,864	18
S355A/S355B (from WCA3)	0.000	0	n/a
S174 (from L-31W)	0.000	0	n/a
S332D	181.197	1,836	8
S18C	249.357	1,950	6
<b>Total</b>	<b>1098.764</b>	<b>12,924</b>	<b>10</b>
<b>Total to EPA<sup>4</sup></b>	<b>2410.280</b>	<b>85,181</b>	<b>29</b>

**From ENP**

Structure	Flow 1000 ac-ft	Phosphorus	
		Load (kg)	FWMC (ppb)
S197	14.931	88	5
<b>Total</b>	<b>14.931</b>	<b>88</b>	<b>4</b>

FWMC = flow-weighted mean concentration

<b>Total from EPA<sup>5</sup></b>	<b>453.682</b>	<b>8,957</b>	<b>16</b>
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<sup>1</sup> The values are proportionally calculated based on summation of EAA model outputs of S7 and S8 Basins<sup>2</sup> The value included S334 from WCA3.<sup>3</sup> TP load was calculated using concentration at S333 and flow of S333-S334.<sup>4</sup> Total loads to the EPA are calculated from total of WCA1,2,3 and Everglades National Park subtracted S10A,C,D; S11A,B,C; S12A,B,C,D; S333-S334 and S355A/S355B.<sup>5</sup> Total loads from the EPA are calculated from the total from WCA1,2,3 for S39, G300, G301, G94A, G94B, G94C,S7, S38, S34, S150, S8, S31, S337, S343A, S343B, S344, S197, S333, subtracted S333-S334 (from WCA3 to ENP).