Appendix 8C-1: Water Year 2016 Supplemental St. Lucie and Caloosahatchee River Watershed Phosphorus and Nitrogen Concentration Data by Basin

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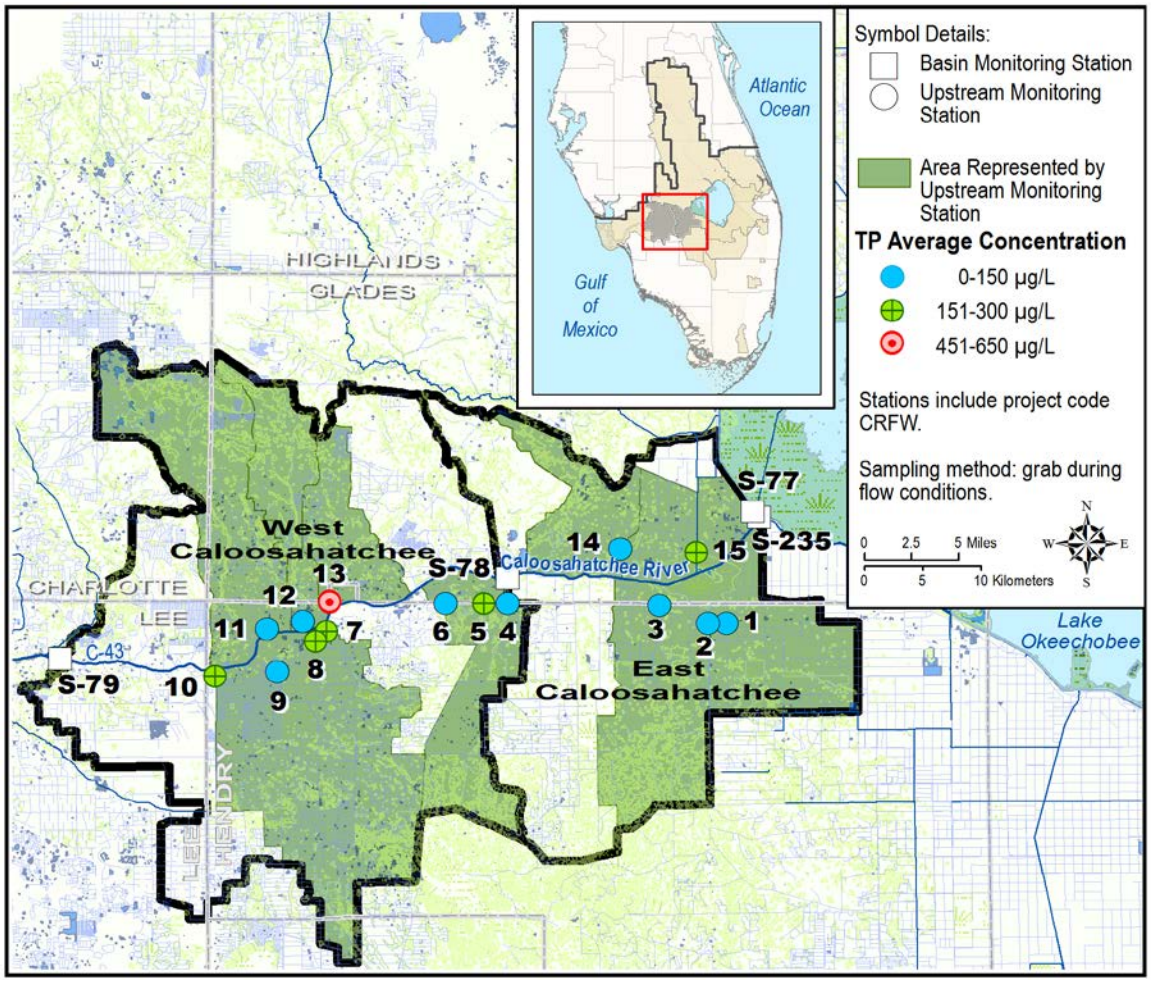
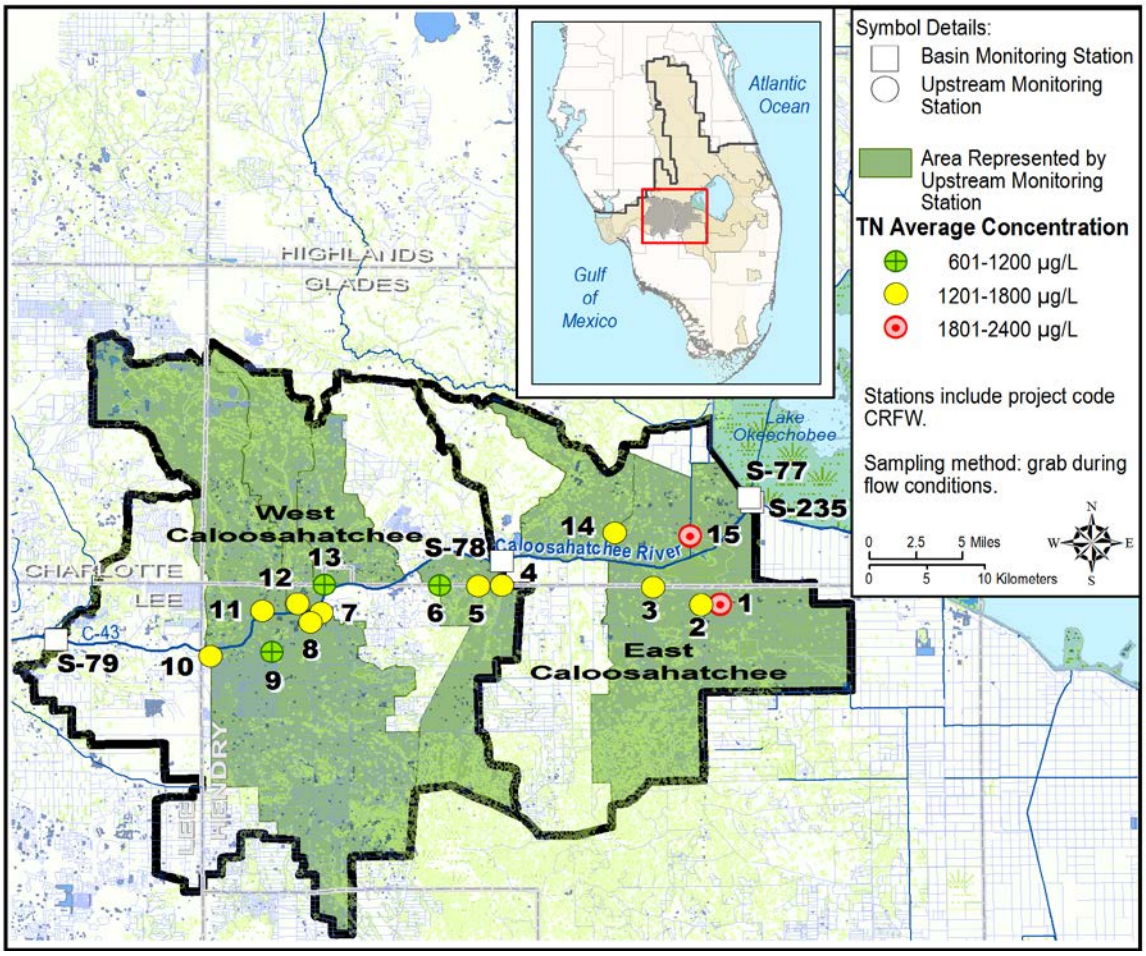
INTRODUCTION

The information in this appendix is intended to supplement the data summaries provided in Chapter 8C of this volume. Sections 373.4595(4)(a)2 and (4)(c)2, Florida Statues, require the South Florida Water Management District (SFWMD or District) to implement a water quality monitoring program. Surface water quality monitoring networks have been in place in the Caloosahatchee River and St. Lucie River watersheds since the early 1980s. The purpose of the networks has been to collect ambient data and track changes in water quality over time within the watershed. As mentioned in Chapter 8C, the District's current monitoring networks include sampling locations at two hydrologic levels in the river watersheds: (1) subwatershed level (basin monitoring stations for which flow, total phosphorus (TP) and total nitrogen (TN) concentration data are collected and TP and TN loads are calculated), and (2) subbasin level (tributary stations). The locations of the Level 1 sites are shown on the maps in this appendix for reference only, while the Level 1 data can be found in Chapter 8C. The Level 2 upstream tributary sites on the maps indicate locations where grab samples are collected during flow conditions for analysis of phosphorus and nitrogen concentrations. The data presented in this appendix is the Water Year 2016 (WY2016) (May 1, 2015–April 30, 2016) TP and TN results for the East and West Caloosahatchee basins of the Caloosahatchee River Watershed, and the C-23, C-24, and C-44 basins of the St. Lucie River Watershed. Please note that the concentrations presented in **Figures 1** through **4** are not flow-weighted because flow measurements are not available at these stations. The ranges of the concentrations in the figures are grouped for reference.



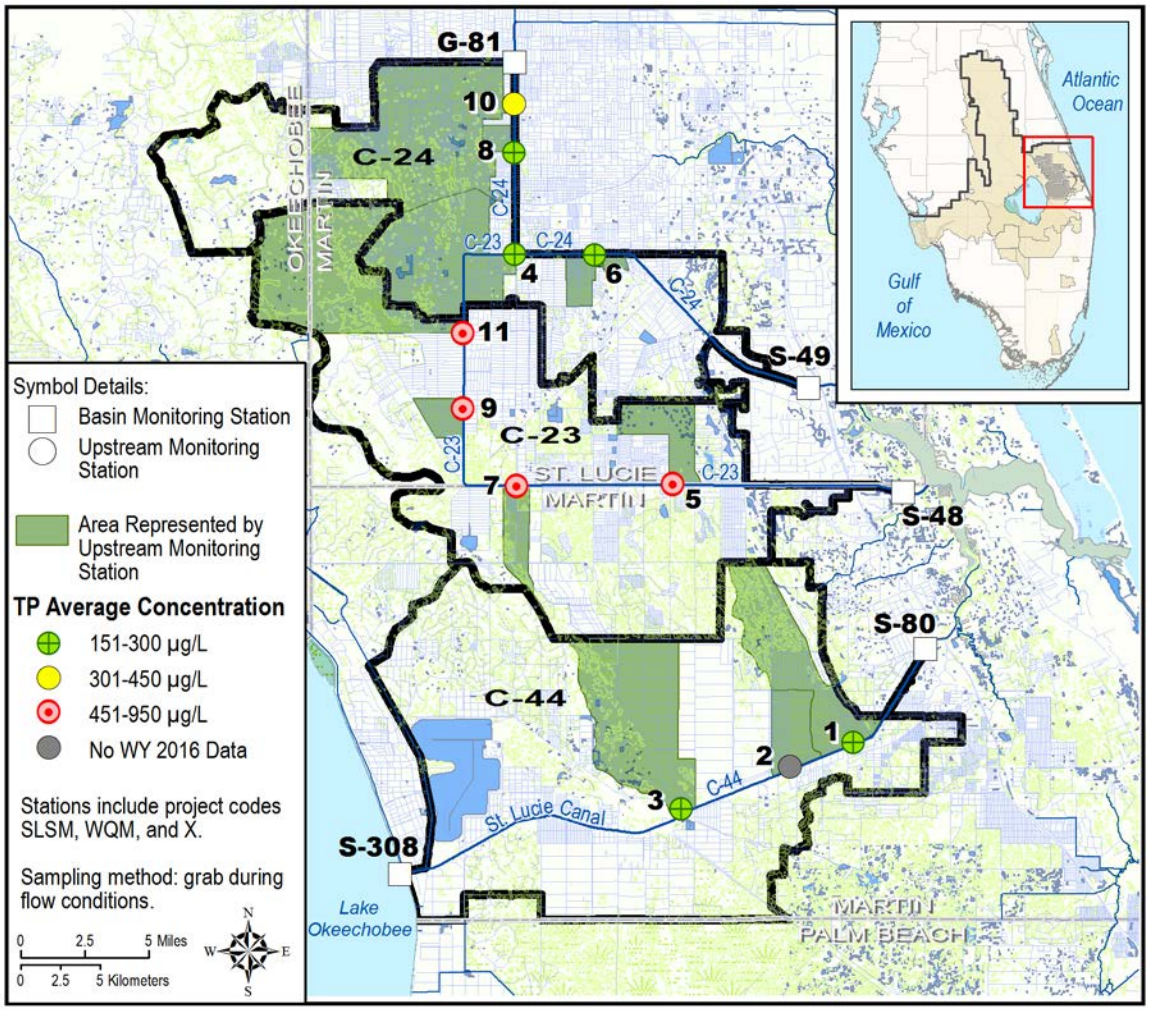
Caloosahatchee River Watershed		Number of Samples	TP Concentration (µg/L)		
Map Identification	Station		Average	Minimum	Maximum
1	CRFW01	4	92	41	142
2	CRFW02	7	83	57	137
3	CRFW03	4	83	44	122
4	CRFW06	11	107	30	221
5	CRFW07	11	185	36	375
6	CRFW08	7	138	37	353
7	CRFW11	11	151	49	275
8	CRFW12	11	240	66	379
9	CRFW13	11	143	61	213
10	CRFW15	6	262	155	375
11	CRFW23	7	115	75	170
12	CRFW24	11	134	45	234
13	CRFW25A	11	609	108	1,349
14	CRFW30	10	127	72	188
15	S47D	5	247	74	452

Figure 1. Caloosahatchee River Watershed upstream tributary average TP concentrations in micrograms per liter (µg/L) for WY2016.



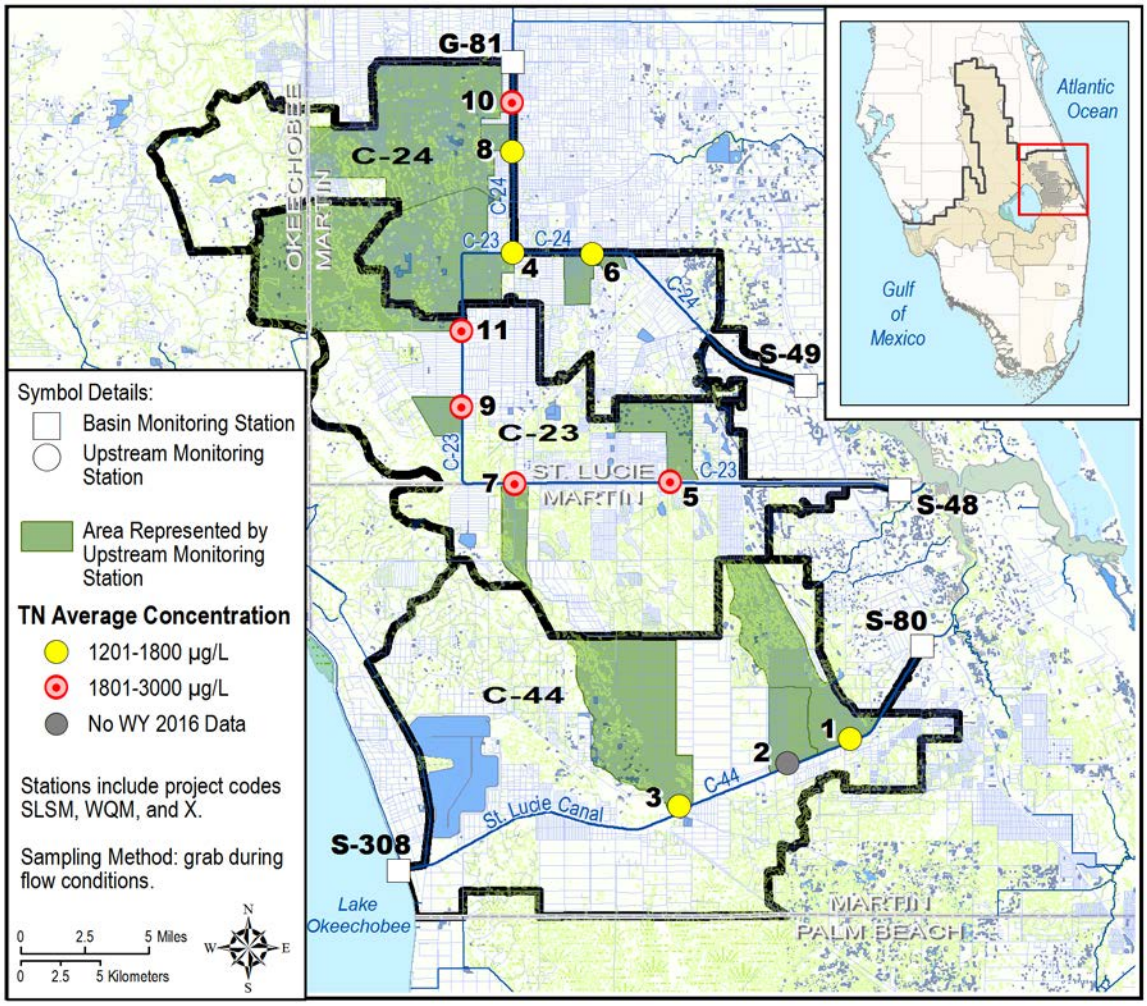
Caloosahatchee River Watershed		Number of Samples	TN Concentration (µg/L)		
Map Identification	Station		Average	Minimum	Maximum
1	CRFW01	4	1,878	1,270	2,090
2	CRFW02	7	1,389	1,240	1,600
3	CRFW03	4	1,463	1,370	1,560
4	CRFW06	11	1,297	788	1,690
5	CRFW07	11	1,519	1,060	1,970
6	CRFW08	7	1,129	521	1,740
7	CRFW11	11	1,324	860	2,040
8	CRFW12	11	1,228	886	1,680
9	CRFW13	11	1,180	888	1,640
10	CRFW15	6	1,440	1,220	1,730
11	CRFW23	7	1,316	1,130	1,470
12	CRFW24	11	1,232	633	1,690
13	CRFW25A	11	1,037	375	1,880
14	CRFW30	10	1,239	927	1,640
15	S47D	11	1,864	1,230	3,470

Figure 2. Caloosahatchee River Watershed upstream tributary average TN concentrations for WY2016.



St. Lucie River Watershed		Number of Samples	TP Concentration (µg/L)		
Map Identification	Station		Average	Minimum	Maximum
1	C44SC4	14	163	62	525
2	C44SC6	0	-	-	-
3	C44SC14	4	225	164	261
4	G79	11	292	96	854
5	PC22C23	2	912	654	1,169
6	PC26C24	3	242	86	381
7	PC32C23	3	752	610	882
8	PC38C24	5	156	104	205
9	PC41C23	1	727	727	727
10	PC41C24	5	307	36	480
11	PC49C23	2	795	789	800

Figure 3. St. Lucie River Watershed upstream tributary average TP concentrations for WY2016.



St. Lucie River Watershed		Number of Samples	TN Concentration (µg/L)		
Map Identification	Station		Average	Minimum	Maximum
1	C44SC4	14	1,250	821	2,180
2	C44SC6	0	-	-	-
3	C44SC14	4	1,273	1,040	1,460
4	G79	11	1,525	1,270	1,920
5	PC22C23	2	2,920	2,700	3,140
6	PC26C24	3	1,660	1,210	1,910
7	PC32C23	3	2,187	1,700	2,590
8	PC38C24	5	1,520	1,260	1,700
9	PC41C23	1	1,820	1,820	1,820
10	PC41C24	5	2,012	1,000	2,350
11	PC49C23	2	1,960	1,790	2,130

Figure 4. St. Lucie River Watershed upstream tributary average TN concentrations for WY2016.