

PROPOSED
TOTAL MAXIMUM DAILY LOAD (TMDL)

For
Dissolved Oxygen and Nutrients
In

Coffee Pot Bayou

(WBID 1700)

Prepared by:

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September 30, 2009



Acknowledgments

EPA would like to acknowledge that the contents of this report and the total maximum daily load (TMDL) contained herein were developed by the Florida Department of Environmental Protection (FDEP). Many of the text and figures may not read as though EPA is the primary author for this reason, but EPA is officially proposing the TMDL for Dissolved Oxygen and Nutrients for Coffee Pot Bayou and soliciting comment. EPA is proposing this TMDL in order to meet consent decree requirements pursuant to the Consent Decree entered in the case of Florida Wildlife Federation, et al. v. Carol Browner, et al., Case No. 98-356-CIV-Stafford. EPA will accept comments on this proposed TMDL for 60 days in accordance with the public notice issued on September 30, 2009. Should EPA be unable to approve a TMDL established by FDEP for the 303(d) listed impairment addressed by this report, EPA will establish this TMDL in lieu of FDEP, after full review of public comment.

This TMDL analysis could not have been accomplished without significant contributions from staff in Pinellas County, the Florida Department of Environmental Protection's Southwest District Office, and the Watershed Evaluation and TMDL Section.

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Web sites

Florida Department of Environmental Protection, Bureau of Watershed Restoration

TMDL Program

<http://www.dep.state.fl.us/water/tmdl/index.htm>

Identification of Impaired Surface Waters Rule

<http://www.dep.state.fl.us/water/tmdl/docs/AmendedIWR.pdf>

STORET Program

<http://www.dep.state.fl.us/water/storet/index.htm>

2008 Integrated Report

http://www.dep.state.fl.us/water/tmdl/docs/2008_Integrated_Report.pdf

Criteria for Surface Water Quality Classifications

<http://www.dep.state.fl.us/legal/rules/shared/62-302t.pdf>

Basin Status Report for the Tampa Bay Basin

http://www.dep.state.fl.us/water/tmdl/stat_rep.htm

Basin Water Quality Assessment Report for the Tampa Bay Basin

http://www.dep.state.fl.us/water/tmdl/stat_rep.htm

U.S. Environmental Protection Agency

Region 4: Total Maximum Daily Loads in Florida

<http://www.epa.gov/region4/water/tmdl/florida/>

National STORET Program

<http://www.epa.gov/storet/>

Chapter 1: INTRODUCTION

1.1 Purpose of Report

This report presents the Total Maximum Daily Load (TMDL) for nutrients and dissolved oxygen (DO) for the Coffee Pot Bayou (WBID 1700) watershed in the Tampa Bay Basin. This waterbody was verified as impaired for nutrients and DO and therefore was included on the Verified List of impaired waters for the Tampa Bay Basin that was adopted by Secretarial Order on June 3, 2008. These TMDLs establish the allowable loadings to Coffee Pot Bayou that would restore the waterbody so that it meets its applicable water quality criteria for nutrients and DO.

1.2 Identification of Waterbody

Coffee Pot Bayou, is located in the eastern portion of Pinellas County (**Figure 1.1**) and drains to Middle Tampa Bay (WBID 1558C). Coffee Pot Bayou is located within the City of St. Petersburg. Additional information about Coffee Pot Bayou is available in the Basin Status Report for the Tampa Bay Basin (Florida Department of Environmental Protection [Department], 2001).

For assessment purposes, the Department has divided the Tampa Bay Basin into water assessment polygons with a unique **waterbody identification** (WBID) number for each watershed or stream reach. Coffee Pot Bayou is assigned to WBID 1700 (**Figure 1.2**).

1.3 Background

This report was developed as part of the Department's watershed management approach for restoring and protecting state waters and addressing TMDL Program requirements. The watershed approach, which is implemented using a cyclical management process that rotates through the state's 52 river basins over a 5-year cycle, provides a framework for implementing the TMDL Program-related requirements of the 1972 federal Clean Water Act and the 1999 Florida Watershed Restoration Act (FWRA) (Chapter 99-223, Laws of Florida).

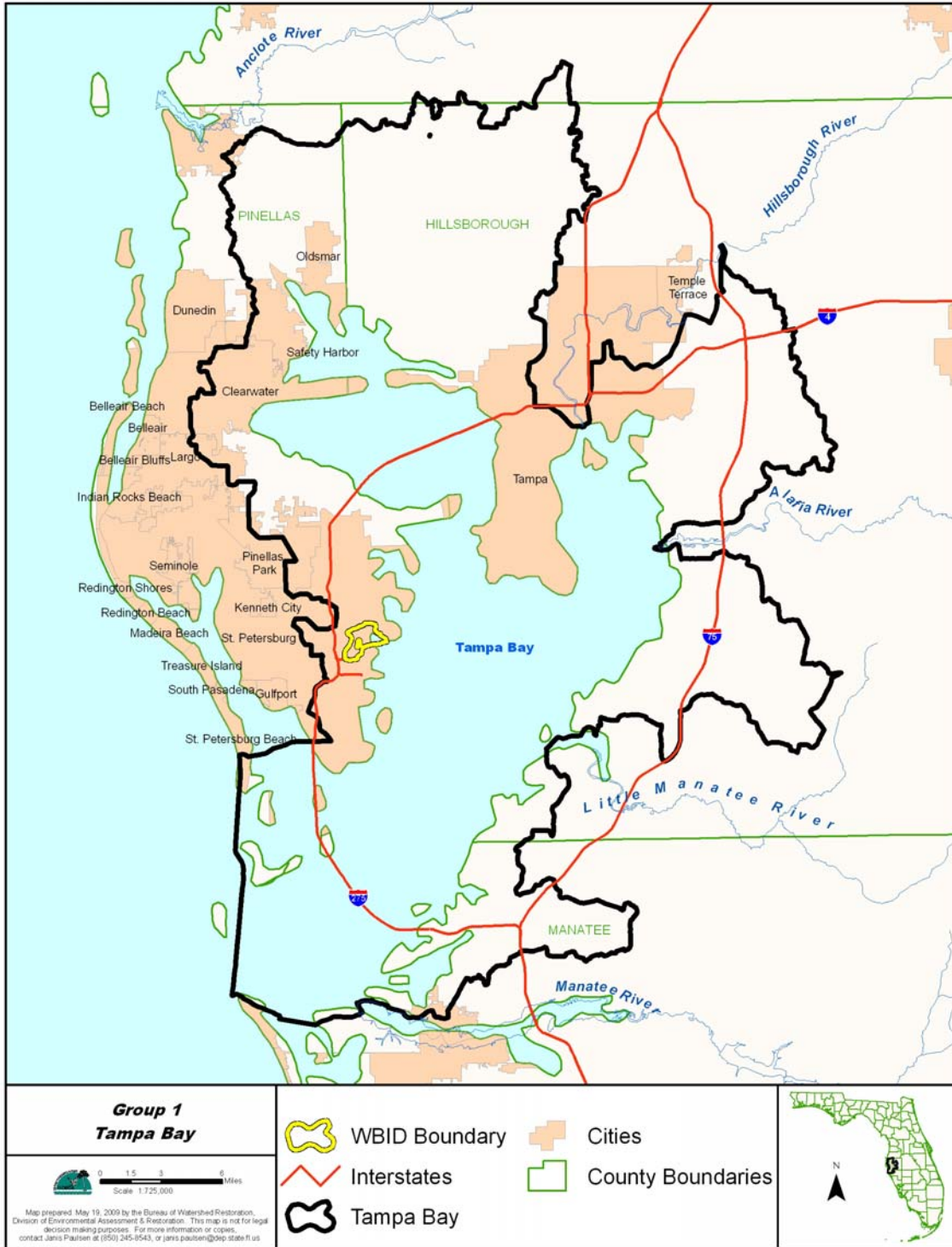


Figure 1.1 Location of Coffee Pot Bayou in Pinellas County and Major Geopolitical Features in the Area

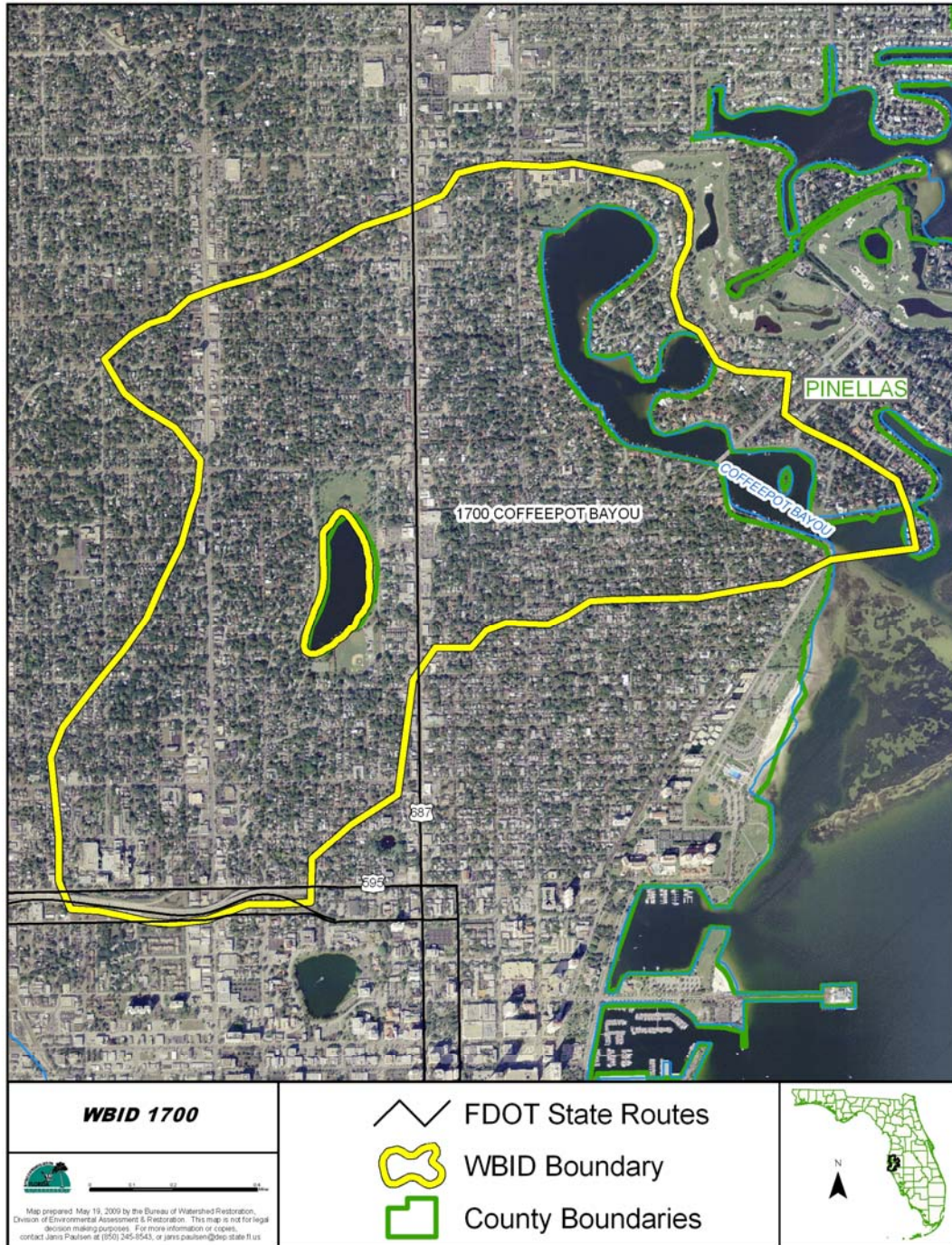


Figure 1.2 Location of Coffee Pot Bayou (WBID 1700) and City of St. Petersburg subbasin boundaries

Note: FDOT state routes are for illustration purposes only and are not meant to depict roadways for which FDOT is responsible.

A TMDL represents the maximum amount of a given pollutant that a waterbody can assimilate and still meet water quality standards, including its applicable water quality criteria and its

designated uses. TMDLs are developed for waterbodies that are verified as not meeting their water quality standards. They provide important water quality restoration goals that will guide restoration activities.

This TMDL Report will be followed by the development and implementation of a Basin Management Action Plan, or BMAP, designed to reduce the amount of nutrients and increase the DO that caused the verified impairment of Coffee Pot Bayou. These activities will depend heavily on the active participation of the Southwest Florida Water Management District (SWFWMD), Pinellas County, the City of St. Petersburg, local governments, businesses, and other stakeholders. The Department will work with these organizations and individuals to undertake or continue reductions in the discharge of pollutants and achieve the established TMDLs for impaired waterbodies.

Chapter 2: DESCRIPTION OF WATER QUALITY PROBLEM

2.1 Statutory Requirements and Rulemaking History

Section 303(d) of the federal Clean Water Act requires states to submit to the U.S. Environmental Protection Agency (EPA) lists of surface waters that do not meet applicable water quality standards (impaired waters) and establish a TMDL for each pollutant causing impairment of listed waters on a schedule. The Department has developed such lists, commonly referred to as 303(d) lists, since 1992. The list of impaired waters in each basin, referred to as the Verified List, is also required by the FWRA (Subsection 403.067[4], Florida Statutes [F.S.]); the state's 303(d) list is amended annually to include basin updates.

Florida's 1998 303(d) list included 47 waterbodies in the Tampa Bay Basin. However, the FWRA (Section 403.067, F.S.) stated that all previous Florida 303(d) lists were for planning purposes only and directed the Department to develop, and adopt by rule, a new science-based methodology to identify impaired waters. After a long rulemaking process, the Environmental Regulation Commission adopted the new methodology as Rule 62-303, Florida Administrative Code (F.A.C.) (Identification of Impaired Surface Waters Rule, or IWR), in April 2001; the rule was modified in 2006 and 2007.

Data for Coffee Pot Bayou that were used to place it on the 1998 303(d) list came from 1992-1993. At this time, only two stations were assessed. Station 21FLPDEM41-1 located in the upper portion of the bayou on the east side of 1st St. North and 30th Ave. North at the dead end portion of an ~95 meter long canal and station 21FLPDEM43-1, located off a sea wall near the middle portion of the bayou (**Figure 2.1**). For the canal station, the median values were: turbidity of 2.5 NTU, DO of 2.5 mg/L, BOD₅ of 1.8 mg/L, TN of 1.02 mg/L, TP of 0.19 mg/L, and Chl *a* of 6.0 ug/L. For the bayou station, the median values were: turbidity 2.2 NTU, DO 6.4 mg/L, BOD₅ of 2.0 mg/L, TN of 0.75 mg/L, TP of 0.01 mg/L, and Chl *a* of 6.0 ug/L. Based on the water quality index used in during this period, the canal station was given a fair rating and the bayou station was given a good rating. Based on EPA practices, a rating of fair was sufficient to be determined as impaired and Coffee Pot Bayou was placed on the 1998 303(d) list for nutrients and DO.

2.2 Information on Verified Impairment

The Department used the IWR to assess water quality impairments in the Coffee Pot Bayou watershed and has verified that this waterbody segment is impaired for nutrients and DO (**Table 2.1**). The verification of nutrient impairment was based on the fact that the annual mean chlorophyll *a* concentration in the year 2000 was greater than the IWR 11.0 ug/L nutrient threshold for estuaries during the verified period (January 1, 2000, through June 30, 2007) (**Table 2.2**). The verification of DO impairment was based on the fact that 18 out of 59 DO measurements were lower than the 4.0 mg/L state water quality criteria during the verified period (Rule 62-302, F.A.C.). Nutrients and BOD were identified as the causative pollutants (**Table 2.3**). **Tables 2.2** and **2.3** summarize the water quality data that were the basis for the

impairment determination. The projected year for the [1998 303(d) listed] DO TMDL for Coffee Pot Bayou was 2008, but the Settlement Agreement between EPA and Earthjustice, which drives the TMDL development schedule for waters on the 1998 303(d) list, allows an additional nine months to complete the TMDLs. As such, these TMDLs must be adopted and submitted to EPA by September 30, 2009.

The verified impairments were based on data collected by Pinellas County, Florida Game and Freshwater Fish Commission, and the DEP Southwest District. The WBID location and STORET station locations are shown in **Figure 2.1**.

Table 2.1 Verified impaired waterbody segment and parameters

WBID	Waterbody Segment	Parameters of Concern
1700	Coffee Pot Bayou	Nutrients and DO

Table 2.2 Summary of nutrient data in the verified period for the Coffee Pot Bayou (WBID 1700)

WBID	Parameter	Summary of observation
1700	Exceedance of annual <i>Chl a</i> concentration	1 (in year 2000)
	Range of <i>Chl a</i> concentration (µg/L)	1.0 – 31.8
	Median <i>Chl a</i> concentration (µg/L)	7.20
	Range of TN concentration (mg/L)	0.33 – 2.27
	Median TN concentration (mg/L)	0.94
	Range of TP concentration (mg/L)	0.03 – 0.35
	Median of TP concentration (mg/L)	0.15
	Median TN/TP ratio	5.5

Table 2.3. Summary of DO Monitoring Data in the verified period for the Coffee Pot Bayou (WBID 1700)

WBID	Parameter	Summary of observation
1700	Total number of samples	59
	IWR required number of exceedances for the verified list	10
	Number of observed exceedances	21
	Number of observed non-exceedances	38
	Number of seasons during which samples were collected	4
	Highest observation (mg/L)	10.17
	Lowest observation (mg/L)	0.09
	Median observation (mg/L)	5.03
	Mean observation (mg/L)	5.13
	Median value for 46 BOD observations (mg/L)	2.3
	Median value for 53 TN observations (mg/L)	0.94
	Median value for 55 TP observations (mg/L)	0.15
	Possible causative pollutant by IWR	BOD ₅
	FINAL ASSESSMENT	Impaired



Figure 2.1 Location of Water Quality Stations Within Coffee Pot Bayou

Note: FDOT state routes are for illustration purposes only and are not meant to depict roadways for which FDOT is responsible.

2.3 Presentation of Data for Coffee Pot Bayou

One of the major sources of data comes from the dead end of an approximately 95 meter-long canal [stations 21FLPDEM41-1, 21FLTPA274758282306 (canal)]. These two canal stations account for approximately 50% of the data. All other stations represent water quality of the more open areas of the bayou. It was the combined dataset (AllData) that was used to determine the current impairment in Coffee Pot Bayou. Unless specified otherwise, all graphs of Annual Average conditions were generated using years that had data in all four calendar quarters of the year.

Rainfall:

Rainfall for the period 1992 through 2007 was obtained for the NOAA station located at the St. Petersburg Airport.

Figure 2.2 depicts the annual average rainfall (1992-2007). Based on these data, the annual average is 50.9 inches. The average during the verified period (2000-2007) is 51.0 inches making the average rainfall during the verified period similar to the period 1992-2007. During the verified period, the years 2000 (46.8 in), 2005 (40.6 in), 2006 (least rainfall for entire period, 36.8 in) and 2007 (42.8 in) were dryer than average. The years 2001 (54.9 in), 2002 (wettest year, 62.3 in), 2003 (62.2 in), and 2004 (61.7 in) were wetter than average. Therefore, the verified period contained a good mix of wet and dry conditions.

Figure 2.3 presents the monthly average rainfall. It is clear from these data that June, July, August, and September are much wetter than other months of the year.

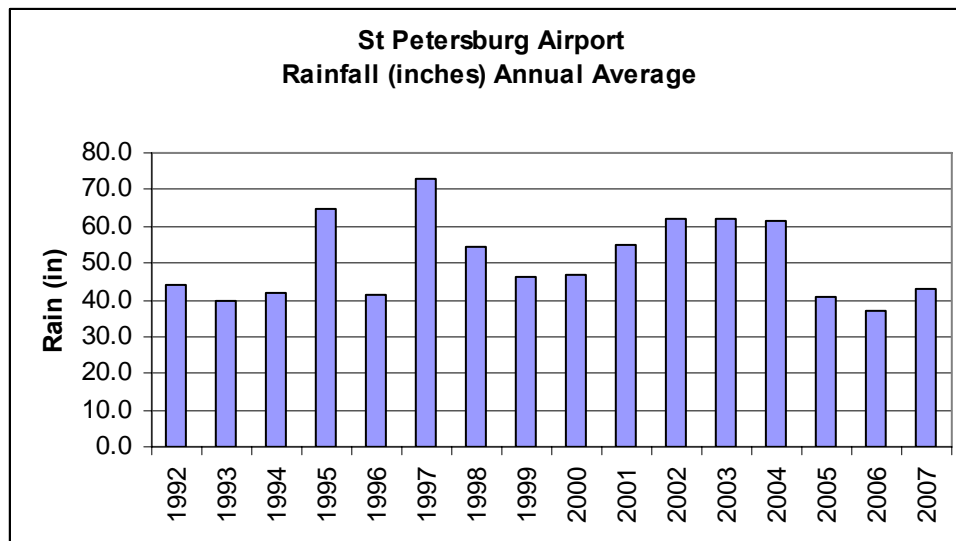


Figure 2.2 Annual Average Rainfall

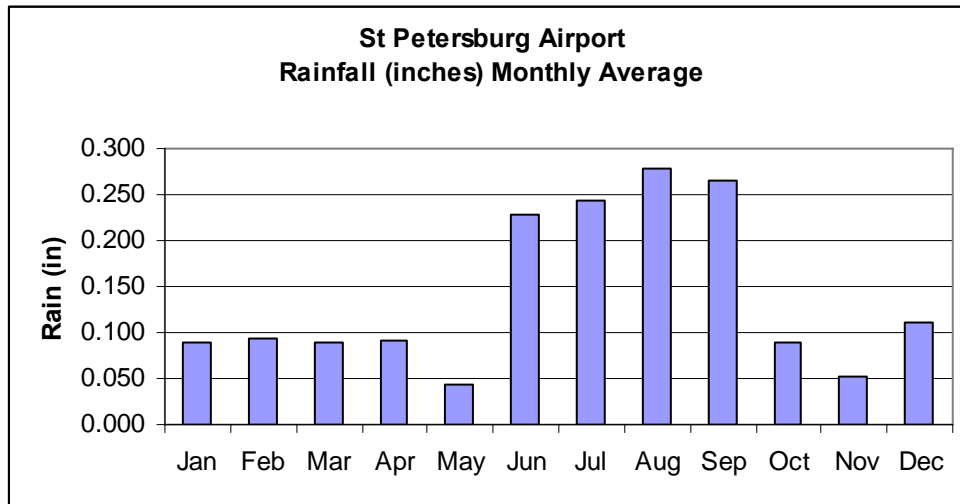


Figure 2.3 Monthly Average Rainfall

Salinity:

Table 2.4 Salinity by Location

Primary Stations Salinity (ppt)	Period of Record	Count	Minimum	25th Percentile	Average (d)	Median	75th Percentile	Maximum
AllData	Jan-91 - Sep-08	359	0.00	18.00	21.20	23.00	26.54	36.09
AllData-VerifiedP (a)	Jan-00 - Nov-05; Dec2008	98	0.21	23.32	24.22	25.90	27.90	36.09
21FLPDEM41-01 (c)	Jan-91 - Oct-02	166	0.00	11.22	18.03	20.16	25.25	36.09
21FLPDEM43-01(b)	Feb-91 - Oct-02	143	9.00	20.10	23.22	24.00	26.30	34.00
21FLPDEM44-02 (b)	Feb-08 - Sep-08	16	27.78	28.97	29.86	29.98	30.71	31.80
21FLTPA 27472298237236 (b)	Mar-05 - Nov-05	4	19.49	23.62	24.55	25.51	26.44	27.70
21FLTPA 27473218237378 (b)	Mar-05 - Nov-05	4	16.50	22.14	23.22	24.74	25.81	26.90
21FLTPA 27473788237524 (b)	Mar-05 - Nov-05	5	17.34	18.30	22.32	24.02	25.20	26.74
21FLTPA 27474728237590 (b)	Mar-05 - Nov-05	5	17.90	23.40	23.47	24.22	24.94	26.87
21FLTPA 2747582823806 (c)	Mar-05 - Nov-05	4	16.82	21.13	22.50	23.19	24.56	26.78

- (a) Verified Period ends June 2007, data was summarized through 2008 if available
- (b) Bayou Station
- (c) Canal Station
- (d) Straight annual average, not by quarters

Salinity data were examined to verify that the sampling locations at the end of the canal were predominantly marine and not freshwater. As can be seen in the tables and graphs, the canal is only slightly less saline than the more open areas of the bayou. Based on these data, the canal is considered predominantly marine and therefore is part of Coffee Pot Bayou.

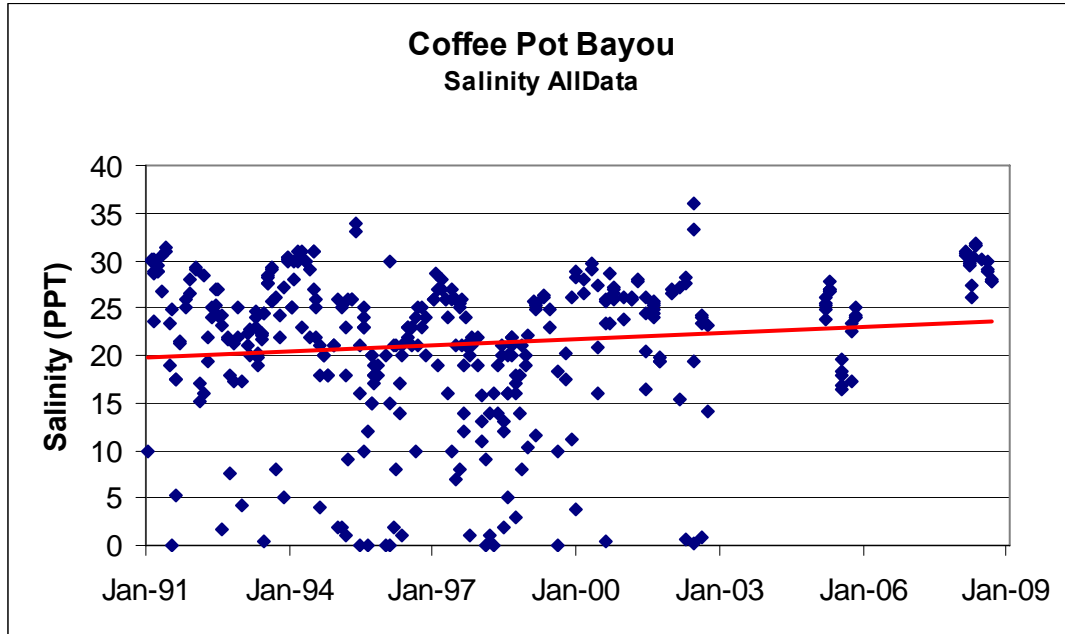


Figure 2.4 Salinity AllData

Figure 2.4 shows the data for all stations within the bayou and demonstrates that areas in the bayou vary from salinities less than 1 ppt to over 35 ppt. While the linear trend line indicates that there has been a slight increase in salinity over time, this may be related to the addition of stations closer to Tampa Bay after 2002, as opposed to actual increases in salinity.

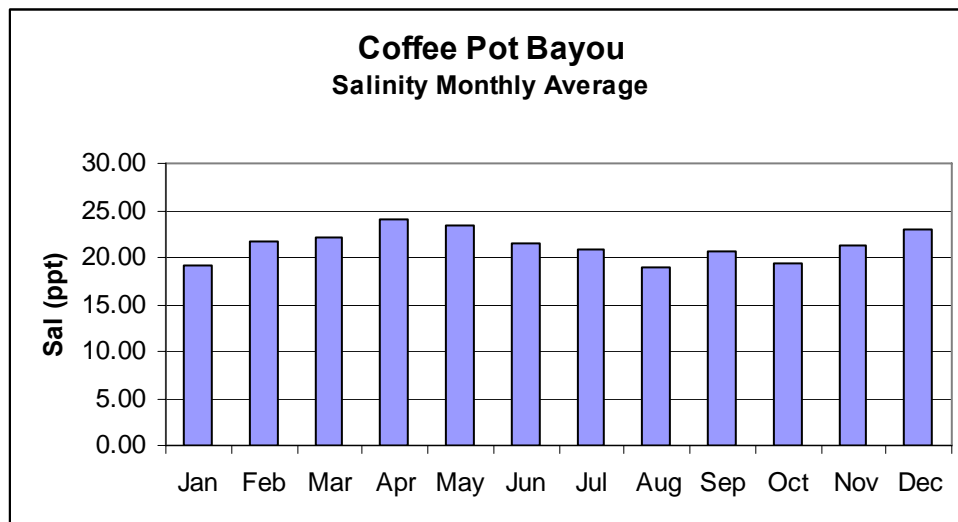


Figure 2.5 Salinity Monthly Average

Figure 2.5 demonstrates that monthly average salinity for the Bayou does not vary by a large amount with seasonal averages ranging between ~19 ppt (Jan and Aug) and 24 ppt (Apr). We note that the lowest salinities occur during late summer through early fall (August, September, and October); after the rainy season (June through September), but the low salinities in January occur during the dry season November through May. Given this information, a 5 ppt variation in salinity over the course of the year and low salinities in January, with low rainfall, it is not anticipated that seasonal changes in salinity are controlling water quality in the bayou.

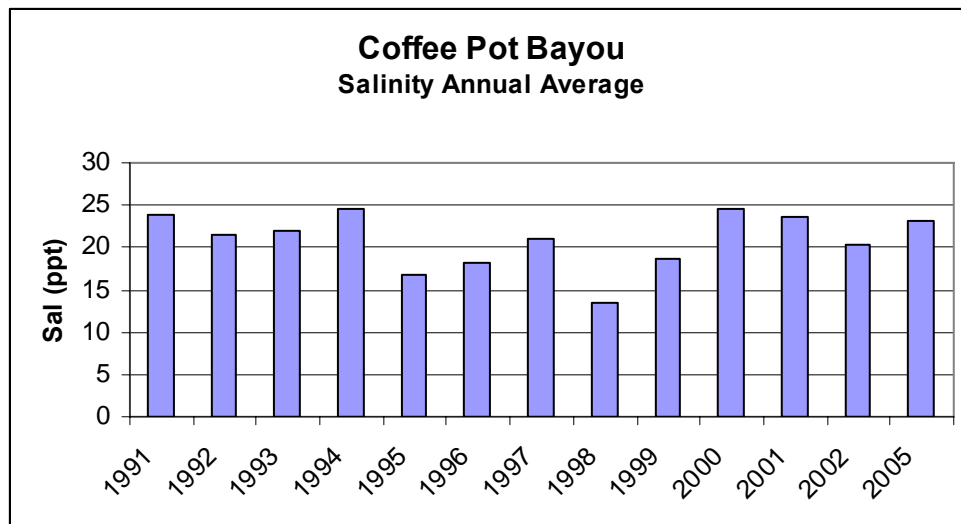


Figure 2.6 Salinity Annual Average

Figure 2.6 depicts the annual average salinity and shows a wet year in 1998 with the lowest overall salinities of any year (1997 was wettest year). Most of the rainfall in 1997 occurred after September. During the verified period (2000-2007), 2000 is a dry year and 2005 is the wettest.

Dissolved Oxygen:

Table 2.5 Dissolved Oxygen by Location

Primary Stations Dissolved Oxygen (mg/L)	Period of Record	Count	Minimum	25th Percentile	Average (d)	Median	75th Percentile	Maximum
AllData	Jan-91 - Dec-08	376	0.06	2.85	4.84	5.06	6.68	10.43
AllData-VerifiedP (a)	Jan-00 - Nov-05; Dec2008	115	0.09	3.93	5.19	5.44	6.58	10.17
21FLPDEM41-01 (c)	Jan-91 - Oct-02	166	0.06	1.37	3.28	2.60	4.98	9.58
21FLPDEM43-01(b)	Feb-91 - Oct-02	142	0.64	4.79	6.07	6.01	7.31	10.43
21FLPDEM44-02 (b)	Feb-08-Nov-08	19	2.92	4.94	5.33	5.44	6.11	6.58
21FLTPA 27472298237236 (b)	Mar-05 - Nov-05;Nov- 08,Dec-08	7	3.32	6.19	6.71	6.58	8.06	8.55
21FLTPA 27473218237378 (b)	Mar-05 - Nov-05	7	4.99	5.68	6.36	6.41	7.07	7.60
21FLTPA 27473788237524 (b)	Mar-05 - Nov-05	8	4.33	5.49	6.88	6.57	8.27	9.62
21FLTPA 27474728237590 (b)	Mar-05 - Nov-05	8	2.11	6.43	7.24	7.58	8.66	10.17
21FLTPA 2747582823806 (c)	Mar-05 - Nov-05	7	2.56	3.86	5.95	6.75	7.62	9.39

- (a) Verified Period ends June 2007, data was summarized through 2008 if available
- (b) Bayou Station
- (c) Canal Station
- (d) Straight annual average, not by quarters

Table 2.5 indicates that the number of DO observations between the canal stations (173) and Bayou (203) are almost equally divided with the canal grouping having 46% of the total samples. The average DO for the main canal station 41-1 is 3.28 mg/L, bayou station 43-1 is 6.07 mg/L, and AllData is 4.84 mg/L.

Evaluation of DO impairment.

For the purposes of this evaluation each data point was included without considering the temporal and spatial requirements of the IWR. As such, the total number of observations is different between the official listing call in **Table 2.3** and **Table 2.6** below.

Table 2.6 Reevaluation of DO Impairment

	Number of Results and IWR Required Number of Exceedances	Number less than 5.0 (mg/L)	Percent Exceedance 5.0 (mg/L)	Number less than 4.0 (mg/L)	Percent Exceedance 4.0 (mg/L)
AllData		182	48.4	132	35.1
AllData-VerifiedP	79 results requires 12 exceedances	41	35.7	27	23.5

Table 2.7 Effect of Removing canal Stations 41-1 and TP383 on DO Impairment of Coffee Pot Bayou

canal Station	Number of Results and IWR Required Number of Exceedances	Number less than 5.0 (mg/L)	Percent Exceedance 5.0 (mg/L)	Number less than 4.0 (mg/L)	Percent Exceedance 4.0 (mg/L)
Canal 41-1	166	125	75.3	103	62.0
Verified Period Canal (41-1 and TP383)	35 results requires 6 exceedances	26	83.9	23	65.7

Table 2.7 shows the results from removing the data associated with the canal stations. This removed 35 data points of the original 79 and left 44. A dataset of 44 results would require 8 exceedances. The 35 data points in the canal had 23 of the 27 total exceedances. This means that the 44 results in the bayou had only 4 exceedances and would require 8. Therefore, by this simple evaluation, without the data from the end of the canal, the bayou would not be considered as impaired for DO. However given that the 14th percentile of DO from the primary station in the bayou is 3.99 mg/L and that an evaluation of all the data for the canal vs. bayou does not indicate that BOD, TN, or TP are significantly different, this TMDL will be for the entire bayou.

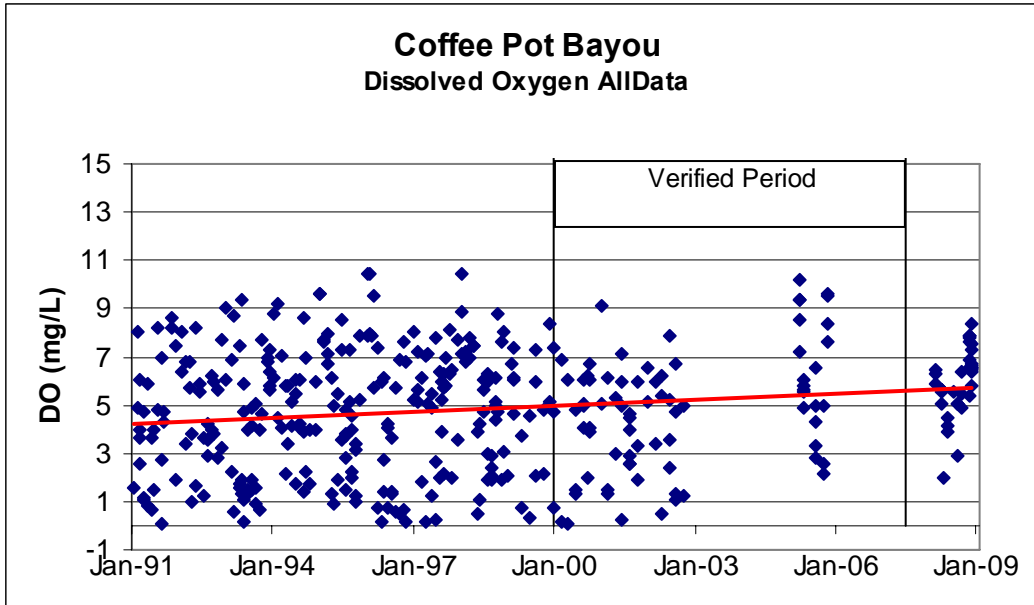


Figure 2.7 Dissolved Oxygen AllData

Figure 2.7 depicts all of the data recorded from within Coffee Pot Bayou with a simple linear trend line through the data. Based on these data, it appears that DO is slightly increasing over time. Additionally, the graph clearly shows that about half the time, there are areas of the bayou with DO below 4.0 mg/L.

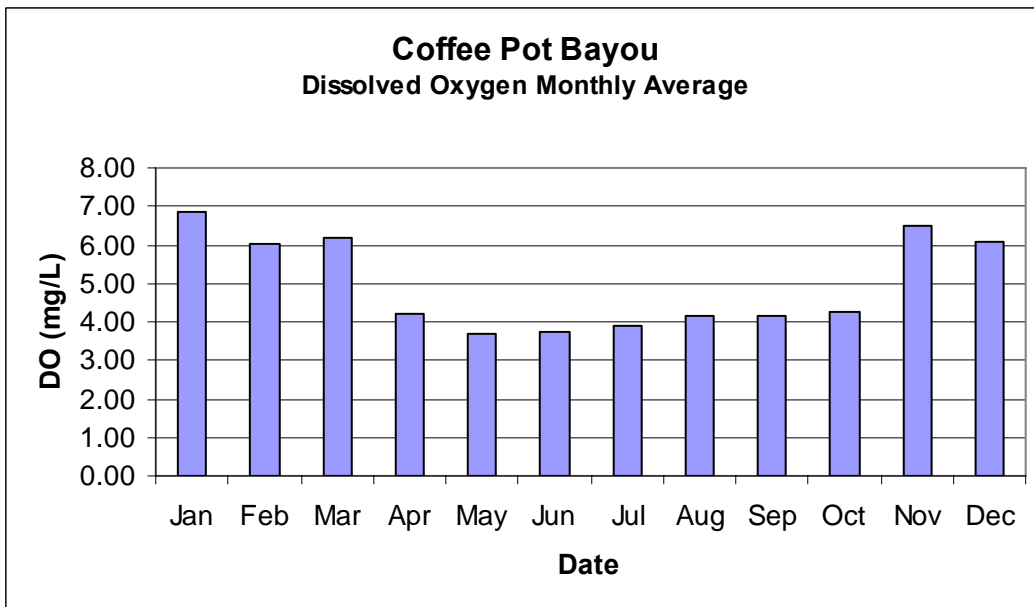


Figure 2.8 Dissolved Oxygen Monthly Average

Figure 2.8 depicts the monthly average DO. From this graph, it can be seen that during the months May-June, DO in the bayou averages below 4.0 mg/L. In fact, only from November through March is the monthly average DO above 5.0 mg/L.

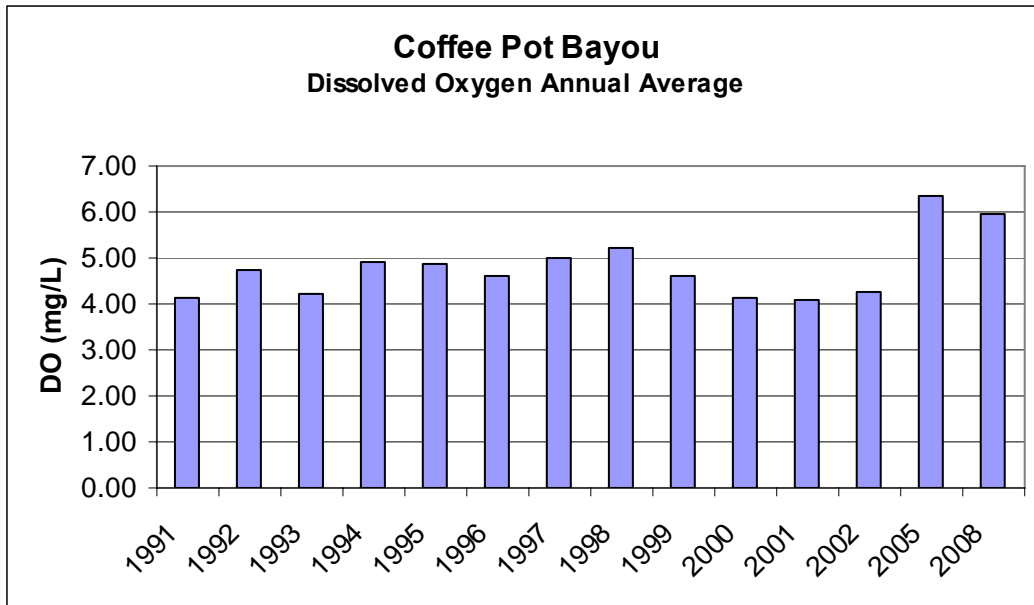


Figure 2.9 Dissolved Oxygen Annual Average

Figure 2.9 depicts the annual average DO of the total dataset. From this graph, it can be seen that the annual average DO hovers around 4.0 mg/L for most of the period of record. Beginning in 2005, the annual average DO increased. This may have been a result of adding additional stations in the area of the bayou closer to Tampa Bay in 2005 and 2008.

Corrected Chlorophyll A (CChl a);

Table 2.8 Corrected Chlorophyll A

Primary Stations Corrected Chl <u>a</u> (ug/L)	Period of Record	Count	Minimum	25th Percentile	Average (d)	Median	75th Percentile	Maximum
AllData	Jul-91 - Nov-08	256	1.00	3.30	8.90	6.90	11.43	53.30
AllData-VerifiedP (a)	Jan-00 - Nov-05; Dec2008	62	1.00	4.30	9.85	7.65	13.38	31.80
21FLPDEM41-01 (c)	Jul-91 - Aug-02	113	1.00	1.90	6.10	4.40	8.50	29.50
21FLPDEM43-01(b)	Jul-91 - Oct-02	114	1.30	5.73	11.34	8.86	13.28	53.30
21FLPDEM44-02 (b)	Feb-08-Nov-08	7	1.00	8.10	10.33	9.60	13.25	19.00
21FLTPA 27472298237236 (b)	Mar-05 - Nov-05	4	1.00	1.00	5.25	4.50	8.75	11.00
21FLTPA 27473218237378 (b)	Mar-05 - Nov-05	4	1.00	1.00	9.25	7.00	15.25	22.00
21FLTPA 27473788237524 (b)	Mar-05 - Nov-05	5	1.00	1.00	8.64	8.20	14.00	19.00
21FLTPA 27474728237590 (b)	Mar-05 - Nov-05	5	1.00	1.00	14.40	18.00	24.00	28.00
21FLTPA 2747582823806 (c)	Mar-05 - Nov-05	4	1.00	8.50	13.00	13.50	18.00	24.00

(a) Verified Period ends June 2007, data was summarized through 2008

(b) Bayou Station

(c) Canal Station

(d) Straight annual average, not by quarters

Table 2.8 indicates that the number of CChl a observations for the canal stations is 46 percent of the total, and the dataset for the open areas of the bayou contains 54 percent of the samples. These data indicate that the average and median CChl a concentrations in the bayou are higher than the canal. While the canal stations contain almost all of the DO exceedances in both the verified period and the entire period of record, the CChl a concentration in the bayou are on average, greater than the canal. For example, the primary station in the canal has an average CChl a concentration of 8.26 ug/L during the verified period compared to 10.75 ug/L for the primary bayou station. During the year 2000 (year that resulted in the nutrient impairment (CChl a = 11.34 ug/L), the canal averaged 10.75 ug/L and the bayou averaged 11.95 ug/L. This indicates that the elevated CChl a conditions in the bayou were responsible for the nutrient impairment. The range in CChl a in the bayou is from less than detect to 53.3 ug/L, while the range in the canal is from less than detect to 29.5 ug/L.

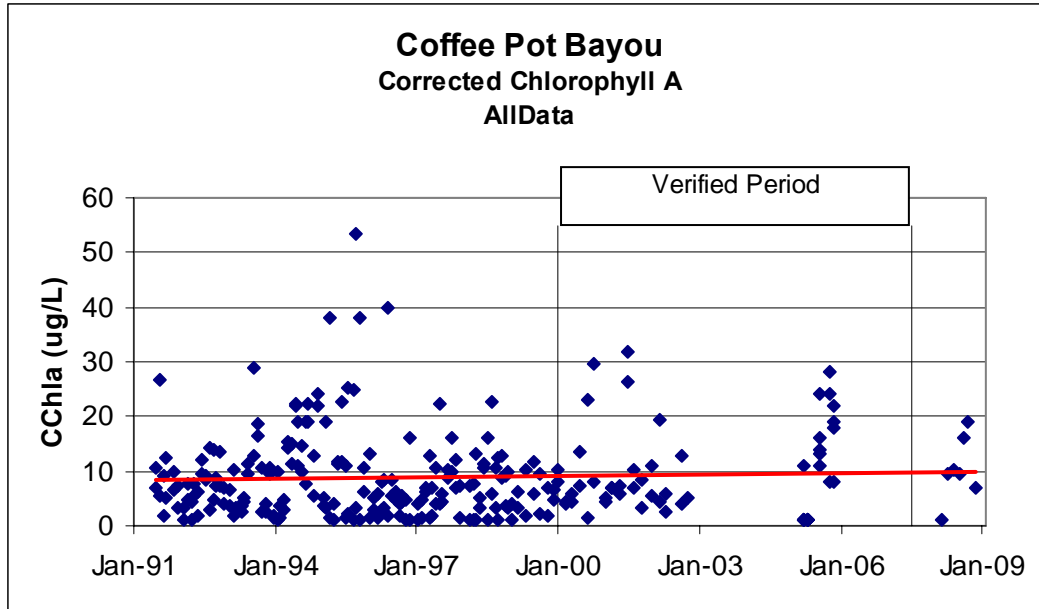


Figure 2.10 Corrected Chlorophyll A AllData

Figure 2.10 depicts all of the data for the entire bayou and a linear trend line. Based on these data, there has been a slight (not significant) increase in CChl a over the period of record.

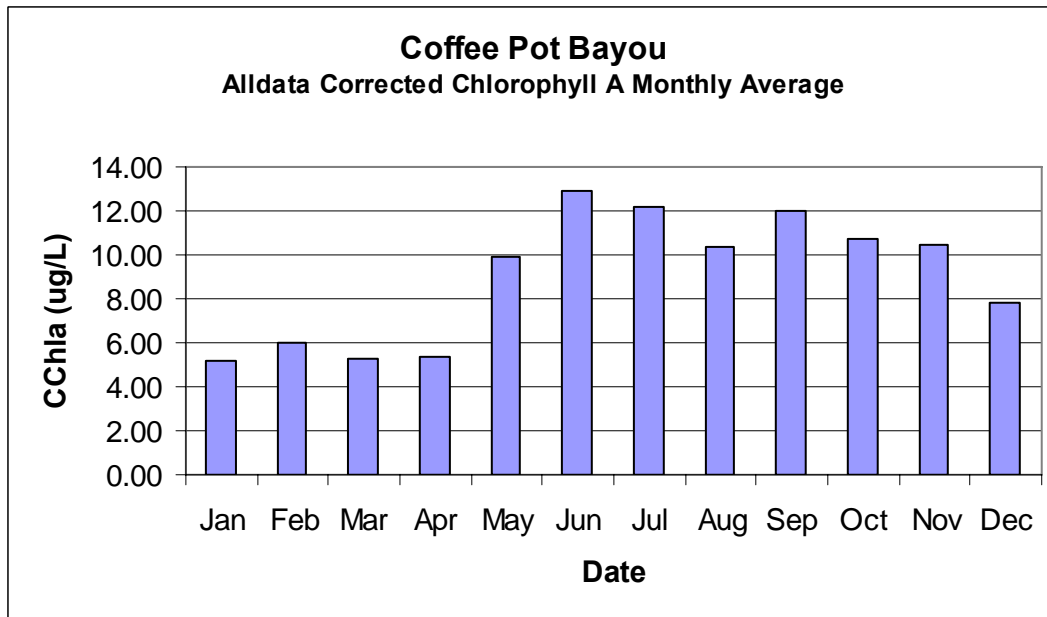


Figure 2.11 Corrected Chlorophyll a Monthly Average

Figure 2.11 depicts the data for monthly average CChl a. These data clearly indicate that early summer (May) through November is a period of elevated algal production. Data indicate during this period (May-November), the bayou CChl a concentration is higher than the established Chl a target for Middle Tampa Bay of 8.5 ug/L.

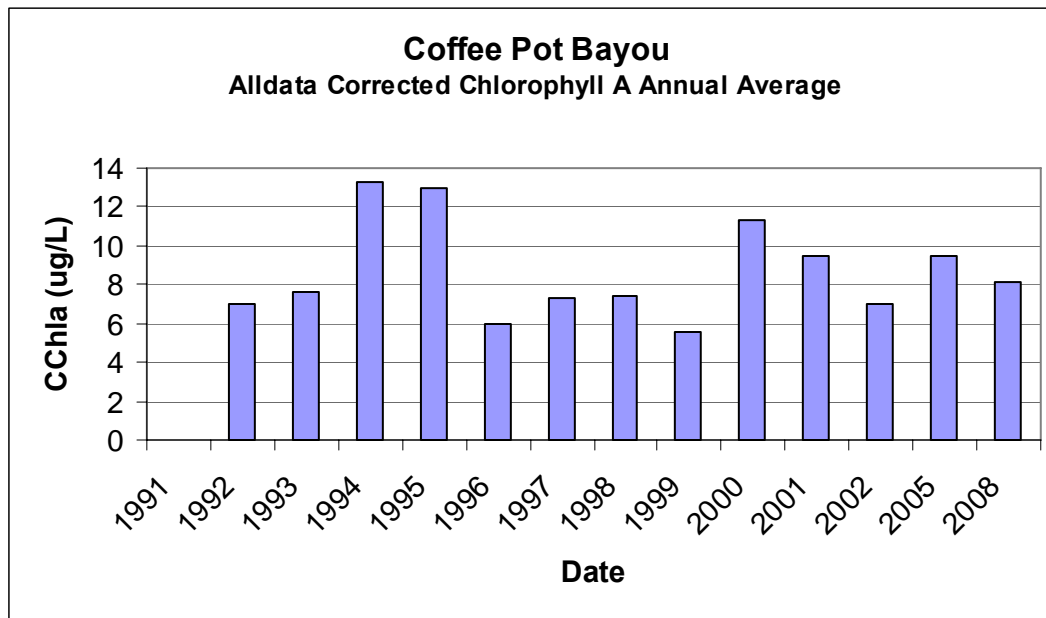


Figure 2.12 Corrected Chlorophyll a Annual Average

The data in **Figure 2.12** clearly show that there are periods when the annual average CChl a is below the 8.5 ug/L target for Middle Tampa Bay and periods when the annual average is greater (1994, 1995, 2000, 2001, and 2000). These data indicate that during the period 1996-1999, the algal production in the bayou was at all time low levels. This occurred in spite of the fact 1995 and 1997 were the two wettest years during the period of record.

Re-Evaluation of Nutrient Impairment:

Coffee Pot Bayou was listed as impaired by nutrients as the annual average CChl a for all the data in the year 2000 of 11.34 ug/L exceeded the threshold value of 11.0 ug/L. Removing the data from canal stations only increased the annual average from 11.34 to 11.95 ug/L in the year 2000 and the bayou would remain impaired for nutrients even if the canal data were removed.

Five Day Biological Oxygen Demand (BOD₅):

Table 2.9 Five Day Biological Oxygen Demand

Primary stations BOD ₅ (mg/L)	Period of Record	Count	Minimum	25th Percentile	Average (d)	Median	75th Percentile	Maximum
AllData	Jul-91 - Sep-08	247	0.54	1.60	2.67	2.20	3.20	10.90
AllData-VerifiedP (a)	Jan-00 - Nov-05; Dec2008	52	0.54	2.00	3.31	2.40	4.00	8.00
21FLPDEM41-01 (c)	Jul-91 - Oct-02	110	1.00	1.00	2.30	2.00	2.78	10.90
21FLPDEM43-01(b)	Jul-91 - Feb-02	110	1.00	2.00	2.88	2.65	3.70	8.30
21FLPDEM44-02 (b)	Apr-08-Sep-08	3	8.00	8.00	8.00	8.00	8.00	8.00
21FLTPA 27472298237236 (b)	Apr-05 - Nov-05	3	1.40	1.70	1.80	2.00	2.00	2.00
21FLTPA 27473218237378 (b)	Mar-05 - Nov-05	4	0.54	1.41	2.34	2.00	2.93	4.80
21FLTPA 27473788237524 (b)	Mar-05 - Nov-05	5	1.10	1.80	2.26	1.90	2.50	4.00
21FLTPA 27474728237590 (b)	Mar-05 - Nov-05	5	2.20	2.50	4.20	2.70	6.20	7.40
21FLTPA 2747582823806 (c)	Mar-05 - Oct-05	4	1.80	2.18	2.78	2.85	3.45	3.60

- (a) Verified Period ends June 2007, data was summarized through 2008 if available
(b) Bayou Station
(c) Canal Station
(d) Straight annual average, not by quarters

Table 2.9 indicates that the number of BOD₅ observations from the canal stations (114) are 47% of the total dataset and data for bayou stations represent 53% of the total data. The average BOD₅ for AllData is 2.67 mg/L, the primary canal station is 2.30 mg/L, and for the bayou is 2.88 mg/L. These data indicate that the BOD₅ in the open areas of the bayou is slightly higher than the BOD at the end of the canal. The range in BOD₅ in the bayou is from less than detect to 8.3 mg/L, while the range in the canal is from less than detect to 10.9 mg/L. Taken together these data indicate that while the maximum BOD₅ is in the canal, the BOD₅ in the bayou is generally higher than in the canal. This may be evidence that the more routine source of BOD₅ is a result of the degradation of algal cells, as opposed to externally derived from stormwater loadings.

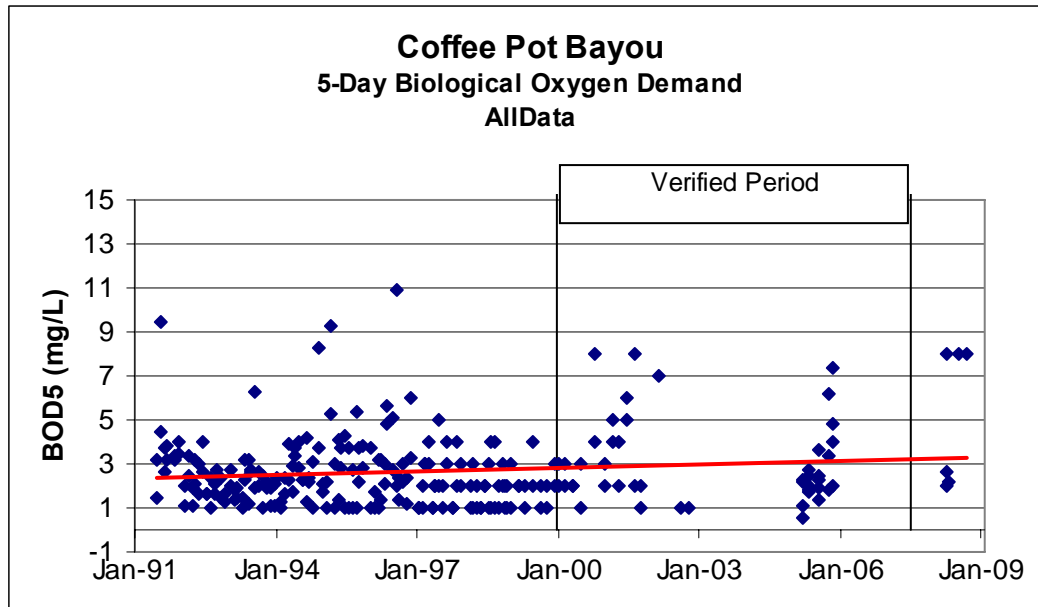


Figure 2.13 BOD₅ AllData

Figure 2.13 depicts the BOD₅ data and indicates that while much of the time the BOD₅ is less than the typical detection limit of 2.0 mg/L, there are recurring BOD₅ values at levels that could result in DO depletion. Additionally, the slight (but not significant) increase in BOD₅ over the period of record is similar to the increase in CChl a over the same time. These data support a conclusion that the internal production of algal biomass is the primary source of the BOD₅.

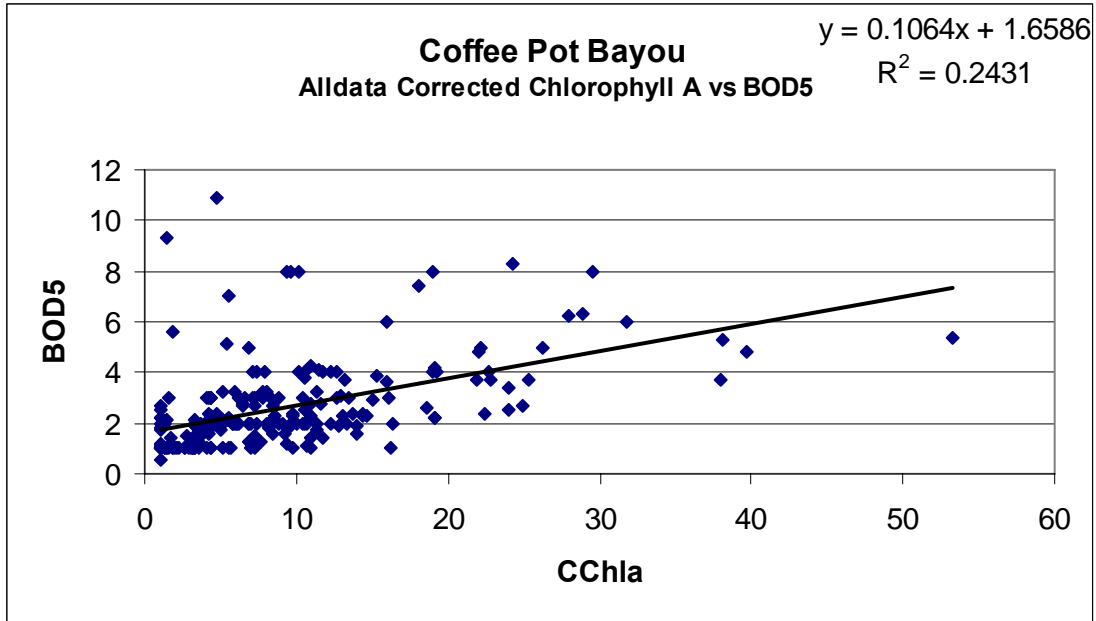


Figure 2.14 Regression of BOD₅ vs. CChl a

Data depicted in **Figure 2.14** indicate that CChl a accounts for 24 percent of the variance in the BOD₅ data. This information supports a conclusion that the BOD₅ and CChl a concentrations are related.

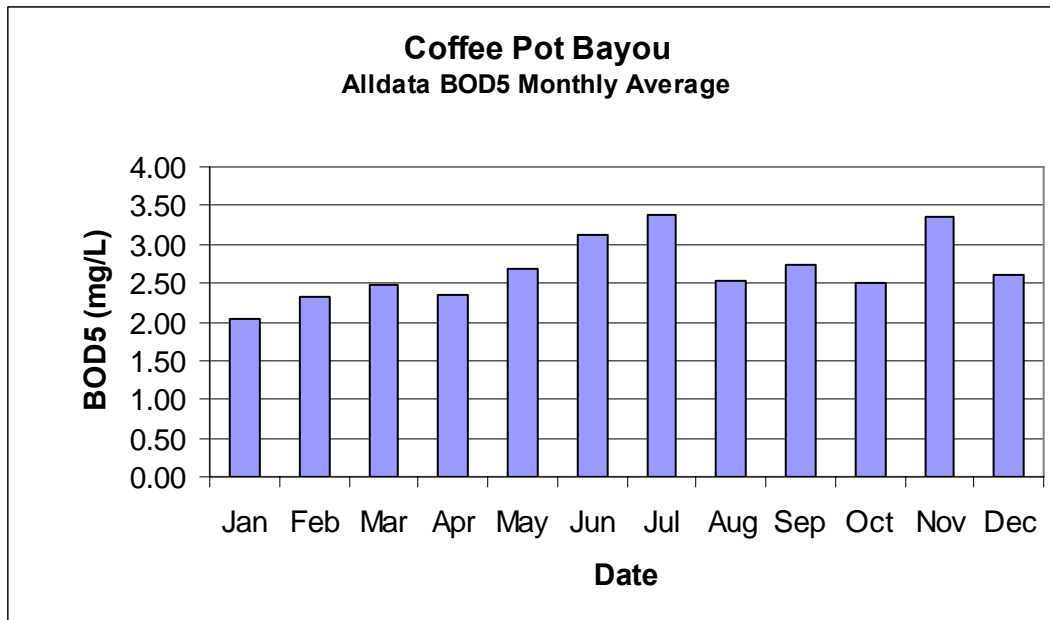


Figure 2.15 BOD₅ Monthly Average

Figure 2.15 depicts the monthly average BOD₅ and indicates that the BOD₅ starts to increase each year during May, reaching an annual maximum during June and July and remaining elevated through November. This seasonal pattern is very similar to the pattern of CChl a.

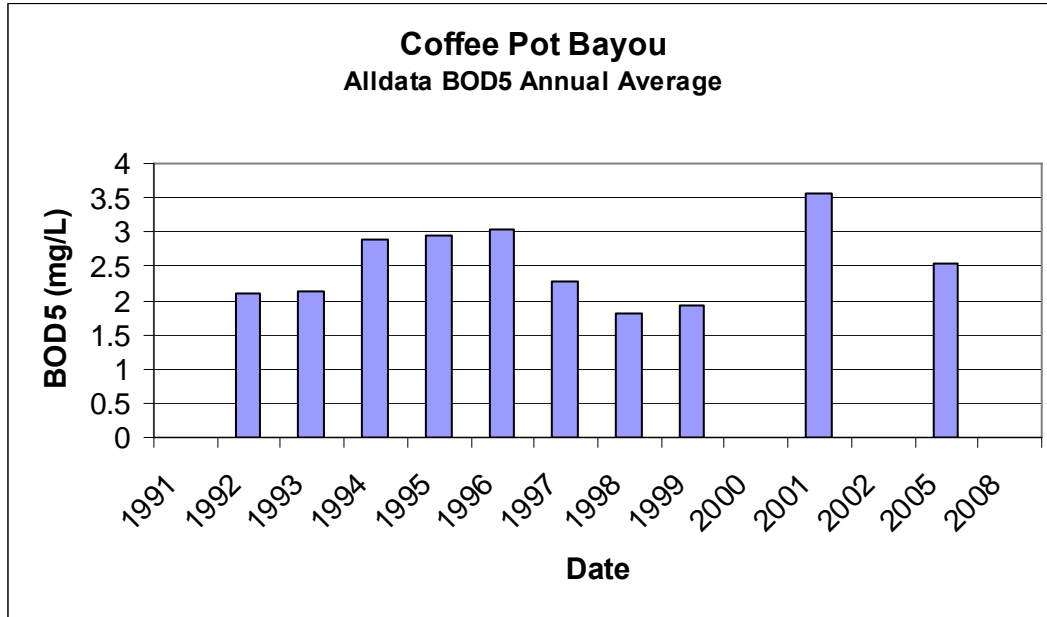


Figure 2.16 BOD₅ Annual Average

Figure 2.16 depicts the annual average BOD₅ data. From this graph, it can be seen that only years 2002 and 2005 had sufficient BOD₅ data during the verified period to calculate annual averages. These data indicate that the BOD₅ data during the verified period is slightly higher than most other years in the period of record.

Total Nitrogen (TN):

Table 2.10 Total Nitrogen

Primary Stations Total Nitrogen (mg/L)	Period of Record	Count	Minimum	25th Percentile	Average (d)	Median	75th Percentile	Maximum
AllData	Apr-92 - Oct-08	227	0.33	0.77	0.99	0.97	1.16	3.06
AllData-VerifiedP (a)	Jan-00 - Nov-05; Dec2008	60	0.33	0.69	0.93	0.92	1.15	2.27
21FLPDEM41-01 (c)	Apr-92 - Oct-02	99	0.45	0.95	1.12	1.12	1.25	2.73
21FLPDEM43-01(b)	Mar-92 - Apr-02	99	0.33	0.62	0.88	0.85	0.99	3.06
21FLPDEM44-02 (b)	Feb-08-Nov-08	7	0.58	0.68	0.73	0.72	0.78	0.86
21FLTPA 27472298237236 (b)	Mar-05 - Nov-05	4	0.42	0.67	0.79	0.81	0.93	1.11
21FLTPA 27473218237378 (b)	Mar-05 - Nov-05	4	0.57	0.80	0.87	0.89	0.95	1.15
21FLTPA 27473788237524 (b)	Mar-05 - Nov-05	5	0.49	0.99	1.03	1.05	1.15	1.50
21FLTPA 27474728237590 (b)	Mar-05 - Nov-05	5	0.45	0.94	1.07	0.95	1.41	1.60
21FLTPA 2747582823806 (c)	Mar-05 - Nov-05	4	0.94	1.07	1.18	1.16	1.28	1.45

(a) Verified Period ends June 2007, data was summarized through 2008 if available

(b) Bayou Station

(c) Canal Station

(d) Straight annual average, not by quarters

Table 2.10 indicates that the number of TN observations for the canal stations (103) are 45% of the total dataset and data for bayou stations represent 55% of the total data. The average TN for AllData is 0.99 mg/L, the primary canal station is 1.12 mg/L, and for the bayou station is 0.88 mg/L. The range in TN in the bayou is from 0.33 to 3.06 mg/L, while the range in the canal is from 0.45 to 2.73 mg/L. These data indicate that while the average TN at the end of the canal is greater than the average in the bayou, the maximum TN occurs in the bayou. Additionally, the average for the verified period (0.93 mg/L) is slightly less than the average (0.99 mg/L) for the entire period.

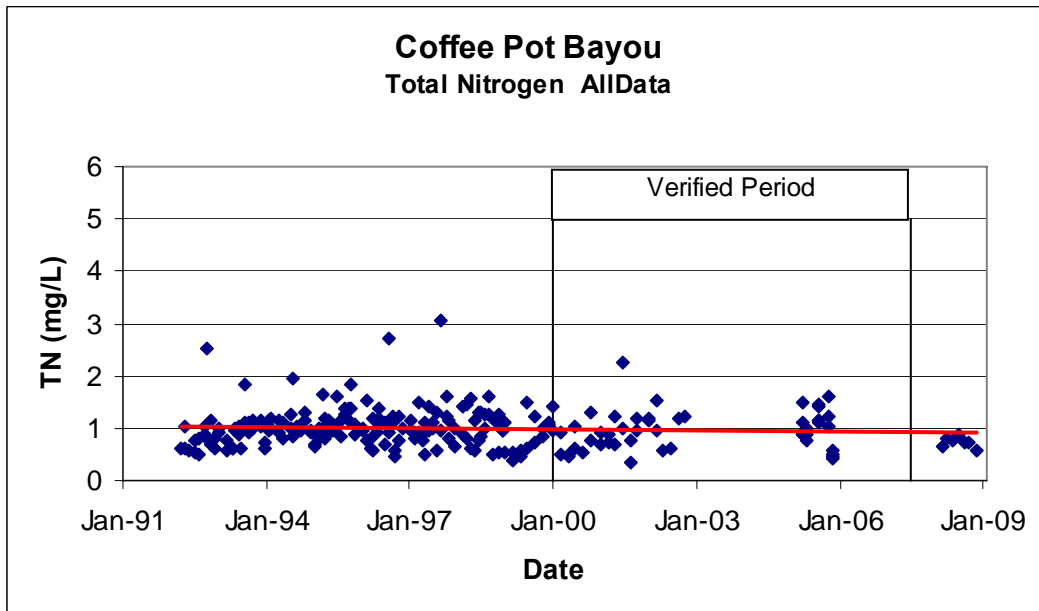


Figure 2.17 Total Nitrogen AllData

Figure 2.17 depicts the data for TN. From this graph it can be seen that slightly over half the TN data are below 1.00 mg/L (median 0.97 mg/L). The linear trend line does not indicate any real change in TN over time. However, the very slight decrease reflects the information that the average TN during the verified period is slightly lower than during the 1990s.

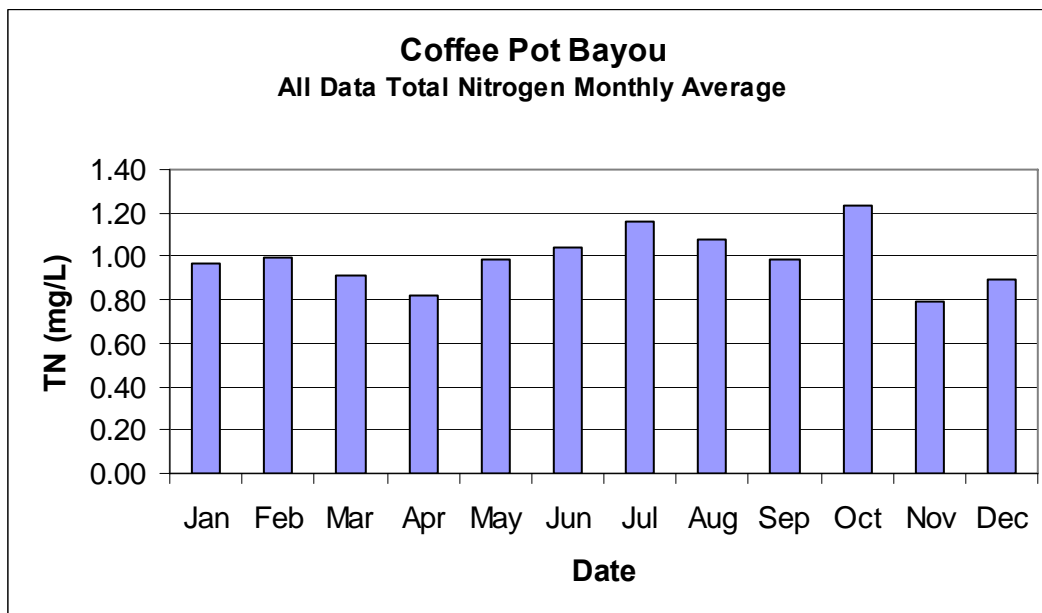


Figure 2.18 Total Nitrogen Monthly Average

Figure 2.18 depicts the monthly average TN for the bayou. This graph shows a general rise and fall of TN during the summer and fall, with peaks in July and October. These patterns are consistent with rainfall peaks (June – September).

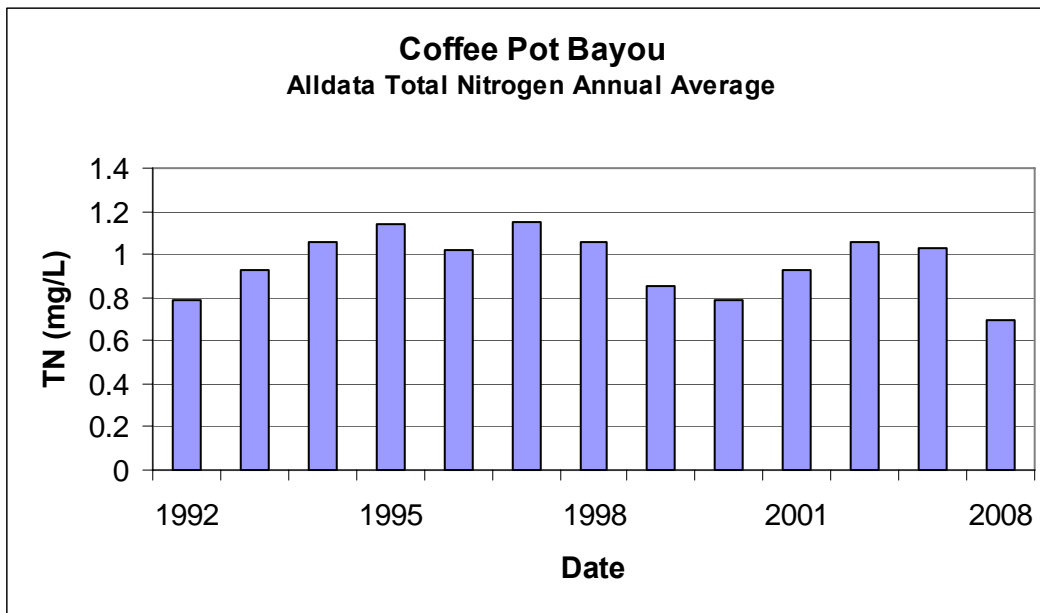


Figure 2.19 Total Nitrogen Annual Average

Figure 2.19 depicts the annual average TN. From this graph it can be seen that the ebb and flow of TN follows a pattern very similar to annual rainfall. Demonstrating elevated concentrations 1995 through 1998, a period containing the two wettest years and lower concentrations during 1999 and 2000, two dry years.

Total Phosphorus (TP):

Table 2.11 Total Phosphorus

Primary Stations Total Phosphorus (mg/L)	Period of Record	Count	Minimum	25th Percentile	Average (d)	Median	75th Percentile	Maximum
AllData	Feb-92 - Nov-08	242	0.020	0.120	0.184	0.180	0.250	0.540
AllData-VerifiedP (a)	Jan-00 - Nov-05; Dec2008	62	0.030	0.120	0.162	0.155	0.188	0.350
21FLPDEM41-01 (c)	Feb-92 - Jun-02	105	0.020	0.060	0.144	0.120	0.190	0.540
21FLPDEM43-01(b)	Feb-92 - Oct-02	108	0.050	0.160	0.220	0.220	0.270	0.500
21FLPDEM44-02 (b)	Feb-08-Nov-08	7	0.120	0.135	0.157	0.160	0.170	0.210
21FLTPA 27472298237236 (b)	Mar-05 - Nov-05	4	0.150	0.158	0.185	0.165	0.193	0.260
21FLTPA 27473218237378 (b)	Mar-05 - Nov-05	4	0.160	0.175	0.190	0.190	0.205	0.220
21FLTPA 27473788237524 (b)	Mar-05 - Nov-05	5	0.140	0.190	0.196	0.190	0.220	0.240
21FLTPA 27474728237590 (b)	Mar-05 - Nov-05	5	0.130	0.180	0.210	0.180	0.270	0.290
21FLTPA 2747582823806 (c)	Mar-05 - Nov-05	4	0.140	0.163	0.235	0.225	0.298	0.350

(a) Verified Period ends June 2007, data was summarized through 2008 if available

(b) Bayou Station

(c) Canal Station

(d) Straight annual average, not by quarters

Table 2.11 indicates that the number of TP observations for the canal stations (109) are 45% of the total dataset and data for bayou stations represent 55% of the total data. The average TP for AllData is 0.184 mg/L, the primary canal station is 0.144 mg/L, and for the primary bayou station is 0.22 mg/L. The range in TP in the bayou is from 0.05 to 0.50 mg/L, while the range in the canal is from 0.02 to 0.54 mg/L. These data highlight the differences between the canal and the open areas of the bayou. Overall, the primary canal station has a lower average TP than the bayou.

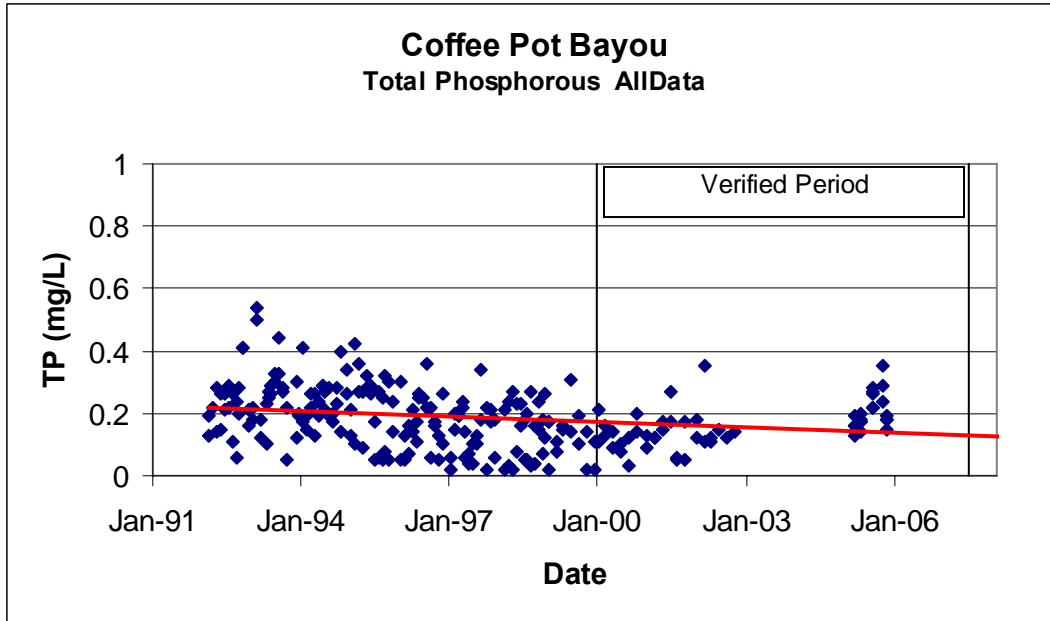


Figure 2.20 Total Phosphorus AllData

Figure 2.20 depicts the data for TP. From this graph it can be seen that ~50% of the data is greater than 0.20 mg/L TP (median 0.220 mg/L). The linear trend line indicates a downward trend in TP.

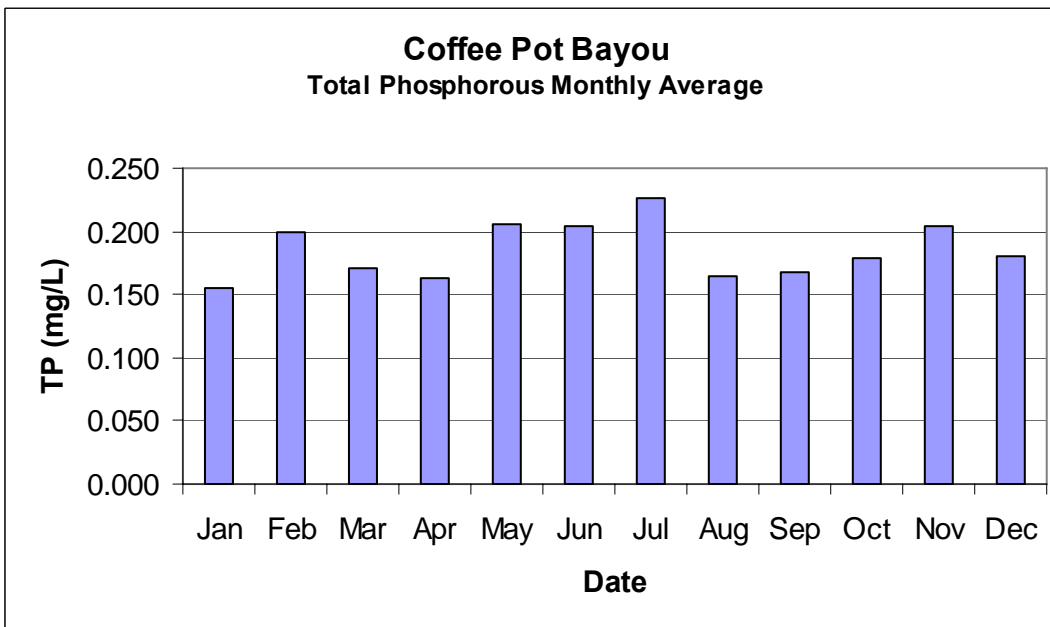


Figure 2.21 Total Phosphorus Monthly Average

Figure 2.21 depicts the monthly average TP concentrations. Overall, the pattern is more similar to the CChl a pattern than to the TN distribution.

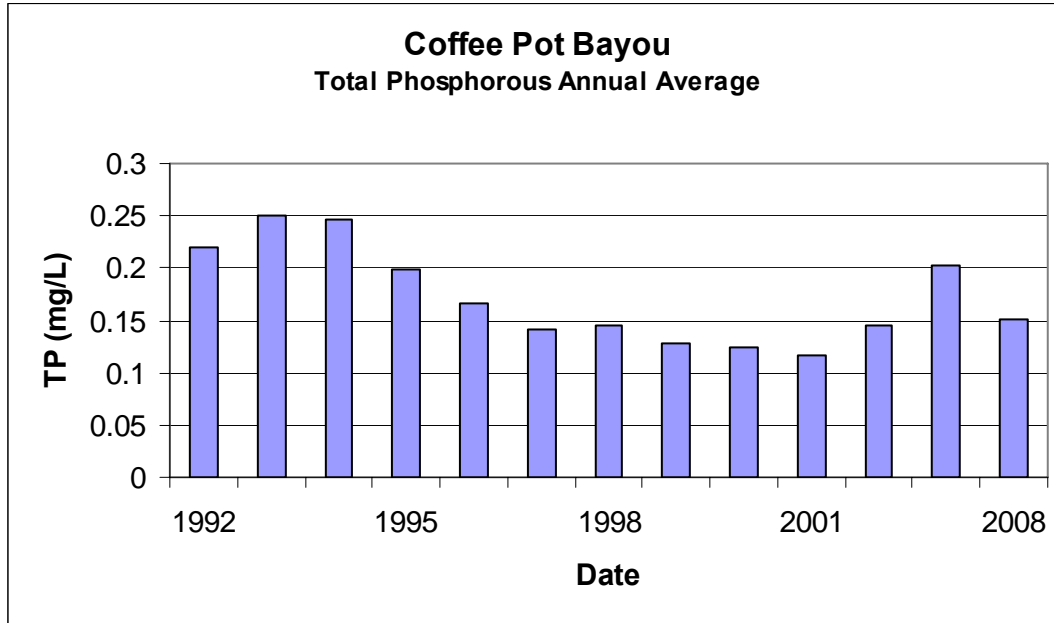


Figure 2.22 Total Phosphorus Annual Average

Figure 2.22 depicts the annual average concentration of TP. From this graph it can be seen that annual average TP has declined in the 1990s, through the beginning of the verified period, and then seems to begin to rise in 2002 and 2005. This pattern seems to track CChl a, with maximum TP and CChl a occurring in the mid-1990s, declining through the late 1990s then increasing during the verified period. TN follow a similar pattern, but to a lesser degree. There was a general decrease in rainfall from 1997 through 2000, corresponding to the period with reduced TP and CChl a, while TN was at its maximum in 1997 and 1995, both years with high rainfall.

Total Nitrogen to Total Phosphorus Ratio (TN/TP):

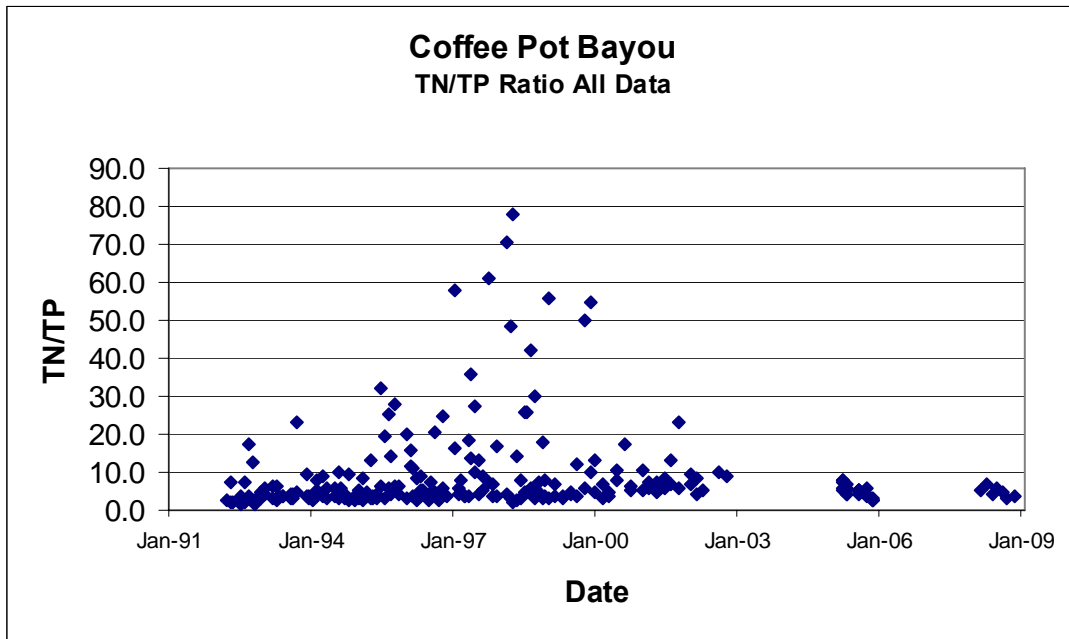


Figure 2.23 Total Nitrogen to Total Phosphorus Ratio

Figure 2.23 depicts the TN/TP ratio for the raw data (AllData). This graph depicts ratios as high as 80, with numerous values above 10. The data indicate periods of co-limitation (TN and TP) as well as periods of TP limitation within Coffee Pot Bayou.

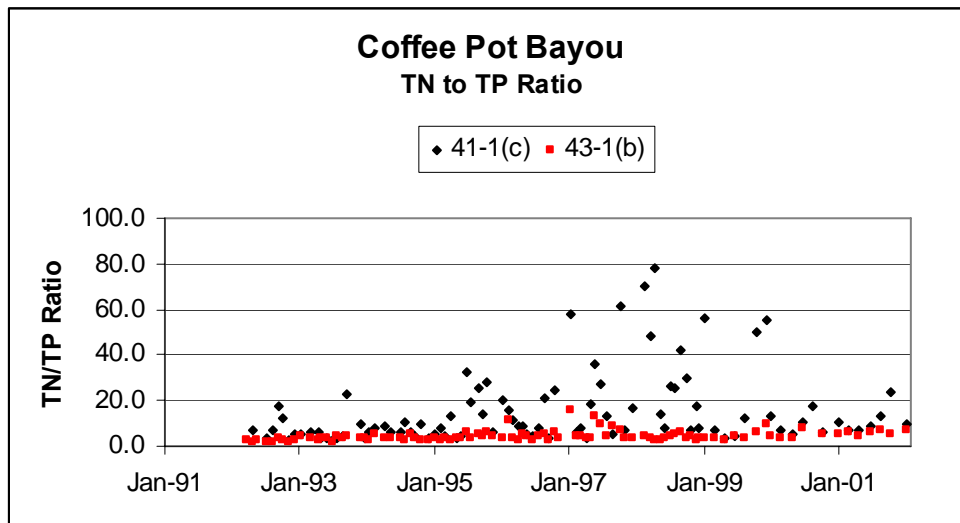


Figure 2.24 Total Nitrogen to Total Phosphorus Ratio

Figure 2.24 depicts the TN/TP ratio for the two primary stations; station 41-1, located at the end of a dead end canal and Station 43-1 located along a seawall in the mid-area of the bayou. This

graph includes TN/TP ratio for paired data for the period of record (1992-2002) for these two stations, and indicates that at different places and at different times, areas of the bayou are both TN and TP limited. Further investigation indicates that the station (41-1) at the end of the canal has approximately half of the TP (0.14 mg/L) as is present at station 43-1 (0.22 mg/L), located in the more open area of the bayou.

Evaluation of Nutrients in Middle Tampa Bay WBID 1558C (connects to Coffee Pot Bayou):

Total Nitrogen:

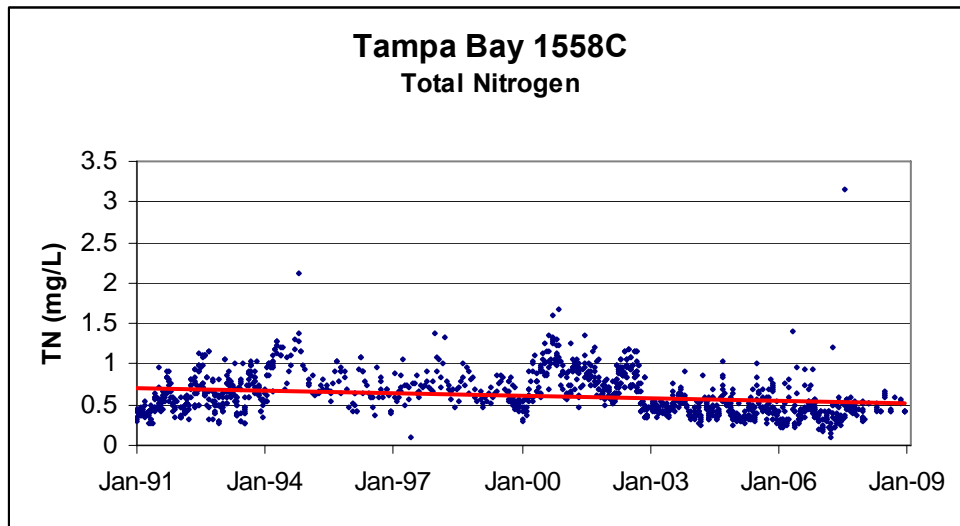


Figure 2.25 Total Nitrogen Middle Tampa Bay WBID 1558C

Figure 2.25 depicts the TN in the Tampa Bay WBID 1558C associated with Coffee Pot Bayou. This graph shows that the TN in Middle Tampa Bay has been declining during this period.

Table 2.12 Total Nitrogen by Calendar Quarter and Year in Middle Tampa Bay WBID 1558C

WBID 1558C Middle Tbay TN (mg/L)					
year	Q1	Q2	Q3	Q4	annual average
1990	0.66	0.53	0.50	0.46	0.54
1991	0.40	0.43	0.63	0.57	0.51
1992	0.46	0.71	0.80	0.54	0.63
1993	0.66	0.60	0.70	0.65	0.65
1994	0.89	1.11	1.07	1.21	1.07
1995	0.72	0.72	0.80	0.76	0.75
1996	0.68	0.73	0.68	0.57	0.67
1997	0.73	0.63	0.70	0.85	0.73
1998	0.98	0.64	0.82	0.70	0.78
1999	0.57	0.69	0.73	0.53	0.63
2000	0.54	0.82	1.10	1.04	0.88
2001	0.81	0.89	0.90	0.70	0.82
2002	0.66	0.91	0.90	0.48	0.74
2003	0.46	0.43	0.57	0.45	0.48
2004	0.42	0.47	0.51	0.46	0.46
2005	0.34	0.47	0.50	0.48	0.45
2006	0.36	0.56	0.50	0.42	0.46
2007	0.28	0.43	0.61	0.44	0.44
2008	0.52	0.50	0.50	0.48	0.50
Avg VP+	0.49	0.61	0.68	0.55	0.58

Table 2.12 shows the TN data for Middle Tampa Bay WBID 1558C. During the verified period plus (2000-2008), annual average TN ranged from a high in 2000 of 0.88 mg/L to a low of 0.44 mg/L in 2007 and averaged 0.58 mg/L

Table 2.13 Total Nitrogen in Middle Tampa bay WBID 1558C

WBID 1558C TN (mg/L)	TN-VP+	TN- Feb92- Jun02
Min	0.10	0.11
10	0.32	0.48
20	0.38	0.56
30	0.42	0.62
40	0.46	0.67
50	0.52	0.72
Average	0.58	0.76
60	0.57	0.79
70	0.66	0.88
80	0.81	0.96
90	0.95	1.07
Max	3.15	2.120

Table 2.13 shows the TN data for Middle Tampa Bay (for the period of record of the two primary stations in the bayou (41-1 and 43-1) of February 1992 through June 2002). During this period, this segment of Middle Tampa Bay averaged 0.76 mg/L, while station 41-1 (canal) averaged 1.12 mg/L and station 43-1 (bayou) averaged 0.88 mg/L. The TN for the verified period plus averaged 0.58 mg/L (median of 0.52 mg/L). These data indicate that the TN in Coffee Pot Bayou is elevated over that in Middle Tampa Bay.

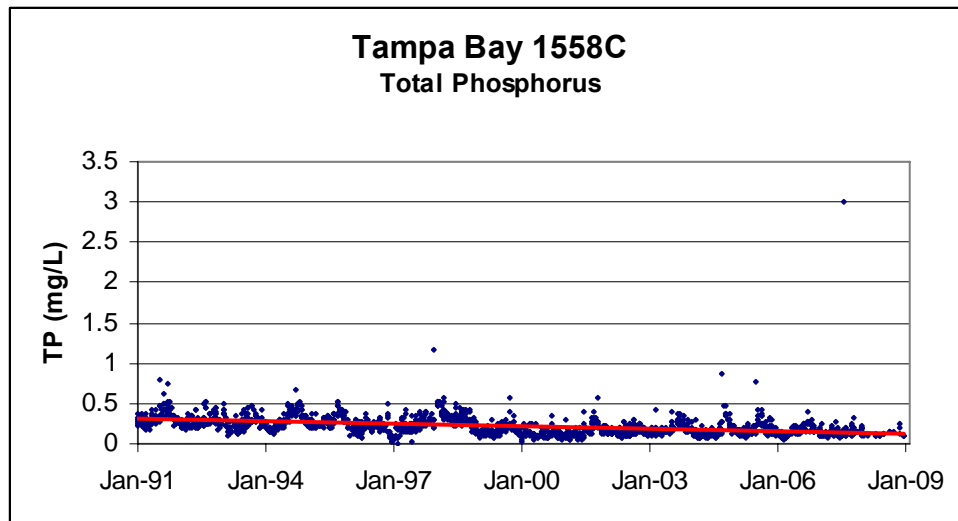


Figure 2.26 Total Phosphorus Middle Tampa Bay WBID 1558C

Figure 2.26 depicts the TP in the Tampa Bay WBID 1558C associated with Coffee Pot Bayou. This graph shows that similar to Coffee Pot Bayou, the TP in Middle Tampa Bay has been declining during this period.

Table 2.14 Total Phosphorus by Calendar Quarter and Year in Middle Tampa Bay WBID 1558C

WBID 1558C Middle Tbay TP (mg/L)					
year	Q1	Q2	Q3	Q4	annual average
1990	0.382	0.369	0.406	0.356	0.378
1991	0.280	0.289	0.456	0.329	0.339
1992	0.250	0.276	0.316	0.314	0.289
1993	0.270	0.226	0.303	0.289	0.272
1994	0.202	0.250	0.397	0.372	0.305
1995	0.244	0.274	0.333	0.311	0.291
1996	0.184	0.224	0.237	0.189	0.208
1997	0.172	0.210	0.274	0.331	0.247
1998	0.434	0.320	0.327	0.240	0.330
1999	0.142	0.143	0.237	0.186	0.177
2000	0.144	0.116	0.144	0.126	0.133
2001	0.119	0.151	0.214	0.210	0.173
2002	0.145	0.154	0.187	0.164	0.163
2003	0.164	0.154	0.266	0.205	0.197
2004	0.124	0.123	0.199	0.269	0.179
2005	0.136	0.190	0.261	0.171	0.190
2006	0.102	0.167	0.218	0.169	0.164
2007	0.119	0.132	0.295	0.159	0.176
2008	0.120	0.111	0.143	0.140	0.129
AVG VP+	0.130	0.144	0.214	0.179	0.167

Table 2.14 shows the TP data for Middle Tampa Bay WBID 1558C. During the verified period plus (2000-2008), annual average TP ranged from a high in 2003 of 0.197 mg/L to a low of 0.129 mg/L in 2008 and averaged 0.167 mg/L. TP in Coffee Pot Bayou averaged 0.162 mg/L during this same period.

Table 2.15 Total Phosphorus in Middle Tampa Bay WBID 1558C

WBID 1558C TP (mg/L)	TP-VP+	TP-feb92-Jun02
Min	0.030	0.010
10	0.100	0.110
20	0.110	0.150
30	0.130	0.170
40	0.140	0.200
50	0.150	0.230
Average*	0.169	0.238
60	0.163	0.250
70	0.180	0.280
80	0.210	0.320
90	0.250	0.380
Max	3.004	1.160

* Straight annual average, not by calendar quarter

Table 2.15 shows the WBID 1558C TP data (for the period of record of the two primary stations in the bayou (41-1 and 43-1) of February 1992 through June 2002). During this period, this segment of Middle Tampa Bay averaged 0.238 mg/L while station 41-1 (canal) averaged 0.144 mg/L and station 43-1(bayou) averaged 0.22 mg/L. The TP for the verified period plus averaged 0.169 (median of 0.238 mg/L). These data indicate that the TP at station 43-1 mirrors that of segment 1558C for Middle Tampa Bay.

Chapter 3. DESCRIPTION OF APPLICABLE WATER QUALITY STANDARDS AND TARGETS

3.1 Classification of the Waterbody and Criteria Applicable to the TMDL

Florida's surface waters are protected for five designated use classifications, as follows:

Class I	Potable water supplies
Class II	Shellfish propagation or harvesting
Class III	Recreation, propagation, and maintenance of a healthy, well-balanced population of fish and wildlife
Class IV	Agricultural water supplies
Class V	Navigation, utility, and industrial use (there are no state waters currently in this class)

Coffee Pot Bayou is a Class II waterbody, with a designated use of shellfish propagation or harvesting and includes all Class III uses of recreation, propagation, and the maintenance of a healthy, well-balanced population of fish and wildlife. Additionally, Coffee Pot Bayou has been designated as an Outstanding Florida Water (OFW) and is part of the Pinellas County Aquatic Preserve. The criteria applicable to these TMDLs are the Class II criteria for dissolved oxygen and nutrients.

3.2 Applicable Water Quality Standards and Numeric Water Quality Target

3.2.1 Nutrients

Florida's nutrient criterion is narrative only, i.e., nutrient concentrations of a body of water shall not be altered so as to cause an imbalance in natural populations of aquatic flora or fauna. Accordingly, a nutrient-related target was needed to represent levels at which an imbalance in flora or fauna is expected to occur. While the IWR provides a threshold for nutrient impairment for estuaries based on annual average Chl *a* levels, these thresholds are not standards and need not be used as the nutrient-related water quality target for TMDLs. In fact, in recognition that the IWR thresholds were developed using statewide average conditions, the IWR (Section 62-303.450, F.A.C.) specifically allows the use of alternative, site-specific thresholds that more accurately reflect conditions beyond which an imbalance in flora or fauna occurs in the waterbody. The IWR used the threshold concentration of 11.0 ug/L CChl *a* for assessing Coffee Pot Bayou for nutrient impairment. As discussed previously, the bayou exceeded this threshold in the year 2000 of the verified period and was determined to be impaired for nutrients.

Narrative Nutrient Criteria Definitions

Chlorophyll a

Chlorophyll, a green pigment found in plants, is an essential component in the process of converting light energy (sunlight) into chemical energy through the process of photosynthesis. In photosynthesis, the energy absorbed by chlorophyll transforms carbon dioxide and water into carbohydrates and oxygen. The chemical energy stored by photosynthesis in carbohydrates drives biochemical reactions in nearly all living organisms. Thus, chlorophyll is at the center of the photosynthetic oxidation-reduction reaction between carbon dioxide and water.

There are several types of chlorophyll; however, the predominant form is chlorophyll a (Chl a). The measurement of Chl a in a water sample is a useful indicator of phytoplankton biomass, especially when used in conjunction with an analysis of algal growth potential and species abundance. The greater the abundance of Chl a, typically the greater the abundance of algae. Algae are the primary producers in the aquatic food web, and thus are very important in characterizing the productivity of estuarine systems.

Total Nitrogen as N

TN is the combined measurement of nitrate (NO_3), nitrite (NO_2), ammonia, and organic nitrogen found in water. Nitrogen compounds function as important nutrients for many aquatic organisms and are essential to the chemical processes that exist between land, air, and water. The most readily bioavailable forms of nitrogen are ammonia and nitrate. These compounds, in conjunction with other nutrients, serve as an important base for primary productivity.

The major sources of excessive amounts of nitrogen in surface water are the effluent from municipal treatment plants and runoff from urban and agricultural sites. When nutrient concentrations consistently exceed natural levels, the resulting nutrient imbalance can cause undesirable changes in a waterbody's biological community and drive an aquatic system into an accelerated rate of eutrophication. Usually, the eutrophication process is observed as a change in the structure of the algal community and includes severe algal blooms that may cover large areas for extended periods. Large algal blooms are generally followed by depletion in DO concentrations as a result of algal decomposition.

Total Phosphorus as P

Phosphorus is one of the primary nutrients that regulates algal and macrophyte growth in natural waters, particularly in fresh water. Phosphate, the form in which almost all phosphorus is found in the water column, can enter the aquatic environment in a number of ways. Natural processes transport phosphate to water through atmospheric deposition, ground water percolation, and terrestrial runoff. Municipal treatment plants, industries, agriculture, and domestic activities also contribute to phosphate loading through direct discharge and natural transport mechanisms. The very high levels of phosphorus in some Florida streams and estuaries are usually caused by phosphate mining and fertilizer processing activities.

High phosphorus concentrations are frequently responsible for accelerating the process of eutrophication, or accelerated aging, of a waterbody. Once phosphorus and other important nutrients enter the ecosystem, they are extremely difficult to remove. They become tied up in

biomass or deposited in sediments. Nutrients, particularly phosphates, deposited in sediments generally are redistributed to the water column. This type of cycling compounds the difficulty of halting the eutrophication process.

3.2.2 Dissolved Oxygen

Florida's DO criterion for Class II marine water bodies states that DO "shall not average less than 5.0 mg/L in a 24-hour period and shall never be less than 4.0 mg/L. Normal daily and seasonal fluctuations above these levels shall be maintained." However, DO concentrations in ambient waters can be controlled by many factors, including DO solubility, which is controlled by temperature and salinity; DO enrichment processes influenced by reaeration, which is controlled by flow velocity; the photosynthesis of phytoplankton, periphyton, and other aquatic plants; DO consumption from the decomposition of organic materials in the water column and sediment and oxidation of some reductants such as ammonia and metals; and respiration by aquatic organisms. In order to address that portion of the low DO resulting from the decomposition of anthropogenically derived organic material in the water, reductions in BOD₅ are proposed.

3.3 Nutrient Target Development

Coffee Pot Bayou drains into Middle Tampa Bay (WBID 1558C). The Tampa Bay Estuary Program and the FDEP have established a target CChl a concentration of 8.5 ug/L as the appropriate annual average CChl a level necessary to maintain water quality standards in this portion of Tampa Bay. The Department selected the target established for WBID 1558C (Middle Tampa Bay) as the target CChl a concentration for establishing this TMDL. The DEP believes that this target of 8.5 ug/L is the best information available for establishing a site specific target for TMDL development, since there is a direct exchange of water through tidal mixing and using the bay target for TMDL development is a reasonable approach to take to restore conditions in the bayou. Additionally, as WBID 1558C is meeting its annual average CChl a target of 8.5 ug/L with an average TN of 0.58 mg/L (median of 0.52 mg/L) and a TP concentration very similar to that in Coffee Pot Bayou, the total nitrogen target was established as the average of the annual average TN concentration in WBID 1558C during the VP period for years meeting the 8.5 ug/L Cchl_a concentration. Given the uncertainty of nutrient reactions within estuaries, the Department applied these targets of CChl a 8.5 ug/L, and TN 0.63 mg/L in the bayou to account for uncertainty and as part of the implicit Margin of Safety.

Chapter 4: ASSESSMENT OF SOURCES

4.1 Types of Sources

An important part of the TMDL analysis is the identification of pollutant source categories, source subcategories, or individual sources of pollutants in the impaired waterbody and the amount of pollutant loadings contributed by each of these sources. Sources are broadly classified as either “point sources” or “nonpoint sources.” Historically, the term point sources has meant discharges to surface waters that typically have a continuous flow via a discernable, confined, and discrete conveyance, such as a pipe. Domestic and industrial wastewater treatment facilities (WWTFs) are examples of traditional point sources. In contrast, the term “nonpoint sources” was used to describe intermittent, rainfall-driven, diffuse sources of pollution associated with everyday human activities, including runoff from urban land uses, agriculture, silviculture, and mining; discharges from failing septic systems; and atmospheric deposition.

However, the 1987 amendments to the Clean Water Act redefined certain nonpoint sources of pollution as point sources subject to regulation under the EPA’s National Pollutant Discharge Elimination System (NPDES) Program. These nonpoint sources included certain urban stormwater discharges, including those from local government master drainage systems, construction sites over five acres, and a wide variety of industries (see **Appendix A** for background information on the federal and state stormwater programs).

To be consistent with Clean Water Act definitions, the term “point source” will be used to describe traditional point sources (such as domestic and industrial wastewater discharges) *and* stormwater systems requiring an NPDES stormwater permit when allocating pollutant load reductions required by a TMDL (see **Section 6.1**). However, the methodologies used to estimate nonpoint source loads do not distinguish between NPDES stormwater discharges and non-NPDES stormwater discharges, and as such, this source assessment section does not make any distinction between the two types of stormwater.

4.2 Potential Sources of Nutrients and BOD in the Coffee Pot Bayou Watershed

4.2.1 Point Sources

There are no NPDES permitted domestic or Industrial wastewater facilities that discharge within the watershed.

Municipal Separate Storm Sewer System Permittees

The stormwater collection systems owned and operated by the City of St. Petersburg and Co Permittees, including FDOT District 7 are covered by a Phase I NPDES municipal separate storm sewer system (MS4) permit (FLS000007). There are no Phase II MS4 permits identified for this watershed.

4.2.2 Land Uses and Nonpoint Sources

Nonpoint source pollution, unlike pollution from industrial and sewage treatment plants, comes from many diffuse sources. Nonpoint pollution is caused by rainfall moving over and through the ground. As the runoff moves, it picks up and carries away natural and human-made pollutants, finally depositing them into lakes, rivers, wetlands, coastal waters, and even our underground sources of drinking water (EPA, 1994). Potential nonpoint sources of BOD and nutrients include loadings from surface runoff, wildlife, livestock, pets, leaking sewer lines, and leaking septic tanks.

Land Uses

The spatial distribution and acreage of different land use categories were identified using the SWFWMD's 2006 land use coverage (scale 1:40,000) contained in the Department's geographic information system (GIS) library. Land use categories in the watershed were aggregated using the simplified Level 1 codes and tabulated in **Table 4.1** and shown on **Figure 4.1**.

As shown in **Table 4.1**, the Coffee Pot Bayou watershed drains about 1216 acres of land. The dominant land use category for is urban land (urban and built-up; low-, medium-, and high-density residential; and transportation, communication, and utilities), which accounts for 90.7%, of the watersheds' total area. Water at 9.2 percent and natural land use areas which include wetlands, upland forest, and barren land, occupy about less than 1 percent of the total area.

Table 4.1 Classification of Land Use Categories for Coffee Pot Bayou, WBID 1700

Description	Area (acres)	Percent Area
Urban and Built-Up	1080	88.8%
Agriculture	0	0.0%
Rangeland	0	0.0%
Upland Forest	0	0.0%
Water	112	9.2%
Wetlands	1	0.1%
Barren Land	0	0.0%
Transportation, Communication, and Utilities	23	1.9%
Total	1216	100.0%

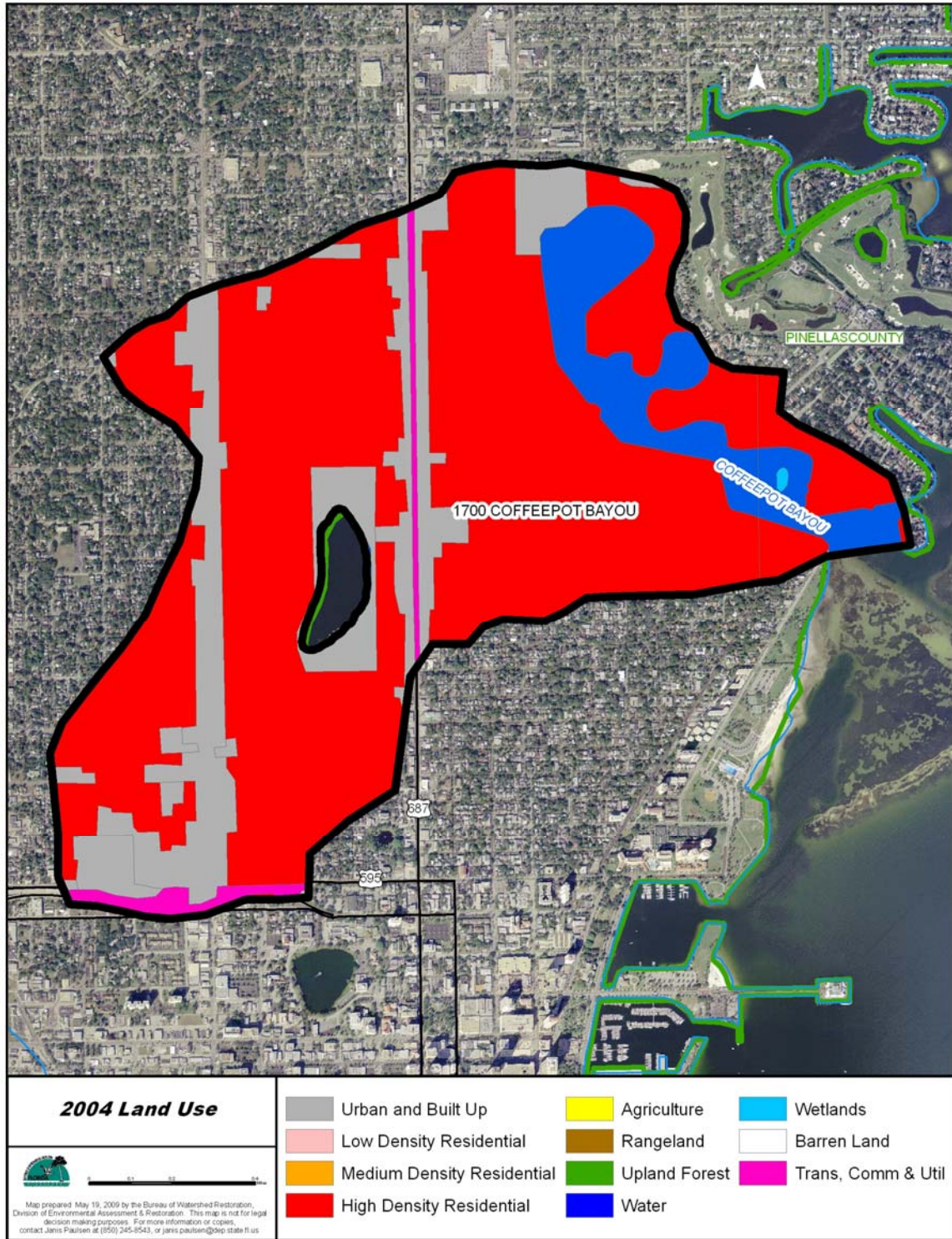


Figure 4.1 Principal Land Uses in the Coffee Pot Bayou watershed, in 2006

Septic Tanks

Septic tanks are another potentially important source of BOD and nutrients. In areas with a relatively high ground water table, the drainage field can be flooded during the rainy season, and pollutants can be transported to the surface water through storm runoff. Additionally, any well that is installed in the surficial aquifer system will cause a drawdown around the well. If the septic tank system is built too close to the well (e.g., less than 75 feet), the septic tank discharge will be within the cone of influence of the well. As a result, septic tank effluent may go into the well and once the polluted water is used to irrigate lawns, pollutants may reach the land surface and wash into surface waters during rain events.

However, based on 2009 Florida Department of Health (FDOH) onsite sewage GIS coverage (<http://www.doh.state.fl.us/environment/programs/EhGis/EhGisDownload.htm>), only one housing unit (*N*) was identified as being on septic tanks in the Coffee Pot Bayou watershed. Due to the high residential and commercial land uses in the watershed, the main waste transport may be sanitary sewer system. Therefore, the contribution of septic tanks for BOD and nutrients to Coffee Pot Bayou is expected to be insignificant.

Sanitary Sewer Overflows

Sanitary sewer overflows (SSOs) can also be a potential source of nutrients and BOD pollution. Human sewage can be introduced into surface waters even when storm and sanitary sewers are separated. Leaks and overflows are common in many older sanitary sewers where capacity is exceeded, high rates of infiltration and inflow occur (i.e., outside water gets into pipes, reducing capacity), frequent blockages occur, or sewers are simply falling apart due to poor joints or pipe materials. Power failures at pumping stations are also a common cause of SSOs. The greatest risk of an SSO occurs during storm events; however, few comprehensive data are available to quantify SSO frequency and nutrient loads in most watersheds.

Chapter 5: DETERMINATION OF ASSIMILATIVE CAPACITY

5.1 Determination of Loading Capacity

The nutrient and BOD5 TMDL reductions were developed using a percent reduction approach based on data from all stations sampled during the verified period plus (2000 – 2008). The percent reductions for TN and BOD5 make up the nutrient and DO TMDLs for Coffee Pot Bayou needed to meet the applicable criteria for DO and nutrients.

5.1.1 Data Used in the Determination of the TMDL

The data used to develop this TMDL were obtained through the IWR dataset “Run 35-3.”

5.1.2 TMDL Development Process for Coffee Pot Bayou

As described in **Section 5.1**, the method used to determine the TMDLs was the percent reduction approach. First a target TN concentration was developed from data in Middle Tampa Bay WBID 1558C. The concentration that was used to represent the impairment was based on the average of the data collected during the verified period from Coffee Pot Bayou.

Table 5.1 Middle Tampa Bay WBID 1558C TN and Cchl_a

	TN	CCHLA
1995	0.75	10.25
1996	0.67	7.09
1997	0.73	7.92
1998	0.78	12.78
1999	0.63	7.63
2000	0.88	5.82
2001	0.82	8.33
2002	0.74	6.12
2003	0.48	8.36
2004	0.46	7.58
2005	0.45	8.15
2006	0.46	5.71
Average*	0.63	

Table 5.1 shows the annual average TN and Cchl_a concentrations for Middle Tampa Bay WBID 1558C that were used to develop the TN TMDL. The average (0.63 mg/L) of the annual average TN concentrations from years meeting the bay Cchl_a target of 8.5 ug/L was established as the target TN concentration for the nutrient TMDL.

Table 5.2 Annual Average TN and BOD₅ in Coffee Pot Bayou During the Verified Period.

Group	TN (mg/L)	BOD ₅ (mg/L)
Coffee Pot	0.93	3.31

Based on the results shown in **Tables 5.1 and 5.2**, the percent reductions needed to attain water quality standards for nutrients are shown in **Table 5.3**.

Percent reductions were calculated using the verified period annual average for TN (0.93 mg/l) and BOD₅ (3.31 mg/L) concentrations from Coffee Pot Bayou as the “impairment” values. The TN TMDL target concentration was the annual average TN from middle Tampa Bay of 0.63 mg/L. The BOD₅ target of 2.00 mg/L was established based on if the BOD₅ is less than 2.0 mg/L it is not considered as causing or contributing to low DO conditions in the waterbody.

$$\begin{aligned} \text{TN Percent Reduction} &= \\ &= ((0.93 - 0.63)/0.93)*100 \\ &= 33 \text{ percent.} \end{aligned}$$

$$\begin{aligned} \text{BOD}_5 \text{ Percent Reduction} &= \\ &= ((3.31 - 2.00)/3.31)*100 \\ &= 40 \text{ percent.} \end{aligned}$$

As part of the margin of safety, the percent reduction for TN was rounded up to 33 percent and the BOD₅ reduction was rounded up to 40 percent.

Table 5.3 Percent Reductions for TN and BOD₅ required to meet Water Quality Standards

	TMDL	VP average	Percent Reduction
TN (mg/L)	0.63	0.93	33
BOD ₅ (mg/L)	2.00	3.31	40

5.1.3 Critical Conditions/Seasonality

The critical conditions for nutrient and BOD₅ loadings in a given watershed depend on the existence of point sources, land use patterns, and rainfall in the watershed. Typically, the critical condition for nonpoint sources is an extended dry period, followed by a rainfall runoff

event. During wet weather periods, pollutants that have built up on the land surface under dry weather conditions are washed off by rainfall, resulting in wet weather loadings. However, significant nonpoint source contributions could also occur under dry weather conditions without any major surface runoff event. This usually happens when nonpoint sources contaminate the surficial aquifer, and pollutants are brought into the receiving waters through baseflow. Animals with direct access to the receiving water could also contribute to the exceedances during dry weather conditions. The critical condition for point source loading typically occurs during periods of low stream flow, when dilution is minimized. As previously noted, there are no point source discharges within the watershed.

Chapter 6: DETERMINATION OF THE TMDL

6.1 Expression and Allocation of the TMDL

The objective of a TMDL is to provide a basis for allocating acceptable loads among all of the known pollutant sources in a watershed so that appropriate control measures can be implemented and water quality standards achieved. A TMDL is expressed as the sum of all point source loads (Wasteload Allocations, or WLAs), nonpoint source loads (Load Allocations, or LAs), and an appropriate margin of safety (MOS), which takes into account any uncertainty concerning the relationship between effluent limitations and water quality:

$$\text{TMDL} = \sum \text{WLAs} + \sum \text{LAs} + \text{MOS}$$

As discussed earlier, the WLA is broken out into separate subcategories for wastewater discharges and stormwater discharges regulated under the NPDES Program:

$$\text{TMDL} \cong \sum \text{WLAs}_{\text{wastewater}} + \sum \text{WLAs}_{\text{NPDES Stormwater}} + \sum \text{LAs} + \text{MOS}$$

It should be noted that the various components of the revised TMDL equation may not sum up to the value of the TMDL because (a) the WLA for NPDES stormwater is typically based on the percent reduction needed for nonpoint sources and is also accounted for within the LA, and (b) TMDL components can be expressed in different terms (for example, the WLA for stormwater is typically expressed as a percent reduction, and the WLA for wastewater is typically expressed as mass per day).

WLAs for stormwater discharges are typically expressed as “percent reduction” because it is very difficult to quantify the loads from MS4s (given the numerous discharge points) and to distinguish loads from MS4s from other nonpoint sources (given the nature of stormwater transport). The permitting of stormwater discharges also differs from the permitting of most wastewater point sources. Because stormwater discharges cannot be centrally collected, monitored, and treated, they are not subject to the same types of effluent limitations as wastewater facilities, and instead are required to meet a performance standard of providing treatment to the “maximum extent practical” through the implementation of best management practices (BMPs).

This approach is consistent with federal regulations (40 CFR § 130.2[i]), which state that TMDLs can be expressed in terms of mass per time (e.g., pounds per day), toxicity, or **other appropriate measure**. The TMDLs for Coffee Pot Bayou are expressed in terms of a percent reduction, these TMDLs represent the maximum daily loads that Coffee Pot Bayou can assimilate and maintain the nutrient and DO criteria (**Table 6.1**).

Table 6.1 TMDL Components for Nutrients and BOD in Coffee Pot Bayou (WBID 1683)

WBID	Parameter	WLA		LA (% reduction)	MOS
		Wastewater	NPDES Stormwater (% reduction)		
1700	Total Nitrogen	N/A	33	33	Implicit
1700	BOD ₅	N/A	40	40	Implicit

N/A – Not applicable.

6.2 Load Allocation

A percent reduction in TN of 33 and BOD₅ of 40 is needed from nonpoint sources in the Coffee Pot Bayou watershed. It should be noted that the LA includes loading from stormwater discharges regulated by the Department and the water management districts that are not part of the NPDES Stormwater Program (see **Appendix A**).

6.3 Wasteload Allocation

6.3.1 NPDES Wastewater Discharges

There are no NPDES surface water dischargers within the Coffee Pot Bayou Watershed.

6.3.2 NPDES Stormwater Discharges

The WLA for stormwater discharges with an MS4 permit is a percent reduction in TN of 33 and BOD₅ of 40. These reductions are needed from nonpoint sources in the Coffee Pot Bayou watershed. It should be noted that any MS4 permittee is only responsible for reducing the anthropogenic loads associated with stormwater outfalls that it owns or otherwise has responsible control over, and it is not responsible for reducing other nonpoint source loads in its jurisdiction.

6.4 Margin of Safety

Consistent with the recommendations of the Allocation Technical Advisory Committee (Department, February 2001), an implicit MOS was used in the development of this TMDL. An MOS was included in the TMDL by meeting the water quality targets established for Middle Tampa Bay within Coffee Pot Bayou and establishing the percent reduction for BOD₅ based on achieving an annual average of 2.0 mg/L.

6.5 Evaluating Effects of the TMDL on DO

Coffee Pot Bayou is expected to attain water quality standards following the implementation of the TMDL for nutrients and BOD₅, because the TMDL will require a 33 percent reduction in TN loadings and a 40 percent reduction in BOD₅. The nutrient reductions will result in annual

average reductions in CChl a that will result in a 25.1 percent reduction in CChl a (from 11.34 ug/L to 8.50 µg/L). These reductions will significantly improve overall water quality in the bayou, including DO levels. These reductions will have a positive effect on reducing the diurnal fluctuations in DO and will improve the DO levels of water in the canals and the bayou. These reductions in algal biomass (25.1 percent) will reduce the DO fluctuations and the BOD that results from the breakdown of the algal cells in the canals by a relative amount. As the total BOD is composed of both a carbonaceous fraction and a nitrogenous fraction, additional reductions in BOD will occur as a result of reducing the mass of TN entering the canals by 33 percent.

6.6 Evaluating Effects of the TMDL on BOD

The elevated BOD₅ measured in the bayou is contributing to the low DO. These values (as high as 8.0 mg/L) could in part be related to the occasionally high CChl a concentrations measured in the bayou. Additionally, portions of the bayou and its tributaries are overhung by trees; it could be that some fraction of the total BOD is also related to senescing of “natural” derived biomass. Once the external sources of BOD and nutrients from stormwater contributions into the bayou are reduced through the implementation of the TMDL, it is expected that any remaining DO values below the Class II marine criteria can be attributed to pollution (as a result of the man-made conditions) and the bayou will attain water quality standards.

Chapter 7: NEXT STEPS: IMPLEMENTATION PLAN DEVELOPMENT AND BEYOND

Following the adoption of this TMDL by rule, the Department will determine the best course of action regarding its implementation. Basin Management Action Plans are the primary mechanism through which TMDLs are implemented in Florida (see Subsection 403.067[7] F.S.). However, other Department-initiated options are available including a decision document and direct NPDES permit modifications. These options are described below. The Department also has the discretion to defer TMDL implementation to a later date if insufficient resources are available to develop an appropriate implementation plan. In some instances where the Department has deferred action, local agencies may work together to develop local implementation plans to meet the TMDL. Such plans should be developed in close consultation with the Department.

7.1 NPDES Permit Modifications

In a case where TMDL requirements are applicable to permitted sources only, the Department may opt to implement the TMDL solely through NPDES permit requirements. This may include modifications to municipal stormwater, domestic wastewater, or industrial wastewater permits. Because of the extent to which nonpoint non-permitted sources (such as agriculture) affect water resources in Florida, this option is unlikely to be used often.

7.2 Decision Document

Absent the need for pollutant reductions to be allocated to specific stakeholders, a decision document may be developed. This implementation approach is applicable if sufficient projects and restoration efforts are ongoing that target the TMDL pollutant of concern such that no additional efforts would be expected of the local stakeholders. This implementation approach documents stakeholder implementation efforts and identifies the expected benefits of such, relative to the TMDL. Developing a decision document instead of a BMAP is appropriate where the universe of projects being implemented is extensive enough that the resources needed for BMAP development would not result in significant additional projects being implemented. No formal action is required of the Department to adopt a decision document.

7.3 Basin Management Action Plan

Basin Management Action Plans (BMAPs) are the most comprehensive approach to TMDL implementation. BMAPs are developed through collaborative processes with the cooperation of local stakeholders and are applicable where multiple sources are affecting a waterbody. Goals of this process are to reach consensus on the scientific foundation, whether or not detailed allocations are necessary and viable, if needed, how detailed allocations will be calculated, and how load reductions will be accomplished.

Once adopted by order of the Department Secretary, BMAPs are enforceable through wastewater and municipal stormwater permits for point sources and through BMP implementation for nonpoint sources. Among other components, BMAPs typically include:

- Water quality goals (based directly on the TMDL);

- Refined source identification;
- Load reduction requirements for stakeholders (quantitative detailed allocations, if technically feasible);
- A description of the load reduction activities to be undertaken, including structural projects, nonstructural BMPs, and public education and outreach;
- A description of further research, data collection, or source identification needed in order to achieve the TMDL;
- Timetables for implementation;
- Implementation funding mechanisms;
- An evaluation of future increases in pollutant loading due to population growth;
- Implementation milestones, project tracking, water quality monitoring, and adaptive management procedures; and
- Stakeholder statements of commitment (typically a local government resolution).

BMAPs are updated through annual meetings and may be officially revised every five years. Completed BMAPs in the state have improved communication and cooperation among local stakeholders and state agencies, improved internal communication within local governments, applied high-quality science and local information in managing water resources, clarified obligations of wastewater point source, MS4 and non-MS4 stakeholders in TMDL implementation, enhanced transparency in DEP decision-making, and built strong relationships between DEP and local stakeholders that have benefitted other program areas. If the Department chooses to move forward with a BMAP, it will be developed through a transparent stakeholder-driven process intended to result in a plan that is cost-effective, technically feasible, and meets the restoration needs of the applicable waterbodies.

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Appendices

Appendix A: Background Information on Federal and State Stormwater Programs

In 1982, Florida became the first state in the country to implement statewide regulations to address the issue of nonpoint source pollution by requiring new development and redevelopment to treat stormwater before it is discharged. The Stormwater Rule, as authorized in Chapter 403, F.S., was established as a technology-based program that relies on the implementation of BMPs that are designed to achieve a specific level of treatment (i.e., performance standards) as set forth in Rule 62-40, F.A.C. In 1994, the Department's stormwater treatment requirements were integrated with the stormwater flood control requirements of the water management districts, along with wetland protection requirements, into the Environmental Resource Permit regulations.

Rule 62-40 also requires the state's water management districts to establish stormwater pollutant load reduction goals (PLRGs) and adopt them as part of a Surface Water Improvement and Management (SWIM) plan, other watershed plan, or rule. Stormwater PLRGs are a major component of the load allocation part of a TMDL. To date, stormwater PLRGs have been established for Tampa Bay, Lake Thonotosassa, the Winter Haven Chain of Lakes, the Everglades, Lake Okeechobee, and Lake Apopka.

In 1987, the U.S. Congress established Section 402(p) as part of the federal Clean Water Act Reauthorization. This section of the law amended the scope of the federal NPDES permitting program to designate certain stormwater discharges as "point sources" of pollution. The EPA promulgated regulations and began implementing the Phase I NPDES stormwater program in 1990. These stormwater discharges include certain discharges that are associated with industrial activities designated by specific standard industrial classification (SIC) codes, construction sites disturbing 5 or more acres of land, and master drainage systems of local governments with a population above 100,000, which are better known as MS4s. However, because the master drainage systems of most local governments in Florida are interconnected, the EPA implemented Phase I of the MS4 permitting program on a countywide basis, which brought in all cities (incorporated areas), Chapter 298 urban water control districts, and the Florida Department of Transportation throughout the 15 counties meeting the population criteria. The Department received authorization to implement the NPDES stormwater program in 2000.

An important difference between the federal NPDES and the state's stormwater/environmental resource permitting programs is that the NPDES Program covers both new and existing discharges, while the state's program focus on new discharges only. Additionally, Phase II of the NPDES Program, implemented in 2003, expands the need for these permits to construction sites between 1 and 5 acres, and to local governments with as few as 1,000 people. While these urban stormwater discharges are now technically referred to as "point sources" for the purpose of regulation, they are still diffuse sources of pollution that cannot be easily collected and treated by a central treatment facility, as are other point sources of pollution such as domestic and industrial wastewater discharges. It should be noted that all MS4 permits issued in Florida include a reopener clause that allows permit revisions to implement TMDLs when the implementation plan is formally adopted.

Appendix B: Raw Data for Corrected Chlorophyll a, Biological Oxygen Demand (5-Day), Dissolved Oxygen, Total Nitrogen, Total Phosphorus, Color, and Salinity

Corrected Chlorophyll a:

sta	year	month	day	time	depth	result	Units	rcode	mdl
21FLPDEM41-01	1991	7	2	1010	0.33	7.11	ug/l		
21FLPDEM41-01	1991	7	31	1130	0.33	5.43	ug/l		
21FLPDEM41-01	1991	8	28	1040	0.33	1.76	ug/l		
21FLPDEM41-01	1991	9	18	1114	0.33	5.03	ug/l		
21FLPDEM41-01	1991	11	13	1135	0.33	6.76	ug/l		
21FLPDEM41-01	1991	12	11	1050	0.33	3.47	ug/l		
21FLPDEM41-01	1992	1	29	1109	0.33	1	ug/l	&	
21FLPDEM41-01	1992	2	26	1145	0.33	7.8	ug/l		
21FLPDEM41-01	1992	3	25	1102	0.33	1	ug/l	&	
21FLPDEM41-01	1992	4	22	1050	0.33	5.38	ug/l		
21FLPDEM41-01	1992	5	20	1140	0.33	1.86	ug/l		
21FLPDEM41-01	1992	6	17	1044	0.33	9.37	ug/l		
21FLPDEM41-01	1992	7	15	1130	0.33	8.5	ug/l		
21FLPDEM41-01	1992	8	12	1115	0.33	2.95	ug/l		
21FLPDEM41-01	1992	9	16	1040	0.33	14	ug/l		
21FLPDEM41-01	1992	10	7	1145	0.33	7.26	ug/l		
21FLPDEM41-01	1992	11	4	1055	0.33	13.7	ug/l		
21FLPDEM41-01	1992	12	9	1133	0.33	6.87	ug/l		
21FLPDEM41-01	1993	1	13	1140	0.33	3.7	ug/l		
21FLPDEM41-01	1993	2	17	1110	0.33	10.1	ug/l		
21FLPDEM41-01	1993	3	10	1100	0.33	2.83	ug/l		
21FLPDEM41-01	1993	4	21	1115	0.33	2.67	ug/l		
21FLPDEM41-01	1993	5	5	1055	0.33	4.37	ug/l		
21FLPDEM41-01	1993	6	2	1230	0.33	11.3	ug/l		
21FLPDEM41-01	1993	7	28	1110	0.33	12.8	ug/l		
21FLPDEM41-01	1993	8	25	1200	0.33	18.6	ug/l		
21FLPDEM41-01	1993	9	22	1120	0.33	2.7	ug/l		
21FLPDEM41-01	1993	10	20	1151	0.33	2.7	ug/l		
21FLPDEM41-01	1993	12	1	1148	0.33	10.7	ug/l		
21FLPDEM41-01	1993	12	21	1045	0.33	1.4	ug/l		
21FLPDEM41-01	1994	1	18	1215	0.33	1	ug/l	&	
21FLPDEM41-01	1994	2	16	1058	0.33	1.5	ug/l		
21FLPDEM41-01	1994	3	16	1050	0.33	4.9	ug/l		
21FLPDEM41-01	1994	4	13	1040	0.33	14.4	ug/l		
21FLPDEM41-01	1994	5	11	1101	0.33	11.4	ug/l		
21FLPDEM41-01	1994	6	8	1145	0.33	22.4	ug/l		
21FLPDEM41-01	1994	7	6	1118	0.33	11	ug/l		
21FLPDEM41-01	1994	8	3	1120	0.33	14.6	ug/l		

21FLPDEM41-01	1994	8	31	1107	0.33	7.6	ug/l		
21FLPDEM41-01	1994	9	21	1059	0.33	19.1	ug/l		
21FLPDEM41-01	1994	10	26	1051	0.33	5.6	ug/l		
21FLPDEM41-01	1994	12	7	1048	0.33	21.9	ug/l		
21FLPDEM41-01	1995	1	11	1201	0.33	3.5	ug/l		
21FLPDEM41-01	1995	2	8	1128	0.33	3.3	ug/l		
21FLPDEM41-01	1995	3	8	1153	0.33	1.5	ug/l		
21FLPDEM41-01	1995	4	4	1120	0.66	1.1	ug/l		
21FLPDEM41-01	1995	5	2	1040	0.33	11.8	ug/l		
21FLPDEM41-01	1995	5	31	1107	0.33	11.6	ug/l		
21FLPDEM41-01	1995	6	28	1133	0.33	1.6	ug/l		
21FLPDEM41-01	1995	7	26	1146	0.33	2.1	ug/l		
21FLPDEM41-01	1995	8	29	1143	0.33	1	ug/l	&	
21FLPDEM41-01	1995	9	20	1104	0.33	3.2	ug/l		
21FLPDEM41-01	1995	10	18	1116	0.33	1	ug/l	&	
21FLPDEM41-01	1995	11	15	1148	0.98	6.4	ug/l		
21FLPDEM41-01	1996	1	10	1049	0.33	1.3	ug/l		
21FLPDEM41-01	1996	2	7	1147	0.33	3	ug/l		
21FLPDEM41-01	1996	3	6	1100	0.33	1.4	ug/l	l	
21FLPDEM41-01	1996	4	3	1118	0.33	3.1	ug/l		
21FLPDEM41-01	1996	5	1	1042	0.66	3.3	ug/l		
21FLPDEM41-01	1996	5	21	1056	0.33	1.9	ug/l	l	
21FLPDEM41-01	1996	6	26	1040	0.33	5.4	ug/l		
21FLPDEM41-01	1996	7	24	1112	0.33	4.8	ug/l		
21FLPDEM41-01	1996	8	21	1040	0.33	1.7	ug/l		
21FLPDEM41-01	1996	9	18	1156	0.33	5.6	ug/l		
21FLPDEM41-01	1996	10	16	1222	0.33	1.1	ug/l	l	
21FLPDEM41-01	1996	11	13	1120	0.33	1	ug/l	&	
21FLPDEM41-01	1997	1	15	1122	0.33	1	ug/l	&	
21FLPDEM41-01	1997	2	12	1310	0.00	4.8	ug/l		
21FLPDEM41-01	1997	3	12	1110	0.33	6.2	ug/l		
21FLPDEM41-01	1997	4	9	1117	0.33	1.6	ug/l	l	
21FLPDEM41-01	1997	4	30	1318	0.33	2	ug/l	l	
21FLPDEM41-01	1997	5	28	1159	0.33	10.5	ug/l		
21FLPDEM41-01	1997	6	25	1130	0.33	4	ug/l		
21FLPDEM41-01	1997	7	23	1143	0.66	4.4	ug/l		
21FLPDEM41-01	1997	8	26	1123	0.33	8.9	ug/l		
21FLPDEM41-01	1997	10	8	1134	0.33	9.7	ug/l		
21FLPDEM41-01	1997	11	3	1343	0.33	12.2	ug/l		
21FLPDEM41-01	1997	12	10	1100	0.33	1.3	ug/l	l	
21FLPDEM41-01	1998	2	18	1144	0.33	1	ug/l	&	
21FLPDEM41-01	1998	3	18	1122	0.33	1	ug/l	&	
21FLPDEM41-01	1998	4	13	1047	0.33	1	ug/l	&	
21FLPDEM41-01	1998	5	13	1136	0.33	5.1	ug/l		
21FLPDEM41-01	1998	6	10	1057	0.33	11.4	ug/l		
21FLPDEM41-01	1998	7	8	1115	0.33	1	ug/l	&	
21FLPDEM41-01	1998	8	3	1137	0.33	5.7	ug/l		
21FLPDEM41-01	1998	9	2	1102	0.66	3.2	ug/l		

21FLPDEM43-01	1993	2	17	1125	0.33	1.79	ug/l		
21FLPDEM43-01	1993	3	10	1112	0.33	3.26	ug/l		
21FLPDEM43-01	1993	4	21	1125	0.33	3.66	ug/l		
21FLPDEM43-01	1993	5	5	1110	0.33	5.15	ug/l		
21FLPDEM43-01	1993	6	2	1250	0.33	9.4	ug/l		
21FLPDEM43-01	1993	7	28	1125	0.33	28.9	ug/l		
21FLPDEM43-01	1993	8	25	1220	0.33	16.4	ug/l		
21FLPDEM43-01	1993	9	22	1130	0.33	10.5	ug/l		
21FLPDEM43-01	1993	10	20	1217	0.33	4.2	ug/l		
21FLPDEM43-01	1993	12	1	1135	0.33	9.6	ug/l		
21FLPDEM43-01	1993	12	21	1105	0.33	1.8	ug/l		
21FLPDEM43-01	1994	1	18	1230	0.33	9.8	ug/l		
21FLPDEM43-01	1994	2	16	1130	0.33	3.6	ug/l		
21FLPDEM43-01	1994	3	16	1100	0.33	2.9	ug/l		
21FLPDEM43-01	1994	4	13	1053	0.33	15.3	ug/l		
21FLPDEM43-01	1994	5	11	1110	0.33	15	ug/l		
21FLPDEM43-01	1994	6	8	1205	0.33	21.8	ug/l		
21FLPDEM43-01	1994	7	6	1135	0.33	19.2	ug/l		
21FLPDEM43-01	1994	8	3	1135	0.33	9.8	ug/l		
21FLPDEM43-01	1994	8	31	1123	0.33	19.1	ug/l		
21FLPDEM43-01	1994	9	21	1112	0.33	22.4	ug/l		
21FLPDEM43-01	1994	10	26	1103	0.33	12.9	ug/l		
21FLPDEM43-01	1994	12	7	1100	0.33	24.2	ug/l		
21FLPDEM43-01	1995	1	11	1223	0.33	5.2	ug/l		
21FLPDEM43-01	1995	2	8	1139	0.33	19.1	ug/l		
21FLPDEM43-01	1995	3	8	1207	0.33	38.1	ug/l		
21FLPDEM43-01	1995	4	4	1131	0.33	4.1	ug/l		
21FLPDEM43-01	1995	5	2	1057	0.33	11.5	ug/l		
21FLPDEM43-01	1995	5	31	1121	0.33	22.8	ug/l		
21FLPDEM43-01	1995	6	28	1151	0.33	10.9	ug/l		
21FLPDEM43-01	1995	7	26	1156	0.33	25.3	ug/l		
21FLPDEM43-01	1995	8	29	1200	0.33	24.9	ug/l		
21FLPDEM43-01	1995	9	20	1119	0.33	53.3	ug/l		
21FLPDEM43-01	1995	10	18	1133	0.33	38	ug/l		
21FLPDEM43-01	1995	11	15	1205	0.33	10.6	ug/l		
21FLPDEM43-01	1996	1	10	1103	0.33	13.2	ug/l		
21FLPDEM43-01	1996	2	7	1157	0.33	5	ug/l		
21FLPDEM43-01	1996	3	6	1120	0.33	5.9	ug/l	J	
21FLPDEM43-01	1996	4	3	1135	0.33	8	ug/l		
21FLPDEM43-01	1996	5	1	1101	0.66	8.3	ug/l		
21FLPDEM43-01	1996	5	21	1111	0.33	39.7	ug/l		
21FLPDEM43-01	1996	6	26	1059	0.33	8.5	ug/l		
21FLPDEM43-01	1996	7	24	1125	0.33	6.2	ug/l		
21FLPDEM43-01	1996	8	21	1100	0.33	4.2	ug/l		
21FLPDEM43-01	1996	9	18	1214	0.33	4.3	ug/l		
21FLPDEM43-01	1996	10	16	1233	0.66	4.7	ug/l		
21FLPDEM43-01	1996	11	13	1131	0.33	16	ug/l		
21FLPDEM43-01	1997	1	15	1133	0.33	4.1	ug/l		

21FLPDEM43-01	1997	2	12	1326	0.33	1.3	ug/l	I	
21FLPDEM43-01	1997	3	12	1119	0.33	7.1	ug/l		
21FLPDEM43-01	1997	4	9	1127	0.33	12.7	ug/l		
21FLPDEM43-01	1997	4	30	1242	0.33	7	ug/l		
21FLPDEM43-01	1997	5	28	1218	0.33	4.2	ug/l		
21FLPDEM43-01	1997	6	25	1142	0.66	22.2	ug/l		
21FLPDEM43-01	1997	7	23	1159	0.33	5.9	ug/l		
21FLPDEM43-01	1997	8	26	1140	0.33	10.1	ug/l		
21FLPDEM43-01	1997	10	8	1146	0.66	16.2	ug/l		
21FLPDEM43-01	1997	11	3	1354	0.33	7	ug/l		
21FLPDEM43-01	1997	12	10	1112	0.33	7.2	ug/l		
21FLPDEM43-01	1998	2	18	1159	0.66	7.4	ug/l		
21FLPDEM43-01	1998	3	18	1141	0.33	7.8	ug/l		
21FLPDEM43-01	1998	4	13	1105	0.33	13.3	ug/l		
21FLPDEM43-01	1998	5	13	1148	0.33	3.2	ug/l		
21FLPDEM43-01	1998	6	10	1113	0.33	10.7	ug/l		
21FLPDEM43-01	1998	7	8	1124	0.33	16.1	ug/l		
21FLPDEM43-01	1998	8	3	1146	0.66	22.7	ug/l		
21FLPDEM43-01	1998	9	2	1112	0.33	10.6	ug/l		
21FLPDEM43-01	1998	9	30	1124	0.66	12.3	ug/l		
21FLPDEM43-01	1998	10	26	1134	0.33	12.7	ug/l		
21FLPDEM43-01	1998	11	23	1113	0.66	9.1	ug/l		
21FLPDEM43-01	1998	12	9	1124	0.33	10	ug/l		
21FLPDEMAMB 43-1	1999	1	6	1133	S	4.2	ug/l		
21FLPDEMAMB 43-1	1999	3	3	1113	S	6.1	ug/l		
21FLPDEMAMB 43-1	1999	4	28	1130	S	1.8	ug/l		
21FLPDEMAMB 43-1	1999	6	23	1134	S	6	ug/l		
21FLPDEMAMB 43-1	1999	8	18	1118	S	9.6	ug/l		
21FLPDEMAMB 43-1	1999	10	13	925	S	6.9	ug/l		
21FLPDEMAMB 43-1	1999	12	9	1117	S	6.6	ug/l		
21FLPDEMAMB 43-1	2000	1	5	1144	S	10.4	ug/l		
21FLPDEMAMB 43-1	2000	3	1	1134	S	4.3	ug/l		
21FLPDEMAMB 43-1	2000	4	26	1100	S	5.8	ug/l		
21FLPDEMAMB 43-1	2000	6	21	1148	S	13.5	ug/l		
21FLPDEMAMB 43-1	2000	8	16	1130	S	22.9	ug/l		
21FLPDEMAMB 43-1	2000	10	11	1123	S	7.9	ug/l		
21FLPDEMAMB 43-1	2001	1	3	1112	S	4.4	ug/l		
21FLPDEMAMB 43-1	2001	2	28	1201	S	6.9	ug/l		
21FLPDEMAMB 43-1	2001	4	25	1100	S	5.8	ug/l		
21FLPDEMAMB 43-1	2001	6	21	1103	S	31.8	ug/l		
21FLPDEMAMB 43-1	2001	8	15	1055	S	6.8	ug/l		
21FLPDEMAMB 43-1	2001	10	10	1142	S	8.3	ug/l		
21FLPDEMAMB 43-1	2002	1	3	1123	0.12	10.9	ug/l		
21FLPDEMAMB 43-1	2002	2	27	1113	0.14	19.5	ug/l		
21FLPDEMAMB 43-1	2002	4	17	1106	0.10	5.7	ug/l		
21FLPDEMAMB 43-1	2002	8	14	1148	0.18	12.7	ug/l		
21FLPDEMAMB 43-1	2002	10	9	1042	0.10	5.2	ug/l		

sta	year	month	day	time	depth	result	Units	rcode	mdl
21FLPDEM44-02	2008	2	19	941	0.21	1	ug/l	&	2m
21FLPDEM44-02	2008	4	2	926	0.21	9.6	ug/l		0.5m
21FLPDEM44-02	2008	5	20	1231	0.22	10.4	ug/l		0.5m
21FLPDEM44-02	2008	7	2	1352	0.19	9.4	ug/l		0.5m
21FLPDEM44-02	2008	8	13	1356	0.20	16.1	ug/l		0.5m
21FLPDEM44-02	2008	9	10	1337	0.20	19	ug/l		0.5m
21FLPDEM44-02	2008	11	6	1002	0.20	6.8	ug/l		0.5m
sta	year	month	day	time	depth	result	Units	rcode	mdl
21FLTPA 27472298237236	2005	3	22	1135	0.20	1	ug/l	&	2
21FLTPA 27472298237236	2005	4	25	1015	0.20	1	ug/l	&	2
21FLTPA 27472298237236	2005	7	25	1020	0.20	11	ug/l		1.1
21FLTPA 27472298237236	2005	11	7	1055	0.20	8	ug/l		0.85
sta	year	month	day	time	depth	result	Units	rcode	mdl
21FLTPA 27473218237378	2005	3	22	1120	0.20	1	ug/l	&	2
21FLTPA 27473218237378	2005	4	25	1000	0.20	1	ug/l	&	2
21FLTPA 27473218237378	2005	7	25	1010	0.20	13	ug/l		0.85
21FLTPA 27473218237378	2005	11	7	1040	0.20	22	ug/l		0.85
sta	year	month	day	time	depth	result	Units	rcode	mdl
21FLTPA 27473788237524	2005	3	22	1100	0.20	1	ug/l	&	2
21FLTPA 27473788237524	2005	4	25	950	0.20	1	ug/l	&	2
21FLTPA 27473788237524	2005	7	25	1000	0.20	14	ug/l		0.85
21FLTPA 27473788237524	2005	10	4	845	0.20	8.2	ug/l		1.4
21FLTPA 27473788237524	2005	11	7	1030	0.20	19	ug/l		0.85
sta	year	month	day	time	depth	result	Units	rcode	mdl
21FLTPA 27474728237590	2005	3	22	1150	0.20	1	ug/l	&	2
21FLTPA 27474728237590	2005	4	25	935	0.20	1	ug/l	&	2
21FLTPA 27474728237590	2005	7	25	950	0.20	24	ug/l		0.85
21FLTPA 27474728237590	2005	10	4	835	0.20	28	ug/l		1.2
21FLTPA 27474728237590	2005	11	7	1015	0.20	18	ug/l	A	0.85

sta	year	month	day	time	depth	result	Units	rcode	mdl
21FLTPA 2747582823806	2005	3	22	1045	0.20	11	ug/l		0.85
21FLTPA 2747582823806	2005	4	25	920	0.20	1	ug/l	&	2
21FLTPA 2747582823806	2005	7	25	945	0.20	16	ug/l		0.85
21FLTPA 2747582823806	2005	10	4	820	0.20	24	ug/l	A	1.2

Biological Oxygen Demand (5-Day):

sta	year	month	day	time	depth	result	Units	rcode	mdl
21FLBRA 1700-A	2008	4	11	1005	0.20	2.6	mg/l		2m
21FLBRA 1700-A	2008	4	29	915	0.20	2.2	mg/l		2m
21FLBRA 1700-B	2008	4	11	1020	0.20	2	mg/l	U	2m
sta	year	month	day	time	depth	result	Units	rcode	mdl
21FLPDEM41-01	1991	7	2	1010	0.33	1.5	mg/l		
21FLPDEM41-01	1991	7	31	1130	0.33	9.5	mg/l	L	
21FLPDEM41-01	1991	8	28	1040	0.33	3.7	mg/l		
21FLPDEM41-01	1991	9	18	1114	0.33	3.2	mg/l		
21FLPDEM41-01	1991	11	13	1135	0.33	3.2	mg/l		
21FLPDEM41-01	1991	12	11	1050	0.33	3.5	mg/l		
21FLPDEM41-01	1992	1	29	1109	0.33	1.1	mg/l		
21FLPDEM41-01	1992	2	26	1145	0.33	3.4	mg/l		
21FLPDEM41-01	1992	3	25	1102	0.33	1.1	mg/l		
21FLPDEM41-01	1992	4	22	1050	0.33	2.1	mg/l		
21FLPDEM41-01	1992	5	20	1140	0.33	1.6	mg/l		
21FLPDEM41-01	1992	6	17	1044	0.33	4	mg/l		
21FLPDEM41-01	1992	7	15	1130	0.33	1.6	mg/l		
21FLPDEM41-01	1992	8	12	1115	0.33	1	mg/l		
21FLPDEM41-01	1992	9	16	1040	0.33	1.6	mg/l		
21FLPDEM41-01	1992	10	7	1145	0.33	2.7	mg/l		
21FLPDEM41-01	1992	11	4	1055	0.33	2.4	mg/l		
21FLPDEM41-01	1992	12	9	1133	0.33	1.3	mg/l		
21FLPDEM41-01	1993	1	13	1140	0.33	2	mg/l		
21FLPDEM41-01	1993	2	17	1110	0.33	1.8	mg/l		
21FLPDEM41-01	1993	3	10	1100	0.33	1.5	mg/l		
21FLPDEM41-01	1993	4	21	1115	0.33	1	mg/l		
21FLPDEM41-01	1993	5	5	1055	0.33	2.3	mg/l		
21FLPDEM41-01	1993	6	2	1230	0.33	3.2	mg/l		
21FLPDEM41-01	1993	6	30	1128	0.33	2.7	mg/l		
21FLPDEM41-01	1993	7	28	1110	0.33	1.9	mg/l		
21FLPDEM41-01	1993	8	25	1200	0.33	2.6	mg/l		
21FLPDEM41-01	1993	9	22	1120	0.33	1	mg/l	K	
21FLPDEM41-01	1993	10	20	1151	0.33	2.2	mg/l		
21FLPDEM41-01	1993	12	1	1148	0.33	1.1	mg/l		
21FLPDEM41-01	1993	12	21	1045	0.33	2.1	mg/l		
21FLPDEM41-01	1994	2	16	1058	0.33	1	mg/l	K	
21FLPDEM41-01	1994	3	16	1050	0.33	2.4	mg/l		
21FLPDEM41-01	1994	4	13	1040	0.33	2.3	mg/l		
21FLPDEM41-01	1994	5	11	1101	0.33	1.7	mg/l		
21FLPDEM41-01	1994	6	8	1145	0.33	3.4	mg/l		
21FLPDEM41-01	1994	7	6	1118	0.33	2.8	mg/l		
21FLPDEM41-01	1994	8	3	1120	0.33	2.3	mg/l		
21FLPDEM41-01	1994	8	31	1107	0.33	1.3	mg/l	J	

21FLPDEM41-01	1994	9	21	1059	0.33	2.2	mg/l		
21FLPDEM41-01	1994	10	26	1051	0.33	1	mg/l	K	
21FLPDEM41-01	1994	12	7	1048	0.33	3.7	mg/l	J	
21FLPDEM41-01	1995	1	11	1201	0.33	1.7	mg/l		
21FLPDEM41-01	1995	2	8	1128	0.33	1	mg/l		
21FLPDEM41-01	1995	3	8	1153	0.33	9.3	mg/l		
21FLPDEM41-01	1995	4	4	1120	0.66	1	mg/l	J	
21FLPDEM41-01	1995	5	2	1040	0.33	1.4	mg/l		
21FLPDEM41-01	1995	5	31	1107	0.33	2.8	mg/l		
21FLPDEM41-01	1995	6	28	1133	0.33	1	mg/l	K	
21FLPDEM41-01	1995	7	26	1146	0.33	1	mg/l	K	
21FLPDEM41-01	1995	8	29	1143	0.33	1	mg/l	K	
21FLPDEM41-01	1995	9	20	1104	0.33	1	mg/l	K	
21FLPDEM41-01	1995	10	18	1116	0.33	2.2	mg/l		
21FLPDEM41-01	1995	11	15	1148	0.98	2.8	mg/l		
21FLPDEM41-01	1996	1	10	1049	0.33	1	mg/l		
21FLPDEM41-01	1996	2	7	1147	0.33	1	mg/l	K	
21FLPDEM41-01	1996	3	6	1100	0.33	1	mg/l		
21FLPDEM41-01	1996	4	3	1118	0.33	1.4	mg/l		
21FLPDEM41-01	1996	5	1	1042	0.66	2.1	mg/l		
21FLPDEM41-01	1996	5	21	1056	0.33	5.6	mg/l	L	
21FLPDEM41-01	1996	6	26	1040	0.33	5.1	mg/l		
21FLPDEM41-01	1996	7	24	1112	0.33	10.9	mg/l		
21FLPDEM41-01	1996	8	21	1040	0.33	1.4	mg/l	I	
21FLPDEM41-01	1996	9	18	1156	0.33	2.2	mg/l	I	
21FLPDEM41-01	1996	10	16	1222	0.33	1.2	mg/l	I	
21FLPDEM41-01	1996	11	13	1120	0.33	3.3	mg/l	I	
21FLPDEM41-01	1997	1	15	1122	0.33	1	mg/l	U	
21FLPDEM41-01	1997	2	12	1310	0.00	2	mg/l	I	
21FLPDEM41-01	1997	3	12	1110	0.33	3	mg/l	I	
21FLPDEM41-01	1997	4	9	1117	0.33	3	mg/l	I	
21FLPDEM41-01	1997	4	30	1318	0.33	1	mg/l	U	
21FLPDEM41-01	1997	5	28	1159	0.33	2	mg/l	I	
21FLPDEM41-01	1997	6	25	1130	0.33	2	mg/l	I	
21FLPDEM41-01	1997	7	23	1143	0.66	1	mg/l	I	
21FLPDEM41-01	1997	8	26	1123	0.33	3	mg/l	I	
21FLPDEM41-01	1997	10	8	1134	0.33	1	mg/l	I	
21FLPDEM41-01	1997	11	3	1343	0.33	4	mg/l	I	
21FLPDEM41-01	1997	12	10	1100	0.33	2	mg/l	I	
21FLPDEM41-01	1998	2	18	1144	0.33	1	mg/l	U	
21FLPDEM41-01	1998	3	18	1122	0.33	1	mg/l	U	
21FLPDEM41-01	1998	4	13	1047	0.33	1	mg/l	U	
21FLPDEM41-01	1998	5	13	1136	0.33	1	mg/l	I	
21FLPDEM41-01	1998	6	10	1057	0.33	2	mg/l	I	
21FLPDEM41-01	1998	7	8	1115	0.33	1	mg/l	U	
21FLPDEM41-01	1998	8	3	1137	0.33	1	mg/l	U	
21FLPDEM41-01	1998	9	2	1102	0.66	1	mg/l	U	
21FLPDEM41-01	1998	9	30	1115	0.33	1	mg/l	U	

21FLPDEM41-01	1998	10	26	1123	0.33	2	mg/l	I	
21FLPDEM41-01	1998	11	23	1100	0.66	1	mg/l	U	
21FLPDEM41-01	1998	12	9	1113	0.33	1	mg/l	U	
21FLPDEMAMB 41-1	1999	1	6	1122	S	1	mg/l	U	1
21FLPDEMAMB 41-1	1999	3	3	1058	S	2	mg/l		
21FLPDEMAMB 41-1	1999	4	28	1111	S	2	mg/l		
21FLPDEMAMB 41-1	1999	6	23	1122	S	4	mg/l		
21FLPDEMAMB 41-1	1999	8	18	1110	S	1	mg/l	U	1
21FLPDEMAMB 41-1	1999	10	13	1031	S	1	mg/l	U	1
21FLPDEMAMB 41-1	1999	12	9	1103	S	2	mg/l		
21FLPDEMAMB 41-1	2000	1	5	1129	S	2	mg/l		
21FLPDEMAMB 41-1	2000	3	1	1122	S	2	mg/l		
21FLPDEMAMB 41-1	2000	4	26	1151	S	2	mg/l		
21FLPDEMAMB 41-1	2000	6	21	1124	S	1	mg/l		
21FLPDEMAMB 41-1	2000	10	11	1110	S	8	mg/l		
21FLPDEMAMB 41-1	2001	1	3	1056	S	2	mg/l		
21FLPDEMAMB 41-1	2001	2	28	1147	S	4	mg/l		
21FLPDEMAMB 41-1	2001	4	25	1043	S	4	mg/l		
21FLPDEMAMB 41-1	2001	6	21	1049	S	5	mg/l		
21FLPDEMAMB 41-1	2001	8	15	1105	S	8	mg/l	L	
21FLPDEMAMB 41-1	2001	10	10	1128	S	1	mg/l	U	1
21FLPDEMAMB 41-1	2002	8	14	1133	0.13	1	mg/l	U	
21FLPDEMAMB 41-1	2002	10	9	1032	0.08	1	mg/l	U	
sta	year	month	day	time	depth	result	Units	rcode	mdl
21FLPDEM43-01	1991	7	2	1025	0.33	3.2	mg/l		
21FLPDEM43-01	1991	7	31	1200	0.33	4.5	mg/l		
21FLPDEM43-01	1991	8	28	1100	0.33	2.6	mg/l		
21FLPDEM43-01	1991	9	18	1132	0.33	3.8	mg/l		
21FLPDEM43-01	1991	11	13	1154	0.33	3.4	mg/l		
21FLPDEM43-01	1991	12	11	1120	0.33	4	mg/l		
21FLPDEM43-01	1992	1	29	1126	0.33	2	mg/l		
21FLPDEM43-01	1992	2	26	1200	0.33	2.5	mg/l		
21FLPDEM43-01	1992	3	25	1120	0.33	1.9	mg/l		
21FLPDEM43-01	1992	4	22	1105	0.33	3.2	mg/l		
21FLPDEM43-01	1992	5	20	1200	0.33	3	mg/l		
21FLPDEM43-01	1992	6	17	1058	0.33	2.6	mg/l		
21FLPDEM43-01	1992	7	15	1145	0.33	1.6	mg/l		
21FLPDEM43-01	1992	8	12	1130	0.33	2.4	mg/l		
21FLPDEM43-01	1992	9	16	1050	0.33	2.1	mg/l		
21FLPDEM43-01	1992	10	7	1200	0.33	2.3	mg/l		
21FLPDEM43-01	1992	11	4	1110	0.33	1.5	mg/l		
21FLPDEM43-01	1992	12	9	1145	0.33	1.6	mg/l		
21FLPDEM43-01	1993	1	13	1200	0.33	2.7	mg/l		
21FLPDEM43-01	1993	2	17	1125	0.33	1.4	mg/l		
21FLPDEM43-01	1993	3	10	1112	0.33	1.9	mg/l		
21FLPDEM43-01	1993	4	21	1125	0.33	1.5	mg/l		
21FLPDEM43-01	1993	5	5	1110	0.33	3.2	mg/l		
21FLPDEM43-01	1993	6	2	1250	0.33	1.2	mg/l		

21FLPDEM43-01	1993	6	30	1142	0.33	2.6	mg/l		
21FLPDEM43-01	1993	7	28	1125	0.33	6.3	mg/l	L	
21FLPDEM43-01	1993	8	25	1220	0.33	2	mg/l		
21FLPDEM43-01	1993	9	22	1130	0.33	2.5	mg/l		
21FLPDEM43-01	1993	10	20	1217	0.33	1.9	mg/l		
21FLPDEM43-01	1993	12	1	1135	0.33	1.9	mg/l		
21FLPDEM43-01	1993	12	21	1105	0.33	1.1	mg/l		
21FLPDEM43-01	1994	1	18	1230	0.33	2.4	mg/l	J	
21FLPDEM43-01	1994	2	16	1130	0.33	1.3	mg/l		
21FLPDEM43-01	1994	3	16	1100	0.33	1.6	mg/l		
21FLPDEM43-01	1994	4	13	1053	0.33	3.9	mg/l		
21FLPDEM43-01	1994	5	11	1110	0.33	2.9	mg/l		
21FLPDEM43-01	1994	6	8	1205	0.33	3.7	mg/l		
21FLPDEM43-01	1994	7	6	1135	0.33	4	mg/l		
21FLPDEM43-01	1994	8	3	1135	0.33	2.3	mg/l		
21FLPDEM43-01	1994	8	31	1123	0.33	4.2	mg/l	J	
21FLPDEM43-01	1994	9	21	1112	0.33	2.4	mg/l		
21FLPDEM43-01	1994	10	26	1103	0.33	3.1	mg/l		
21FLPDEM43-01	1994	12	7	1100	0.33	8.3	mg/l	J	
21FLPDEM43-01	1995	1	11	1223	0.33	2.1	mg/l		
21FLPDEM43-01	1995	2	8	1139	0.33	2.2	mg/l		
21FLPDEM43-01	1995	3	8	1207	0.33	5.3	mg/l		
21FLPDEM43-01	1995	4	4	1131	0.33	3	mg/l	J	
21FLPDEM43-01	1995	5	2	1057	0.33	4.1	mg/l		
21FLPDEM43-01	1995	5	31	1121	0.33	3.7	mg/l		
21FLPDEM43-01	1995	6	28	1151	0.33	4.3	mg/l		
21FLPDEM43-01	1995	7	26	1156	0.33	3.7	mg/l	J	
21FLPDEM43-01	1995	8	29	1200	0.33	2.7	mg/l		
21FLPDEM43-01	1995	9	20	1119	0.33	5.4	mg/l		
21FLPDEM43-01	1995	10	18	1133	0.33	3.7	mg/l		
21FLPDEM43-01	1995	11	15	1205	0.33	3.8	mg/l		
21FLPDEM43-01	1996	1	10	1103	0.33	3.7	mg/l		
21FLPDEM43-01	1996	2	7	1157	0.33	1.7	mg/l		
21FLPDEM43-01	1996	3	6	1120	0.33	3.2	mg/l		
21FLPDEM43-01	1996	4	3	1135	0.33	3.2	mg/l		
21FLPDEM43-01	1996	5	1	1101	0.66	3	mg/l		
21FLPDEM43-01	1996	5	21	1111	0.33	4.8	mg/l	L	
21FLPDEM43-01	1996	6	26	1059	0.33	2.7	mg/l	I	
21FLPDEM43-01	1996	7	24	1125	0.33	2	mg/l	I	
21FLPDEM43-01	1996	8	21	1100	0.33	2.4	mg/l	I	
21FLPDEM43-01	1996	9	18	1214	0.33	3	mg/l	I	
21FLPDEM43-01	1996	10	16	1233	0.66	2.4	mg/l	I	
21FLPDEM43-01	1996	11	13	1131	0.33	6	mg/l		
21FLPDEM43-01	1997	1	15	1133	0.33	1	mg/l	I	
21FLPDEM43-01	1997	2	12	1326	0.33	1	mg/l	I	
21FLPDEM43-01	1997	3	12	1119	0.33	3	mg/l	I	
21FLPDEM43-01	1997	4	9	1127	0.33	4	mg/l	I	
21FLPDEM43-01	1997	4	30	1242	0.33	1	mg/l	I	

21FLPDEM43-01	1997	5	28	1218	0.33	2	mg/l	l	
21FLPDEM43-01	1997	6	25	1142	0.66	5	mg/l		
21FLPDEM43-01	1997	7	23	1159	0.33	2	mg/l	l	
21FLPDEM43-01	1997	8	26	1140	0.33	4	mg/l		
21FLPDEM43-01	1997	10	8	1146	0.66	1	mg/l	l	
21FLPDEM43-01	1997	11	3	1354	0.33	2	mg/l	l	
21FLPDEM43-01	1997	12	10	1112	0.33	3	mg/l	l	
21FLPDEM43-01	1998	2	18	1159	0.66	2	mg/l	l	
21FLPDEM43-01	1998	3	18	1141	0.33	3	mg/l	l	
21FLPDEM43-01	1998	4	13	1105	0.33	2	mg/l	l	
21FLPDEM43-01	1998	5	13	1148	0.33	1	mg/l	l	
21FLPDEM43-01	1998	6	10	1113	0.33	2	mg/l	l	
21FLPDEM43-01	1998	7	8	1124	0.33	3	mg/l	l	
21FLPDEM43-01	1998	8	3	1146	0.66	4	mg/l	l	
21FLPDEM43-01	1998	9	2	1112	0.33	4	mg/l	l	
21FLPDEM43-01	1998	9	30	1124	0.66	2	mg/l	l	
21FLPDEM43-01	1998	10	26	1134	0.33	3	mg/l	l	
21FLPDEM43-01	1998	11	23	1113	0.66	2	mg/l	l	
21FLPDEM43-01	1998	12	9	1124	0.33	2	mg/l	l	
21FLPDEMAMB 43-1	1999	1	6	1133	S	3	mg/l		
21FLPDEMAMB 43-1	1999	3	3	1113	S	2	mg/l		
21FLPDEMAMB 43-1	1999	4	28	1130	S	1	mg/l		
21FLPDEMAMB 43-1	1999	6	23	1134	S	2	mg/l		
21FLPDEMAMB 43-1	1999	8	18	1118	S	2	mg/l		
21FLPDEMAMB 43-1	1999	10	13	925	S	2	mg/l		
21FLPDEMAMB 43-1	1999	12	9	1117	S	3	mg/l		
21FLPDEMAMB 43-1	2000	1	5	1144	S	3	mg/l		
21FLPDEMAMB 43-1	2000	3	1	1134	S	3	mg/l		
21FLPDEMAMB 43-1	2000	4	26	1100	S	2	mg/l		
21FLPDEMAMB 43-1	2000	6	21	1148	S	3	mg/l		
21FLPDEMAMB 43-1	2000	10	11	1123	S	4	mg/l		
21FLPDEMAMB 43-1	2001	1	3	1112	S	3	mg/l		
21FLPDEMAMB 43-1	2001	2	28	1201	S	5	mg/l		
21FLPDEMAMB 43-1	2001	4	25	1100	S	2	mg/l		
21FLPDEMAMB 43-1	2001	6	21	1103	S	6	mg/l		
21FLPDEMAMB 43-1	2001	8	15	1055	S	2	mg/l		
21FLPDEMAMB 43-1	2001	10	10	1142	S	2	mg/l		
21FLPDEMAMB 43-1	2002	2	27	1113	0.14	7	mg/l		
sta	year	month	day	time	depth	result	Units	rcode	mdl
21FLPDEM44-02	2008	4	2	926	0.21	8	mg/l	l	2m
21FLPDEM44-02	2008	7	2	1352	0.19	8	mg/l	l	2m
21FLPDEM44-02	2008	9	10	1337	0.20	8	mg/l	l	2m
sta	year	month	day	time	depth	result	Units	rcode	mdl
21FLTPA 27472298237236	2005	4	25	1015	0.20	2	mg/l		0.52
21FLTPA 27472298237236	2005	7	25	1020	0.20	1.4	mg/l	l	0.52
21FLTPA 27472298237236	2005	11	7	1055	0.20	2	mg/l		0.52

sta	year	month	day	time	depth	result	Units	rcode	mdl
21FLTPA 27473218237378	2005	3	22	1120	0.20	0.54	mg/l	I	0.52
21FLTPA 27473218237378	2005	4	25	1000	0.20	1.7	mg/l	I	0.52
21FLTPA 27473218237378	2005	7	25	1010	0.20	2.3	mg/l		0.52
21FLTPA 27473218237378	2005	11	7	1040	0.20	4.8	mg/l		0.52
sta	year	month	day	time	depth	result	Units	rcode	mdl
21FLTPA 27473788237524	2005	3	22	1100	0.20	1.1	mg/l	I	0.52
21FLTPA 27473788237524	2005	4	25	950	0.20	2.5	mg/l		0.52
21FLTPA 27473788237524	2005	7	25	1000	0.20	1.9	mg/l	I	0.52
21FLTPA 27473788237524	2005	10	4	845	0.20	1.8	mg/l	I	0.52
21FLTPA 27473788237524	2005	11	7	1030	0.20	4	mg/l		0.52
sta	year	month	day	time	depth	result	Units	rcode	mdl
21FLTPA 27474728237590	2005	3	22	1150	0.20	2.2	mg/l		0.52
21FLTPA 27474728237590	2005	4	25	935	0.20	2.7	mg/l		0.52
21FLTPA 27474728237590	2005	7	25	950	0.20	2.5	mg/l		0.52
21FLTPA 27474728237590	2005	10	4	835	0.20	6.2	mg/l		0.52
21FLTPA 27474728237590	2005	11	7	1015	0.20	7.4	mg/l	L	0.52
sta	year	month	day	time	depth	result	Units	rcode	mdl
21FLTPA 2747582823806	2005	3	22	1045	0.20	2.3	mg/l		0.52
21FLTPA 2747582823806	2005	4	25	920	0.20	1.8	mg/l	I	0.52
21FLTPA 2747582823806	2005	7	25	945	0.20	3.6	mg/l		0.52
21FLTPA 2747582823806	2005	10	4	820	0.20	3.4	mg/l		0.52

Dissolved Oxygen:

sta	year	month	day	time	depth	result	Units	rcode	mdl
21FLBRA 1700-A	2008	4	11	1005	0.20	5.6	mg/l		m
21FLBRA 1700-A	2008	4	29	915	0.20	1.98	mg/l		m
21FLBRA 1700-B	2008	4	11	1020	0.20	5.58	mg/l		m
sta	year	month	day	time	depth	result	Units	rcode	mdl
21FLGFWFTBA970141	1997	8	11	801	1.00	3.9	mg/l		
21FLGFWFTBA970142	1997	8	11	905	1.90	6	mg/l		
21FLGFWFTBA970332	1997	2	4	1018	2.00	7.2	mg/l		
21FLGFWFTBA970497	1997	8	6	1055	3.00	5.2	mg/l		
21FLGFWFTBM960158	1996	2	16	1042	0.70	7.9	mg/l		
21FLGFWFTBM980071	1998	1	21	1127	1.50	8.9	mg/l		
21FLGFWFTBM990152	1999	2	11	908	2.40	6.7	mg/l		
sta	year	month	day	time	depth	result	Units	rcode	mdl
21FLHILL00MTB4090	2000	9	18	1013	0.10	6.21	mg/l		
21FLHILL00MTB4090	2000	9	18	1013	2.50	2	mg/l		
sta	year	month	day	time	depth	result	Units	rcode	mdl
21FLPDEM41-01	1991	1	18	1154	0.33	1.58	mg/l		
21FLPDEM41-01	1991	2	20	1149	0.33	4.92	mg/l		
21FLPDEM41-01	1991	3	13	1051	3.28	4.01	mg/l		
21FLPDEM41-01	1991	3	13	1055	1.64	3.66	mg/l		
21FLPDEM41-01	1991	3	13	1056	0.33	2.55	mg/l		
21FLPDEM41-01	1991	4	10	1132	1.64	1.15	mg/l		
21FLPDEM41-01	1991	4	10	1135	0.33	1.08	mg/l		
21FLPDEM41-01	1991	5	8	1129	0.33	0.85	mg/l		
21FLPDEM41-01	1991	6	5	1111	0.33	0.66	mg/l		
21FLPDEM41-01	1991	7	2	1010	0.33	1.5	mg/l		
21FLPDEM41-01	1991	7	31	1130	0.33	8.23	mg/l		
21FLPDEM41-01	1991	8	28	1040	0.33	2.72	mg/l		
21FLPDEM41-01	1991	8	28	1042	1.64	0.06	mg/l		
21FLPDEM41-01	1991	9	18	1114	0.33	4.29	mg/l		
21FLPDEM41-01	1991	11	13	1135	0.33	8.63	mg/l		
21FLPDEM41-01	1991	12	11	1050	0.33	1.87	mg/l		
21FLPDEM41-01	1992	1	29	1109	0.33	6.37	mg/l		
21FLPDEM41-01	1992	2	26	1145	0.33	3.42	mg/l		
21FLPDEM41-01	1992	3	25	1102	0.33	5.7	mg/l		
21FLPDEM41-01	1992	4	22	1050	0.33	0.98	mg/l		
21FLPDEM41-01	1992	5	20	1140	0.33	1.66	mg/l		
21FLPDEM41-01	1992	6	17	1044	0.33	5.51	mg/l		
21FLPDEM41-01	1992	7	15	1130	0.33	1.22	mg/l		
21FLPDEM41-01	1992	8	12	1115	0.33	4.19	mg/l		
21FLPDEM41-01	1992	8	12	1120	1.64	2.86	mg/l		

21FLPDEM41-01	1992	9	16	1040	0.33	4.01	mg/l		
21FLPDEM41-01	1992	10	7	1145	0.33	3.77	mg/l		
21FLPDEM41-01	1992	11	4	1055	0.33	2.84	mg/l		
21FLPDEM41-01	1992	12	9	1133	0.33	3.25	mg/l		
21FLPDEM41-01	1993	1	13	1140	0.33	6.06	mg/l		
21FLPDEM41-01	1993	2	17	1110	0.33	2.22	mg/l		
21FLPDEM41-01	1993	3	10	1100	0.33	0.61	mg/l		
21FLPDEM41-01	1993	4	21	1115	0.33	1.72	mg/l		
21FLPDEM41-01	1993	4	21	1117	3.28	1.61	mg/l		
21FLPDEM41-01	1993	5	5	1055	0.33	1.87	mg/l		
21FLPDEM41-01	1993	5	5	1056	1.64	1.33	mg/l		
21FLPDEM41-01	1993	6	2	1230	0.33	1.08	mg/l		
21FLPDEM41-01	1993	6	2	1233	2.62	0.14	mg/l		
21FLPDEM41-01	1993	6	30	1128	0.33	1.29	mg/l		
21FLPDEM41-01	1993	6	30	1129	1.64	1.47	mg/l		
21FLPDEM41-01	1993	7	28	1109	1.97	1.48	mg/l		
21FLPDEM41-01	1993	7	28	1110	0.33	1.88	mg/l		
21FLPDEM41-01	1993	8	25	1158	1.64	0.88	mg/l		
21FLPDEM41-01	1993	8	25	1200	0.33	1.58	mg/l		
21FLPDEM41-01	1993	9	22	1120	0.33	0.67	mg/l		
21FLPDEM41-01	1993	10	20	1151	0.33	4.61	mg/l		
21FLPDEM41-01	1993	12	1	1148	0.33	6.97	mg/l		
21FLPDEM41-01	1993	12	21	1043	3.28	6.38	mg/l		
21FLPDEM41-01	1993	12	21	1044	1.64	5.67	mg/l		
21FLPDEM41-01	1993	12	21	1045	0.33	5.81	mg/l		
21FLPDEM41-01	1994	1	18	1215	0.33	6.17	mg/l		
21FLPDEM41-01	1994	2	16	1058	0.33	4.46	mg/l		
21FLPDEM41-01	1994	3	16	1050	0.33	4.07	mg/l		
21FLPDEM41-01	1994	4	13	1040	0.33	2.15	mg/l		
21FLPDEM41-01	1994	5	11	1101	0.33	3.38	mg/l		
21FLPDEM41-01	1994	6	8	1145	0.33	4.15	mg/l		
21FLPDEM41-01	1994	7	6	1118	0.33	1.76	mg/l		
21FLPDEM41-01	1994	8	3	1120	0.33	4.06	mg/l		
21FLPDEM41-01	1994	8	3	1121	1.64	4.24	mg/l		
21FLPDEM41-01	1994	8	31	1106	1.97	1.44	mg/l		
21FLPDEM41-01	1994	8	31	1107	0.33	3.86	mg/l		
21FLPDEM41-01	1994	9	21	1059	0.33	2.2	mg/l		
21FLPDEM41-01	1994	10	26	1051	0.33	1.72	mg/l		
21FLPDEM41-01	1994	12	7	1048	0.33	4.01	mg/l		
21FLPDEM41-01	1995	1	11	1201	0.33	9.58	mg/l		
21FLPDEM41-01	1995	2	8	1128	0.33	7.61	mg/l		
21FLPDEM41-01	1995	3	8	1153	0.33	7.92	mg/l		
21FLPDEM41-01	1995	3	8	1154	0.98	6.7	mg/l		
21FLPDEM41-01	1995	4	4	1120	0.66	1.35	mg/l		
21FLPDEM41-01	1995	5	2	1040	0.33	0.93	mg/l		
21FLPDEM41-01	1995	5	31	1107	0.33	1.9	mg/l		
21FLPDEM41-01	1995	6	28	1131	2.30	3.54	mg/l		
21FLPDEM41-01	1995	6	28	1133	0.33	8.52	mg/l		

21FLPDEM41-01	1995	7	26	1143	2.30	3.72	mg/l		
21FLPDEM41-01	1995	7	26	1144	1.31	2.85	mg/l		
21FLPDEM41-01	1995	7	26	1146	0.33	1.5	mg/l		
21FLPDEM41-01	1995	8	29	1143	0.33	5.15	mg/l		
21FLPDEM41-01	1995	9	20	1104	0.33	1.99	mg/l		
21FLPDEM41-01	1995	9	20	1106	1.97	2.2	mg/l		
21FLPDEM41-01	1995	10	18	1116	0.33	1	mg/l		
21FLPDEM41-01	1995	10	18	1123	1.64	1.25	mg/l		
21FLPDEM41-01	1995	11	15	1148	0.98	5.25	mg/l		
21FLPDEM41-01	1996	1	10	1049	0.33	7.89	mg/l		
21FLPDEM41-01	1996	2	7	1147	0.33	7.97	mg/l		
21FLPDEM41-01	1996	3	6	1100	0.33	5.75	mg/l		
21FLPDEM41-01	1996	4	3	1118	0.33	0.73	mg/l		
21FLPDEM41-01	1996	5	1	1042	0.66	0.18	mg/l		
21FLPDEM41-01	1996	5	21	1056	0.33	6.17	mg/l		
21FLPDEM41-01	1996	5	21	1059	1.64	1.39	mg/l		
21FLPDEM41-01	1996	6	26	1040	0.33	0.72	mg/l		
21FLPDEM41-01	1996	7	24	1112	0.33	1.35	mg/l		
21FLPDEM41-01	1996	7	24	1113	1.64	1.43	mg/l		
21FLPDEM41-01	1996	8	21	1040	0.33	0.54	mg/l		
21FLPDEM41-01	1996	9	18	1156	0.33	0.5	mg/l		
21FLPDEM41-01	1996	10	16	1222	0.33	7.64	mg/l		
21FLPDEM41-01	1996	11	13	1120	0.33	0.13	mg/l		
21FLPDEM41-01	1997	1	15	1122	0.33	5.2	mg/l		
21FLPDEM41-01	1997	2	12	1310	0.00	5.17	mg/l		
21FLPDEM41-01	1997	3	12	1110	0.33	1.82	mg/l		
21FLPDEM41-01	1997	4	9	1117	0.33	0.14	mg/l		
21FLPDEM41-01	1997	4	30	1318	0.33	7.13	mg/l		
21FLPDEM41-01	1997	5	28	1159	0.33	1.22	mg/l		
21FLPDEM41-01	1997	6	25	1129	1.31	0.25	mg/l		
21FLPDEM41-01	1997	6	25	1130	0.33	2.62	mg/l		
21FLPDEM41-01	1997	7	23	1143	0.66	2	mg/l		
21FLPDEM41-01	1997	8	26	1123	0.33	2.13	mg/l		
21FLPDEM41-01	1997	9	17	1141	0.33	6.93	mg/l		
21FLPDEM41-01	1997	10	8	1134	0.33	6.32	mg/l		
21FLPDEM41-01	1997	11	3	1343	0.33	2.02	mg/l		
21FLPDEM41-01	1997	12	10	1100	0.33	3.54	mg/l		
21FLPDEM41-01	1998	1	21	1202	0.66	7.13	mg/l		
21FLPDEM41-01	1998	2	18	1144	0.33	7.23	mg/l		
21FLPDEM41-01	1998	3	18	1122	0.33	6.93	mg/l		
21FLPDEM41-01	1998	4	13	1047	0.33	7.48	mg/l		
21FLPDEM41-01	1998	5	13	1136	0.33	0.48	mg/l		
21FLPDEM41-01	1998	6	10	1057	0.33	1.04	mg/l		
21FLPDEM41-01	1998	7	8	1115	0.33	4.72	mg/l		
21FLPDEM41-01	1998	8	3	1136	1.97	1.93	mg/l		
21FLPDEM41-01	1998	8	3	1137	0.33	6.28	mg/l		
21FLPDEM41-01	1998	9	2	1101	2.30	2.41	mg/l		
21FLPDEM41-01	1998	9	2	1102	0.66	1.88	mg/l		

21FLPDEM43-01	1991	3	13	1112	0.33	6.03	mg/l		
21FLPDEM43-01	1991	4	10	1150	0.33	4.7	mg/l		
21FLPDEM43-01	1991	5	8	1155	0.33	5.88	mg/l		
21FLPDEM43-01	1991	6	5	1128	0.33	3.61	mg/l		
21FLPDEM43-01	1991	7	2	1025	0.33	3.97	mg/l		
21FLPDEM43-01	1991	7	31	1200	0.33	4.78	mg/l		
21FLPDEM43-01	1991	8	28	1100	0.33	6.92	mg/l		
21FLPDEM43-01	1991	9	18	1132	0.33	4.76	mg/l		
21FLPDEM43-01	1991	11	13	1154	0.33	8.22	mg/l		
21FLPDEM43-01	1991	12	11	1120	0.33	7.43	mg/l		
21FLPDEM43-01	1992	1	29	1126	0.33	8.06	mg/l		
21FLPDEM43-01	1992	2	26	1200	0.33	6.8	mg/l		
21FLPDEM43-01	1992	3	25	1120	0.33	6.82	mg/l		
21FLPDEM43-01	1992	4	22	1105	0.33	3.8	mg/l		
21FLPDEM43-01	1992	5	20	1200	0.33	8.23	mg/l		
21FLPDEM43-01	1992	6	17	1058	0.33	5.87	mg/l		
21FLPDEM43-01	1992	7	15	1145	0.33	3.67	mg/l		
21FLPDEM43-01	1992	8	12	1130	0.33	3.57	mg/l		
21FLPDEM43-01	1992	9	16	1050	0.33	6.23	mg/l		
21FLPDEM43-01	1992	10	7	1200	0.33	5.96	mg/l		
21FLPDEM43-01	1992	11	4	1110	0.33	5.61	mg/l		
21FLPDEM43-01	1992	12	9	1145	0.33	7.74	mg/l		
21FLPDEM43-01	1993	1	13	1200	0.33	9.05	mg/l		
21FLPDEM43-01	1993	2	17	1125	0.33	6.85	mg/l		
21FLPDEM43-01	1993	3	10	1112	0.33	8.7	mg/l		
21FLPDEM43-01	1993	4	21	1125	0.33	7.46	mg/l		
21FLPDEM43-01	1993	5	5	1110	0.33	9.36	mg/l		
21FLPDEM43-01	1993	6	2	1250	0.33	5.87	mg/l		
21FLPDEM43-01	1993	6	2	1253	1.97	4.76	mg/l		
21FLPDEM43-01	1993	6	30	1142	0.33	3.98	mg/l		
21FLPDEM43-01	1993	7	28	1124	1.97	4.91	mg/l		
21FLPDEM43-01	1993	7	28	1125	0.33	4.17	mg/l		
21FLPDEM43-01	1993	8	25	1220	0.33	5.06	mg/l		
21FLPDEM43-01	1993	9	22	1130	0.33	3.98	mg/l		
21FLPDEM43-01	1993	10	20	1217	0.33	7.73	mg/l		
21FLPDEM43-01	1993	12	1	1135	0.33	6.79	mg/l		
21FLPDEM43-01	1993	12	21	1105	0.33	7.28	mg/l		
21FLPDEM43-01	1994	1	18	1230	0.33	8.75	mg/l		
21FLPDEM43-01	1994	2	16	1130	0.33	9.2	mg/l		
21FLPDEM43-01	1994	3	16	1100	0.33	7.03	mg/l		
21FLPDEM43-01	1994	4	13	1053	0.33	5.78	mg/l		
21FLPDEM43-01	1994	5	11	1110	0.33	5.79	mg/l		
21FLPDEM43-01	1994	6	8	1205	0.33	5.14	mg/l		
21FLPDEM43-01	1994	7	6	1135	0.33	6.08	mg/l		
21FLPDEM43-01	1994	7	6	1136	1.97	5.45	mg/l		
21FLPDEM43-01	1994	8	3	1135	0.33	6.01	mg/l		
21FLPDEM43-01	1994	8	31	1123	0.33	8.59	mg/l		
21FLPDEM43-01	1994	9	21	1112	0.33	7	mg/l		

21FLPDEM43-01	1994	10	26	1103	0.33	4.01	mg/l		
21FLPDEM43-01	1994	12	7	1100	0.33	6	mg/l		
21FLPDEM43-01	1995	1	11	1223	0.33	9.59	mg/l		
21FLPDEM43-01	1995	2	8	1139	0.33	7.72	mg/l		
21FLPDEM43-01	1995	3	8	1207	0.33	7.14	mg/l		
21FLPDEM43-01	1995	4	4	1131	0.33	6.12	mg/l		
21FLPDEM43-01	1995	5	2	1057	0.33	4.96	mg/l		
21FLPDEM43-01	1995	5	31	1121	0.33	5.47	mg/l		
21FLPDEM43-01	1995	6	28	1151	0.33	7.25	mg/l		
21FLPDEM43-01	1995	7	26	1156	0.33	4.78	mg/l		
21FLPDEM43-01	1995	7	26	1157	1.97	3.83	mg/l		
21FLPDEM43-01	1995	8	29	1200	0.33	7.31	mg/l		
21FLPDEM43-01	1995	9	20	1119	0.33	4.57	mg/l		
21FLPDEM43-01	1995	9	20	1122	1.97	3.96	mg/l		
21FLPDEM43-01	1995	10	18	1133	0.33	3.42	mg/l		
21FLPDEM43-01	1995	10	18	1136	1.64	3.11	mg/l		
21FLPDEM43-01	1995	11	15	1205	0.33	7.9	mg/l		
21FLPDEM43-01	1996	1	10	1103	0.33	10.43	mg/l		
21FLPDEM43-01	1996	2	7	1157	0.33	10.41	mg/l		
21FLPDEM43-01	1996	3	6	1120	0.33	9.56	mg/l		
21FLPDEM43-01	1996	4	3	1135	0.33	7.35	mg/l		
21FLPDEM43-01	1996	5	1	1101	0.66	5.97	mg/l		
21FLPDEM43-01	1996	5	21	1111	0.33	2.74	mg/l		
21FLPDEM43-01	1996	6	26	1059	0.33	4.2	mg/l		
21FLPDEM43-01	1996	6	26	1100	1.31	4.03	mg/l		
21FLPDEM43-01	1996	7	24	1125	0.33	3.61	mg/l		
21FLPDEM43-01	1996	8	21	1100	0.33	5.71	mg/l		
21FLPDEM43-01	1996	9	18	1214	0.33	6.9	mg/l		
21FLPDEM43-01	1996	10	16	1233	0.66	0.64	mg/l		
21FLPDEM43-01	1996	11	13	1131	0.33	6.8	mg/l		
21FLPDEM43-01	1997	1	15	1133	0.33	8.05	mg/l		
21FLPDEM43-01	1997	2	12	1326	0.33	5.67	mg/l		
21FLPDEM43-01	1997	3	12	1119	0.33	6.17	mg/l		
21FLPDEM43-01	1997	4	9	1127	0.33	7.06	mg/l		
21FLPDEM43-01	1997	4	30	1242	0.33	5.04	mg/l		
21FLPDEM43-01	1997	5	28	1217	0.98	5.46	mg/l		
21FLPDEM43-01	1997	5	28	1218	0.33	4.89	mg/l		
21FLPDEM43-01	1997	6	25	1142	0.66	7.79	mg/l		
21FLPDEM43-01	1997	7	23	1159	0.33	6.41	mg/l		
21FLPDEM43-01	1997	8	26	1139	0.98	6.29	mg/l		
21FLPDEM43-01	1997	8	26	1140	0.33	5.7	mg/l		
21FLPDEM43-01	1997	9	17	1154	0.33	5.78	mg/l		
21FLPDEM43-01	1997	10	8	1146	0.66	8.14	mg/l		
21FLPDEM43-01	1997	11	3	1354	0.33	6.43	mg/l		
21FLPDEM43-01	1997	12	10	1112	0.33	7.69	mg/l		
21FLPDEM43-01	1998	1	21	1211	0.33	10.43	mg/l		
21FLPDEM43-01	1998	2	18	1159	0.66	6.83	mg/l		
21FLPDEM43-01	1998	3	18	1141	0.33	7.81	mg/l		

21FLPDEM44-02	2008	2	19	942	0.21	6.3	mg/l		m
21FLPDEM44-02	2008	2	19	943	0.21	5.91	mg/l		m
21FLPDEM44-02	2008	4	2	926	0.21	5.6	mg/l		m
21FLPDEM44-02	2008	4	2	927	0.21	5.67	mg/l		m
21FLPDEM44-02	2008	4	2	928	0.21	5.04	mg/l		m
21FLPDEM44-02	2008	5	20	1231	0.22	4.47	mg/l		m
21FLPDEM44-02	2008	5	20	1232	1.22	4.16	mg/l		m
21FLPDEM44-02	2008	5	20	1233	2.48	3.86	mg/l		m
21FLPDEM44-02	2008	7	2	1352	0.19	5.53	mg/l		m
21FLPDEM44-02	2008	8	13	1356	0.20	5.06	mg/l		m
21FLPDEM44-02	2008	8	13	1357	1.39	5.02	mg/l		m
21FLPDEM44-02	2008	8	13	1358	2.56	2.92	mg/l		m
21FLPDEM44-02	2008	9	10	1337	0.18	6.36	mg/l		m
21FLPDEM44-02	2008	9	10	1338	1.65	5.44	mg/l		m
21FLPDEM44-02	2008	9	10	1339	3.22	4.86	mg/l		m
21FLPDEM44-02	2008	11	6	1002	0.21	6.58	mg/l		m
21FLPDEM44-02	2008	11	6	1003	1.12	6.58	mg/l		m
21FLPDEM44-02	2008	11	6	1004	2.27	5.42	mg/l		m
Sta	year	month	day	time	depth	result	Units	rcode	mdl
21FLTPA 27472298237236	2005	3	22	1135	0.20	8.55	mg/l		
21FLTPA 27472298237236	2005	4	25	1015	0.20	5.8	mg/l		
21FLTPA 27472298237236	2005	7	25	1020	0.20	3.32	mg/l		
21FLTPA 27472298237236	2005	11	7	1055	0.20	8.37	mg/l		
21FLTPA 27472298237236	2008	11	12	1010	0.20	7.75	mg/l		m
21FLTPA 27472298237236	2008	11	19	1025	0.20	6.57	mg/l		m
21FLTPA 27472298237236	2008	12	3	1040	0.20	6.58	mg/l		m
sta	year	month	day	time	depth	result	Units	rcode	mdl
21FLTPA 27473218237378	2005	3	22	1120	0.20	7.23	mg/l		
21FLTPA 27473218237378	2005	4	25	1000	0.20	5.53	mg/l		
21FLTPA 27473218237378	2005	7	25	1010	0.20	4.99	mg/l		
21FLTPA 27473218237378	2005	11	7	1040	0.20	7.6	mg/l		
21FLTPA 27473218237378	2008	11	12	1005	0.20	6.9	mg/l		m
21FLTPA 27473218237378	2008	11	19	1015	0.20	5.83	mg/l		m
21FLTPA 27473218237378	2008	12	3	1030	0.20	6.41	mg/l		m
sta	year	month	day	time	depth	result	Units	rcode	mdl
21FLTPA 27473788237524	2005	3	22	1100	0.20	9.4	mg/l		

21FLTPA 27473788237524	2005	4	25	950	0.20	5.67	mg/l		
21FLTPA 27473788237524	2005	7	25	1000	0.20	4.33	mg/l		
21FLTPA 27473788237524	2005	10	4	845	0.20	4.95	mg/l		
21FLTPA 27473788237524	2005	11	7	1030	0.20	9.62	mg/l		
21FLTPA 27473788237524	2008	11	12	1000	0.20	7.89	mg/l		m
21FLTPA 27473788237524	2008	11	19	1010	0.20	6.66	mg/l		m
21FLTPA 27473788237524	2008	12	3	1025	0.10	6.48	mg/l		m
sta	year	month	day	time	depth	result	Units	rcode	mdl
21FLTPA 27474728237590	2005	3	22	1150	0.20	10.17	mg/l		
21FLTPA 27474728237590	2005	4	25	935	0.20	6.06	mg/l		
21FLTPA 27474728237590	2005	7	25	950	0.20	6.55	mg/l		
21FLTPA 27474728237590	2005	10	4	835	0.20	2.11	mg/l		
21FLTPA 27474728237590	2005	11	7	1015	0.20	9.5	mg/l		
21FLTPA 27474728237590	2008	11	12	955	0.20	7.65	mg/l		m
21FLTPA 27474728237590	2008	11	19	1005	0.20	7.5	mg/l		m
21FLTPA 27474728237590	2008	12	3	1020	0.10	8.38	mg/l		m
sta	year	month	day	time	depth	result	Units	rcode	mdl
21FLTPA 2747582823806	2005	3	22	1045	0.20	9.39	mg/l		
21FLTPA 2747582823806	2005	4	25	920	0.20	4.9	mg/l		
21FLTPA 2747582823806	2005	7	25	945	0.20	2.82	mg/l		
21FLTPA 2747582823806	2005	10	4	820	0.20	2.56	mg/l		
21FLTPA 2747582823806	2008	11	12	945	0.20	7.91	mg/l		m
21FLTPA 2747582823806	2008	11	19	1000	0.20	7.33	mg/l		m
21FLTPA 2747582823806	2008	12	3	1015	0.20	6.75	mg/l		m

Total Nitrogen:

sta	year	month	day	time	depth	result	Units	rcode	mdl
21FLPDEM41-01	1992	4	22	1050	0.33	1.03	mg/l	+	
21FLPDEM41-01	1992	7	15	1130	0.33	0.78	mg/l	+	
21FLPDEM41-01	1992	8	12	1115	0.33	0.82	mg/l	+	
21FLPDEM41-01	1992	9	16	1040	0.33	1.03	mg/l	+	
21FLPDEM41-01	1992	10	7	1145	0.33	2.53	mg/l	+	
21FLPDEM41-01	1992	11	4	1055	0.33	1.16	mg/l	+	
21FLPDEM41-01	1992	12	9	1133	0.33	0.79	mg/l	+	
21FLPDEM41-01	1993	1	13	1140	0.33	1.01	mg/l	+	
21FLPDEM41-01	1993	3	10	1100	0.33	0.75	mg/l	+	
21FLPDEM41-01	1993	4	21	1115	0.33	0.63	mg/l	+	
21FLPDEM41-01	1993	5	5	1055	0.33	0.96	mg/l	+	
21FLPDEM41-01	1993	6	2	1230	0.33	1.02	mg/l	+	
21FLPDEM41-01	1993	6	30	1128	0.33	0.99	mg/l	+	
21FLPDEM41-01	1993	7	28	1110	0.33	1.11	mg/l	+	
21FLPDEM41-01	1993	8	25	1200	0.33	1.1	mg/l	+	
21FLPDEM41-01	1993	9	22	1120	0.33	1.16	mg/l	+	
21FLPDEM41-01	1993	12	1	1148	0.33	1.14	mg/l	+	
21FLPDEM41-01	1993	12	21	1045	0.33	0.73	mg/l	+	
21FLPDEM41-01	1994	1	18	1215	0.33	0.97	mg/l	+	
21FLPDEM41-01	1994	2	16	1058	0.33	1.17	mg/l	+	
21FLPDEM41-01	1994	4	13	1040	0.33	1.13	mg/l	+	
21FLPDEM41-01	1994	5	11	1101	0.33	1.12	mg/l	+	
21FLPDEM41-01	1994	7	6	1118	0.33	1.25	mg/l	+	
21FLPDEM41-01	1994	8	3	1120	0.33	1.93	mg/l	+	
21FLPDEM41-01	1994	8	31	1107	0.33	1	mg/l	+	
21FLPDEM41-01	1994	9	21	1059	0.33	0.98	mg/l	+	
21FLPDEM41-01	1994	10	26	1051	0.33	1.31	mg/l	+	
21FLPDEM41-01	1994	12	7	1048	0.33	0.95	mg/l	+	
21FLPDEM41-01	1995	1	11	1201	0.33	0.68	mg/l	+	
21FLPDEM41-01	1995	2	8	1128	0.33	0.82	mg/l	+	
21FLPDEM41-01	1995	3	8	1153	0.33	1.63	mg/l	+	
21FLPDEM41-01	1995	4	4	1120	0.66	1.19	mg/l	+	
21FLPDEM41-01	1995	5	2	1040	0.33	1.13	mg/l	+	
21FLPDEM41-01	1995	5	31	1107	0.33	1.08	mg/l	+	
21FLPDEM41-01	1995	6	28	1133	0.33	1.61	mg/l	+	
21FLPDEM41-01	1995	7	26	1146	0.33	1.16	mg/l	+	
21FLPDEM41-01	1995	8	29	1143	0.33	1.26	mg/l	+	
21FLPDEM41-01	1995	9	20	1104	0.33	1.14	mg/l	+	
21FLPDEM41-01	1995	10	18	1116	0.33	1.39	mg/l	+	
21FLPDEM41-01	1995	11	15	1148	0.98	0.87	mg/l	+	
21FLPDEM41-01	1996	1	10	1049	0.33	0.99	mg/l	+	
21FLPDEM41-01	1996	2	7	1147	0.33	0.78	mg/l	+	
21FLPDEM41-01	1996	3	6	1100	0.33	0.79	mg/l	+	

21FLPDEM41-01	1996	4	3	1118	0.33	1.18	mg/l	+	
21FLPDEM41-01	1996	5	1	1042	0.66	0.98	mg/l	+	
21FLPDEM41-01	1996	5	21	1056	0.33	1.36	mg/l	+	
21FLPDEM41-01	1996	6	26	1040	0.33	1.11	mg/l	+	
21FLPDEM41-01	1996	7	24	1112	0.33	2.73	mg/l	+	
21FLPDEM41-01	1996	8	21	1040	0.33	1.24	mg/l	+	
21FLPDEM41-01	1996	9	18	1156	0.33	0.57	mg/l	+	
21FLPDEM41-01	1996	10	16	1222	0.33	1.23	mg/l	+	
21FLPDEM41-01	1997	1	15	1122	0.33	1.16	mg/l	+	
21FLPDEM41-01	1997	2	12	1310	0.00	0.9	mg/l	+	
21FLPDEM41-01	1997	3	12	1110	0.33	1.5	mg/l	+	
21FLPDEM41-01	1997	4	9	1117	0.33	0.87	mg/l	+	
21FLPDEM41-01	1997	4	30	1318	0.33	1.11	mg/l	+	
21FLPDEM41-01	1997	5	28	1159	0.33	1.43	mg/l	+	
21FLPDEM41-01	1997	6	25	1130	0.33	1.1	mg/l	+	
21FLPDEM41-01	1997	7	23	1143	0.66	1.3	mg/l	+	
21FLPDEM41-01	1997	8	26	1123	0.33	0.95	mg/l	+	
21FLPDEM41-01	1997	10	8	1134	0.33	1.22	mg/l	+	
21FLPDEM41-01	1997	11	3	1343	0.33	1.13	mg/l	+	
21FLPDEM41-01	1997	12	10	1100	0.33	1.01	mg/l	+	
21FLPDEM41-01	1998	2	18	1144	0.33	1.41	mg/l	+	
21FLPDEM41-01	1998	3	18	1122	0.33	1.46	mg/l	+	
21FLPDEM41-01	1998	4	13	1047	0.33	1.56	mg/l	+	
21FLPDEM41-01	1998	5	13	1136	0.33	1.14	mg/l	+	
21FLPDEM41-01	1998	6	10	1057	0.33	1.29	mg/l	+	
21FLPDEM41-01	1998	7	8	1115	0.33	1.3	mg/l	+	
21FLPDEM41-01	1998	8	3	1137	0.33	1.28	mg/l	+	
21FLPDEM41-01	1998	9	2	1102	0.66	1.26	mg/l	+	
21FLPDEM41-01	1998	9	30	1115	0.33	1.19	mg/l	+	
21FLPDEM41-01	1998	10	26	1123	0.33	1.09	mg/l	+	
21FLPDEM41-01	1998	11	23	1100	0.66	1.25	mg/l	+	
21FLPDEM41-01	1998	12	9	1113	0.33	0.94	mg/l	+	
21FLPDEMAMB 41-1	1999	1	6	1122	S	1.12	mg/l	+	
21FLPDEMAMB 41-1	1999	3	3	1058	S	0.53	mg/l	+	
21FLPDEMAMB 41-1	1999	4	28	1111	S	0.56	mg/l	+	
21FLPDEMAMB 41-1	1999	6	23	1122	S	1.48	mg/l	+	
21FLPDEMAMB 41-1	1999	8	18	1110	S	1.22	mg/l	+	
21FLPDEMAMB 41-1	1999	10	13	1031	S	1	mg/l	+	
21FLPDEMAMB 41-1	1999	12	9	1103	S	1.1	mg/l	+	
21FLPDEMAMB 41-1	2000	1	5	1129	S	1.42	mg/l	+	
21FLPDEMAMB 41-1	2000	3	1	1122	S	0.91	mg/l	+	
21FLPDEMAMB 41-1	2000	4	26	1151	S	0.45	mg/l	+	
21FLPDEMAMB 41-1	2000	6	21	1124	S	1.04	mg/l	+	
21FLPDEMAMB 41-1	2000	8	16	1112	S	0.521	mg/l	+	
21FLPDEMAMB 41-1	2000	10	11	1110	S	1.3	mg/l	+	
21FLPDEMAMB 41-1	2001	1	3	1056	S	0.93	mg/l	+	
21FLPDEMAMB 41-1	2001	2	28	1147	S	0.88	mg/l	+	
21FLPDEMAMB 41-1	2001	4	25	1043	S	1.21	mg/l	+	

21FLPDEMAMB 41-1	2001	6	21	1049	S	2.27	mg/l	+	
21FLPDEMAMB 41-1	2001	8	15	1105	S	0.78	mg/l	+	
21FLPDEMAMB 41-1	2001	10	10	1128	S	1.17	mg/l	+	
21FLPDEMAMB 41-1	2002	1	3	1109	0.11	1.13	mg/l	+	
21FLPDEMAMB 41-1	2002	2	27	1059	0.10	0.94	mg/l	+	
21FLPDEMAMB 41-1	2002	6	18	1108	0.11	0.61	mg/l	+	
21FLPDEMAMB 41-1	2002	8	14	1133	0.13	1.18	mg/l	+	
21FLPDEMAMB 41-1	2002	10	9	1032	0.08	1.24	mg/l	+	
sta	year	month	day	time	depth	result	Units	rcode	mdl
21FLPDEM43-01	1992	3	25	1120	0.33	0.6	mg/l	+	
21FLPDEM43-01	1992	4	22	1105	0.33	0.6	mg/l	+	
21FLPDEM43-01	1992	5	20	1200	0.33	0.58	mg/l	+	
21FLPDEM43-01	1992	7	15	1145	0.33	0.52	mg/l	+	
21FLPDEM43-01	1992	8	12	1130	0.33	0.5	mg/l	+	
21FLPDEM43-01	1992	9	16	1050	0.33	0.87	mg/l	+	
21FLPDEM43-01	1992	10	7	1200	0.33	0.81	mg/l	+	
21FLPDEM43-01	1992	11	4	1110	0.33	0.7	mg/l	+	
21FLPDEM43-01	1992	12	9	1145	0.33	0.62	mg/l	+	
21FLPDEM43-01	1993	1	13	1200	0.33	0.91	mg/l	+	
21FLPDEM43-01	1993	3	10	1112	0.33	0.56	mg/l	+	
21FLPDEM43-01	1993	4	21	1125	0.33	0.62	mg/l	+	
21FLPDEM43-01	1993	5	5	1110	0.33	0.98	mg/l	+	
21FLPDEM43-01	1993	6	2	1250	0.33	0.89	mg/l	+	
21FLPDEM43-01	1993	6	30	1142	0.33	0.61	mg/l	+	
21FLPDEM43-01	1993	7	28	1125	0.33	1.84	mg/l	+	
21FLPDEM43-01	1993	8	25	1220	0.33	0.93	mg/l	+	
21FLPDEM43-01	1993	9	22	1130	0.33	0.99	mg/l	+	
21FLPDEM43-01	1993	12	1	1135	0.33	1.04	mg/l	+	
21FLPDEM43-01	1993	12	21	1105	0.33	0.62	mg/l	+	
21FLPDEM43-01	1994	1	18	1230	0.33	1.15	mg/l	+	
21FLPDEM43-01	1994	2	16	1130	0.33	1.01	mg/l	+	
21FLPDEM43-01	1994	4	13	1053	0.33	0.93	mg/l	+	
21FLPDEM43-01	1994	5	11	1110	0.33	0.79	mg/l	+	
21FLPDEM43-01	1994	7	6	1135	0.33	0.98	mg/l	+	
21FLPDEM43-01	1994	8	3	1135	0.33	0.83	mg/l	+	
21FLPDEM43-01	1994	8	31	1123	0.33	1.03	mg/l	+	
21FLPDEM43-01	1994	9	21	1112	0.33	0.94	mg/l	+	
21FLPDEM43-01	1994	10	26	1103	0.33	1.14	mg/l	+	
21FLPDEM43-01	1994	12	7	1100	0.33	0.9	mg/l	+	
21FLPDEM43-01	1995	1	11	1223	0.33	0.65	mg/l	+	
21FLPDEM43-01	1995	2	8	1139	0.33	1.01	mg/l	+	
21FLPDEM43-01	1995	3	8	1207	0.33	1.01	mg/l	+	
21FLPDEM43-01	1995	4	4	1131	0.33	0.79	mg/l	+	
21FLPDEM43-01	1995	5	2	1057	0.33	0.91	mg/l	+	
21FLPDEM43-01	1995	5	31	1121	0.33	0.97	mg/l	+	
21FLPDEM43-01	1995	6	28	1151	0.33	1.03	mg/l	+	
21FLPDEM43-01	1995	7	26	1156	0.33	0.85	mg/l	+	

21FLPDEM43-01	1995	8	29	1200	0.33	1.39	mg/l	+	
21FLPDEM43-01	1995	9	20	1119	0.33	1.39	mg/l	+	
21FLPDEM43-01	1995	10	18	1133	0.33	1.82	mg/l	+	
21FLPDEM43-01	1995	11	15	1205	0.33	1.07	mg/l	+	
21FLPDEM43-01	1996	1	10	1103	0.33	0.95	mg/l	+	
21FLPDEM43-01	1996	2	7	1157	0.33	1.51	mg/l	+	
21FLPDEM43-01	1996	3	6	1120	0.33	0.63	mg/l	+	
21FLPDEM43-01	1996	4	3	1135	0.33	0.59	mg/l	+	
21FLPDEM43-01	1996	5	1	1101	0.66	0.91	mg/l	+	
21FLPDEM43-01	1996	5	21	1111	0.33	1.2	mg/l	+	
21FLPDEM43-01	1996	6	26	1059	0.33	0.7	mg/l	+	
21FLPDEM43-01	1996	7	24	1125	0.33	0.91	mg/l	+	
21FLPDEM43-01	1996	8	21	1100	0.33	1.1	mg/l	+	
21FLPDEM43-01	1996	9	18	1214	0.33	0.45	mg/l	+	
21FLPDEM43-01	1996	10	16	1233	0.66	0.78	mg/l	+	
21FLPDEM43-01	1996	11	13	1131	0.33	0.98	mg/l	+	
21FLPDEM43-01	1997	1	15	1133	0.33	0.97	mg/l	+	
21FLPDEM43-01	1997	2	12	1326	0.33	0.8	mg/l	+	
21FLPDEM43-01	1997	3	12	1119	0.33	0.9	mg/l	+	
21FLPDEM43-01	1997	4	9	1127	0.33	0.78	mg/l	+	
21FLPDEM43-01	1997	4	30	1242	0.33	0.49	mg/l	+	
21FLPDEM43-01	1997	5	28	1218	0.33	0.94	mg/l	+	
21FLPDEM43-01	1997	6	25	1142	0.66	1	mg/l	+	
21FLPDEM43-01	1997	7	23	1159	0.33	0.56	mg/l	+	
21FLPDEM43-01	1997	8	26	1140	0.33	3.06	mg/l	+	
21FLPDEM43-01	1997	10	8	1146	0.66	1.62	mg/l	+	
21FLPDEM43-01	1997	11	3	1354	0.33	0.82	mg/l	+	
21FLPDEM43-01	1997	12	10	1112	0.33	0.64	mg/l	+	
21FLPDEM43-01	1998	2	18	1159	0.66	0.86	mg/l	+	
21FLPDEM43-01	1998	3	18	1141	0.33	0.81	mg/l	+	
21FLPDEM43-01	1998	4	13	1105	0.33	0.6	mg/l	+	
21FLPDEM43-01	1998	5	13	1148	0.33	0.57	mg/l	+	
21FLPDEM43-01	1998	6	10	1113	0.33	0.77	mg/l	+	
21FLPDEM43-01	1998	7	8	1124	0.33	0.85	mg/l	+	
21FLPDEM43-01	1998	8	3	1146	0.66	0.98	mg/l	+	
21FLPDEM43-01	1998	9	2	1112	0.33	1.6	mg/l	+	
21FLPDEM43-01	1998	9	30	1124	0.66	0.51	mg/l	+	
21FLPDEM43-01	1998	10	26	1134	0.33	1.13	mg/l	+	
21FLPDEM43-01	1998	11	23	1113	0.66	0.55	mg/l	+	
21FLPDEM43-01	1998	12	9	1124	0.33	0.95	mg/l	+	
21FLPDEMAMB 43-1	1999	1	6	1133	S	0.55	mg/l	+	
21FLPDEMAMB 43-1	1999	3	3	1113	S	0.4	mg/l	+	
21FLPDEMAMB 43-1	1999	4	28	1130	S	0.44	mg/l	+	
21FLPDEMAMB 43-1	1999	6	23	1134	S	0.62	mg/l	+	
21FLPDEMAMB 43-1	1999	8	18	1118	S	0.74	mg/l	+	
21FLPDEMAMB 43-1	1999	10	13	925	S	0.84	mg/l	+	
21FLPDEMAMB 43-1	1999	12	9	1117	S	1.08	mg/l	+	
21FLPDEMAMB 43-1	2000	1	5	1144	S	0.97	mg/l	+	

21FLPDEMAMB 43-1	2000	3	1	1134	S	0.5	mg/l	+	
21FLPDEMAMB 43-1	2000	4	26	1100	S	0.48	mg/l	+	
21FLPDEMAMB 43-1	2000	6	21	1148	S	0.63	mg/l	+	
21FLPDEMAMB 43-1	2000	10	11	1123	S	0.75	mg/l	+	
21FLPDEMAMB 43-1	2001	1	3	1112	S	0.69	mg/l	+	
21FLPDEMAMB 43-1	2001	2	28	1201	S	0.72	mg/l	+	
21FLPDEMAMB 43-1	2001	4	25	1100	S	0.69	mg/l	+	
21FLPDEMAMB 43-1	2001	6	21	1103	S	0.98	mg/l	+	
21FLPDEMAMB 43-1	2001	8	15	1055	S	0.33	mg/l	+	
21FLPDEMAMB 43-1	2001	10	10	1142	S	0.94	mg/l	+	
21FLPDEMAMB 43-1	2002	1	3	1123	0.12	1.19	mg/l	+	
21FLPDEMAMB 43-1	2002	2	27	1113	0.14	1.53	mg/l	+	
21FLPDEMAMB 43-1	2002	4	17	1106	0.10	0.59	mg/l	+	
sta	year	month	day	time	depth	result	Units	rcode	mdl
21FLPDEM44-02	2008	2	19	941	0.21	0.65	mg/l	+	
21FLPDEM44-02	2008	4	2	926	0.21	0.79	mg/l	+	
21FLPDEM44-02	2008	5	20	1231	0.22	0.77	mg/l	+	
21FLPDEM44-02	2008	7	2	1352	0.19	0.86	mg/l	+	
21FLPDEM44-02	2008	8	13	1356	0.20	0.72	mg/l	+	
21FLPDEM44-02	2008	9	10	1337	0.20	0.71	mg/l	+	
21FLPDEM44-02	2008	11	6	1002	0.20	0.58	mg/l	+	
sta	year	month	day	time	depth	result	Units	rcode	mdl
21FLTPA 27472298237236	2005	3	22	1135	0.20	0.869	mg/l	+	
21FLTPA 27472298237236	2005	4	25	1015	0.20	0.758	mg/l	+	
21FLTPA 27472298237236	2005	7	25	1020	0.20	1.111	mg/l	+	
21FLTPA 27472298237236	2005	11	7	1055	0.20	0.424	mg/l	+	
sta	year	month	day	time	depth	result	Units	rcode	mdl
21FLTPA 27473218237378	2005	3	22	1120	0.20	0.889	mg/l	+	
21FLTPA 27473218237378	2005	4	25	1000	0.20	0.884	mg/l	+	
21FLTPA 27473218237378	2005	7	25	1010	0.20	1.152	mg/l	+	
21FLTPA 27473218237378	2005	11	7	1040	0.20	0.566	mg/l	+	
sta	year	month	day	time	depth	result	Units	rcode	mdl
21FLTPA 27473788237524	2005	3	22	1100	0.20	1.504	mg/l	+	
21FLTPA 27473788237524	2005	4	25	950	0.20	0.993	mg/l	+	
21FLTPA 27473788237524	2005	7	25	1000	0.20	1.145	mg/l	+	
21FLTPA 27473788237524	2005	10	4	845	0.20	1.045	mg/l	+	
21FLTPA 27473788237524	2005	11	7	1030	0.20	0.485	mg/l	+	

sta	year	month	day	time	depth	result	Units	rcode	mdl
21FLTPA 27474728237590	2005	3	22	1150	0.20	0.936	mg/l	+	
21FLTPA 27474728237590	2005	4	25	935	0.20	0.954	mg/l	+	
21FLTPA 27474728237590	2005	7	25	950	0.20	1.409	mg/l	+	
21FLTPA 27474728237590	2005	10	4	835	0.20	1.604	mg/l	+	
21FLTPA 27474728237590	2005	11	7	1015	0.20	0.447	mg/l	+	
sta	year	month	day	time	depth	result	Units	rcode	mdl
21FLTPA 2747582823806	2005	3	22	1045	0.20	1.107	mg/l	+	
21FLTPA 2747582823806	2005	4	25	920	0.20	0.943	mg/l	+	
21FLTPA 2747582823806	2005	7	25	945	0.20	1.446	mg/l	+	
21FLTPA 2747582823806	2005	10	4	820	0.20	1.222	mg/l	+	

Total Phosphorus:

sta	year	month	day	time	depth	result	Units	rcode	mdl
21FLPDEM41-01	1992	2	26	1145	0.33	0.19	mg/l		
21FLPDEM41-01	1992	4	22	1050	0.33	0.14	mg/l		
21FLPDEM41-01	1992	5	20	1140	0.33	0.15	mg/l		
21FLPDEM41-01	1992	6	17	1044	0.33	0.21	mg/l		
21FLPDEM41-01	1992	7	15	1130	0.33	0.22	mg/l		
21FLPDEM41-01	1992	8	12	1115	0.33	0.11	mg/l		
21FLPDEM41-01	1992	9	16	1040	0.33	0.06	mg/l		
21FLPDEM41-01	1992	10	7	1145	0.33	0.2	mg/l		
21FLPDEM41-01	1992	11	4	1055	0.33	0.41	mg/l		
21FLPDEM41-01	1992	12	9	1133	0.33	0.16	mg/l		
21FLPDEM41-01	1993	1	13	1140	0.33	0.18	mg/l		
21FLPDEM41-01	1993	2	17	1110	0.33	0.54	mg/l		
21FLPDEM41-01	1993	3	10	1100	0.33	0.12	mg/l		
21FLPDEM41-01	1993	4	21	1115	0.33	0.1	mg/l		
21FLPDEM41-01	1993	5	5	1055	0.33	0.27	mg/l		
21FLPDEM41-01	1993	6	2	1230	0.33	0.29	mg/l		
21FLPDEM41-01	1993	6	30	1128	0.33	0.33	mg/l		
21FLPDEM41-01	1993	7	28	1110	0.33	0.33	mg/l		
21FLPDEM41-01	1993	8	25	1200	0.33	0.27	mg/l		
21FLPDEM41-01	1993	9	22	1120	0.33	0.05	mg/l	K	
21FLPDEM41-01	1993	12	1	1148	0.33	0.12	mg/l		
21FLPDEM41-01	1993	12	21	1045	0.33	0.2	mg/l		
21FLPDEM41-01	1994	1	18	1215	0.33	0.17	mg/l		
21FLPDEM41-01	1994	2	16	1058	0.33	0.15	mg/l		
21FLPDEM41-01	1994	3	16	1050	0.33	0.26	mg/l		
21FLPDEM41-01	1994	4	13	1040	0.33	0.13	mg/l		
21FLPDEM41-01	1994	5	11	1101	0.33	0.19	mg/l		
21FLPDEM41-01	1994	6	8	1145	0.33	0.29	mg/l		
21FLPDEM41-01	1994	7	6	1118	0.33	0.21	mg/l		
21FLPDEM41-01	1994	8	3	1120	0.33	0.19	mg/l		
21FLPDEM41-01	1994	8	31	1107	0.33	0.17	mg/l		
21FLPDEM41-01	1994	9	21	1059	0.33	0.23	mg/l		
21FLPDEM41-01	1994	10	26	1051	0.33	0.14	mg/l		
21FLPDEM41-01	1994	12	7	1048	0.33	0.26	mg/l		
21FLPDEM41-01	1995	1	11	1201	0.33	0.13	mg/l		
21FLPDEM41-01	1995	2	8	1128	0.33	0.1	mg/l		
21FLPDEM41-01	1995	3	8	1153	0.33	0.36	mg/l		
21FLPDEM41-01	1995	4	4	1120	0.66	0.09	mg/l		
21FLPDEM41-01	1995	5	2	1040	0.33	0.32	mg/l		
21FLPDEM41-01	1995	5	31	1107	0.33	0.26	mg/l		
21FLPDEM41-01	1995	6	28	1133	0.33	0.05	mg/l	K	
21FLPDEM41-01	1995	7	26	1146	0.33	0.06	mg/l		
21FLPDEM41-01	1995	8	29	1143	0.33	0.05	mg/l	K	
21FLPDEM41-01	1995	9	20	1104	0.33	0.08	mg/l		

21FLPDEM41-01	1995	10	18	1116	0.33	0.05	mg/l		
21FLPDEM41-01	1995	11	15	1148	0.98	0.14	mg/l		
21FLPDEM41-01	1996	1	10	1049	0.33	0.05	mg/l	K	
21FLPDEM41-01	1996	2	7	1147	0.33	0.05	mg/l	I	
21FLPDEM41-01	1996	3	6	1100	0.33	0.07	mg/l	I	
21FLPDEM41-01	1996	4	3	1118	0.33	0.14	mg/l		
21FLPDEM41-01	1996	5	1	1042	0.66	0.11	mg/l		
21FLPDEM41-01	1996	5	21	1056	0.33	0.26	mg/l		
21FLPDEM41-01	1996	6	26	1040	0.33	0.25	mg/l		
21FLPDEM41-01	1996	7	24	1112	0.33	0.36	mg/l		
21FLPDEM41-01	1996	8	21	1040	0.33	0.06	mg/l	I	
21FLPDEM41-01	1996	9	18	1156	0.33	0.17	mg/l		
21FLPDEM41-01	1996	10	16	1222	0.33	0.05	mg/l	I	
21FLPDEM41-01	1996	11	13	1120	0.33	0.1	mg/l		
21FLPDEM41-01	1997	1	15	1122	0.33	0.02	mg/l	I	
21FLPDEM41-01	1997	2	12	1310	0.00	0.15	mg/l		
21FLPDEM41-01	1997	3	12	1110	0.33	0.19	mg/l		
21FLPDEM41-01	1997	4	9	1117	0.33	0.24	mg/l		
21FLPDEM41-01	1997	4	30	1318	0.33	0.06	mg/l	I	
21FLPDEM41-01	1997	5	28	1159	0.33	0.04	mg/l	I	
21FLPDEM41-01	1997	6	25	1130	0.33	0.04	mg/l	I	
21FLPDEM41-01	1997	7	23	1143	0.66	0.1	mg/l		
21FLPDEM41-01	1997	8	26	1123	0.33	0.18	mg/l		
21FLPDEM41-01	1997	10	8	1134	0.33	0.02	mg/l	U	
21FLPDEM41-01	1997	11	3	1343	0.33	0.17	mg/l		
21FLPDEM41-01	1997	12	10	1100	0.33	0.06	mg/l	I	
21FLPDEM41-01	1998	2	18	1144	0.33	0.02	mg/l	U	
21FLPDEM41-01	1998	3	18	1122	0.33	0.03	mg/l	I	
21FLPDEM41-01	1998	4	13	1047	0.33	0.02	mg/l	I	
21FLPDEM41-01	1998	5	13	1136	0.33	0.08	mg/l	I	
21FLPDEM41-01	1998	6	10	1057	0.33	0.16	mg/l		
21FLPDEM41-01	1998	7	8	1115	0.33	0.05	mg/l	I	
21FLPDEM41-01	1998	8	3	1137	0.33	0.05	mg/l	I	
21FLPDEM41-01	1998	9	2	1102	0.66	0.03	mg/l	I	
21FLPDEM41-01	1998	9	30	1115	0.33	0.04	mg/l	I	
21FLPDEM41-01	1998	10	26	1123	0.33	0.15	mg/l		
21FLPDEM41-01	1998	11	23	1100	0.66	0.07	mg/l	I	
21FLPDEM41-01	1998	12	9	1113	0.33	0.12	mg/l		
21FLPDEMAMB 41-1	1999	1	6	1122	S	0.02	mg/l		
21FLPDEMAMB 41-1	1999	3	3	1058	S	0.08	mg/l		
21FLPDEMAMB 41-1	1999	4	28	1111	S	0.16	mg/l		
21FLPDEMAMB 41-1	1999	6	23	1122	S	0.31	mg/l		
21FLPDEMAMB 41-1	1999	8	18	1110	S	0.1	mg/l		
21FLPDEMAMB 41-1	1999	10	13	1031	S	0.02	mg/l		
21FLPDEMAMB 41-1	1999	12	9	1103	S	0.02	mg/l	U	0.02
21FLPDEMAMB 41-1	2000	1	5	1129	S	0.11	mg/l		
21FLPDEMAMB 41-1	2000	3	1	1122	S	0.13	mg/l		
21FLPDEMAMB 41-1	2000	4	26	1151	S	0.09	mg/l		
21FLPDEMAMB 41-1	2000	6	21	1124	S	0.1	mg/l		

21FLPDEMAMB 41-1	2000	8	16	1112	S	0.03	mg/l		
21FLPDEMAMB 41-1	2000	10	11	1110	S	0.2	mg/l		
21FLPDEMAMB 41-1	2001	1	3	1056	S	0.09	mg/l		
21FLPDEMAMB 41-1	2001	2	28	1147	S	0.12	mg/l		
21FLPDEMAMB 41-1	2001	4	25	1043	S	0.17	mg/l		
21FLPDEMAMB 41-1	2001	6	21	1049	S	0.27	mg/l		
21FLPDEMAMB 41-1	2001	8	15	1105	S	0.06	mg/l		
21FLPDEMAMB 41-1	2001	10	10	1128	S	0.05	mg/l		
21FLPDEMAMB 41-1	2002	1	3	1109	0.11	0.12	mg/l		
21FLPDEMAMB 41-1	2002	2	27	1059	0.10	0.11	mg/l		
21FLPDEMAMB 41-1	2002	4	17	1052	0.10	0.12	mg/l		
21FLPDEMAMB 41-1	2002	6	18	1108	0.11	0.15	mg/l		
sta	year	month	day	time	depth	result	Units	rcode	mdl
21FLPDEM43-01	1992	2	26	1200	0.33	0.13	mg/l		
21FLPDEM43-01	1992	3	25	1120	0.33	0.22	mg/l		
21FLPDEM43-01	1992	4	22	1105	0.33	0.28	mg/l		
21FLPDEM43-01	1992	5	20	1200	0.33	0.26	mg/l		
21FLPDEM43-01	1992	6	17	1058	0.33	0.26	mg/l		
21FLPDEM43-01	1992	7	15	1145	0.33	0.29	mg/l		
21FLPDEM43-01	1992	8	12	1130	0.33	0.26	mg/l		
21FLPDEM43-01	1992	9	16	1050	0.33	0.24	mg/l		
21FLPDEM43-01	1992	10	7	1200	0.33	0.28	mg/l		
21FLPDEM43-01	1992	11	4	1110	0.33	0.41	mg/l		
21FLPDEM43-01	1992	12	9	1145	0.33	0.21	mg/l		
21FLPDEM43-01	1993	1	13	1200	0.33	0.22	mg/l		
21FLPDEM43-01	1993	2	17	1125	0.33	0.5	mg/l		
21FLPDEM43-01	1993	3	10	1112	0.33	0.18	mg/l		
21FLPDEM43-01	1993	4	21	1125	0.33	0.23	mg/l		
21FLPDEM43-01	1993	5	5	1110	0.33	0.25	mg/l		
21FLPDEM43-01	1993	6	2	1250	0.33	0.26	mg/l		
21FLPDEM43-01	1993	6	30	1142	0.33	0.3	mg/l		
21FLPDEM43-01	1993	7	28	1125	0.33	0.44	mg/l		
21FLPDEM43-01	1993	8	25	1220	0.33	0.28	mg/l		
21FLPDEM43-01	1993	9	22	1130	0.33	0.22	mg/l		
21FLPDEM43-01	1993	12	1	1135	0.33	0.3	mg/l		
21FLPDEM43-01	1993	12	21	1105	0.33	0.19	mg/l		
21FLPDEM43-01	1994	1	18	1230	0.33	0.41	mg/l		
21FLPDEM43-01	1994	2	16	1130	0.33	0.19	mg/l		
21FLPDEM43-01	1994	3	16	1100	0.33	0.22	mg/l		
21FLPDEM43-01	1994	4	13	1053	0.33	0.26	mg/l		
21FLPDEM43-01	1994	5	11	1110	0.33	0.24	mg/l		
21FLPDEM43-01	1994	6	8	1205	0.33	0.29	mg/l		
21FLPDEM43-01	1994	7	6	1135	0.33	0.27	mg/l		
21FLPDEM43-01	1994	8	3	1135	0.33	0.28	mg/l		
21FLPDEM43-01	1994	8	31	1123	0.33	0.2	mg/l		
21FLPDEM43-01	1994	9	21	1112	0.33	0.28	mg/l		
21FLPDEM43-01	1994	10	26	1103	0.33	0.4	mg/l		
21FLPDEM43-01	1994	12	7	1100	0.33	0.34	mg/l		

21FLPDEM43-01	1995	1	11	1223	0.33	0.21	mg/l		
21FLPDEM43-01	1995	2	8	1139	0.33	0.42	mg/l		
21FLPDEM43-01	1995	3	8	1207	0.33	0.27	mg/l		
21FLPDEM43-01	1995	4	4	1131	0.33	0.27	mg/l		
21FLPDEM43-01	1995	5	2	1057	0.33	0.28	mg/l		
21FLPDEM43-01	1995	5	31	1121	0.33	0.29	mg/l		
21FLPDEM43-01	1995	6	28	1151	0.33	0.17	mg/l	Q	
21FLPDEM43-01	1995	7	26	1156	0.33	0.27	mg/l		
21FLPDEM43-01	1995	8	29	1200	0.33	0.25	mg/l		
21FLPDEM43-01	1995	9	20	1119	0.33	0.32	mg/l		
21FLPDEM43-01	1995	10	18	1133	0.33	0.3	mg/l		
21FLPDEM43-01	1995	11	15	1205	0.33	0.24	mg/l		
21FLPDEM43-01	1996	1	10	1103	0.33	0.3	mg/l		
21FLPDEM43-01	1996	2	7	1157	0.33	0.13	mg/l		
21FLPDEM43-01	1996	3	6	1120	0.33	0.16	mg/l		
21FLPDEM43-01	1996	4	3	1135	0.33	0.21	mg/l		
21FLPDEM43-01	1996	5	1	1101	0.66	0.17	mg/l		
21FLPDEM43-01	1996	5	21	1111	0.33	0.25	mg/l		
21FLPDEM43-01	1996	6	26	1059	0.33	0.25	mg/l		
21FLPDEM43-01	1996	7	24	1125	0.33	0.22	mg/l		
21FLPDEM43-01	1996	8	21	1100	0.33	0.22	mg/l		
21FLPDEM43-01	1996	9	18	1214	0.33	0.16	mg/l		
21FLPDEM43-01	1996	10	16	1233	0.66	0.13	mg/l		
21FLPDEM43-01	1996	11	13	1131	0.33	0.26	mg/l		
21FLPDEM43-01	1997	1	15	1133	0.33	0.06	mg/l	I	
21FLPDEM43-01	1997	2	12	1326	0.33	0.2	mg/l		
21FLPDEM43-01	1997	3	12	1119	0.33	0.19	mg/l		
21FLPDEM43-01	1997	4	9	1127	0.33	0.22	mg/l		
21FLPDEM43-01	1997	4	30	1242	0.33	0.14	mg/l		
21FLPDEM43-01	1997	5	28	1218	0.33	0.07	mg/l	I	
21FLPDEM43-01	1997	6	25	1142	0.66	0.1	mg/l		
21FLPDEM43-01	1997	7	23	1159	0.33	0.13	mg/l		
21FLPDEM43-01	1997	8	26	1140	0.33	0.34	mg/l		
21FLPDEM43-01	1997	10	8	1146	0.66	0.22	mg/l		
21FLPDEM43-01	1997	11	3	1354	0.33	0.21	mg/l		
21FLPDEM43-01	1997	12	10	1112	0.33	0.18	mg/l		
21FLPDEM43-01	1998	2	18	1159	0.66	0.21	mg/l		
21FLPDEM43-01	1998	3	18	1141	0.33	0.24	mg/l		
21FLPDEM43-01	1998	4	13	1105	0.33	0.27	mg/l		
21FLPDEM43-01	1998	5	13	1148	0.33	0.23	mg/l		
21FLPDEM43-01	1998	6	10	1113	0.33	0.23	mg/l		
21FLPDEM43-01	1998	7	8	1124	0.33	0.18	mg/l		
21FLPDEM43-01	1998	8	3	1146	0.66	0.2	mg/l		
21FLPDEM43-01	1998	9	2	1112	0.33	0.27	mg/l		
21FLPDEM43-01	1998	9	30	1124	0.66	0.16	mg/l		
21FLPDEM43-01	1998	10	26	1134	0.33	0.24	mg/l		
21FLPDEM43-01	1998	11	23	1113	0.66	0.18	mg/l		
21FLPDEM43-01	1998	12	9	1124	0.33	0.26	mg/l		
21FLPDEMAMB 43-1	1999	1	6	1133	.	0.17	mg/l		

21FLTPA 27473218237378	2005	11	7	1040	0.20	0.18	mg/l		0.02
sta	year	month	day	time	depth	result	Units	rcode	mdl
21FLTPA 27473788237524	2005	3	22	1100	0.20	0.19	mg/l		0.02
21FLTPA 27473788237524	2005	4	25	950	0.20	0.14	mg/l		0.02
21FLTPA 27473788237524	2005	7	25	1000	0.20	0.22	mg/l		0.02
21FLTPA 27473788237524	2005	10	4	845	0.20	0.24	mg/l		0.02
21FLTPA 27473788237524	2005	11	7	1030	0.20	0.19	mg/l		0.02
sta	year	month	day	time	depth	result	Units	rcode	mdl
21FLTPA 27474728237590	2005	3	22	1150	0.20	0.13	mg/l		0.02
21FLTPA 27474728237590	2005	4	25	935	0.20	0.18	mg/l		0.02
21FLTPA 27474728237590	2005	7	25	950	0.20	0.27	mg/l		0.02
21FLTPA 27474728237590	2005	10	4	835	0.20	0.29	mg/l		0.02
21FLTPA 27474728237590	2005	11	7	1015	0.20	0.18	mg/l		0.02
sta	year	month	day	time	depth	result	Units	rcode	mdl
21FLTPA 2747582823806	2005	3	22	1045	0.20	0.14	mg/l		0.02
21FLTPA 2747582823806	2005	4	25	920	0.20	0.17	mg/l		0.02
21FLTPA 2747582823806	2005	7	25	945	0.20	0.28	mg/l		0.02
21FLTPA 2747582823806	2005	10	4	820	0.20	0.35	mg/l		0.02

Color:

sta	year	month	day	time	depth	result	Units	rcode	mdl
21FLTPA 27472298237236	2005	3	22	1135	0.20	10	PCU		5
21FLTPA 27473218237378	2005	3	22	1120	0.20	15	PCU		5
21FLTPA 27473788237524	2005	3	22	1100	0.20	15	PCU		5
21FLTPA 27474728237590	2005	3	22	1150	0.20	10	PCU		5
21FLTPA 2747582823806	2005	3	22	1045	0.20	15	PCU		5
21FLTPA 27472298237236	2005	4	25	1015	0.20	20	PCU		5
21FLTPA 27473218237378	2005	4	25	1000	0.20	20	PCU		5
21FLTPA 27473788237524	2005	4	25	950	0.20	30	PCU		5
21FLTPA 27474728237590	2005	4	25	935	0.20	30	PCU		5
21FLTPA 2747582823806	2005	4	25	920	0.20	30	PCU		5
21FLTPA 27472298237236	2005	7	25	1020	0.20	30	PCU		5
21FLTPA 27473218237378	2005	7	25	1010	0.20	30	PCU	A	5
21FLTPA 27473788237524	2005	7	25	1000	0.20	30	PCU		5
21FLTPA 27474728237590	2005	7	25	950	0.20	30	PCU		5
21FLTPA 2747582823806	2005	7	25	945	0.20	40	PCU		5
21FLTPA 27473788237524	2005	10	4	845	0.20	50	PCU		5
21FLTPA 27474728237590	2005	10	4	835	0.20	50	PCU		5
21FLTPA 2747582823806	2005	10	4	820	0.20	50	PCU		5
21FLTPA 27472298237236	2005	11	7	1055	0.20	15	PCU		5
21FLTPA 27473218237378	2005	11	7	1040	0.20	15	PCU		5
21FLTPA 27473788237524	2005	11	7	1030	0.20	15	PCU		5
21FLTPA 27474728237590	2005	11	7	1015	0.20	15	PCU		5

Salinity:

sta	year	month	day	time	depth	result	Units	rcode	mdl
21FLBRA 1700-A	2008	4	11	1005	0.20	26.02	ppt		m
21FLBRA 1700-A	2008	4	29	915	0.20	30.3	ppt		m
21FLBRA 1700-B	2008	4	11	1020	0.20	27.43	ppt		m
sta	year	month	day	time	depth	result	Units	rcode	mdl
21FLGFWFTBA970141	1997	8	11	801	1.00	25.9	ppt		
21FLGFWFTBA970142	1997	8	11	905	1.90	21.1	ppt		
21FLGFWFTBA970332	1997	2	4	1018	2.00	28.6	ppt		
21FLGFWFTBA970497	1997	8	6	1055	3.00	25.5	ppt		
21FLGFWFTBM960158	1996	2	16	1042	0.70	30	ppt		
21FLGFWFTBM980071	1998	1	21	1127	1.50	15.8	ppt		
21FLGFWFTBM990152	1999	2	11	908	2.40	25.6	ppt		
sta	year	month	day	time	depth	result	Units	rcode	mdl
21FLHILL00MTB4090	2000	9	18	1013	0.10	23.3	ppt		
21FLHILL00MTB4090	2000	9	18	1013	2.50	28.7	ppt		
sta	year	month	day	time	depth	result	Units	rcode	mdl
21FLPDEM41-01	1991	1	18	1154	0.33	9.9	ppt		
21FLPDEM41-01	1991	2	20	1149	0.33	29.8	ppt		
21FLPDEM41-01	1991	3	13	1051	3.28	28.6	ppt		
21FLPDEM41-01	1991	3	13	1055	1.64	28.9	ppt		
21FLPDEM41-01	1991	3	13	1056	0.33	23.6	ppt		
21FLPDEM41-01	1991	4	10	1132	1.64	28.9	ppt		
21FLPDEM41-01	1991	4	10	1135	0.33	28.9	ppt		
21FLPDEM41-01	1991	5	8	1129	0.33	26.8	ppt		
21FLPDEM41-01	1991	6	5	1111	0.33	30.9	ppt		
21FLPDEM41-01	1991	7	2	1010	0.33	18.9	ppt		
21FLPDEM41-01	1991	7	31	1130	0.33	0	ppt		
21FLPDEM41-01	1991	8	28	1040	0.33	5.3	ppt		
21FLPDEM41-01	1991	8	28	1042	1.64	17.4	ppt		
21FLPDEM41-01	1991	9	18	1114	0.33	21.2	ppt		
21FLPDEM41-01	1991	11	13	1135	0.33	25.1	ppt		
21FLPDEM41-01	1991	12	11	1050	0.33	26.6	ppt		
21FLPDEM41-01	1992	1	29	1109	0.33	29	ppt		
21FLPDEM41-01	1992	2	26	1145	0.33	15.1	ppt		
21FLPDEM41-01	1992	3	25	1102	0.33	16.1	ppt		
21FLPDEM41-01	1992	4	22	1050	0.33	19.4	ppt		
21FLPDEM41-01	1992	5	20	1140	0.33	24.1	ppt		
21FLPDEM41-01	1992	6	17	1044	0.33	25.3	ppt		
21FLPDEM41-01	1992	7	15	1130	0.33	24.3	ppt		
21FLPDEM41-01	1992	8	12	1115	0.33	1.7	ppt		
21FLPDEM41-01	1992	8	12	1120	1.64	23.2	ppt		
21FLPDEM41-01	1992	9	16	1040	0.33	21.7	ppt		

21FLPDEM41-01	1992	10	7	1145	0.33	7.6	ppt		
21FLPDEM41-01	1992	11	4	1055	0.33	17.3	ppt		
21FLPDEM41-01	1992	12	9	1133	0.33	21.9	ppt		
21FLPDEM41-01	1993	1	13	1140	0.33	4.2	ppt		
21FLPDEM41-01	1993	2	17	1110	0.33	21	ppt		
21FLPDEM41-01	1993	3	10	1100	0.33	20.1	ppt		
21FLPDEM41-01	1993	4	21	1115	0.33	22.9	ppt		
21FLPDEM41-01	1993	4	21	1117	3.28	24.1	ppt		
21FLPDEM41-01	1993	5	5	1055	0.33	18.9	ppt		
21FLPDEM41-01	1993	5	5	1056	1.64	19.7	ppt		
21FLPDEM41-01	1993	6	2	1230	0.33	21.6	ppt		
21FLPDEM41-01	1993	6	2	1233	2.62	22.3	ppt		
21FLPDEM41-01	1993	6	30	1128	0.33	24.4	ppt		
21FLPDEM41-01	1993	6	30	1129	1.64	0.4	ppt		
21FLPDEM41-01	1993	7	28	1109	1.97	27.6	ppt		
21FLPDEM41-01	1993	7	28	1110	0.33	27.6	ppt		
21FLPDEM41-01	1993	8	25	1158	1.64	29.2	ppt		
21FLPDEM41-01	1993	8	25	1200	0.33	25.6	ppt		
21FLPDEM41-01	1993	9	22	1120	0.33	7.9	ppt		
21FLPDEM41-01	1993	10	20	1151	0.33	21.9	ppt		
21FLPDEM41-01	1993	12	1	1148	0.33	5	ppt		
21FLPDEM41-01	1993	12	21	1043	3.28	30.3	ppt		
21FLPDEM41-01	1993	12	21	1044	1.64	30.3	ppt		
21FLPDEM41-01	1993	12	21	1045	0.33	30.2	ppt		
21FLPDEM41-01	1994	1	18	1215	0.33	25	ppt		
21FLPDEM41-01	1994	2	16	1058	0.33	30	ppt		
21FLPDEM41-01	1994	3	16	1050	0.33	30	ppt		
21FLPDEM41-01	1994	4	13	1040	0.33	23	ppt		
21FLPDEM41-01	1994	5	11	1101	0.33	30	ppt		
21FLPDEM41-01	1994	6	8	1145	0.33	22	ppt		
21FLPDEM41-01	1994	7	6	1118	0.33	27	ppt		
21FLPDEM41-01	1994	8	3	1120	0.33	22	ppt		
21FLPDEM41-01	1994	8	3	1121	1.64	25	ppt		
21FLPDEM41-01	1994	8	31	1106	1.97	21	ppt		
21FLPDEM41-01	1994	8	31	1107	0.33	4	ppt		
21FLPDEM41-01	1994	9	21	1059	0.33	20	ppt		
21FLPDEM41-01	1994	10	26	1051	0.33	18	ppt		
21FLPDEM41-01	1994	12	7	1048	0.33	21	ppt		
21FLPDEM41-01	1995	1	11	1201	0.33	2	ppt		
21FLPDEM41-01	1995	2	8	1128	0.33	2	ppt		
21FLPDEM41-01	1995	3	8	1153	0.33	1	ppt		
21FLPDEM41-01	1995	3	8	1154	0.98	18	ppt		
21FLPDEM41-01	1995	4	4	1120	0.66	9	ppt		
21FLPDEM41-01	1995	5	2	1040	0.33	26	ppt		
21FLPDEM41-01	1995	5	31	1107	0.33	33	ppt		
21FLPDEM41-01	1995	6	28	1131	2.30	16	ppt		
21FLPDEM41-01	1995	6	28	1133	0.33	0	ppt		
21FLPDEM41-01	1995	7	26	1143	2.30	23	ppt		
21FLPDEM41-01	1995	7	26	1144	1.31	24	ppt		

21FLPDEM41-01	1995	7	26	1146	0.33	10	ppt		
21FLPDEM41-01	1995	8	29	1143	0.33	0	ppt		
21FLPDEM41-01	1995	9	20	1104	0.33	15	ppt		
21FLPDEM41-01	1995	9	20	1106	1.97	20	ppt		
21FLPDEM41-01	1995	10	18	1116	0.33	18	ppt		
21FLPDEM41-01	1995	10	18	1123	1.64	19	ppt		
21FLPDEM41-01	1995	11	15	1148	0.98	18	ppt		
21FLPDEM41-01	1996	1	10	1049	0.33	0	ppt		
21FLPDEM41-01	1996	2	7	1147	0.33	0	ppt		
21FLPDEM41-01	1996	3	6	1100	0.33	2	ppt		
21FLPDEM41-01	1996	4	3	1118	0.33	8	ppt		
21FLPDEM41-01	1996	5	1	1042	0.66	17	ppt		
21FLPDEM41-01	1996	5	21	1056	0.33	1	ppt		
21FLPDEM41-01	1996	5	21	1059	1.64	20	ppt		
21FLPDEM41-01	1996	6	26	1040	0.33	22	ppt		
21FLPDEM41-01	1996	7	24	1112	0.33	21	ppt		
21FLPDEM41-01	1996	7	24	1113	1.64	23	ppt		
21FLPDEM41-01	1996	8	21	1040	0.33	10	ppt		
21FLPDEM41-01	1996	9	18	1156	0.33	21	ppt		
21FLPDEM41-01	1996	10	16	1222	0.33	25	ppt		
21FLPDEM41-01	1996	11	13	1120	0.33	20	ppt		
21FLPDEM41-01	1997	1	15	1122	0.33	26	ppt		
21FLPDEM41-01	1997	2	12	1310	0.00	19	ppt		
21FLPDEM41-01	1997	3	12	1110	0.33	27	ppt		
21FLPDEM41-01	1997	4	9	1117	0.33	26	ppt		
21FLPDEM41-01	1997	4	30	1318	0.33	16	ppt		
21FLPDEM41-01	1997	5	28	1159	0.33	10	ppt		
21FLPDEM41-01	1997	6	25	1129	1.31	21	ppt		
21FLPDEM41-01	1997	6	25	1130	0.33	7	ppt		
21FLPDEM41-01	1997	7	23	1143	0.66	8	ppt		
21FLPDEM41-01	1997	8	26	1123	0.33	19	ppt		
21FLPDEM41-01	1997	9	17	1141	0.33	21	ppt		
21FLPDEM41-01	1997	10	8	1134	0.33	1	ppt		
21FLPDEM41-01	1997	11	3	1343	0.33	21	ppt		
21FLPDEM41-01	1997	12	10	1100	0.33	19	ppt		
21FLPDEM41-01	1998	1	21	1202	0.66	13	ppt		
21FLPDEM41-01	1998	2	18	1144	0.33	0	ppt		
21FLPDEM41-01	1998	3	18	1122	0.33	1	ppt		
21FLPDEM41-01	1998	4	13	1047	0.33	0	ppt		
21FLPDEM41-01	1998	5	13	1136	0.33	14	ppt		
21FLPDEM41-01	1998	6	10	1057	0.33	20	ppt		
21FLPDEM41-01	1998	7	8	1115	0.33	2	ppt		
21FLPDEM41-01	1998	8	3	1136	1.97	16	ppt		
21FLPDEM41-01	1998	8	3	1137	0.33	5	ppt		
21FLPDEM41-01	1998	9	2	1101	2.30	21	ppt		
21FLPDEM41-01	1998	9	2	1102	0.66	20	ppt		
21FLPDEM41-01	1998	9	30	1114	2.62	16	ppt		
21FLPDEM41-01	1998	9	30	1115	0.33	3	ppt		
21FLPDEM41-01	1998	10	26	1123	0.33	14	ppt		

21FLPDEM43-01	1991	7	2	1025	0.33	23.4	ppt		
21FLPDEM43-01	1991	7	31	1200	0.33	24.9	ppt		
21FLPDEM43-01	1991	8	28	1100	0.33	17.4	ppt		
21FLPDEM43-01	1991	9	18	1132	0.33	21.4	ppt		
21FLPDEM43-01	1991	11	13	1154	0.33	26	ppt		
21FLPDEM43-01	1991	12	11	1120	0.33	28	ppt		
21FLPDEM43-01	1992	1	29	1126	0.33	29.3	ppt		
21FLPDEM43-01	1992	2	26	1200	0.33	17	ppt		
21FLPDEM43-01	1992	3	25	1120	0.33	28.4	ppt		
21FLPDEM43-01	1992	4	22	1105	0.33	22	ppt		
21FLPDEM43-01	1992	5	20	1200	0.33	25.1	ppt		
21FLPDEM43-01	1992	6	17	1058	0.33	27	ppt		
21FLPDEM43-01	1992	7	15	1145	0.33	26.9	ppt		
21FLPDEM43-01	1992	8	12	1130	0.33	24.3	ppt		
21FLPDEM43-01	1992	9	16	1050	0.33	21.8	ppt		
21FLPDEM43-01	1992	10	7	1200	0.33	17.8	ppt		
21FLPDEM43-01	1992	11	4	1110	0.33	21.3	ppt		
21FLPDEM43-01	1992	12	9	1145	0.33	25.1	ppt		
21FLPDEM43-01	1993	1	13	1200	0.33	17.3	ppt		
21FLPDEM43-01	1993	2	17	1125	0.33	22.3	ppt		
21FLPDEM43-01	1993	3	10	1112	0.33	22.7	ppt		
21FLPDEM43-01	1993	4	21	1125	0.33	24.7	ppt		
21FLPDEM43-01	1993	5	5	1110	0.33	20.2	ppt		
21FLPDEM43-01	1993	6	2	1250	0.33	22.2	ppt		
21FLPDEM43-01	1993	6	2	1253	1.97	22.4	ppt		
21FLPDEM43-01	1993	6	30	1142	0.33	24.5	ppt		
21FLPDEM43-01	1993	7	28	1124	1.97	28.5	ppt		
21FLPDEM43-01	1993	7	28	1125	0.33	28.3	ppt		
21FLPDEM43-01	1993	8	25	1220	0.33	29	ppt		
21FLPDEM43-01	1993	9	22	1130	0.33	26.1	ppt		
21FLPDEM43-01	1993	10	20	1217	0.33	24.3	ppt		
21FLPDEM43-01	1993	12	1	1135	0.33	27.2	ppt		
21FLPDEM43-01	1993	12	21	1105	0.33	29.8	ppt		
21FLPDEM43-01	1994	1	18	1230	0.33	25	ppt		
21FLPDEM43-01	1994	2	16	1130	0.33	28	ppt		
21FLPDEM43-01	1994	3	16	1100	0.33	31	ppt		
21FLPDEM43-01	1994	4	13	1053	0.33	31	ppt		
21FLPDEM43-01	1994	5	11	1110	0.33	30	ppt		
21FLPDEM43-01	1994	6	8	1205	0.33	29	ppt		
21FLPDEM43-01	1994	7	6	1135	0.33	31	ppt		
21FLPDEM43-01	1994	7	6	1136	1.97	31	ppt		
21FLPDEM43-01	1994	8	3	1135	0.33	26	ppt		
21FLPDEM43-01	1994	8	31	1123	0.33	18	ppt		
21FLPDEM43-01	1994	9	21	1112	0.33	20	ppt		
21FLPDEM43-01	1994	10	26	1103	0.33	18	ppt		
21FLPDEM43-01	1994	12	7	1100	0.33	21	ppt		
21FLPDEM43-01	1995	1	11	1223	0.33	26	ppt		
21FLPDEM43-01	1995	2	8	1139	0.33	25	ppt		
21FLPDEM43-01	1995	3	8	1207	0.33	23	ppt		

21FLPDEM43-01	1995	4	4	1131	0.33	26	ppt		
21FLPDEM43-01	1995	5	2	1057	0.33	26	ppt		
21FLPDEM43-01	1995	5	31	1121	0.33	34	ppt		
21FLPDEM43-01	1995	6	28	1151	0.33	21	ppt		
21FLPDEM43-01	1995	7	26	1156	0.33	23	ppt		
21FLPDEM43-01	1995	7	26	1157	1.97	25	ppt		
21FLPDEM43-01	1995	8	29	1200	0.33	12	ppt		
21FLPDEM43-01	1995	9	20	1119	0.33	15	ppt		
21FLPDEM43-01	1995	9	20	1122	1.97	20	ppt		
21FLPDEM43-01	1995	10	18	1133	0.33	17	ppt		
21FLPDEM43-01	1995	10	18	1136	1.64	18	ppt		
21FLPDEM43-01	1995	11	15	1205	0.33	19	ppt		
21FLPDEM43-01	1996	1	10	1103	0.33	20	ppt		
21FLPDEM43-01	1996	2	7	1157	0.33	15	ppt		
21FLPDEM43-01	1996	3	6	1120	0.33	21	ppt		
21FLPDEM43-01	1996	4	3	1135	0.33	21	ppt		
21FLPDEM43-01	1996	5	1	1101	0.66	14	ppt		
21FLPDEM43-01	1996	5	21	1111	0.33	21	ppt		
21FLPDEM43-01	1996	6	26	1059	0.33	23	ppt		
21FLPDEM43-01	1996	6	26	1100	1.31	23	ppt		
21FLPDEM43-01	1996	7	24	1125	0.33	23	ppt		
21FLPDEM43-01	1996	8	21	1100	0.33	24	ppt		
21FLPDEM43-01	1996	9	18	1214	0.33	25	ppt		
21FLPDEM43-01	1996	10	16	1233	0.66	23	ppt		
21FLPDEM43-01	1996	11	13	1131	0.33	24	ppt		
21FLPDEM43-01	1997	1	15	1133	0.33	26	ppt		
21FLPDEM43-01	1997	2	12	1326	0.33	27	ppt		
21FLPDEM43-01	1997	3	12	1119	0.33	28	ppt		
21FLPDEM43-01	1997	4	9	1127	0.33	26	ppt		
21FLPDEM43-01	1997	4	30	1242	0.33	24	ppt		
21FLPDEM43-01	1997	5	28	1217	0.98	27	ppt		
21FLPDEM43-01	1997	5	28	1218	0.33	26	ppt		
21FLPDEM43-01	1997	6	25	1142	0.66	26	ppt		
21FLPDEM43-01	1997	7	23	1159	0.33	25	ppt		
21FLPDEM43-01	1997	8	26	1139	0.98	14	ppt		
21FLPDEM43-01	1997	8	26	1140	0.33	12	ppt		
21FLPDEM43-01	1997	9	17	1154	0.33	24	ppt		
21FLPDEM43-01	1997	10	8	1146	0.66	20	ppt		
21FLPDEM43-01	1997	11	3	1354	0.33	22	ppt		
21FLPDEM43-01	1997	12	10	1112	0.33	22	ppt		
21FLPDEM43-01	1998	1	21	1211	0.33	11	ppt		
21FLPDEM43-01	1998	2	18	1159	0.66	9	ppt		
21FLPDEM43-01	1998	3	18	1141	0.33	14	ppt		
21FLPDEM43-01	1998	4	13	1105	0.33	16	ppt		
21FLPDEM43-01	1998	5	13	1148	0.33	19	ppt		
21FLPDEM43-01	1998	6	10	1113	0.33	21	ppt		
21FLPDEM43-01	1998	7	8	1124	0.33	12	ppt		
21FLPDEM43-01	1998	7	8	1125	1.64	13	ppt		
21FLPDEM43-01	1998	8	3	1146	0.66	16	ppt		

21FLPDEM44-02	2008	5	20	1232	1.22	31.66	ppt		m
21FLPDEM44-02	2008	5	20	1233	2.48	31.8	ppt		m
21FLPDEM44-02	2008	7	2	1352	0.19	30.05	ppt		m
21FLPDEM44-02	2008	8	13	1356	0.20	28.82	ppt		m
21FLPDEM44-02	2008	8	13	1357	1.39	29.02	ppt		m
21FLPDEM44-02	2008	8	13	1358	2.56	29.98	ppt		m
21FLPDEM44-02	2008	9	10	1337	0.18	27.78	ppt		m
21FLPDEM44-02	2008	9	10	1338	1.65	27.89	ppt		m
21FLPDEM44-02	2008	9	10	1339	3.22	27.9	ppt		m
sta	year	month	day	time	depth	result	Units	rcode	mdl
21FLTPA 27472298237236	2005	3	22	1135	0.20	26.02	ppt		
21FLTPA 27472298237236	2005	4	25	1015	0.20	27.7	ppt		
21FLTPA 27472298237236	2005	7	25	1020	0.20	19.49	ppt		
21FLTPA 27472298237236	2005	11	7	1055	0.20	24.99	ppt		
sta	year	month	day	time	depth	result	Units	rcode	mdl
21FLTPA 27473218237378	2005	3	22	1120	0.20	25.45	ppt		
21FLTPA 27473218237378	2005	4	25	1000	0.20	26.9	ppt		
21FLTPA 27473218237378	2005	7	25	1010	0.20	16.5	ppt		
21FLTPA 27473218237378	2005	11	7	1040	0.20	24.02	ppt		
sta	year	month	day	time	depth	result	Units	rcode	mdl
21FLTPA 27473788237524	2005	3	22	1100	0.20	25.2	ppt		
21FLTPA 27473788237524	2005	4	25	950	0.20	26.74	ppt		
21FLTPA 27473788237524	2005	7	25	1000	0.20	18.3	ppt		
21FLTPA 27473788237524	2005	10	4	845	0.20	17.34	ppt		
21FLTPA 27473788237524	2005	11	7	1030	0.20	24.02	ppt		
sta	year	month	day	time	depth	result	Units	rcode	mdl
21FLTPA 27474728237590	2005	3	22	1150	0.20	24.94	ppt		
21FLTPA 27474728237590	2005	4	25	935	0.20	26.87	ppt		
21FLTPA 27474728237590	2005	7	25	950	0.20	17.9	ppt		
21FLTPA 27474728237590	2005	10	4	835	0.20	23.4	ppt		
21FLTPA 27474728237590	2005	11	7	1015	0.20	24.22	ppt		
sta	year	month	day	time	depth	result	Units	rcode	mdl
21FLTPA 2747582823806	2005	3	22	1045	0.20	23.82	ppt		
21FLTPA 2747582823806	2005	4	25	920	0.20	26.78	ppt		
21FLTPA 2747582823806	2005	7	25	945	0.20	16.82	ppt		
21FLTPA 2747582823806	2005	10	4	820	0.20	22.56	ppt		