

# Appendix 3-2: Annual Permit Report for the Non-Everglades Construction Project

Permit Report (May 1, 2009–April 30, 2010)

Original Permit Number: 06, 502590709

Current Permit Number: 0237803

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## SUMMARY

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Based on Florida Department of Environmental Protection (FDEP) permit reporting guidelines, **Table 1** shows cross-references for permit specific conditions in the permit and the specific reference pages. **Table 2** lists key permit-related information. **Attachment A**, Table A-1, of this appendix shows the specific pages, tables, and graphs where project status and annual reporting requirements are addressed.

**Table 1.** Permit specific conditions and reference in the permit.

Permit Conditions	FDEP Modification Number: 0237803-10
Annual Monitoring Reports	Specific Condition 5 on page 6

**Table 2.** Key permit-related information.

<b>Project Name</b>	<b>Non-Everglades Construction Project</b>
<b>Permit Number</b>	06, 502590709, 0237803-007 (mod.)
<b>Permit Application Date</b>	September 30, 1994
<b>The First Issue and Expiration Date</b>	Issue: April 20, 1998 Expiration: April 20, 2003
<b>Permit Reissue and Expiration Date (mod.)</b>	Issue: April 21, 2003 Expiration: Until the Long-Term Compliance Permit required by the Everglades Forever Act (EFA) is issued.
<b>Relevant Period of Record</b>	May 1, 2009—April 30, 2010
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<b>Date</b>	October 7, 2010

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## INTRODUCTION

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The non-Everglades Construction Project (non-ECP) permit [Florida Department of Environmental Protection (FDEP) No. 06, 502590709] authorizes the South Florida Water Management District (SFWMD or District) to operate and maintain structures (37 structures), in compliance with the reporting requirements stated in Specific Conditions 5 and 12 of the non-ECP permit.

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## METHODS

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### WATER QUALITY AND HYDROLOGIC DATA

The water quality and hydrologic data evaluated in this appendix were retrieved from the South Florida Water Management District's DBHYDRO database. Before water quality data are entered into the database, the District follows strict quality assurance/quality control (QA/QC) procedures outlined in the District's Chemistry Laboratory Quality Manual and Field Sampling Quality Manual (SFWMD, 2010a and b). The laboratory manual was developed in accordance with the National Laboratory Accreditation Conference (NELAC) requirements and the field manual in accordance with Florida Department of Environmental Protection (FDEP) Quality Assurance Rule [Chapter 62-160, Florida Administrative Code (F.A.C.)]. The quality manuals provide assurances that the water quality monitoring program is providing accurate data and that sufficient progress is being made toward achieving water quality standards.

The standards used to evaluate the accuracy of the rating for flow calculations are consistent with the SFWMD Standard Operating Procedures (SOP) for Flow Data Management in the District Hydrologic Database (Akpoji et al., 2003) and U.S. Geological Survey approach as outlined by Novak (1985). Four accuracy classifications are adopted to assess a rating's accuracy. The rating is classified as (1) excellent when about 95 percent of the predicted flow rates are within  $\pm 5$  percent of the measured discharges, (2) good if they are within  $\pm 10$  percent, (3) fair if they are within  $\pm 15$ , and (4) poor when they are not within  $\pm 15$  percent.

This appendix includes the following supporting documentation to satisfy the monitoring requirements of the non-ECP permit:

- **Attachment A** – Specific Conditions and Cross-References
- **Attachment B** – Non-Everglades Construction Project Water Quality Sampling Sites, Monitoring Schedule and Flow Volumes
- **Attachment C** – Summary Statistics of Non-Everglades Construction Project Water Quality Monitoring Data for Water Year 2010
- **Attachment D** – Time-Series and Box Plots for Non-Everglades Construction Project Water Quality Monitoring Data Exhibiting Excursions from Class III Numeric Standards for Water Year 2010
- **Attachment E** – Time-Series and Box Plots of Total Phosphorus at Non-Everglades Construction Project Monitoring Sites for Water Year 2009 and Earlier Periods
- **Attachment F** – Statements of Authenticity for Analytical and Sampling Programs
- **Attachment G** – Supporting Information on Water Quality and Flow Data for Non-ECP Monitoring Locations for Water Year 2010

## PERMIT SAMPLING SITES

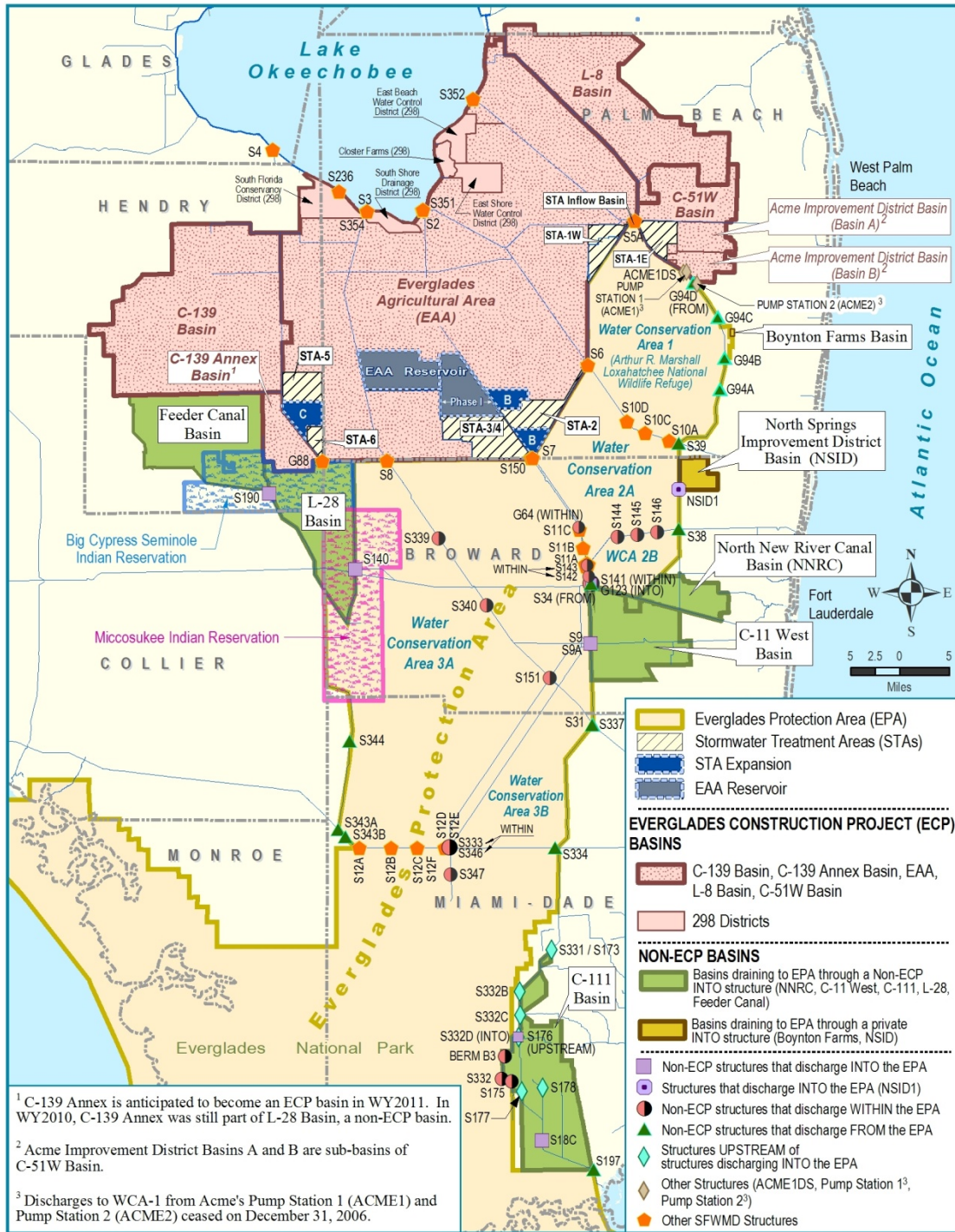
In addition to authorizing the operation and maintenance of non-ECP structures, the non-ECP permit requires a routine water quality monitoring program to characterize the quality of water discharged through District structures. Currently, the non-ECP permit requires monitoring at four additional C-111 basin structures (upstream) that are controlled by the District, and one structure that is controlled by the North Springs Improvement District (NSID).

The District typically collects water quality samples on the upstream side of a structure or at a nearby location representative of the quality of water flowing through a structure. Structure locations are shown in **Figure 1**. In accordance with Specific Condition 16, the District submitted a Monitoring Locations Report to the FDEP on July 15, 1998, that included detailed information on the specific locations for sample collection for 44 structures. On August 9, 2001, the District submitted a minor modification to the non-ECP permit to include Phase I of the Western C-11 Basin Critical Restoration Project (including operation and maintenance of the S-9A pump station). Various modifications have been made and the current monitoring program encompasses 37 locations that provide the representative information to characterize the quality of water discharged through the 37 structures. The structure names, representative water quality monitoring location names, and sampling frequencies of the various categories of chemical constituents and physical properties required by the monitoring schedule denoted in the permit, monthly and annual flow volumes are shown in **Attachment B**, Table B-1, of this appendix.

## PERMIT DATA ANALYSIS PERIODS

Specific Condition 12 requires the District to submit annual monitoring reports providing updates on water quality data and associated comparisons with state water quality standards. The water quality characterization includes an evaluation of compliance with Class III criteria for each monitoring location representative of a non-ECP structure.

This appendix provides the annual update of the non-ECP permit monitoring program (Specific Condition 12) and a comparison of water quality data at non-ECP structures to state water quality standards from Water Year 2010 (WY2010) (May 1, 2009–April 30, 2010), the thirteenth year of non-ECP data. These comparisons fulfill the non-ECP permit requirements to measure progress toward achieving and maintaining compliance with state water quality standards.



**Figure 1. Non-Everglades Construction Project (non-ECP) discharge structures and additional upstream structures.**

## Method Detection Limits

Each water quality constituent has a method detection limit (MDL) that essentially defines the minimum concentration, or level, at which the presence of the constituent can be positively verified; it is usually twice the background noise level associated with a test. The MDL does not represent a level at which an exact measurement can be determined. The practical quantitation limit (PQL) represents the lowest level at which a measurement can be considered quantifiably reliable for a constituent that is achievable (among laboratories within specified limits during routine laboratory operations). Generally, the PQL is four times the MDL, although different laboratories may establish PQLs at two to five times the MDL. In this appendix, trace metal data that were reported to be less than the MDL were assigned a value equal to the MDL. Total phosphorus (TP) data that were less than the MDL of 2.0 micrograms per liter ( $\mu\text{g/L}$ ) [or parts per billion (ppb)] were assigned a value of 2.0 ppb to provide a conservative basis for statistical analysis. For pesticide detections, concentrations greater than the PQL were considered reliable.

## EXCURSION ANALYSIS FOR CLASS III CONSTITUENTS AND PESTICIDES

To evaluate compliance with water quality criteria in WY2010, constituent concentrations were compared to their respective Class III numeric criteria. If a constituent concentration exceeded its numeric criterion, then an excursion was recorded and the total number of excursions and the percent of excursions for the non-ECP structures were tabulated.

### Total Phosphorus

The data for total phosphorus are presented in this appendix in time-series plots and statistical box plots. For TP, any site with data greater than 50 ppb is viewed as a concern, any site with data greater than 10 ppb is viewed as a potential concern, and any site with data less than 10 ppb is viewed as no concern. This approach is consistent with the federal Settlement Agreement (i.e., Settlement Agreement dated July 26, 1991, entered in Case No. 88-1886-Civ-Hoeveler, U.S. District Court for the Southern District of Florida, as modified by the Omnibus Order entered in the case on April 27, 2001). The Settlement Agreement indicates that the District's Stormwater Treatment Areas (STAs) are located and sized to deliver a uniform, long-term, annual flow-weighted mean TP concentration of 50 ppb or less at each inflow point to the Everglades Protection Area (EPA). Additionally, the Everglades Forever Act (EFA) mandates that the default TP criterion shall be 10 ppb in the EPA in the event that the FDEP did not adopt by rule such a criterion by December 31, 2003. Because final agency action by the FDEP did not occur prior to December 31, 2003, as a result of unresolved administrative challenges, a default TP criterion of 10  $\mu\text{g/L}$  became effective as specified by the EFA. There are additional TP concentration compliance limits for inflows to the Everglades National Park (ENP or Park) by way of Shark River Slough (S-12s and S-333), and the coastal basin (S-18C) outlined in Appendix A of the Settlement Agreement. However, this appendix does not track compliance with the interim or long-term TP concentration limits set forth in the Settlement Agreement.

The District's categories of concern, potential concern, and no concern are based on a common-sense understanding of water resources protection. These terms, however, are not intended to be interpretations of state water quality standards or state water quality law. The FDEP, not the District, is responsible for interpreting whether a given constituent violates the numeric criterion, the narrative criterion, a water body's designated uses, or the anti-degradation policy.

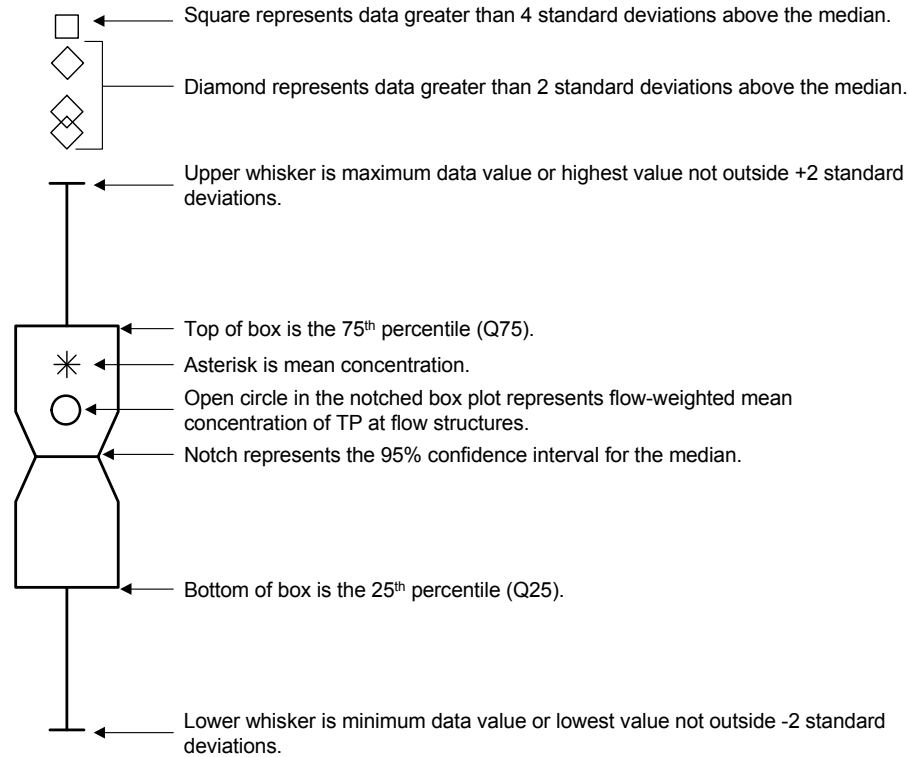
## Pesticides

The EPA pesticide monitoring program includes non-ECP permitted structures. For purposes of this appendix, the WY2010 surface water pesticide analyses are presented in tables for the non-ECP structures only. The sediment pesticide analyses for WY2010 are presented in a separate table. Five upstream structures in the C-111 basin are included in the pesticide monitoring program and represent potential warning sites for pesticides that might be discharged into the Park.

## DESCRIPTION OF NOTCHED-BOX-AND-WHISKER PLOTS

Notched-box-and-whisker plots were created to summarize data for each constituent that exceeded its numeric criteria. These plots also summarize the TP data collected at all monitoring locations. A notched-box-and-whisker plot summarizes selected statistical properties of the datasets. Notched-box-and-whisker plots can be used to test for statistical significance between datasets at roughly a 95 percent confidence interval to detect changes in constituent concentration variability over time and to determine if trends exist. The notched-box-and-whisker plots used for these summaries are based on McGill et al. (1978) (**Table 3**).

It is recognized that using notched-box-and-whisker plots to determine differences between datasets with large differences in sample size may cause apparently significant findings that are artifacts of the number of samples and the amount of variation in the datasets. The objective of providing the plots was to compare data from WY2010 to those in previous individual permit water years (WY1998–WY2009) and previously established baseline datasets for the non-ECP discharge structures.

**Table 3.** Description of notched-box-and-whisker plots used in this appendix.

1. Notches surrounding the medians provide a measure of the significance of differences between notched-box plots. If the notches surrounding two medians do not overlap, then the medians are significantly different at about a 95 percent confidence level.
2. At times, the variability in a dataset may be quite high. When highly variable data are presented in a notched-box-and-whisker plot, the width of the notch may be greater than the 25th or 75th percentile. When this occurs, the box plot appears as if it is folded from the end of the notch back towards the median. This is done automatically by the statistics program to save space within the figure being presented.
3. Notches are calculated using the following equation:

$$Notch = Median \pm \frac{1.58(Q75 - Q25)}{\sqrt{n}}$$

Where n = number of data points shown on the bottom of **Figures 2a-2d**



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## **RESULTS: WATER QUALITY EVALUATION AND EXCURSION ANALYSIS**

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In accordance with Specific Conditions 5 and 12(h) of the non-ECP permit, this section presents an update of constituent concentrations and physical properties measured during WY2010, the twelfth year of non-ECP permit monitoring. For standards with numeric criteria, the data from the structures were assessed for compliance with those standards using the procedures in Rule 62-4.246, F.A.C. For parameters that have narrative water quality criteria, the concentrations obtained at each structure were reported using plots and summary statistics.

### **MONITORING OF PHYSICAL PARAMETERS, NUTRIENTS AND MAJOR IONS**

#### **Descriptive Statistics**

A summary of the data begins with a presentation of descriptive statistics for all water quality constituent concentrations and physical properties (excluding pesticides and priority pollutants) measured for non-ECP monitoring locations during WY2010 (**Attachment C**, Table C-2). The descriptive statistics (summary tables) are presented by monitoring location for each water quality parameter collected for the site. A reference is also provided in **Attachment C**, Table C-1, reflecting current state Class III criteria.

The statistical summary tables report the range of constituent concentrations, median values, the number of sample observations, selected data percentiles (25<sup>th</sup> and 75<sup>th</sup>), and flag parameters exhibiting excursions from Class III numeric criteria. Concentrations observed to be less than the lower limit of the analytical method (MDL) were set equal to the MDL for statistical analysis.

For parameters such as nutrients that have only narrative criteria, the tables provide basic information to assist with identifying water quality constituents that might be of concern. TP is the nutrient deemed to be of particular concern for the non-ECP structures.

#### **Excursions from Class III Criteria (Numeric)**

Further analysis of excursions from Class III criteria was accomplished by summarizing the excursions, plotting the data for parameters exhibiting the excursions, discussing the parameters, and noting which ones are a concern. The excursion analysis is based on 11 water quality parameters (with numeric criteria), shown in **Table 4**, that were collected for the non-ECP monitoring program and can be compared with applicable Class III water quality criteria listed in Rule 62-302.530, F.A.C.

**Table 4.** Summary of total number of excursions from state Class III criteria for all non-ECP monitoring sites during Water Year 2010 (WY2010) (May 1, 2009–April 30, 2010) and previous periods.

Parameter	Total Alkalinity	Dissolved Oxygen	Specific Conductance	pH	Turbidity	Un-Ionized Ammonia	Total Iron	Total Cadmium	Total Lead	Total Copper	Total Zinc
EFA Baseline	(1:2677)	(1694:2615)	(59:2615)	(6:2586)	(10:2637)	(12:2548)	(5:836)	(9:362)	(1:364)	(1:373)	(3:363)
Non-ECP Baseline	(0:2845)	(2177:3018)	(12:3058)	(37:3008)	(12:2842)	(10:2661)	(5:1655)	(4:785)	(2:785)	(0:779)	(2:786)
WY1998	(0:525)	(459:551)	(3:551)	(12:551)	(0:527)	(7:448)	(0:261)	(1:127)	(0:120)	(0:127)	(0:127)
WY1999	(0:502)	(485:581)	(0:589)	(10:589)	(4:504)	(20:501)	(1:244)	(0:126)	(0:112)	(0:126)	(0:125)
WY2000	(0:559)	(558:697)	(5:698)	(1:698)	(3:645)	(1:622)	(0:270)	(0:133)	(0:119)	(0:132)	(0:129)
WY2001	(0:490)	(455:637)	(2:637)	(1:637)	(1:489)	(3:485)	(1:186)	(0:101)	(0:77)	(0:101)	(0:100)
WY2002	(0:475)	(456:597)	(0:600)	(1:611)	(2:479)	(0:478)	(0:74)	(0:30)	(ND)	(0:29)	(0:25)
WY2003	(1:471)	(436:649)	(1:664)	(2:666)	(1:470)	(0:477)	(0:72)	(0:31)	(ND)	(0:35)	(0:31)
WY2004	(0:506)	(577:793)	(3:761)	(1:812)	(0:519)	(0:522)	(0:70)	(0:31)	(ND)	(0:35)	(0:31)
WY2005	(0:447)	(584:886)	(0:862)	(4:485)	(2:523)	(1:514)	(0:89)	(0:38)	(0:2)	(0:40)	(0:36)
WY2006	(0:443)	(718:905)	(1:907)	(1:919)	(0:569)	(0:562)	(0:74)	(0:32)	(ND)	(0:32)	(0:32)
WY2007	(0:373)	(543:927)	(0:929)	(0:943)	(2:462)	(0:541)	(0:62)	(0:28)	(ND)	(0:28)	(0:44)
WY2008	(0:154)	(510:872)	(0:900)	(2:902)	(3:354)	(0:229)	(0:16)	(ND)	(ND)	(ND)	(ND)
WY2009	(0:2)	(555:871)	(1:882)	(0:882)	(0:317)	(ND)	(ND)	(ND)	(ND)	(ND)	(ND)
WY2010	(ND)	(644 : 916)	(0 : 936)	(0 : 931)	(ND)	(ND)	(0 : 11)	(ND)	(ND)	(ND)	(ND)

First number indicates number of excursions; 2<sup>nd</sup> number indicates total number of samples collected.

ND = no data

WY2010 (May 1, 2009–April 30, 2010) through WY1998 (May 1, 1997–April 30, 1998); Non-ECP Baseline (October 1, 1988 through April 30, 1997); and EFA Baseline (October 1, 1978–September 30, 1988). See 2000–2004 Everglades Consolidated Reports and 2005-2010 South Florida Environmental Reports (SFWMD, 2000–2009; SFWMD 2010c) for previous periods.

Of the 11 parameters listed in **Table 4**, dissolved oxygen (DO) exhibited 70 percent excursions; and no other parameter exhibited excursions during WY2010. Non-ECP annual monitoring summary tables that show the total number of excursions by individual monitoring location are presented in previous *South Florida Environmental Reports*. **Table 4** summarizes the previously reported information and compares the results with WY2010. A summary of observed excursions from Class III criteria for individual non-ECP monitoring locations during WY2010 is presented in **Table 5**. The monitoring locations are categorized in the table as “into,” “within,” “from,” or C-111 basin locations as defined by the non-ECP permit.

For parameters that exceeded Class III criteria during WY2010, time-series plots and notched-box-and-whisker plots are provided in **Attachment D**. These plots report the range of the data and the magnitude of the excursions and assist with detecting whether there are any increasing or decreasing trends observed in the data. To assess how far a physical parameter or major ion deviated above or below a Class III numeric criterion, a percent-departure line has been added to the time-series plots and notched-box-and-whisker plots. These departure lines indicate whether a parameter value ranges more than 1, 10, or 100 percent beyond the numeric criteria. The physical parameters appear as horizontal lines across the plots. For the major ions and trace metals, the criteria change from sample to sample because the criteria for each parameter for a particular sample were calculated based on the hardness data calculated from the same sample. For data that show an excursion, the percentage departure is annotated on the plot above the value.

### ***Dissolved Oxygen***

DO concentrations exhibited consistent excursions from Class III criteria during WY2010 (**Table 5**). About 70 percent (644 out of 916 samples) of DO concentrations measured at the non-ECP monitoring locations were less than the minimum criterion of 5 milligrams per liter (mg/L). The DO concentrations measured for WY2010 are consistent with the concentration levels and the frequency of excursions observed in previous water years, and there is a slight increase (70 percent versus 64 percent) for DO excursions in WY2010 compared with WY2009. The DO excursions occurred at most locations. The warm natural water conditions found in South Florida is the possible contributing factor in relation to the low DO concentration in non-ECP structures. The DO time-series and notched-box-and-whisker plots are shown in **Attachment D**.

It should be noted that even unimpacted areas of the Everglades commonly have DO concentrations that are below the 5 mg/L standard as part of the warm natural water conditions found in South Florida. Because natural levels commonly fall below the existing standard, the FDEP has adopted a site-specific alternative criterion (SSAC) for DO in the EPA that better reflects naturally occurring conditions (see Volume I, Chapter 3A).

**Table 5.** Summary of excursions from state Class III surface water criteria for individual Non-ECP monitoring sites and additional upstream monitoring locations during WY2010.

AREA	STRUCTURE	SAMPLING SITE	PARAMETERS										
			Alkalinity	DO	Specific Conductance	pH	Turbidity	Un-ionized Ammonia	Iron	Cadmium	Lead	Copper	Zinc
INTO	G-123	G123	-ND-	(11 : 12)	(0 : 12)	(0 : 12)	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-
	S-9	S9	-ND-	(49 : 51)	(0 : 52)	(0 : 52)	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-
	S-9A	S9A	-ND-	(50 : 52)	(0 : 53)	(0 : 53)	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-
	S-18C	S18C	-ND-	(22 : 49)	(0 : 51)	(0 : 50)	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-
	S-332D	S332DX	-ND-	(39 : 49)	(0 : 51)	(0 : 50)	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-
	S-140	S140	-ND-	(31 : 52)	(0 : 52)	(0 : 52)	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-
	S-190	S190	-ND-	(20 : 50)	(0 : 52)	(0 : 52)	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-
NSID1	NSIDSP01	-ND-	(4 : 23)	(0 : 28)	(0 : 22)	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	
WITHIN	G-64	G64	No Data (Structure Closed)										
	S-346, S-347	S12D	-ND-	(30 : 43)	(0 : 44)	(0 : 44)	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-
	S-141	S34	Same as Data for S34 Shown Below										
	S-142	S142	-ND-	(8 : 12)	(0 : 12)	(0 : 12)	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-
	S-143	S11A	-ND-	(9 : 24)	(0 : 24)	(0 : 24)	-ND-	-ND-	(0 : 3)	-ND-	-ND-	-ND-	-ND-
	S-144, S-145, S146	S145	-ND-	(16 : 22)	(0 : 23)	(0 : 23)	-ND-	-ND-	(0 : 3)	-ND-	-ND-	-ND-	-ND-
	S-151	S151	-ND-	(16 : 20)	(0 : 20)	(0 : 20)	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-
	S-333	S333	-ND-	(40 : 51)	(0 : 52)	(0 : 52)	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-
	S-339, S-340	C123SR84	-ND-	(7 : 12)	(0 : 12)	(0 : 12)	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-
	S-175	S175	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-
S-332	S332	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	
BERMB3	BERMB3	-ND-	(4 : 4)	(0 : 5)	(0 : 5)	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	
FROM	G-94A, G-94B, G-94C	G94B	-ND-	(10 : 13)	(0 : 13)	(0 : 13)	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-
	G-94D	G94D	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-
	S-31, S-337	S31	-ND-	(12 : 16)	(0 : 16)	(0 : 16)	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-
	S-34	S34	-ND-	(10 : 21)	(0 : 21)	(0 : 21)	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-
	S-38	S38	-ND-	(18 : 22)	(0 : 23)	(0 : 23)	-ND-	-ND-	(0 : 3)	-ND-	-ND-	-ND-	-ND-
	S-39	S39	-ND-	(10 : 16)	(0 : 16)	(0 : 16)	-ND-	-ND-	(0 : 2)	-ND-	-ND-	-ND-	-ND-
	S-197	S197	-ND-	(2 : 7)	(0 : 7)	(0 : 7)	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-
	S-334	S356-334	-ND-	(37 : 51)	(0 : 52)	(0 : 52)	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-
	S-343A, S-343B	US41-25	-ND-	(13 : 16)	(0 : 16)	(0 : 16)	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-
S-344	S344	-ND-	(2 : 3)	(0 : 2)	(0 : 3)	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	
C111 Basin	S-176	S332DX	-ND-	(39 : 49)	(0 : 51)	(0 : 50)	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-
	S-177	S177	-ND-	(29 : 38)	(0 : 39)	(0 : 38)	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-
	S-178	S178	-ND-	(20 : 40)	(0 : 42)	(0 : 41)	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-
	S-331, S-173	S331-173	-ND-	(41 : 49)	(0 : 51)	(0 : 50)	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-
	S-332B	S332B	-ND-	(45 : 49)	(0 : 51)	(0 : 50)	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-
S-332C	S332C	-ND-	(39 : 49)	(0 : 51)	(0 : 50)	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	-ND-	
<b>Totals</b>			-ND-	<b>644 : 916</b>	<b>(0 : 936)</b>	<b>(0 : 931)</b>	-ND-	-ND-	<b>(0 : 11)</b>	-ND-	-ND-	-ND-	-ND-

<sup>1st</sup> number in parenthesis indicates number of excursions. <sup>2nd</sup> number in parenthesis indicates total number of samples collected. Bold numbers indicate excursions from state Class III criteria. -ND- indicates that no data were collected.

### ***Specific Conductance***

Specific conductance was measured in 936 samples collected from the monitoring sites. No samples exhibited an excursion exceeding the Class III criteria for specific conductance. The criteria for Class III waters requires that specific conductance not exceed a level greater than 50 percent above background, or 1,275 microhms per centimeter ( $\mu\text{mhos/cm}$ ), whichever is greater.

### ***pH***

The pH of a solution is defined as the negative base-10 logarithm of the hydrogen ion activity and can range from 0 (very acidic) to 14 (very alkaline). For freshwater systems, the Class III criterion for pH ranges from 6.0 to 8.5 units. For WY2010, there was no excursion for the pH criterion among 931 samples collected.

### ***Alkalinity***

The criterion for Class III waters requires that alkalinity not measure below 20 mg/L. Alkalinity parameter was deleted from monitoring plan of Everglades National Park Inflows East (PIE) dated on April 1, 2008; therefore, it was not measured in any samples taken during WY2010. None of the sample values were flagged as a potential excursion in previous years. Alkalinity does not appear to be a parameter of concern, as excursions have only occurred once during the past 12 water years.

### ***Turbidity***

The criterion for Class III waters requires that turbidity not exceed 29 nephelometric turbidity units (NTU) above natural background conditions. In general, the median value can be used to determine the average background levels on a site-to-site basis for the non-ECP monitoring locations to compare the measured turbidity at a site with Class III criteria. For instance, if background levels at a particular location indicate a median turbidity level of approximately 3 NTU and a turbidity measurement of 30 NTU was measured, then this would indicate that the measurement is 27 NTU above background levels. This measurement would not be considered an excursion, although the 30 NTU measurement might be construed as exceeding the criterion in the absence of sufficient background data to calculate a median value for comparison. Turbidity was not measured in any samples collected during WY2010 as shown in **Table 5**.

### **Evaluation of Total Phosphorus**

The non-ECP permit established the monitoring schedule shown in **Attachment B** for the collection of TP at non-ECP structures. Sample collection is accomplished mainly through a grab-sample collection program. Grab samples are collected biweekly for a majority of the structures when flow is occurring at the structure; otherwise, collection is conducted at least once a month. A few exceptions exist for some non-ECP structures, where sampling is conducted biweekly only during flow events. Nutrients are the most frequently sampled parameters in the non-ECP monitoring program. Starting from October 2009, grab samples were taken biweekly when there was recorded flow at S-38, S-39, S-145, and S-11A.

During WY2010, auto-samplers collected TP samples at the S-9, S-9A, S-18C, S-190, S-140, NSID1 (NSIDSP01), and S-332D structures. The samples collected at the NSID1 were not associated with flow, as there was no flow at these stations in WY2010. Deployment of the auto-samplers at these locations was previously identified as an improvement in the monitoring program for collecting TP data at into structures. Auto-samplers also collected samples at the S-332B and S-332C structures located in the C-111 basin that discharge water into the detention areas east of the Park.

The TP concentration data collected for all monitoring locations during WY2010 (the thirteenth year of non-ECP permit monitoring) are plotted in time-series and notched-box-and-whisker plots in **Attachment E**. The plots are designed to provide a comparison of TP concentration data between WY2010 and previous periods (WY1998 through WY2009, EFA baseline, and non-ECP baseline) to detect changes and trends in TP concentrations at non-ECP monitoring locations. To assist with evaluation of the TP concentration data for a particular location discharging into, within, or from the EPA, horizontal lines representing the 10 ppb and 50 ppb concentration levels were added to the TP time-series and notched-box-and-whisker plots. TP concentrations are reported in ppb (or  $\mu\text{g/L}$ ), unless otherwise noted.

For WY2010, a statistical comparison of TP concentration data for all monitoring locations is presented as notched-box-and-whisker plots in **Figures 2a** through **2d**. The figures represent into (**Figure 2a**), within (**Figure 2b**), and from (**Figure 2c**) monitoring locations. Additionally, notched-box-and-whisker plots were constructed for TP concentration data for the upstream C-111 basin monitoring locations (**Figure 2d**). Summary statistics of TP data collected for all monitoring locations are presented separately as **Attachment C**, Table C-3 (grab and auto-sampler data are reported separately.)

### ***“Into” Structures***

The highest TP concentrations for non-ECP structures discharging directly to the EPA during WY2010 were observed for the monitoring locations at the Feeder Canal (S-190), followed by S-140 (the L-28 basin), with median TP concentrations of 28 ppb (grab) and 34 ppb (auto) at S-190, and 49 ppb (grab) and 52 ppb (auto) at S-140. During WY2010, structure S-190 discharged 84,763 acre-feet (ac-ft), and S-140 discharged 136,937 ac-ft into the western portion of Water Conservation Area 3A (WCA-3A).

The lowest TP concentrations were observed at structures in the C-111 basin at S-177, S-331–S-173, and S-332D. The S-332D structures are now modified as into structures and S-174 was plugged in September 2007; S-175, S-332, and BERMB3 are modified as within structures. These structures discharge to the southeastern portion of the Park by way of the C-111 canal and Taylor Slough. The TP data for these monitoring locations had median concentrations of 5 ppb (grab) and 6 ppb (auto) for S-18C, and 6 ppb (grab) and 7 ppb (auto) for S-332D, with 75 percent of the samples having concentrations below 5 ppb (grab) and 7 ppb (auto) for S-18C, and 7 ppb (grab) and 8 ppb (auto) for S-332D. During WY2010, the structure discharged 181,197 ac-ft from S-332D to the Park, a significant increase from last year (144,492 ac-ft). The S-18C structure discharged approximately 249,357 ac-ft to the lower C-111 canal, which was also a significant increase from last year (173,096 ac-ft). S-178 had a median concentration of 11 ppb for the grab samples, the highest TP concentration in the C-111 basin, with a discharge of 88 ac-ft.

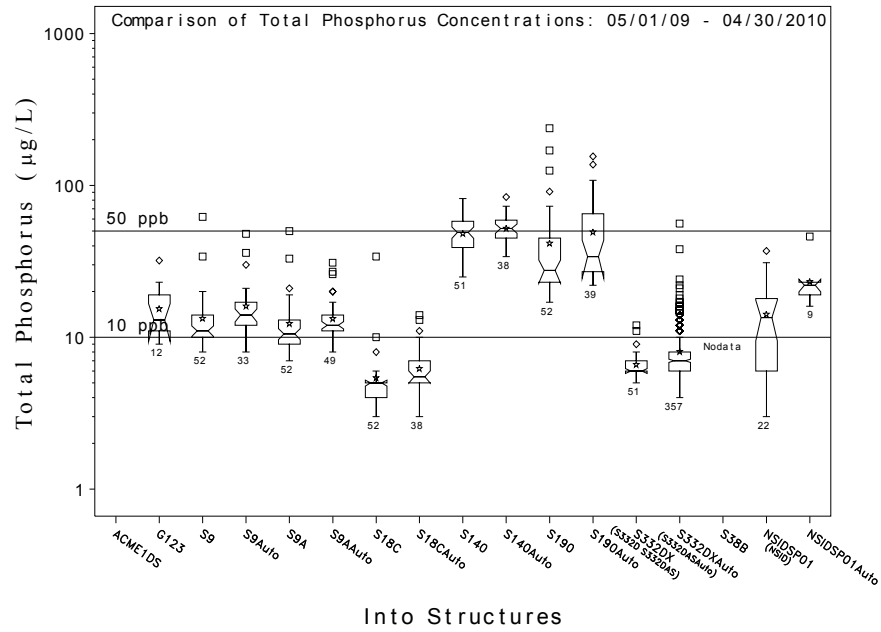


Figure 2a. Comparison of TP concentrations for “into” structures during WY2010.

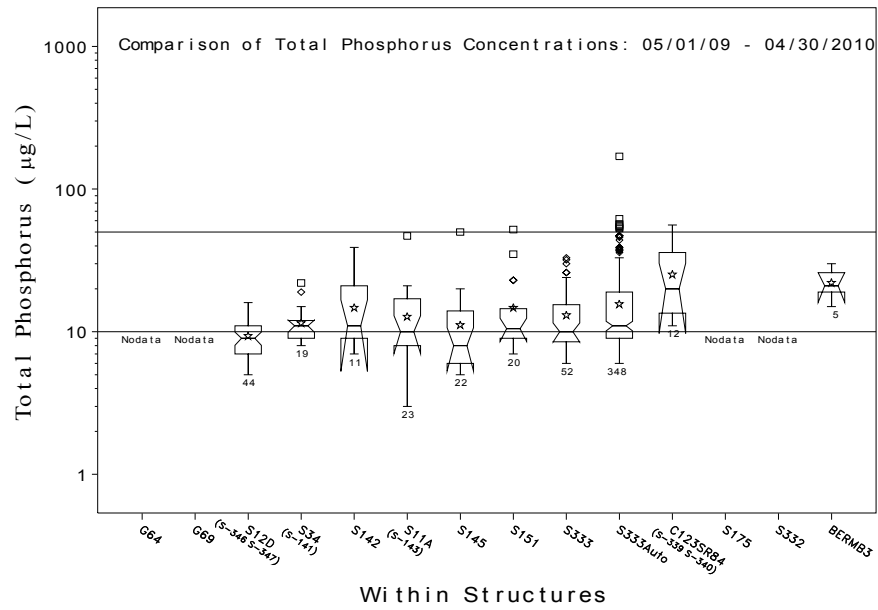
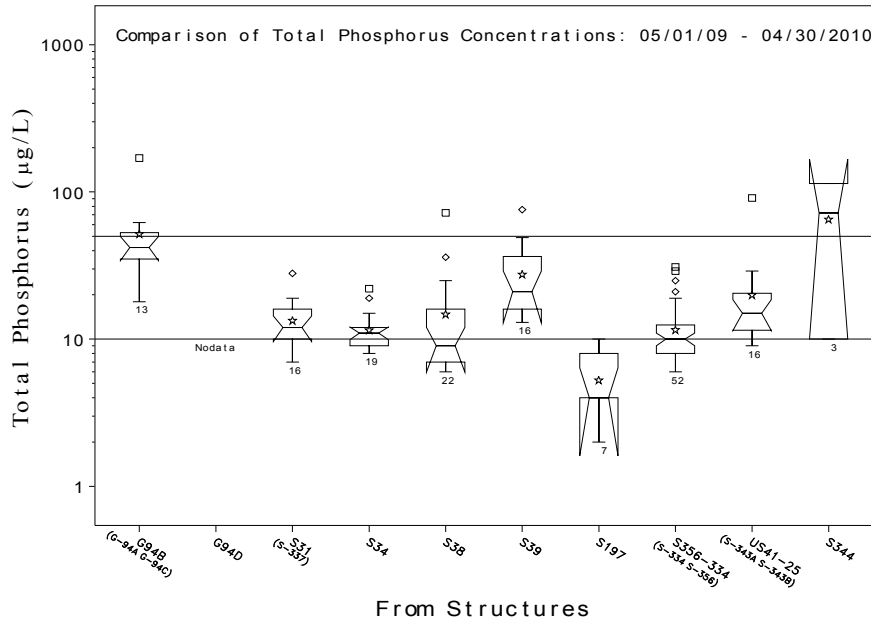
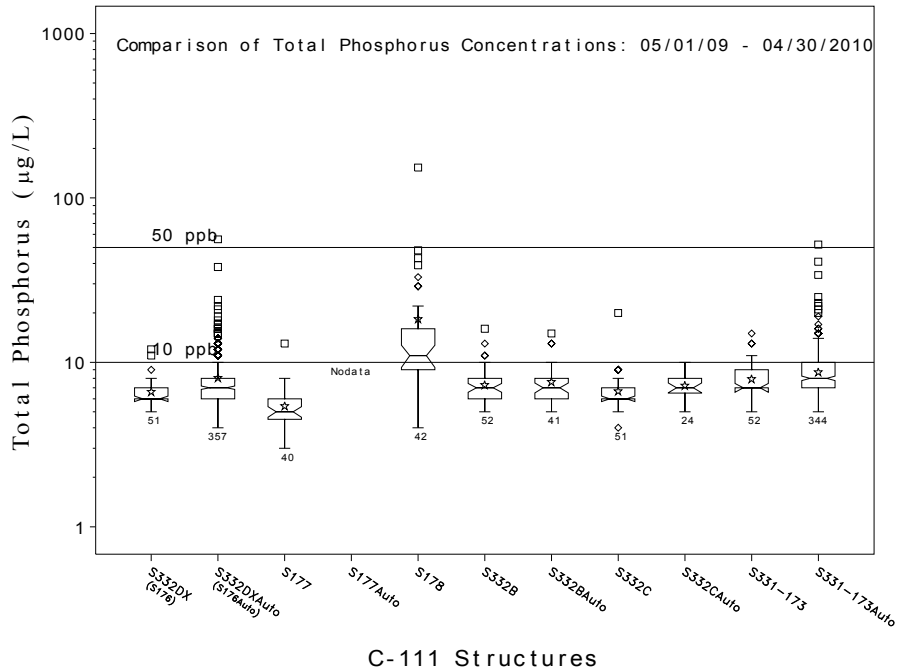


Figure 2b. Comparison of TP concentrations for “within” structures during WY2010.



**Figure 2c.** Comparison of TP concentrations for "from" structures during WY2010.



**Figure 2d.** Comparison of TP concentrations for C-111 structures during WY2010.



Structures S-9, S-9A (C-11 West Basin), and G-123 (North New River Basin) discharge directly to the eastern side of WCA-3A. The notched-box-and-whisker plot for S-9, which is based on grab-sample data, indicates a TP concentration of less than 14 ppb for 75 percent of the data, a median concentration of 11 ppb, and a maximum concentration of 62 ppb (**Figure 2a**). Seventy-five percent of the data collected by the auto-sampler at S-9 was below 17 ppb, with a median concentration of 14 ppb, and a maximum concentration of 48 ppb. The notched-box-and-whisker plot for S-9A, which is based on grab-sample data, indicates a TP concentration of less than 13 ppb for 75 percent of the data, a median concentration of 11 ppb, and a maximum concentration of 50 ppb (**Figure 2a**). Seventy-five percent of the data collected by the auto-sampler at S-9A was below 14 ppb, with a median concentration of 12 ppb, and a maximum concentration of 31 ppb. The monitoring schedule for structure G-123 requires biweekly grab sampling during flow events; otherwise, the samples are collected monthly. There was no flow during WY2010 at G-123; therefore, no sample was collected from the auto-sampler. During WY2010, 12 grab samples were collected. The grab samples at G-123 had a median TP concentration of 13 ppb. 75 percent of the data collected by grab samples at G-123 was below 19 ppb, with a maximum concentration of 32 ppb.

The NSID operates several pumps at two pump stations to remove excess runoff from the basin, but only NSID pump station 1 is capable of discharge to the EPA. The flow-proportional auto-sampler and data recorder monitor flow both to the EPA and to the Hillsboro Canal. The surface water quality monitoring program has continued at the water quality monitoring station NSID pump station 1. The monitoring at S-38B has been removed since this structure is part of the NSID system and is not owned or operated by the District. There was no flow at NSID into Water Conservation Area 2A (WCA-2A) during WY2010. Results from upstream data from NSIDSP01 are reported in Volume I, Chapter 3A (see **Table 6**). A more complete presentation of the results from these stations can be found in **Attachment C**, Table C-3. During WY2010, there were no TP data at S-38B. Total phosphorus concentrations for grab samples at the NSIDSP01 site during WY2010 varied between 3 ppb and 37 ppb for grab samples and between 16 ppb and 46 ppb for auto-sampler data. The data at this pump station are representative of flow to the EPA and also to the Hillsboro Canal. Flow-weighted mean TP concentrations cannot be calculated because there was no flow during WY2010.

During WY2010, no water quality samples were collected in the Boynton Farms Basin. The Refuge headquarters property, which is owned by the SFWMD and operated by the U.S. Fish and Wildlife Service, is bordered by several farms immediately east of the property boundary that discharge onto the property. The headquarters property is identified in the EFA as being within the EPA boundary, but the property east of the protective levee has no connection to discharge westward to Water Conservation Area 1 (WCA-1) and is an isolated parcel. The following water quality monitoring sites each relate to a pump station operated by the farm operators: BFBAFCP, BFBAFNP, BFBAFSP, BFBDFCP, BFBDFNP, BFBDFSP, BFBDFWP, and BFBMFSP. In September 2005, the Gayler property pumps relating to monitoring stations BFBMFNP and BFBMFCP were voluntarily removed. Another station, BFBWNCP, was removed from the basin prior to WY2004 by the owner voluntarily relocating the pump. In WY2004, the TP data consisted of event-driven grab samples that have no associated flow measurements. Although access limitations and other boundary issues still exist, surface water quality samples for most of the identified structures discharging in or adjacent to the EPA have been obtained during times of flow. The data are stored in DBHYDRO and is available upon request. The District is conducting an evaluation of alternatives to reduce or eliminate discharge of elevated levels of nutrients from the Boynton Farms Basin to the EPA.

**Table 6.** Annual flow-weighted mean TP concentrations and TP loads for WY2010.

Hydrologic Basin	Structure	Water Quality Station ID	Total Flow Volume (acre-feet)	Number of Days with Positive Flow	Sample Type	Sample Size (Grab)	Arithmetic Average (Grab)(ppb)	Sample Size (Comp)	Flow-Weighted Mean Concentration (ppb)	TP Load (kg)
North Springs Improvement	NSID1	NSIDSP01	0	0	Auto <sup>2</sup> & Grab <sup>1</sup>	24	12	9	N/F <sup>3</sup>	0
North New River	G-123	G123	0	0	Auto <sup>2</sup> & Grab <sup>1</sup>	12	16	0	N/F <sup>3</sup>	0
C-11 West	S-9	S9	119,296	114	Auto <sup>2</sup> & Grab <sup>1</sup>	52	13	33	20	2,953
	S-9A	S9A	56,048	245	Auto <sup>2</sup> & Grab <sup>1</sup>	52	12	49	13	906
C-111	S-332D	S332DX	181,197	333	Auto <sup>2</sup> & Grab <sup>1</sup>	51	7	52	8	1,836
	S-18C	S18C	249,357	292	Auto <sup>2</sup> & Grab <sup>1</sup>	52	6	38	6	1,951
L-28	S-140	S140	136,937	300	Auto <sup>2</sup> & Grab <sup>1</sup>	51	34	38	55	9,213
Feeder Canal	S-190	S190	84,763	284	Auto <sup>2</sup> & Grab <sup>1</sup>	52	42	39	73	7,623
Boynton Farms	Various <sup>4</sup>	Various <sup>4</sup>	N/D <sup>5</sup>	N/D <sup>5</sup>	Grab <sup>1</sup>	N/D <sup>5</sup>	N/D <sup>5</sup>	N/D <sup>5</sup>	N/D <sup>5</sup>	N/D <sup>5</sup>

## Notes:

- 1) Grab indicates samples collected by grab sampling methodology.
- 2) Auto indicates that samples were collected by automatic composite samplers.
- 3) N/F no flow.
- 4) Sites include BFBAFCP, BFBAFNP, BFBAFSP, BFBDFCP, BFBDFNP, BFBDFSP, BFBDFWP, and BFBMFSP. These sites are pumps that have no flow recording devices attributed to them.
- 5) N/D no data available

### ***“Within” Structures***

For structures discharging within the EPA during WY2010, low TP concentrations were observed for structures S-12D and S-333, which convey discharges from WCA-3A to the Park (**Figure 2b**). The monitoring location for S-12D serves as a surrogate monitoring location for the non-ECP permit structures S-346 and S-347. The median TP concentrations at these monitoring locations were 9 ppb at S-12D and 10 ppb at S-333, with 75 percent of the data below 11 ppb at S-12D and 16 ppb at S-333. The maximum concentration observed was 16 ppb for S-12D and 33 ppb at S-333, respectively. The discharge volumes for the period were 196,844 ac-ft for S-346 and S-347, and 346,063 ac-ft for S-333, respectively.

Structures S-145 and S-146 convey discharges from WCA-2A to Water Conservation Area 2B (WCA-2B). The structures usually operate simultaneously. The maximum concentration was 50 ppb, median value was 8 ppb, and 75 percent of the data (25 samples) were below 14 ppb at S-145. Discharge volumes ranged from 44,210 ac-ft at S-145 to 29,891 ac-ft at S-146.

In addition to monitoring the water quality at structure S-34, the data from the location are representative of the water quality conditions for structure S-141, which conveys discharges from WCA-2B to the North New River Canal just upstream of S-34. The TP concentrations from the S-34 location ranged from 8 ppb to 22 ppb, with a median value of 11 ppb.

The highest TP concentrations were observed at the monitoring site C123SR84, the surrogate location for structures S-339 and S-340. TP concentrations at C123SR84 ranged from 11 ppb to 56 ppb, with a median value of 20 ppb. Structure S-151 discharged approximately 209,681 ac-ft during WY2010. TP concentrations ranged from 7 ppb to 52 ppb, with a median value of 11 ppb. Both structures S-339 and S-340, located upstream of S-151 in the Miami Canal, discharged 0 ac-ft in WY2010.

TP concentration was not monitored at S-332 because there was no flow at this site during WY2010. S-175 discharged 6 ac-ft during WY2010 with a flow-weighted TP concentration of 6 ppb. Five grab samples were collected at BERMB3 with an average TP concentration of 22 ppb. There was no discharge at BERMB3 during WY2010.

### ***“From” Structures***

The TP concentrations observed during WY2010 for the structures classified as “from” are summarized in the notched-box-and-whisker plot shown in **Figure 2c**. The water quality at G-94D was not monitored because there was no flow at this structure for WY2010. G-94B exhibited the highest TP concentrations, which ranged from 18 ppb to 170 ppb. The median TP concentration at structure G-94B was 42 ppb, with 75 percent of the data below 53 ppb. G-94B is also the surrogate sampling site for structures G-94A and G-94C. All three structures, which are owned and maintained by the District but operated by the Lake Worth Drainage District (LWDD), are located at the L-40 levee on the eastern side of the Refuge and provide water supply releases from the Refuge to the LWDD. The G-94A, G-94B, and G-94C structures, when open, allow interior LWDD canals to fill. The direction of flow always has been toward the LWDD canal system.

The G-94C structure was used intermittently for water supply. Total discharge from the Refuge to the LWDD system was approximately 9,089 ac-ft (**Attachment B**, Table B-2). Water supply releases to LWDD canals during WY2010 were 7,456 ac-ft at G-94A and no flow at G-94B and G-94D.

The TP concentrations observed at S-39 ranged from 13 ppb to 76 ppb, with a median value of 21 ppb. The structure discharged approximately 13,030 ac-ft during WY2010. During this period, 25 grab samples and 25 samples from the auto-sampler were collected at S356-334. The

TP concentrations ranged from 6 ppb to 31 ppb for grab and from 5 ppb to 84 ppb for the auto-sampler; the median concentration was 10 ppb for both grab samples and autosamplers.

For the remainder of the from structure monitoring locations (S-31, S-34, S-38, S-337, S-343A, and S-343B), 75 percent of the observed TP concentration were below 21 ppb, with median values ranging from 9 ppb to 15 ppb. S-344 had the highest TP concentration, 75 percent of the observed TP concentration at S-344 were below 114 ppb, with median value of 72 ppb.

### ***C-111 Basin Upstream Structures***

Structures S-176, S-177, S-178, S-332B, S-332C, and S-331/S-173, shown in **Figure 2d**, are C-111 basin structures located upstream of into structures S-18C and S-332D. Auto-samplers were installed at S-176, S-177, S-178, S-331-173, S-332B, and S-332C sites. For S-331/S-173, S-176, and S-177, 75 percent of the TP concentration data collected for these structures was below 10 ppb, with the median values ranging between 5 ppb and 8 ppb. The maximum TP measured at S-178 was 153 ppb, with a median TP concentration of 11 ppb for grab samples, which was slightly higher than the rest of the C-111 basin upstream structures. There was only 75 ac-ft flow in WY2010 at the S-178 structure. S-332B discharged 164,800 ac-ft of water to the detention area, with a median TP concentration of 7 ppb for both grab samples and auto-samplers; S-332C discharged 89,499 ac-ft water to the detention area, with a median TP concentration of 6 ppb for grab samples and 7 ppb for auto-samplers.

### ***Flow-Weighted Mean Total Phosphorus Concentrations for All Structures***

Extending the analysis from previous water years, flow-weighted mean (FWM) TP concentrations were calculated for all the structures during WY2010. FWM TP concentrations were collected only for those structures having sufficient TP data and available flow data for WY2010.

The annual FWM TP concentrations and monthly and annual flow volumes for the “into,” “within,” “from,” and C-111 basin structures during WY2010 are provided in **Attachment B**, Table B-2. A more detailed analysis of the WY2010 annual FWM TP concentration data for each into structure is shown in **Table 6**. The calculations use an estimation algorithm to determine TP concentrations on all days with positive flow for which no observed values are available.

**Table 6** presents the results for the FWM TP concentrations at “into” sites during WY2010. The highest FWM TP concentration for the “into” structures during WY2010 was observed at S-190 (73 ppb in the Feeder Canal), and S-140 at the L-28 basin (55 ppb). The S-9 and S-9A structures had FWM TP concentrations of 20 ppb and 13 ppb, respectively. The Feeder Canal Basin and L-28 basin are designated as sites of concern and the C-11 West basins are designated as sites of potential concern for TP.

The lowest FWM TP concentrations were observed at S-332D (8 ppb) and S-18C (6 ppb) monitoring locations. These locations are the subject of interim and long-term compliance limits stipulated in the federal Settlement Agreement, and there is no concern for TP.

## PESTICIDE MONITORING

The Everglades Protection Area pesticide monitoring program includes non-ECP-permitted structures. For the purposes of this appendix, the WY2010 surface water pesticide analyses are presented in tables for the non-ECP structures only. The sediment pesticide analyses for WY2010 are presented in a separate table. Five upstream structures in the C-111 basin are included in the pesticide monitoring program and represent potential warning sites for pesticides that might be discharged into the Park.

### Pesticides in Surface Water and Sediment

The quarterly surface water and semiannual sediment pesticide sampling events at the 11 non-ECP sites (**Figure 3**) for WY2010 were conducted during April 2009, August 2009, October 2009, and March 2010. Modifications to the non-ECP permit changed the requirement for sampling at S-142 to only during discharge or flow events. For this reporting period, samples were not collected for any of the sampling events. Representative MDLs and PQLs for the pesticide analytes are listed in **Table 7**. The Department of Environmental Protection Central Laboratory in Tallahassee, FL performed all the pesticide analyses. The Quality Assurance Evaluation section of the individual pesticide event reports provides a summary of any limitations on data validity that might influence the utility of these data. The individual reports are available on the District's website at [www.sfwmd.gov/library](http://www.sfwmd.gov/library) (see pesticide reports).

To evaluate potential impacts on aquatic life resulting from intermittent pesticide exposure, the maximum observed concentration is compared to the criterion maximum concentration published by the U.S. Environmental Protection Agency (USEPA) under Section 304 (a) of the Clean Water Act (CWA), and as promulgated in Chapter 62-302, F.A.C. For compounds not specifically listed, Rule 62-302.200, F.A.C., allows for acute and chronic toxicity standards. These standards are calculated as one-third and one-twentieth, respectively, of the amount lethal to 50 percent of the test organisms in 96 hours, where the 96-hour EC<sub>50</sub> or LC<sub>50</sub> is the lowest value determined for a species significant to the indigenous aquatic community. **Table 8** lists representative toxicity levels for selected freshwater aquatic invertebrates and fishes.

**Table 9** lists the pesticides detected in surface water samples collected during WY2010. Four surface water samples were collected at each site and were analyzed for all parameters. Pesticides with concentrations greater than their respective Class III criteria or toxicity limits were assigned to the "concern" excursion category, whereas those higher than the PQL were assigned to the "potential concern" excursion category. Atrazine desethyl detection was of potential concern at S-190; Atrazine detection was of potential concern at S-140, S-190, and S-31, ametryn detection was of potential concern at S-190; endosulfan sulfate detection was of potential concern at S-177 and S-178. None of the pesticide detections were of concern.

**Table 10** lists the pesticides detected in the sediment samples collected during WY2010. Two sediment samples were collected at each site and were analyzed for all parameters. Pesticides with concentrations greater than the PQL were assigned to the potential concern excursion category. Dichlorodiphenyldichloroethylene (DDE), the environmental dehydrochlorination product of DDT, was detected at S-177 and S-178 at levels of potential concern.

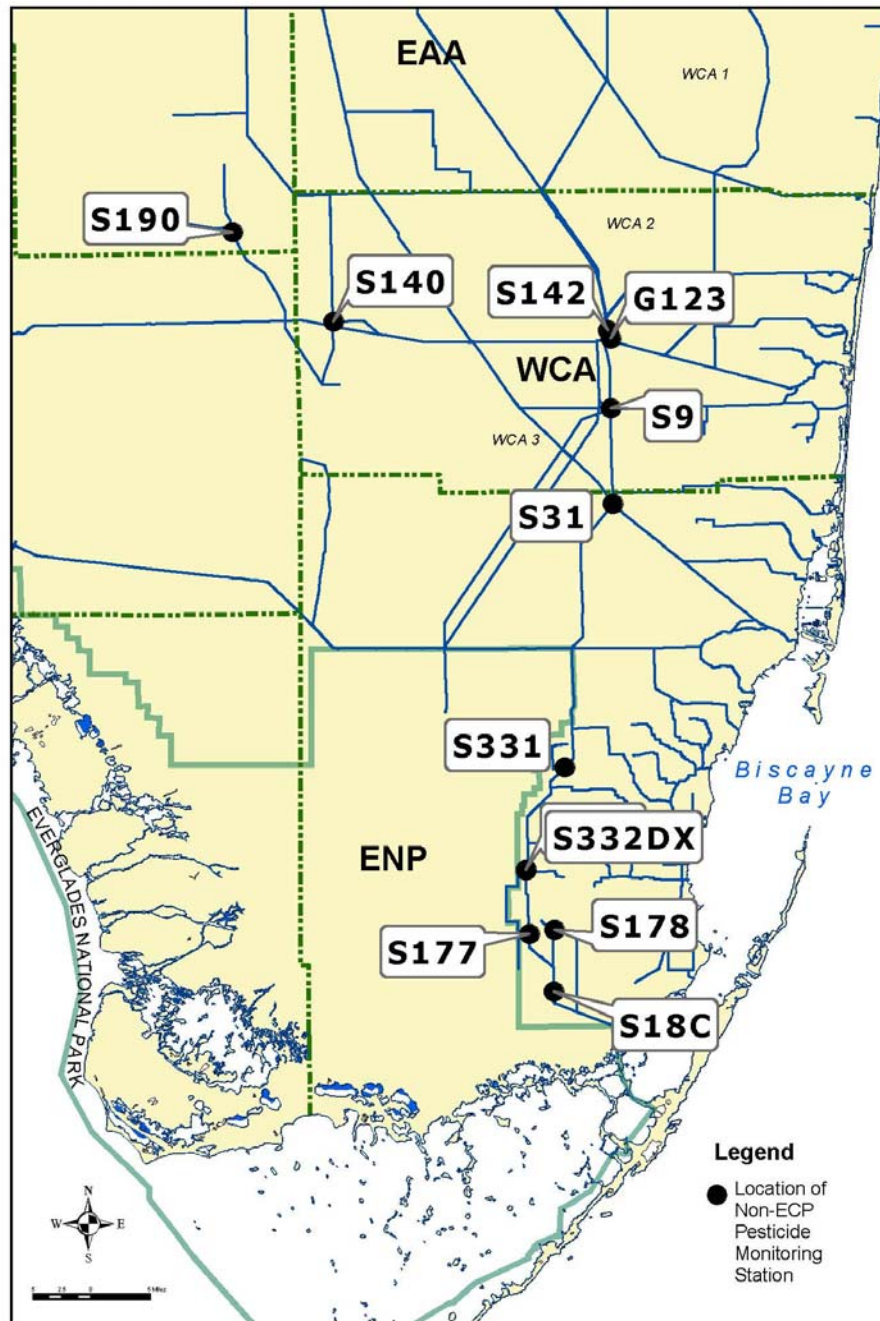


Figure 3. Pesticide monitoring network for non-ECP structures.

**Table 7.** Method detection limits (MDLs) and practical quantitation limits (PQLs) for pesticides (March 2010).

Pesticide or metabolite	Water: range of MDLs - PQLs (µg/L)	Sediment: range of MDLs - PQLs (µg/Kg)	Pesticide or metabolite	Water: range of MDLs - PQLs (µg/L)	Sediment: range of MDLs - PQLs (µg/Kg)
2,4-D	0.2 - 0.64	9.3 - 230	endrin aldehyde	0.0042 - 0.018	0.95 - 32
2,4,5-T	0.2 - 0.64	9.3 - 230	ethion	0.0094 - 0.04	2.4 - 80
2,4,5-TP (silvex)	0.2 - 0.64	9.3 - 230	ethoprop	0.0094 - 0.04	2.4 - 80
acifluorfen	0.2 - 0.64	9.3 - 230	fenamiphos (nemacur)	0.038 - 0.16	4.8 - 320
alachlor	0.057 - 0.24	14 - 480	fonofos (dyfonate)	0.0094 - 0.04	2.4 - 80
aldrin	0.0019 - 0.008	0.48 - 16	heptachlor	0.0023 - 0.0096	0.48 - 16
ametryn	0.0094 - 0.04	2.4 - 80	heptachlor epoxide	0.0019 - 0.008	0.48 - 16
atrazine	0.0094 - 3.9	2.4 - 80	hexazinone	0.019 - 0.14	4.8 - 160
atrazine desethyl	0.0094 - 0.04	N/A	imidacloprid	0.2 - 0.67	N/A
atrazine desisopropyl	0.0094 - 0.12	N/A	linuron	0.2 - 0.67	8.6 - 220
azinphos methyl (guthion)	0.028 - 0.12	7.1 - 240	malathion	0.028 - 0.12	4.8 - 160
α-BHC (alpha)	0.0021 - 0.0088	0.48 - 15	metalaxyl	0.047 - 0.2	N/A
β-BHC (beta)	0.0032 - 0.0014	0.48 - 16	methamidophos	N/A	24 - 800
δ-BHC (delta)	0.0019 - 0.008	0.95 - 32	methoxychlor	0.0094 - 0.04	2.4 - 80
γ-BHC (gamma) (lindane)	0.0019 - 0.008	0.48 - 16	metolachlor	0.057 - 0.24	14 - 480
bromacil	0.047 - 0.2	9.5 - 320	metribuzin	0.019 - 0.14	4.8 - 160
butylate	0.019 - 0.08	N/A	mevinphos	0.057 - 0.24	9.5 - 320
carbofenothion (trithion)	0.015 - 0.064	2.4 - 80	mirex	0.011 - 0.048	1.9 - 64
chlordan	0.019 - 0.08	7.1 - 240	monocrotophos (azodrin)	N/A	24 - 800
chlorothalonil	0.015 - 0.064	2.4 - 80	naled	0.075 - 0.32	19 - 640
chlorpyrifos ethyl	0.0094 - 0.04	2.4 - 80	norflurazon	0.019 - 0.08	4.8 - 160
chlorpyrifos methyl	0.019 - 0.08	4.8 - 160	parathion (ethyl)	0.019 - 0.08	4.8 - 160
cypermethrin	0.019 - 0.08	2.4 - 80	parathion methyl	0.019 - 0.08	4.8 - 160
DDD-p,p'	0.0045 - 0.019	0.95 - 32	PCB-1016	0.019 - 0.08	14 - 480
DDE-p,p'	0.0038 - 0.016	0.95 - 32	PCB-1221	0.019 - 0.08	9.5 - 320
DDT-p,p'	0.0057 - 0.024	1.4 - 48	PCB-1232	0.019 - 0.08	21 - 720
demeton	0.028 - 0.12	7.1 - 240	PCB-1242	0.019 - 0.08	14 - 480
diazinon	0.019 - 0.08	2.4 - 80	PCB-1248	0.019 - 0.08	9.5 - 320
dicofol (kelthane)	0.042 - 0.18	7.1 - 240	PCB-1254	0.019 - 0.08	9.5 - 320
dieldrin	0.0019 - 0.008	0.48 - 16	PCB-1260	0.019 - 0.08	14 - 480
disulfoton	0.019 - 0.08	2.4 - 80	permethrin	0.015 - 0.064	2.9 - 96
diuron	0.2 - 0.67	8.6 - 220	phorate	0.0094 - 0.04	2.4 - 80
α-endosulfan (alpha)	0.0038 - 0.016	0.48 - 20	prometryn	0.019 - 0.08	4.8 - 160
β-endosulfan (beta)	0.0038 - 0.016	0.48 - 16	prometon	0.019 - 0.08	N/A
endosulfan sulfate	0.0045 - 0.076	0.95 - 32	simazine	0.0094 - 0.04	2.4 - 80
endrin	0.0094 - 0.04	2.4 - 80	toxaphene	0.094 - 0.4	36 - 1200
			trifluralin	0.0075 - 0.032	1.9 - 64

N/A - not analyzed

**Table 8.** Toxicity of pesticides (in µg/L) to selected freshwater aquatic invertebrates and fishes.

Common Name	48 hr EC <sub>50</sub>			96 hr LC <sub>50</sub>			96 hr LC <sub>50</sub>			96 hr LC <sub>50</sub>		
	Water flea <i>Daphnia magna</i>	Acute Toxicity (*)	Chronic Toxicity (*)	Bluegill <i>Lepomis macrochirus</i>	Acute Toxicity	Chronic Toxicity	Largemouth Bass <i>Micropterus salmoides</i>	Acute Toxicity	Chronic Toxicity	Channel Catfish <i>Ictalurus punctatus</i>	Acute Toxicity	Chronic Toxicity
ametryn	28,000 (8)	9,333	1,400	4,100 (6)	1,367	205	-	-	-	-	-	-
atrazine	6,900 (8)	2,300	345	16,000 (6)	5,333	800	-	-	-	7,600 (6)	2,533	380
DDE-p,p'	-	-	-	240 (1)	80	12	-	-	-	-	-	-
diuron	1,400 (8)	467	70	5,900 (6)	1,967	295	-	-	-	-	-	-
	1,400 (10)	467	70	-	-	-	-	-	-	-	-	-
endosulfan	166 (8)	55	8	1 (1)	0.33	0.05	-	-	-	1 (1)	0.3	0.05
	-	-	-	2 (4)	0.67	0.10	-	-	-	1.5 (8)	0.5	0.08
	166 (11)	55	8	1.7 (11)	0.57	0.09	-	-	-	-	-	-
hexazinone	151,600 (8)	50,533	7,580	100,000 (8)	33,333	5,000	-	-	-	-	-	-
	151,600 (12)	50,533	7,580	505,000 (12)	168,333	25,250	-	-	-	-	-	-
imidacloprid	85,200 (9)	28,400	4,260	-	-	-	-	-	-	-	-	-
malathion	1 (1)	0.3	0.05	103 (1)	34	5.2	285 (1)	95	14	8,970 (1)	2,990	449
	1.8 (5)	0.6	0.09	110 (2)	37	5.5	-	-	-	7,620 (8)	2,540	381
	-	-	-	12 (3)	4	0.6	-	-	-	-	-	-
	1.0 (13)	0.33	0.05	30 (13)	10	1.5	-	-	-	-	-	-
metolachlor	23,500 (8)	7,833	1,175	15,000 (6)	5,000	750	-	-	-	4,900 (7)	1,633	245
metribuzin	4,200 (8)	1,400	210	80,000 (6)	26,667	4,000	-	-	-	100,000 (8)	33,333	5,000
	4,200 (14)	1,400	210	75,900 (14)	25,300	3,795	-	-	-	-	-	-
norflurazon	15,000 (8)	5,000	750	16,300 (8)	5,433	815	-	-	-	>200,000 (6)	>67,000	>10,000
	>15000 (15)	>5,000	>750	16,300 (15)	5,433	815	-	-	-	-	-	-
simazine	1,100 (8)	367	55	90,000 (6)	30,000	4,500	-	-	-	-	-	-

(\*) Florida Administrative Code (FAC) 62-302.200, for compounds not specifically listed, acute and chronic toxicity standards are calculated as one-third and one-twentieth, respectively, of the amount lethal to 50% of the test organisms in 96 hours, where the 96 hour LC<sub>50</sub> is the lowest value which has been determined for a species significant to the indigenous aquatic community.

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**Table 9.** Pesticide detections and excursions for surface water samples collected from April 2009 to March 2010.<sup>1</sup>

Structure	Compound											
	simazine	norflurazon	metribuzin	metolachlor	malathion	imidacloprid	hexazinone	endosulfan sulfate	diuron	atrazine desethyl	atrazine	ametryn
G-123	---	---	---	---	---	---	---	---	---	---	---	---
S-9	---	---	---	---	---	---	---	---	---	2:0:0	---	---
S-18C	---	---	---	---	---	---	---	---	---	---	---	---
S-140	---	---	---	---	---	1:0:0	---	---	---	1:1:0	---	---
S-190	---	---	---	---	---	---	1:0:0	---	---	0:1:0	0:1:0	0:1:0*
S-31	---	---	---	---	---	---	---	---	---	3:1:0	3:1:0	3:0:0
S-332DX	---	---	---	---	---	---	---	---	---	---	3:0:0	---
S-177	---	---	---	---	---	---	---	---	---	---	2:0:0	2:0:0
S-178	---	---	---	---	0:0:1	---	---	---	1:0:0	---	---	---
S-331	---	---	---	---	---	---	---	---	---	---	1:0:0	2:0:0

<sup>1</sup> Four samples were collected for each site and analyzed for all parameters. Table cells only represent concentrations above the detection limit.

\* Number of samples < = PQL (no concern); number of samples > PQL (potential concern); and number of samples exceeding criterion or toxicity limit (concern).

**Table 10.** Pesticide detections and excursions for sediment samples collected in August 2009 and March 2010.<sup>1</sup>

Structure	alpha endosulfan	beta endosulfan	endosulfan sulfate	DDE-p,p'
G-123	--	--	--	--
S-9	--	--	--	--
S-18C	--	--	--	--
S-140	--	--	--	--
S-190	--	--	--	--
S-31	--	--	--	--
S-332DX	--	--	--	--
S-177	--	--	1 : 0	1 : 1
S-178	1 : 0*	1 : 0	1 : 0	1 : 1
S-331	--	--	--	--

<sup>1</sup> Two sediment samples were collected for each site (except S-142) and analyzed for all parameters. Table cells only represent concentrations above the detection limit.

\* Number of samples < PQL (no concern); and number of samples > PQL (potential concern).

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# **Attachment A: Specific Conditions and Cross-References**

**Table A-1.** Specific conditions and cross-references presented in this report.

<b>Condition</b>	<b>Table</b>	<b>Narrative (pages)</b>	<b>Figure</b>
Specific Conditions 5 and 12: Annual Monitoring Reports / All monitoring data shall be submitted annually, as part of the non-ECP Annual Report required by Specific Condition 5	3–10	App. 3-2-1 – 3-2-27	1–3
Specific Condition 12	B-1–B-2	Attachment B: Non-Everglades Construction Project Water Quality Sampling Sites, Monitoring Schedule and Flow Volumes	---
Specific Condition 12	C-1–C-3	Attachment C: Summary Statistics of Non-Everglades Construction Project Water Quality Monitoring Data for Water Year 2010	---
Specific Condition 12	---	Attachment D: Time-Series and Box Plots for Non-Everglades Construction Project Water Quality Monitoring Data Exhibiting Excursions from Class III Numeric Standards for Water Year 2010	Attachment D Figures
Specific Condition 12	---	Attachment E: Time-Series and Box Plots of Total Phosphorus at Non- Everglades Construction Project Monitoring Sites for Water Year 2009 and Earlier Periods	Attachment E Figures
Specific Conditions 12(e) and 12(f)	---	Attachment F: Statements of Authenticity for Analytical and Sampling Programs	---
Specific Conditions 12 and 16	---	Attachment G: Supporting Information on Water Quality and Flow Data for the Non- Everglades Construction Project Monitoring Locations for Water Year 2010	---
Specific Condition 6	---	Volume II, Chapter 6A: Florida Forever Work Plan, 2011 Annual Update	---

# **Attachment B: Non-Everglades Construction Project Water Quality Sampling Sites, Monitoring Schedule and Flow Volumes**

Shi Kui Xue

**Table B-1.** Water quality monitoring schedule for non-Everglades Construction Project (non-ECP) discharge structures and additional upstream monitoring locations.

AREA	Non-ECP PERMIT STRUCTURE	WATER QUALITY SAMPLING SITE	WATER QUALITY MONITORING SCHEDULE					WATER QUALITY COMMENTS
			Physical	Nutrients	Major Ions	Pesticides Water	Pesticides Sediment	
INTO	G-123	G123	BWF/M	BWF/M (auto-sampler)	QTR	QTR	SA	
	S-9	S9	BWF/M	Weekly Flowing (auto-sampler)	QTR	QTR	SA	TP collected by autosampler.
	S-9A	S9A	BWF/M	BWF/M except TP-WF/M Grab (auto-sampler)	QTR			Sampling started in WY2003
	S-332D	S332DX	WF/M	WF/M		QTR		
	S-18C	S18C	BWF/M	BWF/M (auto-sampler)	QTR	QTR	SA	
	S-140	S140	BWF/M	BWF/M (auto-sampler)	QTR	QTR	SA	TP collected by autosampler, nitrogen species collected by grab
	S-190	S190	BWF/M	BWF/M (auto-sampler)	QTR	QTR	SA	TP collected by autosampler, nitrogen species collected by grab
	NSID1	NSIDSP01	BWF	BWF	QTRF	QTRF	SAF	TP collected by autosampler
WITHIN	G-64	G64	BWF	BWF	QTRF *			Monitoring Fe, Mg, Ca phased out *
	S-346, S-347	S12D	BWF/M	BWF/M	QTR *			Monitoring Fe, Mg, Ca phased out *
	S-141	S34	BWF/M	BWF/M	QTR *			Monitoring Fe, Mg, Ca phased out *
	S-142	S142	BWF/M	BWF/M	QTR *	QTRF	SAF	Monitoring Fe, Mg, Ca phased out *
	S-143	S11A	BWRF	BWRF	BWRF			Monitoring Fe, Mg, Ca phased out *
	S-144	S145						Discontinued sampling in favor of surrogate location at S-145 *
	S-145	S145	BWRF	BWRF	BWRF			Monitoring Fe, Mg, Ca phased out *
	S-146	S145						Discontinued sampling in favor of surrogate location at S-145 *
	S-151	S151	BWF/M	BWF/M	QTR *			Monitoring Fe, Mg, Ca phased out *
	S-333	S333	BWF/M	BWF/M	QTR			
	S-339, S-340	C123SR84	BWF/M	BWF/M	QTR *			Monitoring Fe, Mg, Ca phased out *
	S-175	S175	BWF/M	BWF/M	QTR			
	S-332	S332	BWF/M	BWF/M	QTR	QTR	SA	
Berm B3	BermB3	BWF	BWF		QTR			
FROM	G-94A, G-94B, G-94C	G94B	BWF/M	BWF/M	QTR *			Monitoring Fe, Mg, Ca phased out *
	G-94D	G94D	BWF	BWF	QTR	QTR	SA	
	S-31	S31	BWF/M	BWF/M	QTR *	QTR	SA	Monitoring Fe, Mg, Ca phased out *
	S-34	S34	BWF/M	BWF/M	QTR *			Monitoring Fe, Mg, Ca phased out *
	S-38	S38	BWRF	BWRF	BWRF			Monitoring Fe, Mg, Ca phased out *
	S-39	S39	BWRF	BWRF	BWRF			Monitoring Fe, Mg, Ca phased out *
	S-197	S197	BWF	BWF	QTRF *			Monitoring Fe, Mg, Ca phased out *
	S-334	S356-334	BWF/M	BWF/M	QTR *			Monitoring Fe, Mg, Ca phased out *
	S-337	S31	BWF/M	BWF/M	QTR *			Monitoring Fe, Mg, Ca phased out *
	S-343A, S-343B	US41-25	BWF/M	BWF/M	QTR *			Monitoring Fe, Mg, Ca phased out *
S-344	S344	QTR	QTR	QTR *			Monitoring Fe, Mg, Ca phased out *	
C-111 BASIN	S-176 +	S332DX	BWF	BWF		QTR		
	S-177 +	S177	BWF/M	BWF/M	QTR	QTR	SA	
	S-178 +	S178	BWF/M	BWF/M	QTR	QTR	SA	
	S-331 +, S-173 +	S331-173	BWF/M	BWF/M	QTR			
		S331				QTR	SA	S173 is not listed in Permit, but is adjacent to and flows in same direction as S331
	S-332B+	S332B	WF	WF				S-332B, and S332C are not listed in Non-ECP permit, but they are in Emergency Order # 9.
S-332C+	S332C	WF	WF					

- Notes: 1) Water quality sample site is located on upstream side of permitted structure, unless otherwise noted with different representative sampling location.  
 2) Structure names with a "+" are upstream of Non-ECP INTO structures and are additional monitoring locations.  
 3) \* indicates monitoring requirement eliminated in the November 1999 Non-ECP Permit Modification.  
 4) Table Legend:  
 BWF/M =Biweekly if Flowing/Otherwise Monthly  
 BWF =Biweekly if Flowing  
 QTR =Quarterly  
 QTRF =Quarterly if Flowing  
 WF=Weekly if flow  
 SA Semiannually  
 SAF Semiannually if Flowing  
 1 Wet Season and 1 Dry Season  
 WF/M=Weekly if flow or monthly if not flowing  
 BWRF=Biweekly if recorded flow

**Table B-2.** Flow volume, total phosphorus (TP) loads, and annual flow-weighted mean TP concentrations for non-ECP structures during Water Year 2010.

AREA	NON-ECP PERMIT STRUCTURE	WATER QUALITY SAMPLING SITE	FLOW		Monthly Flow Volumes (acre-ft) (May 1, 2009 - April 30, 2010)												Total Flow Volume (acre-ft)	Total TP Load (kg)	Annual Flow-Weighted Mean TP (ppb)	
			STATION	DBKEY	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr				
INTO	G-123	G123	G123_P	K5481	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NF
	S-9	S9	S9_P	K5483	14,225	19,737	17,102	8,868	27,653	794	2,069	5,022	46	15,028	3,193	5,559	119,296	2,953	20	
	S-9A	S9A	S-9A_P	TA415	3,989	4,587	8,253	5,830	6,138	4,969	5,248	4,194	2,122	3,569	3,208	3,939	56,048	906	13	
	S-332D	S332DX	S-332D_P	TA413	700	7839	23664	29020	25957	28090	16031	18169	6106	9699	6725	9198	181,197	1,836	8	
	S-18C	S18C	S18C_S	15760	11,029	37,585	26,861	34,781	43,283	27,441	18,841	27,396	7,271	9,871	1,107	3,890	249,357	1,951	6	
	S-140	S140	S140_TOT	06754	3,976	26,250	32,945	12,172	21,161	7,270	1,925	3,949	3,162	2,846	8,362	12,917	136,937	9,213	55	
	S-190	S190	S190_S	K5501	0	5059	24559	13717	18357	5618	92	1205	1137	2011	5183	7825	84,763	7,623	73	
	NSID1	NSIDSP01	NSID1_WC2A	PS225	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NF
	G-64	G64	G64_C	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
WITHIN	S-346, S-347	S12D	S12D_S	FE774	0	7285	14360	16028	38384	43049	13446	2402	3927	11554	23645	22762	196,844	2,126	9	
	S-141	S34	S141_W	K5493	0	0	0	9	4,440	0	0	0	0	0	0	0	4,449	49	9	
	S-142	S142	S142_C	K5494	0	0	0	0	0	0	0	0	0	0	285	5337	5,623	76	11	
	S-143	S11A	S143_C	K5495	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N/F	
	S-144	S145	S144_C	K5497	824	7,213	7,266	2,786	0	4,861	2,134	1,722	1,911	1,964	1,419	1,758	33,856	396	9	
	S-145	S145	S145_C	K5498	1,354	8,640	8,722	3,194	0	5,320	2,327	1,938	2,807	3,425	2,921	3,561	44,210	533	10	
	S-146	S145	S146_C	K5499	390	6,743	7,231	2,496	0	4,644	2,076	1,646	1,074	1,098	1,193	1,299	29,891	336	9	
	S-151	S151	S151_C	K5500	3,331	41,660	63,565	27,514	0	25,672	5,609	0	0	0	17,554	24,775	209,681	3,262	13	
	S-333	S333	S333_S	15042	4	48,391	44,967	38,004	19,679	38,110	17,697	5,691	8,060	30,114	44,061	51,286	346,063	7,548	18	
	S-339	C123SR84	S339_S	K5506	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N/F
	S-340	C123SR84	S340_S	K5507	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	N/F
	S-175	S175	S175_C	15752	1	0	0	0	0	2	0	0	2	0	0	0	6	0	6	
	S-332	S332	S332_P	15753	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N/F
	BERMB3	BERMB3	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

- Notes: 1) Water quality sample site is located on upstream side of permitted structure, unless otherwise noted with different sampling location.  
 2) n/a indicates that flow and/or stage data are not available, or that structure is not appropriately instrumented to capture information.  
 3) Structure names with a "+" are upstream of Non-ECP INTO structures and are additional monitoring locations or are listed in Emergency Order Number 9.  
 4) N/F indicates no positive flow  
 5) S-331 and S-173 flow records were combined to determine the annual flow-weighted mean TP concentration.  
 6) nd indicates no data or no positive flow was recorded on sampling date, therefore a flow-weighted mean could not be calculated.  
 7) Recently completed project to improve flow estimates at S-9, data were not available when this went to print



Table B-2. Continued.

AREA	NON-ECP PERMIT STRUCTURE	WATER QUALITY SAMPLING SITE	FLOW		Monthly Flow Volumes (acre-ft) (May 1, 2009 - April 30, 2010)												Total Flow Volume (acre-ft)	Total TP Load (kg)	Annual Flow-Weighted Mean TP (ppb)		
			STATION	DBKEY	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr					
FROM	G-94A	G94B	G94A_C	TA422	0	0	0	0	0	0	0	0	0	0	332	0	7,124	7,456	391	43	
	G-94B	G94B	G94B_C	TA423	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N/F
	G-94C	G94B	G94C_C	TA424	0	0	0	586	0	1,555	653	0	1,496	919	948	2,933	9,089	403	36		
	G-94D	G94D	ACME2	OH648	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N/F
	S-31	S31	S31_C	K5486	0	47	5,293	7,551	0	0	0	0	0	0	13,199	12,953	39,043	583	12		
	S-34	S34	S34_C	K5487	0	0	0	1,536	4,970	5,910	1,273	0	0	0	390	12,711	26,791	350	11		
	S-38	S38	S38_C	K5488	2,153	1,077	17,368	22,284	21,873	12,593	1,673	413	2,584	3,683	14,340	20,325	120,366	1,425	10		
	S-39	S39	S39_S	K5489	1,296	1,263	9,358	0	0	180	973	0	0	0	0	0	0	13,030	649	40	
	S-197	S197	S197_C	15763	0	0	0	0	9834	0	2986	2111	0	0	0	0	0	14,931	88	5	
	S-334	S356-334	S334_S	FB752	0	7,844	22,474	17,010	13,775	20,954	1,763	189	18	18	14,147	24,710	122,902	1,682	11		
	S-337	S31	S337_C	K5505	3,315	30	7	0	0	0	0	0	0	0	0	0	66	3,418	111	26	
	S-343A	US41-25	S343A_C	K5508	0	0	2,751	7,092	9,313	4,609	0	0	0	0	0	0	0	23,766	342	12	
	S-343B	US41-25	S343B_C	K5509	0	0	5225	10242	11910	7732	0	0	0	0	0	0	5	35,114	510	12	
	S-344	S344	S344_C	K5511	0	0	4,041	9,203	9,896	6,925	841	40	0	0	0	0	0	30,947	383	10	
C-111 BASIN	S-176 +	S332DX	S176_S	15762	535	2,967	439	509	477	181	3	209	0	354	1	0	5,676	49	7		
	S-177 +	S177	S177_S	15772	7,350	20,527	17,747	21,031	30,513	18,548	10,923	15,967	1,686	5,267	0	2,450	152,030	973	5		
	S-178 +	S178	S178_C	SO632	88	0	0	0	0	0	0	0	0	0	0	0	88	16	151		
	S-331 +	S331-173	S331_P	P6935	49	0	40112	41980	42097	40836	5086	8480	0	8427	17	5119	192,202	1,951	8		
	S-173 +	S331-173	S173_C	FB759	1,184	3,297	179	0	0	0	5,202	3,626	322	814	3,632	6,371	24,628	267	9		
	S-332B+	S332B	S-332B	TB064	456	11,133	25,448	22,551	20,754	20,079	12,798	20,102	1,646	5,360	2,951	21,523	164,800	1,554	8		
	S-332C+	S332C	S-332B	UT724	0	3,850	19,139	20,575	29,572	9,315	1,542	2,265	0	524	0	2,717	89,499	846	8		

- Notes: 1) Water quality sample site is located on upstream side of permitted structure, unless otherwise noted with different sampling location.  
 2) n/a indicates that flow and/or stage data are not available, or that structure is not appropriately instrumented to capture information.  
 3) Structure names with a "+" are upstream of Non-ECP INTO structures and are additional monitoring locations or are listed in Emergency Order Number 9.  
 4) N/F indicates no positive flow  
 5) S-331 and S-173 flow records were combined to determine the annual flow-weighted mean TP concentration.  
 6) nd indicates no data or no positive flow was recorded on sampling date, therefore a flow-weighted mean could not be calculated.

# Attachment C: Summary Statistics of Non-Everglades Construction Project Water Quality Monitoring Data for Water Year 2010

Shi Kui Xue and Steven Hill

## NOTES:

Summary statistics are tabulated in **Table C-3** of this attachment for all parameters collected during Water Year 2010 (WY2010) (May 1, 2009–April 30, 2010) at the non-Everglades Construction Project (non-ECP) water quality monitoring sites. **Table C-1** of this attachment presents the water quality parameters associated with the summary statistics and their associated Florida Class III Fresh Surface Water Criteria [Section 62-302.530, Florida Administrative Code (F.A.C.)]. Additionally, the parameter summary statistics shown in **Table C-3** are sequenced according to the order shown in **Table C-1**. The monitoring sites are sequenced based on the order shown in **Table C-2**. The non-ECP structure locations are depicted in **Figure 1** of this appendix.

**Table C-1.** Class III criteria reference table for water quality parameters presented in summary statistics on **Table C-3**.

Parameter Name	Abbreviated Parameter Name	Units	SFWMD Test Number	Class III Criteria Predominantly Fresh Surface Waters Section 62-302.530, F.A.C.
<b>PHYSICAL</b>				
% Saturation, Dissolved Oxygen	% SAT. DO	percent	76	None
Dissolved Oxygen	DO	mg/L	8	Not be less than 5.0 mg/L
Specific Conductance (Field)	FLDCOND	µmhos/cm	9	Not greater than 50% above background or 1,275 µmhos/cm, whichever is greater
pH (Field)	PH	units	10	Not less than 6.0 or greater than 8.5
Turbidity	TURBIDITY	ntu	12	Less than or equal to 29 NTU above natural background
Total Suspended Solids	TSS	mg/L	16	None
Color	COLOR	units	13	None
Hardness	HARDNESS	mg/L as CaCO <sub>3</sub>	35	None
Temperature	TEMP	centigrade	7	None
Alkalinity	ALKALINITY	mg/L	67	Not less than 20 mg/L
<b>NUTRIENTS</b>				
Total Nitrogen	TN	mg N/L	80	narrative criteria
Nitrite + Nitrate	NOX	mg N/L	18;180	narrative criteria
Nitrite	NO2	mg N/L	19	narrative criteria
Nitrate	NO3	mg N/L	78	narrative criteria
Ammonium	NH4	mg N/L	182	narrative criteria
Un-ionized Ammonia	UN-IONIZED AMMONIA	mg/L as NH <sub>3</sub>	NONE	Less than or equal to 0.02 mg/L
Inorganic Nitrogen	NNH4	mg N/L	92	narrative criteria
Organic Nitrogen	ORGN	mg N/L	79	narrative criteria
Total Kjeldahl Nitrogen	TKN	mg N/L	21	narrative criteria
Ortho-Phosphorus	OPO4	mg P/L	23	narrative criteria
Total Phosphorus	TP	mg P/L	25	narrative criteria
<b>MAJOR IONS</b>				
Dissolved Calcium	DIS. CA	mg/L	30	None
Dissolved Potassium	DIS. K	mg/L	29	None
Dissolved Magnesium	DIS. MG	mg/L	31	None
Dissolved Sodium	DIS. NA	mg/L	28	None
Dissolved Silica	DIS. SILICA	mg/L	27	None
Total Sulfate	TOT. SO4	mg/L	33	None
Total Chlorides	TOT. CL	mg/L	32	None
<b>TRACE ELEMENTS</b>				
Total Arsenic	TOT. AS	µg/L	106	Less than or equal to 50 µg/L
Total Cadmium	TOT. CD	µg/L	103	Less than or equal to calculated value using: $e^{(0.7852 \ln(\text{Hardness}) - 3.49)}$ µg/L
Total Copper	TOT. CU	µg/L	104	Less than or equal to calculated value using: $e^{(0.8545 \ln(\text{Hardness}) - 1.702)}$ µg/L
Total Mercury	TOT. HG	µg/L	102	Less than or equal to .012 µg/L
Total Lead	TOT. PB	µg/L	107	Less than or equal to calculated value using: $e^{(1.273 \ln(\text{Hardness}) - 4.705)}$ µg/L
Total Zinc	TOT. ZN	µg/L	105	Less than or equal to calculated value using: $e^{(0.8473 \ln(\text{Hardness}) + 0.884)}$ µg/L
Total Iron	TOT. FE	mg/L	177	Less than or equal to 1.0 mg/L
<b>BIOLOGICAL</b>				
Carotenoid	CAROTENOID or CAROT	mg/m <sup>3</sup>	63	None
Chlorophyll-A	CHLA	mg/m <sup>3</sup>	61	None
Chlorophyll-A2	CHLA2	mg/m <sup>3</sup>	112	None
Chlorophyll-B	CHLB	mg/m <sup>3</sup>	62	None
Chlorophyll-C	CHLC	mg/m <sup>3</sup>	113	None
Pheophytin-A	PHEOPHYTIN A	mg/m <sup>3</sup>	64	None

**Table C-2.** Reference table for cross-referencing water quality monitoring sites with non-ECP discharge structures and the monitoring data summary statistics shown in **Table C-3**.

STRUCTURE CATEGORY	Non-ECP PERMIT STRUCTURE	WATER QUALITY SAMPLING SITE	Comments
INTO	G-123	G123	Auto-sampler installed upstream of pump station during WY2001
	S-9	S9	Auto-sampler installed upstream of pump station during WY2000
	S-9A	S9A	Water quality data available in WY2003
	S-332D	S-332DX	The site is a new non-ECP structure
	S-18C	S18C	Auto-sampler installed upstream of pump station during WY2003
	S-140	S140	Auto-sampler installed upstream of pump station during WY2001
	S-190	S190	Auto-sampler installed upstream of pump station during WY2001
	NSID1	NSIDSP01	Auto-sampler installed upstream of pump station during WY2002
WITHIN	G-64	G64	
	S-346, S-347	S12D	
	S-141	S34	
	S-142	S142	
	S-143	S11A	
	S-144	S145	
	S-145	S145	
	S-146	S145	
	S-151	S151	
	S-333	S333	
	S-339, S-340	C123SR84	
	S-175	S175	
	S-332	S332	
	Burm-B3	BurmB3	The site is a new non-ECP structure
FROM	G-94A, G-94B, G-94C	G94B	
	G-94D	G94D	
	S-31, S-337	S31	
	S-34	S34	
	S-38	S38	
	S-39	S39	
	S-197	S197	
	S-334	S356-334	
	S-343A, S-343B	US41-25	
	S-344	S344	
C111 BASIN	S-176 +	S332DX	The site is not a non-ECP structure; data are presented for information only
	S-177 +	S177	
	S-178 +	S178	
	S-331 +, S-173 +	S331-173	
	S-332B+	S-332B	The site is not a non-ECP structure; data are presented for information only
	S-332C+	S-332C	The site is not a non-ECP structure; data are presented for information only, the flow data were processed from 3/27/07.
Notes:	1) Water quality sample site is located on upstream side of permitted structure; unless otherwise noted with different representative sampling location.		
	2) Structure names with a "+" are upstream of non-ECP INTO structures and are additional monitoring locations.		

**Table C-3.** Summary statistics of non-ECP water quality monitoring data (physical parameters, nutrients, major ions, and trace metals) collected during WY2010.

STATION	TEST NAME	UNITS	TEST NUMBER	PERIOD OF RECORD	# OF SAMPLES	MEAN	STD	MIN	Q25	MEDIAN	Q75	MAX	# BELOW DETECTION LIMIT	# OF EXCURSIONS	% EXCURSIONS
G123	CA_I	mg/L	188	04AUG2009 - 25MAR2010	2	0.865	0.191	0.730	0.730	0.865	1.000	1.000	0	0	0.00%
G123	DIS. CA	mg/L	30	14JUL2009 - 06APR2010	4	69.325	15.579	52.100	56.150	71.000	82.500	83.200	0	0	0.00%
G123	DIS. K	mg/L	29	14JUL2009 - 06APR2010	4	4.700	0.837	4.000	4.150	4.450	5.250	5.900	0	0	0.00%
G123	DIS. MG	mg/L	31	14JUL2009 - 06APR2010	4	18.100	1.160	16.600	17.300	18.200	18.900	19.400	0	0	0.00%
G123	DIS. NA	mg/L	28	14JUL2009 - 06APR2010	4	61.050	8.912	49.400	55.450	61.850	66.650	71.100	0	0	0.00%
G123	DO	mg/L	8	05MAY2009 - 06APR2010	12	2.720	1.420	1.010	1.515	2.690	3.555	5.680	0	11	91.67%
G123	FLDCOND.	UMHOS/	9	05MAY2009 - 06APR2010	12	753.333	107.359	522.000	661.500	805.000	824.500	868.000	0	0	0.00%
G123	HARDNESS	mg/L C	35	14JUL2009 - 06APR2010	4	247.500	41.380	205.700	212.100	248.400	282.900	287.500	0	0	0.00%
G123	NOX	mg N/L	18;180	05MAY2009 - 09MAR2010	10	0.014	0.020	0.005	0.005	0.005	0.008	0.066	0	0	0.00%
G123	OPO4	mg P/L	23	05MAY2009 - 09MAR2010	11	0.002	0.000	0.002	0.002	0.002	0.002	0.002	0	0	0.00%
G123	PH	UNITS	10	05MAY2009 - 06APR2010	12	7.367	0.156	7.200	7.250	7.300	7.500	7.700	0	0	0.00%
G123	TEMP	CENT	7	05MAY2009 - 06APR2010	12	25.150	2.631	19.400	23.500	25.500	27.250	28.700	0	0	0.00%
G123	TKN	mg N/L	21	05MAY2009 - 06APR2010	12	1.533	0.177	1.250	1.435	1.545	1.625	1.860	0	0	0.00%
G123	TN	mg N/L	80	05MAY2009 - 06APR2010	12	1.544	0.184	1.250	1.438	1.564	1.625	1.867	0	0	0.00%
G123	TOT. CL	mg/L	32	14JUL2009 - 06APR2010	6	60.033	46.451	1.400	2.400	78.100	92.200	108.000	0	0	0.00%
G123	TOT. MTHY HG	ug/L	203	07DEC2009 - 07DEC2009	1	0.000		0.000	0.000	0.000	0.000	0.000	0	0	0.00%
G123	TOT. SO4	mg/L	33	14JUL2009 - 06APR2010	4	10.550	8.796	0.800	3.200	11.000	17.900	19.400	0	0	0.00%
G123	TOT. ULTRA TR	ug/L	207	11MAY2009 - 07DEC2009	3	0.001	0.001	0.000	0.000	0.000	0.002	0.002	0	0	0.00%
G123	TP	mg P/L	25	05MAY2009 - 06APR2010	12	0.0155	0.006961	0.009	0.011	0.013	0.019	0.032	0	0	0.00%
G123	TURBIDITY	NTU	12	05MAY2009 - 06APR2010	14	1.686	0.857	0.900	1.000	1.350	2.500	3.300	0	0	0.00%
S9	CA_I	mg/L	188	04AUG2009 - 25MAR2010	2	0.795	0.573	0.390	0.390	0.795	1.200	1.200	0	0	0.00%
S9	DIS. CA	mg/L	30	14JUL2009 - 06APR2010	4	79.450	3.084	76.000	76.850	79.800	82.050	82.200	0	0	0.00%
S9	DIS. K	mg/L	29	14JUL2009 - 06APR2010	4	3.675	0.486	3.200	3.300	3.600	4.050	4.300	0	0	0.00%
S9	DIS. MG	mg/L	31	14JUL2009 - 06APR2010	4	15.675	0.873	14.900	14.950	15.550	16.400	16.700	0	0	0.00%
S9	DIS. NA	mg/L	28	14JUL2009 - 06APR2010	4	55.275	3.892	51.600	51.950	55.100	58.600	59.300	0	0	0.00%
S9	DO	mg/L	8	05MAY2009 - 27APR2010	51	2.429	1.227	0.470	1.430	2.110	3.430	5.420	0	49	96.08%
S9	FLDCOND.	UMHOS/	9	05MAY2009 - 27APR2010	52	739.519	73.979	550.000	692.500	768.500	798.000	838.000	0	0	0.00%
S9	HARDNESS	mg/L C	35	14JUL2009 - 06APR2010	4	262.9	11.17945	251.3	253.4	263.15	272.4	274	0	0	0.00%
S9	NOX	mg N/L	18;180	02JUN2009 - 06APR2010	12	0.059	0.036	0.012	0.034	0.047	0.088	0.138	0	0	0.00%
S9	OPO4	mg P/L	23	05MAY2009 - 09MAR2010	11	0.002	0.000	0.002	0.002	0.002	0.002	0.002	0	0	0.00%
S9	PH	UNITS	10	05MAY2009 - 27APR2010	52	7.362	0.172	7.100	7.300	7.300	7.400	8.100	0	0	0.00%
S9	TEMP	CENT	7	05MAY2009 - 27APR2010	52	25.171	2.956	18.000	22.800	25.400	28.000	29.700	0	0	0.00%
S9	TKN	mg N/L	21	05MAY2009 - 20APR2010	15	1.566	0.181	1.190	1.490	1.560	1.720	1.870	0	0	0.00%
S9	TN	mg N/L	80	05MAY2009 - 20APR2010	15	1.613	0.168	1.233	1.515	1.655	1.720	1.920	0	0	0.00%
S9	TOT. CL	mg/L	32	14JUL2009 - 06APR2010	6	57.600	43.201	1.400	3.200	79.650	87.600	94.100	0	0	0.00%
S9	TOT. SO4	mg/L	33	14JUL2009 - 06APR2010	4	1.200	0.424	0.600	0.900	1.350	1.500	1.500	0	0	0.00%
S9	TP	mg P/L	25	05MAY2009 - 27APR2010	52	0.013	0.008	0.008	0.010	0.011	0.014	0.062	0	0	0.00%
S9	TURBIDITY	NTU	12	05MAY2009 - 06APR2010	15	3.307	1.425	1.100	2.300	3.100	4.100	6.800	0	0	0.00%
S9Auto	NOX	mg N/L	18;180	26MAY2009 - 27APR2010	32	0.082	0.056	0.018	0.048	0.061	0.109	0.274	0	0	0.00%
S9Auto	TKN	mg N/L	21	26MAY2009 - 27APR2010	32	1.375	0.171	1.140	1.200	1.345	1.475	1.690	0	0	0.00%

Table C-3. Continued.

STATION	TEST NAME	UNITS	TEST NUMBER	PERIOD OF RECORD	# OF SAMPLES	MEAN	STD	MIN	Q25	MEDIAN	Q75	MAX	# BELOW DETECTION LIMIT	# OF EXCURSIONS	% EXCURSIONS
S9Auto	TN	mg N/L	80	26MAY2009 - 27APR2010	32	1.457	0.170	1.200	1.287	1.455	1.593	1.769	0	0	0.00%
S9Auto	TP	mg P/L	25	26MAY2009 - 27APR2010	33	0.016121	0.007932	0.008	0.012	0.014	0.017	0.048	0	0	0.00%
S9A	ALKALINITY	mg/L	67	06OCT2009 - 12JAN2010	2	267.500	12.021	259.000	259.000	267.500	276.000	276.000	0	0	0.00%
S9A	DIS. CA	mg/L	30	14JUL2009 - 06APR2010	4	81.625	2.792	77.700	79.900	82.250	83.350	84.300	0	0	0.00%
S9A	DIS. K	mg/L	29	14JUL2009 - 06APR2010	4	3.875	0.340	3.400	3.650	3.950	4.100	4.200	0	0	0.00%
S9A	DIS. MG	mg/L	31	14JUL2009 - 06APR2010	4	16.100	0.808	15.000	15.500	16.300	16.700	16.800	0	0	0.00%
S9A	DIS. NA	mg/L	28	14JUL2009 - 06APR2010	4	57.100	3.548	51.900	55.100	58.300	59.100	59.900	0	0	0.00%
S9A	DO	mg/L	8	05MAY2009 - 27APR2010	52	2.614	1.135	0.570	1.825	2.605	3.275	5.480	0	50	96.15%
S9A	FLDCOND.	UMHOS/	9	05MAY2009 - 27APR2010	53	743.717	70.809	574.000	684.000	769.000	798.000	840.000	0	0	0.00%
S9A	HARDNESS	mg/L C	35	14JUL2009 - 06APR2010	4	270.025	10.188	255.600	263.650	272.500	276.400	279.500	0	0	0.00%
S9A	NH4	mg N/L	20	06OCT2009 - 12JAN2010	2	0.463	0.053	0.425	0.425	0.463	0.500	0.500	0	0	0.00%
S9A	NNH4	mg N/L	92	06OCT2009 - 12JAN2010	2	0.506	0.069	0.457	0.457	0.506	0.554	0.554	0	0	0.00%
S9A	NO2	mg N/L	19	06OCT2009 - 12JAN2010	2	0.004	0.002	0.002	0.002	0.004	0.005	0.005	0	0	0.00%
S9A	NO3	mg N/L	78	06OCT2009 - 12JAN2010	2	0.040	0.018	0.027	0.027	0.040	0.052	0.052	0	0	0.00%
S9A	NOX	mg N/L	18;180	19MAY2009 - 20APR2010	22	0.051	0.028	0.020	0.026	0.048	0.067	0.131	0	0	0.00%
S9A	OPO4	mg P/L	23	05MAY2009 - 20APR2010	21	0.002	0.000	0.002	0.002	0.002	0.002	0.003	0	0	0.00%
S9A	ORGN	mg N/L	79	06OCT2009 - 12JAN2010	2	1.163	0.095	1.095	1.095	1.163	1.230	1.230	0	0	0.00%
S9A	PH	UNITS	10	05MAY2009 - 27APR2010	53	7.321	0.106	7.100	7.300	7.300	7.400	7.600	0	0	0.00%
S9A	TEMP	CENT	7	05MAY2009 - 27APR2010	53	25.070	2.909	18.300	22.600	25.100	27.600	29.600	0	0	0.00%
S9A	TKN	mg N/L	21	05MAY2009 - 20APR2010	25	1.530	0.182	1.170	1.360	1.550	1.680	1.760	0	0	0.00%
S9A	TN	mg N/L	80	05MAY2009 - 20APR2010	25	1.575	0.169	1.170	1.461	1.621	1.712	1.784	0	0	0.00%
S9A	TOT. CL	mg/L	32	14JUL2009 - 06APR2010	4	85.325	6.369	78.000	80.300	85.350	90.350	92.600	0	0	0.00%
S9A	TOT. SO4	mg/L	33	14JUL2009 - 06APR2010	4	1.400	0.271	1.200	1.250	1.300	1.550	1.800	0	0	0.00%
S9A	TP	mg P/L	25	05MAY2009 - 27APR2010	52	0.012	0.007	0.007	0.009	0.011	0.013	0.050	0	0	0.00%
S9A	TURBIDITY	NTU	12	05MAY2009 - 20APR2010	23	2.870	0.866	1.100	2.300	2.900	3.200	4.700	0	0	0.00%
S9A	UN-IONIZED A	mg/L	NONE	05MAY2009 - 27APR2010	2	0.005	0.000	0.005	0.005	0.005	0.006	0.006	0	0	0.00%
S9AAuto	TP	mg P/L	25	05MAY2009 - 27APR2010	49	0.013	0.005	0.008	0.011	0.012	0.014	0.031	0	0	0.00%
S18C	CA_I	mg/L	188	03AUG2009 - 24MAR2010	2	3.500	0.141	3.400	3.400	3.500	3.600	3.600	0	0	0.00%
S18C	DIS. CA	mg/L	30	04MAY2009 - 26APR2010	44	75.382	2.735	65.600	74.200	75.900	77.050	80.000	0	0	0.00%
S18C	DIS. K	mg/L	29	04MAY2009 - 26APR2010	44	4.718	0.801	3.600	4.050	4.600	5.150	7.000	0	0	0.00%
S18C	DIS. MG	mg/L	31	04MAY2009 - 26APR2010	44	6.386364	0.42404	5.5	6.15	6.4	6.6	8.1	0	0	0.00%
S18C	DIS. NA	mg/L	28	04MAY2009 - 26APR2010	44	29.043	1.831	24.800	28.100	29.000	30.200	35.700	0	0	0.00%
S18C	DO	mg/L	8	04MAY2009 - 26APR2010	49	5.632	2.222	2.240	3.690	5.380	7.860	9.460	0	22	44.90%
S18C	FLDCOND.	UMHOS/	9	04MAY2009 - 26APR2010	51	557.765	20.766	521.000	550.000	557.000	564.000	665.000	0	0	0.00%
S18C	HARDNESS	mg/L C	35	04MAY2009 - 26APR2010	44	214.543	6.581	189.500	211.350	215.500	218.200	226.800	0	0	0.00%
S18C	NOX	mg N/L	18;180	04MAY2009 - 08MAR2010	33	0.141	0.143	0.005	0.084	0.111	0.150	0.885	0	0	0.00%
S18C	OPO4	mg P/L	23	04MAY2009 - 26APR2010	43	0.002	0.002	0.002	0.002	0.002	0.002	0.016	0	0	0.00%
S18C	PH	UNITS	10	04MAY2009 - 26APR2010	50	7.502	0.359	6.900	7.200	7.400	7.800	8.200	0	0	0.00%
S18C	TEMP	CENT	7	04MAY2009 - 26APR2010	52	25.056	2.861	15.500	22.950	25.850	27.450	29.000	0	0	0.00%

Table C-3. Continued.

STATION	TEST NAME	UNITS	TEST NUMBER	PERIOD OF RECORD	# OF SAMPLES	MEAN	STD	MIN	Q25	MEDIAN	Q75	MAX	# BELOW DETECTION LIMIT	# OF EXCURSIONS	% EXCURSIONS
S18C	TKN	mg N/L	21	04MAY2009 - 26APR2010	44	0.559	0.075	0.400	0.510	0.565	0.605	0.730	0	0	0.00%
S18C	TN	mg N/L	80	04MAY2009 - 26APR2010	44	0.665	0.152	0.400	0.617	0.676	0.703	1.465	0	0	0.00%
S18C	TOT. CL	mg/L	32	04MAY2009 - 26APR2010	46	43.885	7.694	9.800	43.800	45.150	46.900	53.600	0	0	0.00%
S18C	TOT. MTHY HG	ug/L	203	19OCT2009 - 19OCT2009	1	0.000		0.000	0.000	0.000	0.000	0.000	0	0	0.00%
S18C	TOT. SO4	mg/L	33	13JUL2009 - 12APR2010	4	6.625	2.923	4.600	4.750	5.500	8.500	10.900	0	0	0.00%
S18C	TOT. ULTRA TR	ug/L	207	14JUL2009 - 19OCT2009	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0	0.00%
S18C	TP	mg P/L	25	04MAY2009 - 26APR2010	52	0.005	0.004	0.003	0.004	0.005	0.005	0.034	0	0	0.00%
S18C	TSS	mg/L	16	04MAY2009 - 26APR2010	44	3.227	1.362	3.000	3.000	3.000	3.000	12.000	0	0	0.00%
S18C	TURBIDITY	NTU	12	13JUL2009 - 12APR2010	6	5.050	6.555	0.600	0.700	1.000	13.000	14.000	0	0	0.00%
S18CAuto	NOX	mg N/L	18;180	01JUN2009 - 08MAR2010	40	0.113	0.056	0.044	0.076	0.105	0.138	0.338	0	0	0.00%
S18CAuto	TKN	mg N/L	21	01JUN2009 - 08MAR2010	41	0.582	0.071	0.420	0.540	0.570	0.630	0.750	0	0	0.00%
S18CAuto	TN	mg N/L	80	01JUN2009 - 08MAR2010	41	0.692	0.071	0.540	0.646	0.690	0.720	0.968	0	0	0.00%
S18CAuto	TP	mg P/L	25	01JUN2009 - 01MAR2010	38	0.006	0.002	0.003	0.005	0.006	0.007	0.014	0	0	0.00%
S140	CA_I	mg/L	188	05AUG2009 - 29MAR2010	2	0.465	0.049	0.430	0.430	0.465	0.500	0.500	0	0	0.00%
S140	DIS. CA	mg/L	30	14JUL2009 - 06APR2010	4	73.650	11.318	58.900	65.000	75.550	82.300	84.600	0	0	0.00%
S140	DIS. K	mg/L	29	14JUL2009 - 06APR2010	4	5.100	0.920	4.200	4.350	5.000	5.850	6.200	0	0	0.00%
S140	DIS. MG	mg/L	31	14JUL2009 - 06APR2010	4	6.500	1.715	4.500	5.250	6.450	7.750	8.600	0	0	0.00%
S140	DIS. NA	mg/L	28	14JUL2009 - 06APR2010	4	49.475	20.402	25.600	34.200	49.200	64.750	73.900	0	0	0.00%
S140	DO	mg/L	8	05MAY2009 - 27APR2010	52	4.218	2.348	1.300	2.070	3.775	5.685	9.840	0	31	59.62%
S140	FLDCOND.	UMHOS/	9	05MAY2009 - 27APR2010	52	657.788	168.505	415.000	509.500	646.000	761.000	975.000	0	0	0.00%
S140	HARDNESS	mg/L C	35	14JUL2009 - 06APR2010	4	210.575	35.184	165.500	183.750	215.100	237.400	246.600	0	0	0.00%
S140	NOX	mg N/L	18;180	05MAY2009 - 20APR2010	18	0.052	0.037	0.005	0.024	0.045	0.061	0.132	0	0	0.00%
S140	OPO4	mg P/L	23	05MAY2009 - 20APR2010	19	0.019	0.009	0.002	0.015	0.020	0.026	0.036	0	0	0.00%
S140	PH	UNITS	10	05MAY2009 - 27APR2010	52	7.531	0.263	7.000	7.300	7.500	7.700	8.300	0	0	0.00%
S140	TEMP	CENT	7	05MAY2009 - 27APR2010	52	24.533	4.579	12.200	20.350	25.350	29.000	30.400	0	0	0.00%
S140	TKN	mg N/L	21	05MAY2009 - 20APR2010	21	1.270	0.113	1.110	1.200	1.250	1.340	1.480	0	0	0.00%
S140	TN	mg N/L	80	05MAY2009 - 20APR2010	21	1.314	0.113	1.134	1.256	1.289	1.377	1.559	0	0	0.00%
S140	TOT. CL	mg/L	32	14JUL2009 - 06APR2010	6	44.683	39.642	1.100	1.900	45.200	76.200	98.500	0	0	0.00%
S140	TOT. SO4	mg/L	33	14JUL2009 - 06APR2010	4	14.875	7.871	7.700	8.950	13.200	20.800	25.400	0	0	0.00%
S140	TP	mg P/L	25	05MAY2009 - 27APR2010	51	0.048	0.012	0.025	0.039	0.049	0.058	0.082	0	0	0.00%
S140	TURBIDITY	NTU	12	05MAY2009 - 20APR2010	22	2.832	1.658	0.300	1.300	2.700	4.000	6.700	0	0	0.00%
S140Auto	TP	mg P/L	25	02JUN2009 - 27APR2010	38	0.052	0.011	0.034	0.045	0.052	0.059	0.084	0	0	0.00%
S190	CA_I	mg/L	188	05AUG2009 - 29MAR2010	2	2.250	0.778	1.700	1.700	2.250	2.800	2.800	0	0	0.00%
S190	DIS. CA	mg/L	30	14JUL2009 - 27APR2010	4	68.875	12.669	54.900	58.150	70.300	79.600	80.000	0	0	0.00%
S190	DIS. K	mg/L	29	14JUL2009 - 27APR2010	4	2.125	0.709	1.400	1.700	2.000	2.550	3.100	0	0	0.00%
S190	DIS. MG	mg/L	31	14JUL2009 - 27APR2010	4	5.175	1.072	4.000	4.500	5.050	5.850	6.600	0	0	0.00%
S190	DIS. NA	mg/L	28	14JUL2009 - 27APR2010	4	17.750	5.498	11.700	13.600	17.350	21.900	24.600	0	0	0.00%
S190	DO	mg/L	8	05MAY2009 - 27APR2010	50	5.764	2.688	1.210	3.170	6.260	8.120	10.700	0	20	40.00%
S190	FLDCOND.	UMHOS/	9	05MAY2009 - 27APR2010	52	509.981	64.151	340.000	474.500	509.000	552.500	627.000	0	0	0.00%
S190	HARDNESS	mg/L C	35	14JUL2009 - 27APR2010	4	193.300	35.388	153.500	163.650	196.300	222.950	227.100	0	0	0.00%

Table C-3. Continued.

STATION	TEST NAME	UNITS	TEST NUMBER	PERIOD OF RECORD	# OF SAMPLES	MEAN	STD	MIN	Q25	MEDIAN	Q75	MAX	# BELOW DETECTION LIMIT	# OF EXCURSIONS	% EXCURSIONS
S190	NOX	mg N/L	18,180	05MAY2009 - 27APR2010	24	0.012	0.012	0.005	0.005	0.005	0.018	0.043	0	0	0.00%
S190	OPO4	mg P/L	23	05MAY2009 - 27APR2010	23	0.014	0.025	0.002	0.002	0.005	0.008	0.111	0	0	0.00%
S190	PH	UNITS	10	05MAY2009 - 27APR2010	52	7.604	0.347	7.000	7.300	7.600	7.900	8.100	0	0	0.00%
S190	TEMP	CENT	7	05MAY2009 - 27APR2010	52	25.340	4.791	13.600	21.150	26.550	29.200	32.500	0	0	0.00%
S190	TKN	mg N/L	21	05MAY2009 - 27APR2010	24	1.044	0.143	0.860	0.935	0.995	1.145	1.320	0	0	0.00%
S190	TN	mg N/L	80	05MAY2009 - 27APR2010	24	1.054	0.147	0.860	0.943	1.010	1.152	1.350	0	0	0.00%
S190	TOT. CL	mg/L	32	14JUL2009 - 27APR2010	6	17.283	12.113	3.700	3.800	18.200	26.000	33.800	0	0	0.00%
S190	TOT. DIS. P	mg P/L	26	05MAY2009 - 27APR2010	24	0.021417	0.028196	0.006	0.008	0.011	0.019	0.133	0	0	0.00%
S190	TOT. SO4	mg/L	33	14JUL2009 - 27APR2010	4	5.300	1.309	3.400	4.450	5.750	6.150	6.300	0	0	0.00%
S190	TP	mg P/L	25	05MAY2009 - 27APR2010	52	0.042	0.040	0.017	0.023	0.028	0.045	0.238	0	0	0.00%
S190	TURBIDITY	NTU	12	05MAY2009 - 27APR2010	26	2.085	1.418	0.500	1.200	1.600	2.700	6.700	0	0	0.00%
S190Auto	TP	mg P/L	25	02JUN2009 - 27APR2010	39	0.050	0.033	0.022	0.027	0.034	0.065	0.155	0	0	0.00%
NSIDSP01	DO	mg/L	8	04MAY2009 - 30APR2010	23	6.157	1.792	0.005	5.560	6.350	7.320	8.470	0	4	17.39%
NSIDSP01	FLDCOND.	UMHOS/	9	04MAY2009 - 30APR2010	21	449.476	77.614	310.000	393.000	452.000	477.000	627.000	0	0	0.00%
NSIDSP01	NO2	mg N/L	19	16SEP2009 - 30APR2010	9	0.009	0.008	0.006	0.006	0.006	0.006	0.030	0	0	0.00%
NSIDSP01	NO3	mg N/L	78	16SEP2009 - 30APR2010	9	0.163	0.312	0.006	0.006	0.006	0.220	0.950	0	0	0.00%
NSIDSP01	NOX	mg N/L	18,180	16SEP2009 - 30APR2010	9	0.163	0.312	0.006	0.006	0.006	0.220	0.950	0	0	0.00%
NSIDSP01	PH	UNITS	10	04MAY2009 - 30APR2010	22	7.976	0.233	7.520	7.800	8.000	8.140	8.430	0	0	0.00%
NSIDSP01	TEMP	CENT	7	04MAY2009 - 30APR2010	22	27.964	3.227	20.800	26.500	29.100	30.200	31.600	0	0	0.00%
NSIDSP01	TKN	mg N/L	21	16SEP2009 - 30APR2010	9	0.355	0.373	0.003	0.006	0.410	0.530	1.000	0	0	0.00%
NSIDSP01	TN	mg N/L	80	16SEP2009 - 30APR2010	9	0.515	0.449	0.003	0.006	0.506	0.790	1.220	0	0	0.00%
NSIDSP01	TOT. SO4	mg/L	33	16SEP2009 - 30APR2010	9	10.593	10.062	0.003	0.005	18.200	18.600	20.300	0	0	0.00%
NSIDSP01	TOTAL DEPTH	METERS	99	02SEP2009 - 12APR2010	8	2.419	0.262	2.130	2.228	2.305	2.695	2.770	0	0	0.00%
NSIDSP01	TP	mg P/L	25	04MAY2009 - 30APR2010	22	0.014	0.009	0.003	0.006	0.014	0.018	0.037	0	0	0.00%
NSIDSP01	TURBIDITY	NTU	12	02SEP2009 - 30APR2010	9	4.290	4.008	0.006	2.000	3.000	4.600	12.600	0	0	0.00%
NSIDSP01Auto	TP	mg P/L	25	01JUN2009 - 21SEP2009	9	0.023	0.009	0.016	0.019	0.022	0.023	0.046	0	0	0.00%
S12D	DO	mg/L	8	09JUN2009 - 27APR2010	43	4.365581	1.509573	2.08	3.08	4.03	5.42	8.09	0	30	69.77%
S12D	FLDCOND.	UMHOS/	9	09JUN2009 - 27APR2010	44	598.773	128.330	314.000	544.000	617.500	663.500	834.000	0	0	0.00%
S12D	PH	UNITS	10	09JUN2009 - 27APR2010	44	7.325	0.131	7.000	7.300	7.300	7.400	7.600	0	0	0.00%
S12D	TEMP	CENT	7	09JUN2009 - 27APR2010	44	24.934	5.019	15.200	21.100	24.850	29.600	31.100	0	0	0.00%
S12D	TP	mg P/L	25	09JUN2009 - 27APR2010	44	0.009	0.003	0.005	0.007	0.009	0.011	0.016	0	0	0.00%
S34	DIS. CA	mg/L	30	13JUL2009 - 06APR2010	4	52.700	5.375	47.800	48.750	51.500	56.650	60.000	0	0	0.00%
S34	DIS. K	mg/L	29	13JUL2009 - 06APR2010	4	4.975	1.307	3.700	3.850	5.000	6.100	6.200	0	0	0.00%
S34	DIS. MG	mg/L	31	13JUL2009 - 06APR2010	4	16.025	2.579	12.800	13.950	16.500	18.100	18.300	0	0	0.00%
S34	DIS. NA	mg/L	28	13JUL2009 - 06APR2010	4	56.05	12.56702	44.1	46.2	54	65.9	72.1	0	0	0.00%
S34	DO	mg/L	8	04MAY2009 - 20APR2010	21	4.855	2.423	0.690	3.240	5.050	6.720	9.030	0	10	47.62%
S34	FLDCOND.	UMHOS/	9	04MAY2009 - 20APR2010	21	642.667	110.602	520.000	565.000	608.000	683.000	923.000	0	0	0.00%
S34	HARDNESS	mg/LC	35	13JUL2009 - 06APR2010	4	197.650	21.048	172.100	183.800	197.500	211.500	223.500	0	0	0.00%
S34	NOX	mg N/L	18,180	04MAY2009 - 20APR2010	20	0.045	0.045	0.005	0.007	0.030	0.071	0.139	0	0	0.00%
S34	OPO4	mg P/L	23	04MAY2009 - 20APR2010	20	0.002	0.000	0.002	0.002	0.002	0.002	0.003	0	0	0.00%



Table C-3. Continued.

STATION	TEST NAME	UNITS	TEST NUMBER	PERIOD OF RECORD	# OF SAMPLES	MEAN	STD	MIN	Q25	MEDIAN	Q75	MAX	# BELOW DETECTION LIMIT	# OF EXCURSIONS	% EXCURSIONS
S34	PH	UNITS	10	04MAY2009 - 20APR2010	21	7.548	0.298	7.100	7.300	7.500	7.800	8.100	0	0	0.00%
S34	TEMP	CENT	7	04MAY2009 - 20APR2010	21	23.338	5.238	10.800	19.100	24.200	28.500	29.900	0	0	0.00%
S34	TKN	mg N/L	21	04MAY2009 - 20APR2010	21	1.317	0.266	1.040	1.110	1.180	1.490	1.910	0	0	0.00%
S34	TN	mg N/L	80	04MAY2009 - 20APR2010	21	1.359	0.281	1.040	1.143	1.189	1.568	2.049	0	0	0.00%
S34	TOT. CL	mg/L	32	13JUL2009 - 06APR2010	4	83.325	20.180	65.000	67.900	79.150	98.750	110.000	0	0	0.00%
S34	TOT. SO4	mg/L	33	13JUL2009 - 06APR2010	4	22.400	17.011	4.200	11.700	20.050	33.100	45.300	0	0	0.00%
S34	TP	mg P/L	25	04MAY2009 - 06APR2010	19	0.012	0.004	0.008	0.009	0.011	0.012	0.022	0	0	0.00%
S34	TURBIDITY	NTU	12	04MAY2009 - 20APR2010	21	1.486	0.625	0.700	1.100	1.200	1.700	2.600	0	0	0.00%
S142	DIS. CA	mg/L	30	13JUL2009 - 05APR2010	4	58.975	10.424	48.500	52.100	57.050	65.850	73.300	0	0	0.00%
S142	DIS. K	mg/L	29	13JUL2009 - 05APR2010	4	6.300	0.469	5.800	5.950	6.250	6.650	6.900	0	0	0.00%
S142	DIS. MG	mg/L	31	13JUL2009 - 05APR2010	4	20.950	3.817	17.800	17.900	20.100	24.000	25.800	0	0	0.00%
S142	DIS. NA	mg/L	28	13JUL2009 - 05APR2010	4	69.675	9.413	61.500	62.250	67.700	77.100	81.800	0	0	0.00%
S142	DO	mg/L	8	04MAY2009 - 05APR2010	12	4.400833	2.172964	1.44	3.22	3.96	5.465	8.93	0	8	66.67%
S142	FLDCOND.	UMHOS/	9	04MAY2009 - 05APR2010	12	794.000	121.471	574.000	712.500	789.500	863.500	985.000	0	0	0.00%
S142	HARDNESS	mg/LC	35	13JUL2009 - 05APR2010	4	233.500	40.878	195.200	203.850	224.850	263.150	289.100	0	0	0.00%
S142	NOX	mg N/L	18;180	04MAY2009 - 05APR2010	11	0.052	0.045	0.005	0.015	0.029	0.074	0.140	0	0	0.00%
S142	PH	UNITS	10	04MAY2009 - 05APR2010	12	7.550	0.188	7.300	7.400	7.500	7.750	7.800	0	0	0.00%
S142	TEMP	CENT	7	04MAY2009 - 05APR2010	12	24.369	6.494	9.330	21.200	26.600	29.250	30.800	0	0	0.00%
S142	TKN	mg N/L	21	04MAY2009 - 05APR2010	12	1.774	0.290	1.140	1.610	1.805	1.910	2.340	0	0	0.00%
S142	TN	mg N/L	80	04MAY2009 - 05APR2010	12	1.821	0.321	1.169	1.627	1.866	1.952	2.480	0	0	0.00%
S142	TOT. SO4	mg/L	33	13JUL2009 - 05APR2010	4	34.650	13.079	21.500	23.950	33.550	45.350	50.000	0	0	0.00%
S142	TP	mg P/L	25	04MAY2009 - 05APR2010	11	0.015	0.010	0.007	0.009	0.011	0.021	0.039	0	0	0.00%
S142	TURBIDITY	NTU	12	04MAY2009 - 05APR2010	12	1.733	1.513	0.500	0.750	1.150	2.100	5.700	0	0	0.00%
S11A	ALKALINITY	mg/L	67	05OCT2009 - 19APR2010	14	213.500	32.179	144.000	202.000	217.500	237.000	253.000	0	0	0.00%
S11A	DIS. CA	mg/L	30	13JUL2009 - 19APR2010	15	63.62	11.94566	41.5	55.2	65.7	69.4	84.6	0	0	0.00%
S11A	DIS. K	mg/L	29	13JUL2009 - 19APR2010	15	7.407	1.301	5.000	6.500	7.400	8.400	9.900	0	0	0.00%
S11A	DIS. KJEL N	mg N/L	22	05OCT2009 - 19APR2010	14	1.888	0.249	1.320	1.850	1.925	2.060	2.190	0	0	0.00%
S11A	DIS. MG	mg/L	31	13JUL2009 - 19APR2010	15	24.587	4.454	13.900	24.300	26.400	27.100	28.600	0	0	0.00%
S11A	DIS. NA	mg/L	28	13JUL2009 - 19APR2010	15	79.133	13.628	61.000	67.800	75.800	93.400	104.000	0	0	0.00%
S11A	DIS. ORGAN. C	mg/L	89;181	05OCT2009 - 19APR2010	14	32.336	4.778	22.400	31.600	32.650	34.700	40.400	0	0	0.00%
S11A	DIS. SILICA	mg/L	27	05OCT2009 - 19APR2010	14	12.615	5.785	3.410	6.190	15.450	17.400	17.900	0	0	0.00%
S11A	DO	mg/L	8	04MAY2009 - 19APR2010	24	5.568	1.453	2.080	4.825	5.370	6.440	8.160	0	9	37.50%
S11A	FLDCOND.	UMHOS/	9	04MAY2009 - 19APR2010	24	839.167	125.847	622.000	729.000	844.000	917.500	1056.000	0	0	0.00%
S11A	HARDNESS	mg/LC	35	13JUL2009 - 19APR2010	15	260.140	46.080	161.000	235.000	273.200	291.300	320.200	0	0	0.00%
S11A	NH4	mg N/L	20	05OCT2009 - 19APR2010	13	0.041	0.044	0.009	0.025	0.026	0.032	0.178	0	0	0.00%
S11A	NNH4	mg N/L	92	05OCT2009 - 19APR2010	13	0.167	0.400	0.017	0.034	0.050	0.063	1.495	0	0	0.00%
S11A	NOX	mg N/L	18;180	04MAY2009 - 19APR2010	23	0.092	0.271	0.005	0.006	0.017	0.047	1.317	0	0	0.00%
S11A	OPD4	mg P/L	23	04MAY2009 - 19APR2010	23	0.002	0.000	0.002	0.002	0.002	0.002	0.004	0	0	0.00%
S11A	ORGN	mg N/L	79	05OCT2009 - 19APR2010	13	1.936	0.227	1.445	1.921	1.992	2.110	2.172	0	0	0.00%
S11A	PH	UNITS	10	04MAY2009 - 19APR2010	24	7.738	0.184	7.400	7.600	7.700	7.850	8.100	0	0	0.00%

Table C-3. Continued.

STATION	TEST NAME	UNITS	TEST NUMBER	PERIOD OF RECORD	# OF SAMPLES	MEAN	STD	MIN	Q25	MEDIAN	Q75	MAX	# BELOW DETECTION LIMIT	# OF EXCURSIONS	% EXCURSIONS
S11A	TEMP	CENT	7	04MAY2009 - 19APR2010	24	24.750	5.704	8.810	20.600	25.950	30.000	31.300	0	0	0.00%
S11A	TKN	mg N/L	21	04MAY2009 - 19APR2010	24	1.906	0.225	1.470	1.720	2.005	2.050	2.250	0	0	0.00%
S11A	TN	mg N/L	80	04MAY2009 - 19APR2010	24	1.994	0.388	1.479	1.791	2.021	2.108	3.487	0	0	0.00%
S11A	TOT. CL	mg/L	32	13JUL2009 - 19APR2010	15	121.093	20.509	93.400	105.000	114.000	144.000	157.000	0	0	0.00%
S11A	TOT. DIS. P	mg P/L	26	05OCT2009 - 19APR2010	14	0.005	0.002	0.003	0.004	0.004	0.007	0.009	0	0	0.00%
S11A	TOT. FE	mg/L	177	05OCT2009 - 05APR2010	3	0.021	0.014	0.012	0.012	0.014	0.037	0.037	0	0	0.00%
S11A	TOT. ORGAN.	mg/L	100	05OCT2009 - 19APR2010	14	32.607	4.947	22.200	31.400	33.250	34.800	41.100	0	0	0.00%
S11A	TOT. SO4	mg/L	33	13JUL2009 - 19APR2010	15	41.373	11.592	13.400	36.800	41.000	50.800	56.300	0	0	0.00%
S11A	TP	mg P/L	25	04MAY2009 - 19APR2010	23	0.013	0.009	0.003	0.008	0.010	0.017	0.047	0	0	0.00%
S11A	TSS	mg/L	16	05OCT2009 - 19APR2010	14	3.429	0.938	3.000	3.000	3.000	3.000	6.000	0	0	0.00%
S11A	TURBIDITY	NTU	12	04MAY2009 - 19APR2010	24	1.725	1.212	0.600	0.950	1.250	2.150	6.000	0	0	0.00%
S11A	UN-IONIZED A	mg/L	NONE	04MAY2009 - 19APR2010	13	0.001	0.001	0.000	0.001	0.001	0.001	0.004	0	0	0.00%
S145	ALKALINITY	mg/L	67	05OCT2009 - 19APR2010	15	162.933	32.239	130.000	140.000	158.000	172.000	235.000	0	0	0.00%
S145	DIS. CA	mg/L	30	13JUL2009 - 19APR2010	16	45.788	11.445	35.600	39.250	42.500	45.450	74.100	0	0	0.00%
S145	DIS. K	mg/L	29	13JUL2009 - 19APR2010	16	6.100	1.420	4.500	5.100	6.000	6.450	9.500	0	0	0.00%
S145	DIS. KJELN	mg N/L	22	05OCT2009 - 19APR2010	15	1.575	0.263	1.220	1.320	1.630	1.760	1.940	0	0	0.00%
S145	DIS. MG	mg/L	31	13JUL2009 - 19APR2010	16	16.256	5.194	9.400	12.600	14.900	18.250	27.600	0	0	0.00%
S145	DIS. NA	mg/L	28	13JUL2009 - 19APR2010	16	64.981	14.085	37.500	58.200	64.550	71.000	94.200	0	0	0.00%
S145	DIS. ORGAN. C	mg/L	89;181	05OCT2009 - 19APR2010	15	27.053	4.395	20.100	23.500	27.300	29.800	34.100	0	0	0.00%
S145	DIS. SILICA	mg/L	27	05OCT2009 - 19APR2010	15	10.215	7.243	0.970	2.650	8.640	17.200	20.800	0	0	0.00%
S145	DO	mg/L	8	04MAY2009 - 19APR2010	22	4.280	1.677	1.710	3.240	3.965	5.180	8.610	0	16	72.73%
S145	FLDCOND.	UMHOS/	9	04MAY2009 - 19APR2010	23	671.652	140.315	443.000	571.000	657.000	744.000	1026.000	0	0	0.00%
S145	HARDNESS	mg/LC	35	13JUL2009 - 19APR2010	16	181.219	49.268	127.700	149.200	169.100	188.350	298.700	0	0	0.00%
S145	NH4	mg N/L	20	05OCT2009 - 19APR2010	14	0.031	0.032	0.005	0.019	0.021	0.029	0.138	0	0	0.00%
S145	NNH4	mg N/L	92	05OCT2009 - 19APR2010	14	0.054	0.040	0.005	0.022	0.044	0.066	0.150	0	0	0.00%
S145	NOX	mg N/L	18;180	04MAY2009 - 19APR2010	22	0.027	0.029	0.005	0.008	0.012	0.044	0.096	0	0	0.00%
S145	OPO4	mg P/L	23	04MAY2009 - 19APR2010	22	0.002	0.000	0.002	0.002	0.002	0.002	0.004	0	0	0.00%
S145	ORGN	mg N/L	79	05OCT2009 - 19APR2010	14	1.592	0.283	1.230	1.330	1.652	1.835	1.977	0	0	0.00%
S145	PH	UNITS	10	04MAY2009 - 19APR2010	23	7.509	0.243	7.000	7.400	7.500	7.600	8.000	0	0	0.00%
S145	TEMP	CENT	7	04MAY2009 - 19APR2010	23	23.698	5.590	8.260	19.800	23.500	29.000	30.700	0	0	0.00%
S145	TKN	mg N/L	21	04MAY2009 - 19APR2010	23	1.636	0.269	1.230	1.430	1.610	1.860	2.140	0	0	0.00%
S145	TN	mg N/L	80	04MAY2009 - 19APR2010	23	1.661	0.288	1.238	1.436	1.610	1.927	2.231	0	0	0.00%
S145	TOT. CL	mg/L	32	13JUL2009 - 19APR2010	16	97.088	24.246	53.700	85.700	95.700	105.000	152.000	0	0	0.00%
S145	TOT. DIS. P	mg P/L	26	05OCT2009 - 19APR2010	15	0.003467	0.001457	0.002	0.002	0.003	0.005	0.006	0	0	0.00%
S145	TOT. FE	mg/L	177	05OCT2009 - 05APR2010	3	0.007	0.003	0.004	0.004	0.008	0.009	0.009	0	0	0.00%
S145	TOT. ORGAN.	mg/L	100	05OCT2009 - 19APR2010	15	27.367	4.420	20.300	23.700	28.100	30.400	34.200	0	0	0.00%
S145	TOT. SO4	mg/L	33	13JUL2009 - 19APR2010	16	18.025	11.842	7.500	10.000	14.500	18.450	48.100	0	0	0.00%
S145	TP	mg P/L	25	04MAY2009 - 19APR2010	22	0.011	0.010	0.005	0.006	0.008	0.014	0.050	0	0	0.00%
S145	TSS	mg/L	16	05OCT2009 - 19APR2010	15	3.000	0.000	3.000	3.000	3.000	3.000	3.000	0	0	0.00%
S145	TURBIDITY	NTU	12	04MAY2009 - 19APR2010	23	1.183	1.055	0.400	0.600	0.900	1.300	5.400	0	0	0.00%

Table C-3. Continued.

STATION	TEST NAME	UNITS	TEST NUMBER	PERIOD OF RECORD	# OF SAMPLES	MEAN	STD	MIN	Q25	MEDIAN	Q75	MAX	# BELOW DETECTION LIMIT	# OF EXCURSIONS	% EXCURSIONS
S145	UN-IONIZED A	mg/L	NONE	04MAY2009 - 19APR2010	14	0.001	0.001	0.000	0.000	0.001	0.001	0.003	0	0	0.00%
S151	DIS. CA	mg/L	30	13JUL2009 - 05APR2010	4	60.875	5.619	53.400	56.600	62.100	65.150	65.900	0	0	0.00%
S151	DIS. K	mg/L	29	13JUL2009 - 05APR2010	4	6.025	0.556	5.400	5.600	6.000	6.450	6.700	0	0	0.00%
S151	DIS. MG	mg/L	31	13JUL2009 - 05APR2010	4	19.525	2.297	16.800	17.650	19.750	21.400	21.800	0	0	0.00%
S151	DIS. NA	mg/L	28	13JUL2009 - 05APR2010	4	66.800	10.864	58.100	58.250	64.100	75.350	80.900	0	0	0.00%
S151	DO	mg/L	8	04MAY2009 - 19APR2010	20	3.938	1.872	1.950	2.625	3.500	4.750	8.480	0	16	80.00%
S151	FLDCOND.	UMHOS/	9	04MAY2009 - 19APR2010	20	768.700	66.989	654.000	717.500	757.000	813.000	903.000	0	0	0.00%
S151	HARDNESS	mg/L C	35	13JUL2009 - 05APR2010	4	232.550	21.684	209.500	214.050	234.700	251.050	251.300	0	0	0.00%
S151	NOX	mg N/L	18;180	04MAY2009 - 19APR2010	18	0.088	0.111	0.021	0.039	0.051	0.083	0.501	0	0	0.00%
S151	OPO4	mg P/L	23	04MAY2009 - 19APR2010	19	0.002	0.000	0.002	0.002	0.002	0.002	0.002	0	0	0.00%
S151	PH	UNITS	10	04MAY2009 - 19APR2010	20	7.515	0.135	7.200	7.400	7.500	7.600	7.800	0	0	0.00%
S151	TEMP	CENT	7	04MAY2009 - 19APR2010	20	24.930	5.176	10.500	22.350	26.300	28.950	30.500	0	0	0.00%
S151	TKN	mg N/L	21	04MAY2009 - 19APR2010	20	1.668	0.201	1.270	1.575	1.685	1.810	2.110	0	0	0.00%
S151	TN	mg N/L	80	04MAY2009 - 19APR2010	20	1.747	0.205	1.415	1.620	1.715	1.868	2.201	0	0	0.00%
S151	TOT. CL	mg/L	32	13JUL2009 - 05APR2010	4	99.3	15.10386	85.5	87.6	96.35	111	119	0	0	0.00%
S151	TOT. SO4	mg/L	33	13JUL2009 - 05APR2010	4	30.000	7.270	23.100	23.850	29.500	36.150	37.900	0	0	0.00%
S151	TP	mg P/L	25	04MAY2009 - 19APR2010	20	0.015	0.011	0.007	0.009	0.011	0.015	0.052	0	0	0.00%
S151	TURBIDITY	NTU	12	04MAY2009 - 19APR2010	20	1.955	1.524	0.400	1.100	1.350	1.950	6.500	0	0	0.00%
S333	DIS. CA	mg/L	30	05MAY2009 - 27APR2010	49	61.410	5.245	49.700	57.800	61.000	65.000	74.500	0	0	0.00%
S333	DIS. K	mg/L	29	05MAY2009 - 27APR2010	49	5.041	0.880	2.900	4.500	4.900	5.400	7.300	0	0	0.00%
S333	DIS. MG	mg/L	31	05MAY2009 - 27APR2010	49	15.78367	3.097334	4.6	14.2	15.2	17.1	22	0	0	0.00%
S333	DIS. NA	mg/L	28	05MAY2009 - 27APR2010	49	52.427	11.223	24.600	44.300	48.400	59.800	76.000	0	0	0.00%
S333	DO	mg/L	8	05MAY2009 - 27APR2010	51	4.126	1.437	1.740	3.080	4.070	4.860	8.300	0	40	78.43%
S333	FLDCOND.	UMHOS/	9	05MAY2009 - 27APR2010	52	674.135	82.540	416.000	617.500	664.500	712.500	847.000	0	0	0.00%
S333	HARDNESS	mg/L C	35	05MAY2009 - 27APR2010	49	218.322	21.839	153.100	205.100	217.100	234.100	258.800	0	0	0.00%
S333	NOX	mg N/L	18;180	05MAY2009 - 20APR2010	35	0.081	0.074	0.023	0.038	0.059	0.100	0.429	0	0	0.00%
S333	OPO4	mg P/L	23	05MAY2009 - 27APR2010	47	0.002	0.000	0.002	0.002	0.002	0.002	0.003	0	0	0.00%
S333	PH	UNITS	10	05MAY2009 - 27APR2010	52	7.371	0.175	6.900	7.300	7.350	7.500	7.900	0	0	0.00%
S333	TEMP	CENT	7	05MAY2009 - 27APR2010	52	24.692	5.181	10.900	20.400	25.500	29.400	31.200	0	0	0.00%
S333	TKN	mg N/L	21	05MAY2009 - 27APR2010	49	1.490	0.158	1.090	1.390	1.470	1.570	1.950	0	0	0.00%
S333	TN	mg N/L	80	05MAY2009 - 27APR2010	49	1.548	0.166	1.185	1.437	1.525	1.640	2.059	0	0	0.00%
S333	TOT. CL	mg/L	32	05MAY2009 - 27APR2010	49	79.910	16.723	37.700	67.800	73.600	93.600	112.000	0	0	0.00%
S333	TOT. MTHY HG	ug/L	203	19OCT2009 - 19OCT2009	1	0.000		0.000	0.000	0.000	0.000	0.000	0	0	0.00%
S333	TOT. SO4	mg/L	33	07JUL2009 - 14APR2010	4	23.025	5.181	17.200	19.700	22.550	26.350	29.800	0	0	0.00%
S333	TOT. ULTRA TR	ug/L	207	14JUL2009 - 19OCT2009	2	0.004	0.003	0.001	0.001	0.004	0.006	0.006	0	0	0.00%
S333	TP	mg P/L	25	05MAY2009 - 27APR2010	52	0.013	0.007	0.006	0.009	0.010	0.016	0.033	0	0	0.00%
S333	TSS	mg/L	16	05MAY2009 - 27APR2010	49	4.102	3.216	3.000	3.000	3.000	3.000	19.000	0	0	0.00%
S333	TURBIDITY	NTU	12	07JUL2009 - 14APR2010	4	2.425	1.725	0.800	0.950	2.350	3.900	4.200	0	0	0.00%
S333Auto	NOX	mg N/L	18;180	05MAY2009 - 27APR2010	348	0.065	0.055	0.015	0.037	0.050	0.077	0.487	0	0	0.00%
S333Auto	TKN	mg N/L	21	05MAY2009 - 27APR2010	347	1.510	0.191	1.010	1.380	1.480	1.620	2.470	0	0	0.00%

Table C-3. Continued.

STATION	TEST NAME	UNITS	TEST NUMBER	PERIOD OF RECORD	# OF SAMPLES	MEAN	STD	MIN	Q25	MEDIAN	Q75	MAX	# BELOW DETECTION LIMIT	# OF EXCURSIONS	% EXCURSIONS
S333Auto	TN	mg N/L	80	05MAY2009 - 27APR2010	348	1.572	0.203	0.500	1.427	1.549	1.687	2.491	0	0	0.00%
S333Auto	TP	mg P/L	25	05MAY2009 - 27APR2010	348	0.016	0.013	0.006	0.009	0.011	0.019	0.170	0	0	0.00%
C123SR84	DIS. CA	mg/L	30	14JUL2009 - 06APR2010	4	70.725	7.988	60.500	64.800	71.550	76.650	79.300	0	0	0.00%
C123SR84	DIS. K	mg/L	29	14JUL2009 - 06APR2010	4	4.550	0.592	3.700	4.150	4.750	4.950	5.000	0	0	0.00%
C123SR84	DIS. MG	mg/L	31	14JUL2009 - 06APR2010	4	11.300	1.197	9.700	10.400	11.550	12.200	12.400	0	0	0.00%
C123SR84	DIS. NA	mg/L	28	14JUL2009 - 06APR2010	4	41.750	7.841	33.500	35.100	42.000	48.400	49.500	0	0	0.00%
C123SR84	DO	mg/L	8	05MAY2009 - 06APR2010	12	4.537	2.853	1.540	1.840	4.380	7.175	9.720	0	7	58.33%
C123SR84	FLDCOND.	UMHOS/	9	05MAY2009 - 06APR2010	12	624.333	82.222	474.000	562.000	634.000	690.000	731.000	0	0	0.00%
C123SR84	HARDNESS	mg/L C	35	14JUL2009 - 06APR2010	4	223.125	24.972	190.800	204.550	226.250	241.700	249.200	0	0	0.00%
C123SR84	NOX	mg N/L	18;180	05MAY2009 - 09MAR2010	10	0.020	0.022	0.005	0.005	0.011	0.018	0.073	0	0	0.00%
C123SR84	OPO4	mg P/L	23	05MAY2009 - 09MAR2010	11	0.006	0.007	0.002	0.002	0.002	0.007	0.023	0	0	0.00%
C123SR84	PH	UNITS	10	05MAY2009 - 06APR2010	12	7.475	0.280	7.200	7.300	7.400	7.650	8.100	0	0	0.00%
C123SR84	TEMP	CENT	7	05MAY2009 - 06APR2010	12	23.883	5.907	10.000	20.850	25.950	27.900	29.800	0	0	0.00%
C123SR84	TKN	mg N/L	21	05MAY2009 - 06APR2010	12	1.395833	0.132285	1.17	1.34	1.385	1.495	1.6	0	0	0.00%
C123SR84	TN	mg N/L	80	05MAY2009 - 06APR2010	12	1.411	0.144	1.175	1.346	1.394	1.524	1.623	0	0	0.00%
C123SR84	TOT. CL	mg/L	32	14JUL2009 - 06APR2010	4	66.500	12.819	52.200	56.000	66.700	77.000	80.400	0	0	0.00%
C123SR84	TOT. SO4	mg/L	33	14JUL2009 - 06APR2010	4	13.300	3.544	9.500	10.400	13.200	16.200	17.300	0	0	0.00%
C123SR84	TP	mg P/L	25	05MAY2009 - 06APR2010	12	0.025	0.015	0.011	0.014	0.020	0.036	0.056	0	0	0.00%
C123SR84	TURBIDITY	NTU	12	05MAY2009 - 06APR2010	12	2.100	1.749	0.900	1.050	1.600	2.350	7.200	0	0	0.00%
G94B	DIS. CA	mg/L	30	04JUN2009 - 08APR2010	5	44.760	20.390	25.000	28.200	44.600	50.100	75.900	0	0	0.00%
G94B	DIS. K	mg/L	29	04JUN2009 - 08APR2010	5	5.340	3.242	3.100	3.100	4.300	5.300	10.900	0	0	0.00%
G94B	DIS. MG	mg/L	31	04JUN2009 - 08APR2010	5	11.100	5.805	5.800	5.800	11.300	12.800	19.800	0	0	0.00%
G94B	DIS. NA	mg/L	28	04JUN2009 - 08APR2010	5	52.180	19.307	32.000	33.600	52.900	68.500	73.900	0	0	0.00%
G94B	DO	mg/L	8	07MAY2009 - 22APR2010	13	3.938	1.863	1.810	2.570	3.800	4.720	7.300	0	10	76.92%
G94B	FLDCOND.	UMHOS/	9	07MAY2009 - 22APR2010	13	515.462	197.106	229.000	355.000	543.000	623.000	895.000	0	0	0.00%
G94B	HARDNESS	mg/L C	35	04JUN2009 - 08APR2010	5	157.300	74.688	86.300	94.200	157.700	177.500	270.800	0	0	0.00%
G94B	NOX	mg N/L	18;180	07MAY2009 - 22APR2010	12	0.022	0.029	0.005	0.005	0.007	0.024	0.100	0	0	0.00%
G94B	PH	UNITS	10	07MAY2009 - 22APR2010	13	7.223	0.174	6.800	7.200	7.200	7.300	7.600	0	0	0.00%
G94B	TEMP	CENT	7	07MAY2009 - 22APR2010	13	25.800	4.275	18.200	22.600	26.300	29.200	30.900	0	0	0.00%
G94B	TKN	mg N/L	21	07MAY2009 - 22APR2010	13	1.535	0.406	1.060	1.260	1.450	1.660	2.700	0	0	0.00%
G94B	TN	mg N/L	80	07MAY2009 - 22APR2010	13	1.554	0.425	1.066	1.281	1.469	1.660	2.800	0	0	0.00%
G94B	TOT. SO4	mg/L	33	04JUN2009 - 08APR2010	5	20.800	20.083	4.000	7.000	15.700	23.200	54.100	0	0	0.00%
G94B	TP	mg P/L	25	07MAY2009 - 22APR2010	13	0.052	0.038	0.018	0.035	0.042	0.053	0.170	0	0	0.00%
G94B	TURBIDITY	NTU	12	07MAY2009 - 22APR2010	13	2.692	1.369	1.100	2.200	2.300	3.000	5.900	0	0	0.00%
S31	CA_I	mg/L	188	04AUG2009 - 25MAR2010	2	8.800	1.131	8.000	8.000	8.800	9.600	9.600	0	0	0.00%
S31	DIS. CA	mg/L	30	13JUL2009 - 05APR2010	4	67.950	11.670	55.800	58.000	68.450	77.900	79.100	0	0	0.00%
S31	DIS. K	mg/L	29	13JUL2009 - 05APR2010	4	4.950	0.870	4.200	4.200	4.900	5.700	5.800	0	0	0.00%
S31	DIS. MG	mg/L	31	13JUL2009 - 05APR2010	4	15.650	1.500	14.400	14.400	15.400	16.900	17.400	0	0	0.00%
S31	DIS. NA	mg/L	28	13JUL2009 - 05APR2010	4	56.750	5.837	52.200	52.450	55.000	61.050	64.800	0	0	0.00%
S31	DO	mg/L	8	04MAY2009 - 19APR2010	16	3.728	2.173	0.710	2.030	3.935	5.095	8.990	0	12	75.00%

Table C-3. Continued.

STATION	TEST NAME	UNITS	TEST NUMBER	PERIOD OF RECORD	# OF SAMPLES	MEAN	STD	MIN	Q25	MEDIAN	Q75	MAX	# BELOW DETECTION LIMIT	# OF EXCURSIONS	% EXCURSIONS
S31	FLDCOND.	UMHOS/	9	04MAY2009 - 19APR2010	16	767.250	65.129	702.000	735.500	747.000	776.500	975.000	0	0	0.00%
S31	HARDNESS	mg/L C	35	13JUL2009 - 05APR2010	4	234.025	22.977	210.800	214.400	234.350	253.650	256.600	0	0	0.00%
S31	NOX	mg N/L	18,180	04MAY2009 - 19APR2010	15	0.088	0.142	0.010	0.020	0.043	0.113	0.581	0	0	0.00%
S31	OPO4	mg P/L	23	04MAY2009 - 19APR2010	15	0.002	0.000	0.002	0.002	0.002	0.002	0.002	0	0	0.00%
S31	PH	UNITS	10	04MAY2009 - 19APR2010	16	7.506	0.217	7.100	7.400	7.500	7.600	8.000	0	0	0.00%
S31	TEMP	CENT	7	04MAY2009 - 19APR2010	16	24.363	4.988	12.500	21.600	25.600	27.200	31.100	0	0	0.00%
S31	TKN	mg N/L	21	04MAY2009 - 19APR2010	16	1.506	0.206	1.200	1.375	1.470	1.640	1.950	0	0	0.00%
S31	TN	mg N/L	80	04MAY2009 - 19APR2010	16	1.589	0.287	1.271	1.393	1.564	1.653	2.421	0	0	0.00%
S31	TOT. CL	mg/L	32	13JUL2009 - 05APR2010	6	59.400	42.740	4.300	5.900	80.850	83.500	101.000	0	0	0.00%
S31	TOT. SO4	mg/L	33	13JUL2009 - 05APR2010	4	18.850	15.256	6.700	7.200	14.700	30.500	39.300	0	0	0.00%
S31	TP	mg P/L	25	04MAY2009 - 19APR2010	16	0.013	0.005	0.007	0.010	0.012	0.016	0.028	0	0	0.00%
S31	TURBIDITY	NTU	12	04MAY2009 - 19APR2010	18	3.517	3.965	0.600	1.100	1.750	4.300	15.000	0	0	0.00%
S38	ALKALINITY	mg/L	67	05OCT2009 - 19APR2010	14	137.071	42.492	86.000	110.000	128.000	139.000	240.000	0	0	0.00%
S38	DIS. CA	mg/L	30	13JUL2009 - 19APR2010	15	41.060	13.718	26.100	31.600	38.500	39.700	77.400	0	0	0.00%
S38	DIS. K	mg/L	29	13JUL2009 - 19APR2010	15	5.260	1.763	3.700	4.300	4.700	5.200	9.700	0	0	0.00%
S38	DIS. KJEL N	mg N/L	22	05OCT2009 - 19APR2010	14	1.365	0.295	0.900	1.160	1.335	1.450	1.970	0	0	0.00%
S38	DIS. MG	mg/L	31	13JUL2009 - 19APR2010	15	12.827	6.037	7.200	8.700	11.100	14.500	27.600	0	0	0.00%
S38	DIS. NA	mg/L	28	13JUL2009 - 19APR2010	15	51.700	18.639	31.000	38.100	47.200	55.100	92.500	0	0	0.00%
S38	DIS. ORGAN. C	mg/L	89,181	05OCT2009 - 19APR2010	14	23.779	4.913	18.400	18.900	23.650	25.800	34.200	0	0	0.00%
S38	DIS. SILICA	mg/L	27	05OCT2009 - 19APR2010	14	7.399	5.432	0.660	2.280	6.725	12.200	16.400	0	0	0.00%
S38	DO	mg/L	8	04MAY2009 - 19APR2010	22	3.107	1.710	1.030	1.900	2.560	3.460	6.780	0	18	81.82%
S38	FLDCOND.	UMHOS/	9	04MAY2009 - 19APR2010	23	568.087	171.762	345.000	432.000	522.000	683.000	1000.000	0	0	0.00%
S38	HARDNESS	mg/L C	35	13JUL2009 - 19APR2010	15	155.340	58.941	94.800	114.900	142.400	159.000	307.000	0	0	0.00%
S38	NH4	mg N/L	20	05OCT2009 - 19APR2010	13	0.031	0.027	0.005	0.019	0.024	0.033	0.113	0	0	0.00%
S38	NNH4	mg N/L	92	05OCT2009 - 19APR2010	13	0.056	0.044	0.020	0.029	0.041	0.052	0.170	0	0	0.00%
S38	NOX	mg N/L	18,180	04MAY2009 - 19APR2010	22	0.031	0.047	0.005	0.005	0.009	0.040	0.197	0	0	0.00%
S38	OPO4	mg P/L	23	04MAY2009 - 19APR2010	22	0.003	0.002	0.002	0.002	0.002	0.002	0.012	0	0	0.00%
S38	ORGN	mg N/L	79	05OCT2009 - 19APR2010	12	1.361	0.306	0.941	1.147	1.319	1.473	1.961	0	0	0.00%
S38	PH	UNITS	10	04MAY2009 - 19APR2010	23	7.391	0.278	7.000	7.200	7.300	7.600	8.000	0	0	0.00%
S38	TEMP	CENT	7	04MAY2009 - 19APR2010	23	24.626	5.423	10.600	21.000	24.600	29.300	31.400	0	0	0.00%
S38	TKN	mg N/L	21	04MAY2009 - 19APR2010	22	1.452	0.299	0.960	1.220	1.380	1.570	2.080	0	0	0.00%
S38	TN	mg N/L	80	04MAY2009 - 19APR2010	23	1.438	0.385	0.500	1.227	1.369	1.575	2.277	0	0	0.00%
S38	TOT. CL	mg/L	32	13JUL2009 - 19APR2010	15	78.827	30.449	47.300	58.900	71.500	85.800	147.000	0	0	0.00%
S38	TOT. DIS. P	mg P/L	26	05OCT2009 - 19APR2010	14	0.004	0.002	0.002	0.004	0.004	0.005	0.008	0	0	0.00%
S38	TOT. FE	mg/L	177	05OCT2009 - 05APR2010	3	0.012	0.002	0.010	0.010	0.013	0.013	0.013	0	0	0.00%
S38	TOT. ORGAN.	mg/L	100	05OCT2009 - 19APR2010	14	24.157	4.824	18.700	19.300	23.950	26.000	34.300	0	0	0.00%
S38	TOT. SO4	mg/L	33	13JUL2009 - 19APR2010	15	15.433	13.400	4.300	8.000	10.100	18.600	51.600	0	0	0.00%
S38	TP	mg P/L	25	04MAY2009 - 19APR2010	22	0.015	0.015	0.006	0.007	0.009	0.016	0.072	0	0	0.00%
S38	TSS	mg/L	16	05OCT2009 - 19APR2010	14	3	0	3	3	3	3	3	0	0	0.00%
S38	TURBIDITY	NTU	12	04MAY2009 - 19APR2010	23	1.209	0.934	0.600	0.700	0.900	1.300	4.700	0	0	0.00%

Table C-3. Continued.

STATION	TEST NAME	UNITS	TEST NUMBER	PERIOD OF RECORD	# OF SAMPLES	MEAN	STD	MIN	Q25	MEDIAN	Q75	MAX	# BELOW DETECTION LIMIT	# OF EXCURSIONS	% EXCURSIONS
S38	UN-IONIZED A	mg/L	NONE	04MAY2009 - 19APR2010	13	0.001	0.001	0.000	0.000	0.000	0.001	0.002	0	0	0.00%
S39	ALKALINITY	mg/L	67	16JUL2009 - 08APR2010	13	112.923	39.456	61.000	83.000	121.000	131.000	205.000	0	0	0.00%
S39	DIS. CA	mg/L	30	04JUN2009 - 08APR2010	14	39.064	14.427	21.700	26.800	38.950	46.600	68.200	0	0	0.00%
S39	DIS. K	mg/L	29	04JUN2009 - 08APR2010	14	5.379	2.922	2.400	3.100	5.250	6.100	12.600	0	0	0.00%
S39	DIS. KJELN	mg N/L	22	16JUL2009 - 08APR2010	13	1.251	0.305	0.900	1.070	1.210	1.310	2.050	0	0	0.00%
S39	DIS. MG	mg/L	31	04JUN2009 - 08APR2010	14	11.507	6.104	4.600	6.800	10.850	13.100	26.200	0	0	0.00%
S39	DIS. NA	mg/L	28	04JUN2009 - 08APR2010	14	51.393	23.736	21.000	32.000	54.100	61.100	104.000	0	0	0.00%
S39	DIS. ORGAN. C	mg/L	89;181	16JUL2009 - 08APR2010	13	21.569	4.658	16.400	18.800	20.500	22.600	33.800	0	0	0.00%
S39	DIS. SILICA	mg/L	27	16JUL2009 - 08APR2010	13	10.059	6.786	1.280	4.690	9.840	12.400	25.500	0	0	0.00%
S39	DO	mg/L	8	07MAY2009 - 08APR2010	16	4.331	2.555	0.900	2.550	3.450	6.470	9.020	0	10	62.50%
S39	FLDCOND.	UMHOS/	9	07MAY2009 - 08APR2010	16	530.938	226.517	261.000	334.500	576.500	609.500	1034.000	0	0	0.00%
S39	HARDNESS	mg/LC	35	04JUN2009 - 08APR2010	14	144.843	60.023	73.600	92.000	145.900	161.800	268.900	0	0	0.00%
S39	NH4	mg N/L	20	30JUL2009 - 08APR2010	11	0.022	0.006	0.010	0.019	0.022	0.027	0.031	0	0	0.00%
S39	NNH4	mg N/L	92	30JUL2009 - 08APR2010	9	0.043	0.020	0.019	0.027	0.037	0.059	0.076	0	0	0.00%
S39	NOX	mg N/L	18;180	07MAY2009 - 08APR2010	14	0.025	0.036	0.005	0.005	0.010	0.037	0.139	0	0	0.00%
S39	OPO4	mg P/L	23	07MAY2009 - 08APR2010	16	0.005	0.008	0.002	0.002	0.002	0.005	0.033	0	0	0.00%
S39	ORGN	mg N/L	79	30JUL2009 - 08APR2010	11	1.369	0.290	1.011	1.228	1.293	1.428	2.095	0	0	0.00%
S39	PH	UNITS	10	07MAY2009 - 08APR2010	16	7.444	0.388	6.800	7.150	7.400	7.800	8.100	0	0	0.00%
S39	TEMP	CENT	7	07MAY2009 - 08APR2010	16	26.244	4.489	17.300	22.650	28.100	29.650	31.800	0	0	0.00%
S39	TKN	mg N/L	21	07MAY2009 - 08APR2010	16	1.461	0.359	1.030	1.275	1.340	1.585	2.300	0	0	0.00%
S39	TN	mg N/L	80	07MAY2009 - 08APR2010	16	1.482	0.378	1.030	1.281	1.359	1.598	2.439	0	0	0.00%
S39	TOT. CL	mg/L	32	04JUN2009 - 08APR2010	14	75.750	34.362	30.500	47.100	80.750	86.900	147.000	0	0	0.00%
S39	TOT. DIS. P	mg P/L	26	16JUL2009 - 08APR2010	13	0.009	0.003	0.005	0.007	0.008	0.010	0.017	0	0	0.00%
S39	TOT. FE	mg/L	177	24MAR2010 - 08APR2010	2	0.043	0.007	0.038	0.038	0.043	0.048	0.048	0	0	0.00%
S39	TOT. ORGAN.	mg/L	100	16JUL2009 - 08APR2010	13	21.892	4.616	16.700	19.100	20.800	22.600	34.300	0	0	0.00%
S39	TOT. SO4	mg/L	33	04JUN2009 - 08APR2010	14	23.864	19.546	4.500	9.500	18.550	27.000	69.600	0	0	0.00%
S39	TP	mg P/L	25	07MAY2009 - 08APR2010	16	0.028	0.017	0.013	0.016	0.021	0.037	0.076	0	0	0.00%
S39	TSS	mg/L	16	16JUL2009 - 08APR2010	13	3.615	1.557	3.000	3.000	3.000	3.000	8.000	0	0	0.00%
S39	TURBIDITY	NTU	12	07MAY2009 - 08APR2010	16	1.700	1.165	0.600	0.850	1.150	2.800	4.200	0	0	0.00%
S39	UN-IONIZED A	mg/L	NONE	07MAY2009 - 08APR2010	11	0.001	0.000	0.000	0.000	0.000	0.001	0.002	0	0	0.00%
S197	DIS. CA	mg/L	30	13JUL2009 - 12APR2010	7	71.157	6.179	57.700	70.800	73.800	75.000	75.100	0	0	0.00%
S197	DIS. K	mg/L	29	13JUL2009 - 12APR2010	7	4.657	0.428	4.000	4.300	4.800	4.900	5.300	0	0	0.00%
S197	DIS. MG	mg/L	31	13JUL2009 - 12APR2010	7	6.400	0.676	5.800	5.800	6.300	6.800	7.700	0	0	0.00%
S197	DIS. NA	mg/L	28	13JUL2009 - 12APR2010	7	30.129	4.980	26.200	27.400	28.400	30.400	41.000	0	0	0.00%
S197	DO	mg/L	8	13JUL2009 - 12APR2010	7	6.307	1.999	4.110	4.160	6.420	8.120	9.360	0	2	28.57%
S197	FLDCOND.	UMHOS/	9	13JUL2009 - 12APR2010	7	542.429	45.690	471.000	512.000	541.000	566.000	615.000	0	0	0.00%
S197	HARDNESS	mg/LC	35	13JUL2009 - 12APR2010	7	204.129	17.064	168.200	201.700	212.000	213.200	219.400	0	0	0.00%
S197	NOX	mg N/L	18;180	13JUL2009 - 11JAN2010	6	0.114	0.055	0.080	0.081	0.091	0.117	0.222	0	0	0.00%
S197	OPO4	mg P/L	23	13JUL2009 - 12APR2010	7	0.002	0.000	0.002	0.002	0.002	0.002	0.002	0	0	0.00%
S197	PH	UNITS	10	13JUL2009 - 12APR2010	7	7.471	0.403	6.900	7.200	7.400	7.800	8.000	0	0	0.00%

Table C-3. Continued.

STATION	TEST NAME	UNITS	TEST NUMBER	PERIOD OF RECORD	# OF SAMPLES	MEAN	STD	MIN	Q25	MEDIAN	Q75	MAX	# BELOW DETECTION LIMIT	# OF EXCURSIONS	% EXCURSIONS
S197	TEMP	CENT	7	13JUL2009 - 12APR2010	7	25.171	5.640	13.500	23.300	28.000	28.300	30.200	0	0	0.00%
S197	TKN	mg N/L	21	13JUL2009 - 12APR2010	7	0.589	0.084	0.440	0.550	0.580	0.680	0.690	0	0	0.00%
S197	TN	mg N/L	80	13JUL2009 - 12APR2010	7	0.686	0.109	0.521	0.580	0.676	0.775	0.822	0	0	0.00%
S197	TOT. CL	mg/L	32	13JUL2009 - 12APR2010	7	47.800	8.253	40.800	43.800	45.400	47.800	65.800	0	0	0.00%
S197	TOT. SO4	mg/L	33	13JUL2009 - 12APR2010	4	7.875	2.460	5.400	6.150	7.450	9.600	11.200	0	0	0.00%
S197	TP	mg P/L	25	13JUL2009 - 12APR2010	7	0.005	0.003	0.002	0.004	0.004	0.008	0.010	0	0	0.00%
S197	TSS	mg/L	16	13JUL2009 - 12APR2010	7	3.143	0.378	3.000	3.000	3.000	3.000	4.000	0	0	0.00%
S197	TURBIDITY	NTU	12	13JUL2009 - 12APR2010	4	2.350	2.852	0.700	0.700	1.050	4.000	6.600	0	0	0.00%
US41-25	CA_I	mg/L	188	04AUG2009 - 25MAR2010	2	0.885	0.587	0.470	0.470	0.885	1.300	1.300	0	0	0.00%
US41-25	DIS. CA	mg/L	30	06MAY2009 - 07APR2010	16	61.394	14.823	44.500	46.900	58.700	77.850	82.700	0	0	0.00%
US41-25	DIS. K	mg/L	29	06MAY2009 - 07APR2010	16	1.056	0.329	0.600	0.800	1.000	1.300	1.700	0	0	0.00%
US41-25	DIS. MG	mg/L	31	06MAY2009 - 07APR2010	16	3.825	0.580	2.700	3.600	3.900	4.300	4.600	0	0	0.00%
US41-25	DIS. NA	mg/L	28	06MAY2009 - 07APR2010	16	16.144	2.460	10.100	14.350	16.750	17.400	20.300	0	0	0.00%
US41-25	DO	mg/L	8	06MAY2009 - 07APR2010	16	3.893	1.969	1.800	2.610	3.150	4.075	8.570	0	13	81.25%
US41-25	FLDCOND.	UMHOS/	9	06MAY2009 - 07APR2010	16	418.250	97.941	305.000	340.000	392.000	483.500	676.000	0	0	0.00%
US41-25	HARDNESS	mg/L C	35	06MAY2009 - 07APR2010	16	169.106	37.117	127.100	134.800	161.850	210.450	224.800	0	0	0.00%
US41-25	NOX	mg N/L	18,180	06MAY2009 - 10MAR2010	8	0.030	0.018	0.010	0.016	0.029	0.040	0.065	0	0	0.00%
US41-25	OPO4	mg P/L	23	03JUN2009 - 07APR2010	14	0.002	0.001	0.002	0.002	0.002	0.004	0.004	0	0	0.00%
US41-25	PH	UNITS	10	06MAY2009 - 07APR2010	16	7.169	0.212	6.900	7.000	7.100	7.350	7.600	0	0	0.00%
US41-25	TEMP	CENT	7	06MAY2009 - 07APR2010	16	25.856	5.064	12.700	23.500	27.200	29.700	30.500	0	0	0.00%
US41-25	TKN	mg N/L	21	06MAY2009 - 07APR2010	16	0.996	0.184	0.850	0.895	0.935	1.015	1.590	0	0	0.00%
US41-25	TN	mg N/L	80	06MAY2009 - 07APR2010	16	1.011	0.187	0.874	0.923	0.940	1.024	1.633	0	0	0.00%
US41-25	TOT. CL	mg/L	32	06MAY2009 - 07APR2010	18	21.183	7.928	1.600	20.100	24.700	25.600	30.100	0	0	0.00%
US41-25	TOT. SO4	mg/L	33	15JUL2009 - 07APR2010	4	0.325	0.263	0.100	0.150	0.250	0.500	0.700	0	0	0.00%
US41-25	TP	mg P/L	25	06MAY2009 - 07APR2010	16	0.020	0.020	0.009	0.012	0.015	0.021	0.091	0	0	0.00%
US41-25	TSS	mg/L	16	06MAY2009 - 07APR2010	16	3.938	2.380	3.000	3.000	3.000	3.000	10.000	0	0	0.00%
US41-25	TURBIDITY	NTU	12	15JUL2009 - 07APR2010	6	1.800	0.984	0.900	1.000	1.600	2.300	3.400	0	0	0.00%
S344	DIS. CA	mg/L	30	08JUN2009 - 08FEB2010	4	49.525	14.482	29.800	39.700	52.050	59.350	64.200	0	0	0.00%
S344	DIS. K	mg/L	29	08JUN2009 - 08FEB2010	4	1.000	0.898	0.400	0.400	0.650	1.600	2.300	0	0	0.00%
S344	DIS. MG	mg/L	31	08JUN2009 - 08FEB2010	4	2.925	1.069	1.600	2.200	2.950	3.650	4.200	0	0	0.00%
S344	DIS. NA	mg/L	28	08JUN2009 - 08FEB2010	4	11.725	7.114	4.600	7.000	10.400	16.450	21.500	0	0	0.00%
S344	DO	mg/L	8	08JUN2009 - 09NOV2009	3	4.133	2.110	2.040	2.040	4.100	6.260	6.260	0	2	66.67%
S344	FLDCOND.	UMHOS/	9	08JUN2009 - 09NOV2009	2	373.000	101.823	301.000	301.000	373.000	445.000	445.000	0	0	0.00%
S344	HARDNESS	mg/L C	35	08JUN2009 - 08FEB2010	4	135.700	40.494	81.000	108.200	142.100	163.200	177.600	0	0	0.00%
S344	NOX	mg N/L	18,180	08JUN2009 - 08FEB2010	4	0.024	0.030	0.005	0.008	0.011	0.041	0.069	0	0	0.00%
S344	PH	UNITS	10	08JUN2009 - 09NOV2009	3	7.200	0.200	7.000	7.000	7.200	7.400	7.400	0	0	0.00%
S344	TEMP	CENT	7	08JUN2009 - 09NOV2009	3	26.800	2.722	23.900	23.900	27.200	29.300	29.300	0	0	0.00%
S344	TKN	mg N/L	21	08JUN2009 - 08FEB2010	4	1.423	0.604	0.770	0.935	1.400	1.910	2.120	0	0	0.00%
S344	TN	mg N/L	80	08JUN2009 - 08FEB2010	4	1.445	0.625	0.780	0.946	1.406	1.945	2.189	0	0	0.00%
S344	TOT. SO4	mg/L	33	08JUN2009 - 08FEB2010	4	0.175	0.150	0.100	0.100	0.100	0.250	0.400	0	0	0.00%

Table C-3. Continued.

STATION	TEST NAME	UNITS	TEST NUMBER	PERIOD OF RECORD	# OF SAMPLES	MEAN	STD	MIN	Q25	MEDIAN	Q75	MAX	# BELOW DETECTION LIMIT	# OF EXCURSIONS	% EXCURSIONS
S344	TP	mg P/L	25	08JUN2009 - 08FEB2010	3	0.065	0.052	0.010	0.010	0.072	0.114	0.114	0	0	0.00%
S344	TURBIDITY	NTU	12	08JUN2009 - 08FEB2010	4	3.875	3.153	1.000	1.150	3.850	6.600	6.800	0	0	0.00%
S177	CA I	mg/L	188	03AUG2009 - 24MAR2010	2	3.350	0.071	3.300	3.300	3.350	3.400	3.400	0	0	0.00%
S177	DIS. CA	mg/L	30	04MAY2009 - 12APR2010	40	74.025	3.039	68.600	71.950	73.850	75.600	82.600	0	0	0.00%
S177	DIS. K	mg/L	29	04MAY2009 - 12APR2010	40	3.625	1.604	2.700	3.000	3.300	3.800	13.100	0	0	0.00%
S177	DIS. MG	mg/L	31	04MAY2009 - 12APR2010	40	7.098	0.630	5.600	6.800	6.900	7.300	9.200	0	0	0.00%
S177	DIS. NA	mg/L	28	04MAY2009 - 12APR2010	40	32.040	3.127	20.400	30.600	31.600	33.750	41.100	0	0	0.00%
S177	DO	mg/L	8	04MAY2009 - 12APR2010	38	3.642	2.056	1.380	2.130	2.815	4.650	8.670	0	29	76.32%
S177	FLDCOND.	UMHOS/	9	04MAY2009 - 12APR2010	39	565.333	18.825	522.000	556.000	565.000	572.000	620.000	0	0	0.00%
S177	HARDNESS	mg/L C	35	04MAY2009 - 12APR2010	40	214.093	7.711	200.200	209.850	213.950	217.150	244.100	0	0	0.00%
S177	NH4	mg N/L	20	30NOV2009 - 08FEB2010	5	0.065	0.022	0.042	0.046	0.067	0.078	0.094	0	0	0.00%
S177	NNH4	mg N/L	92	21DEC2009 - 21DEC2009	1	0.216		0.216	0.216	0.216	0.216	0.216	0	0	0.00%
S177	NOX	mg N/L	18;180	04MAY2009 - 08MAR2010	26	0.082	0.108	0.005	0.019	0.055	0.114	0.546	0	0	0.00%
S177	OPO4	mg P/L	23	04MAY2009 - 12APR2010	38	0.002	0.000	0.002	0.002	0.002	0.002	0.003	0	0	0.00%
S177	ORGN	mg N/L	79	30NOV2009 - 08FEB2010	5	0.639	0.106	0.543	0.558	0.622	0.664	0.806	0	0	0.00%
S177	PH	UNITS	10	04MAY2009 - 12APR2010	38	7.247	0.268	6.700	7.100	7.200	7.300	7.900	0	0	0.00%
S177	TEMP	CENT	7	04MAY2009 - 12APR2010	40	25.453	2.367	15.800	25.000	25.900	26.850	28.900	0	0	0.00%
S177	TKN	mg N/L	21	04MAY2009 - 12APR2010	40	0.659	0.099	0.340	0.600	0.670	0.720	0.900	0	0	0.00%
S177	TN	mg N/L	80	04MAY2009 - 12APR2010	40	0.712	0.086	0.600	0.645	0.706	0.757	1.022	0	0	0.00%
S177	TOT. CL	mg/L	32	04MAY2009 - 12APR2010	42	47.519	9.450	9.700	47.300	48.950	50.700	63.600	0	0	0.00%
S177	TOT. SO4	mg/L	33	13JUL2009 - 12APR2010	4	13.525	19.664	2.800	3.250	4.150	23.800	43.000	0	0	0.00%
S177	TP	mg P/L	25	04MAY2009 - 12APR2010	40	0.005	0.002	0.003	0.005	0.005	0.006	0.013	0	0	0.00%
S177	TSS	mg/L	16	04MAY2009 - 12APR2010	40	3.025	0.158	3.000	3.000	3.000	3.000	4.000	0	0	0.00%
S177	TURBIDITY	NTU	12	13JUL2009 - 12APR2010	6	5.250	6.404	0.800	1.000	1.350	13.000	14.000	0	0	0.00%
S177	UN-IONIZED A	mg/L	NONE	04MAY2009 - 12APR2010	4	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0	0	0.00%
S178	CA I	mg/L	188	03AUG2009 - 24MAR2010	2	9.100	0.990	8.400	8.400	9.100	9.800	9.800	0	0	0.00%
S178	DIS. CA	mg/L	30	26MAY2009 - 12APR2010	43	79.49535	9.224036	35	79.5	82	84.3	88.6	0	0	0.00%
S178	DIS. K	mg/L	29	26MAY2009 - 12APR2010	43	12.567	1.852	2.600	12.200	12.600	13.200	18.000	0	0	0.00%
S178	DIS. MG	mg/L	31	26MAY2009 - 12APR2010	43	5.684	0.308	4.800	5.600	5.700	5.800	7.200	0	0	0.00%
S178	DIS. NA	mg/L	28	26MAY2009 - 12APR2010	43	23.033	1.991	19.800	22.100	23.000	23.300	33.100	0	0	0.00%
S178	DO	mg/L	8	26MAY2009 - 12APR2010	40	5.787	2.644	2.270	3.835	4.965	7.115	14.800	0	20	50.00%
S178	FLDCOND.	UMHOS/	9	26MAY2009 - 12APR2010	42	569.119	36.662	398.000	558.000	577.000	590.000	613.000	0	0	0.00%
S178	HARDNESS	mg/L C	35	26MAY2009 - 12APR2010	43	221.942	23.414	107.100	221.600	228.000	233.900	245.600	0	0	0.00%
S178	NH4	mg N/L	20	30NOV2009 - 15MAR2010	7	0.019	0.004	0.013	0.016	0.019	0.020	0.027	0	0	0.00%
S178	NNH4	mg N/L	92	30NOV2009 - 15MAR2010	6	0.442	0.219	0.119	0.239	0.519	0.620	0.636	0	0	0.00%
S178	NOX	mg N/L	18;180	26MAY2009 - 12APR2010	42	0.423	0.908	0.016	0.198	0.244	0.389	6.060	0	0	0.00%
S178	OPO4	mg P/L	23	26MAY2009 - 12APR2010	38	0.006	0.016	0.002	0.002	0.002	0.003	0.099	0	0	0.00%
S178	ORGN	mg N/L	79	30NOV2009 - 15MAR2010	7	0.391	0.087	0.277	0.330	0.364	0.490	0.511	0	0	0.00%
S178	PH	UNITS	10	26MAY2009 - 12APR2010	41	7.268	0.246	6.800	7.200	7.200	7.400	8.000	0	0	0.00%
S178	TEMP	CENT	7	26MAY2009 - 12APR2010	43	24.277	3.302	13.200	21.400	25.400	26.500	29.400	0	0	0.00%



Table C-3. Continued.

STATION	TEST NAME	UNITS	TEST NUMBER	PERIOD OF RECORD	# OF SAMPLES	MEAN	STD	MIN	Q25	MEDIAN	Q75	MAX	# BELOW DETECTION LIMIT	# OF EXCURSIONS	% EXCURSIONS
S178	TKN	mg N/L	21	26MAY2009 - 12APR2010	43	0.468	0.154	0.290	0.370	0.420	0.530	0.910	0	0	0.00%
S178	TN	mg N/L	80	26MAY2009 - 12APR2010	43	0.881	0.964	0.486	0.628	0.707	0.849	6.970	0	0	0.00%
S178	TOT. CL	mg/L	32	26MAY2009 - 12APR2010	45	37.749	7.084	7.200	37.300	38.700	39.700	51.200	0	0	0.00%
S178	TOT. SO4	mg/L	33	13JUL2009 - 12APR2010	4	19.525	12.757	1.600	10.550	23.150	28.500	30.200	0	0	0.00%
S178	TP	mg P/L	25	26MAY2009 - 12APR2010	42	0.018	0.024	0.004	0.009	0.011	0.016	0.153	0	0	0.00%
S178	TSS	mg/L	16	26MAY2009 - 12APR2010	43	4.070	2.789	3.000	3.000	3.000	3.000	16.000	0	0	0.00%
S178	TURBIDITY	NTU	12	13JUL2009 - 12APR2010	6	7.250	7.658	1.100	1.200	3.600	17.000	17.000	0	0	0.00%
S178	UN-IONIZED A	mg/L	NONE	26MAY2009 - 12APR2010	6	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0	0	0.00%
S331-173	DIS. CA	mg/L	30	04MAY2009 - 26APR2010	44	71.836	6.458	57.400	67.900	71.700	75.650	93.800	0	0	0.00%
S331-173	DIS. K	mg/L	29	04MAY2009 - 26APR2010	44	3.177273	0.737016	2	2.6	3.1	3.7	4.8	0	0	0.00%
S331-173	DIS. MG	mg/L	31	04MAY2009 - 26APR2010	44	10.925	1.896	8.300	9.500	10.400	11.900	16.300	0	0	0.00%
S331-173	DIS. NA	mg/L	28	04MAY2009 - 26APR2010	44	40.661	6.760	33.500	36.700	37.750	41.300	56.700	0	0	0.00%
S331-173	DIS. ORGAN. C	mg/L	89;181	13JUL2009 - 13APR2010	4	18.025	2.761	15.900	15.900	17.250	20.150	21.700	0	0	0.00%
S331-173	DO	mg/L	8	04MAY2009 - 26APR2010	49	3.365	1.853	0.720	1.980	3.050	4.670	7.740	0	41	83.67%
S331-173	FLDCOND.	UMHOS/	9	04MAY2009 - 26APR2010	51	637.275	55.736	581.000	597.000	625.000	650.000	818.000	0	0	0.00%
S331-173	HARDNESS	mg/L C	35	04MAY2009 - 26APR2010	44	224.355	16.701	200.000	215.300	222.850	232.100	301.500	0	0	0.00%
S331-173	NOX	mg N/L	18;180	04MAY2009 - 13APR2010	22	0.047	0.067	0.007	0.011	0.021	0.063	0.321	0	0	0.00%
S331-173	OPO4	mg P/L	23	04MAY2009 - 26APR2010	42	0.002	0.000	0.002	0.002	0.002	0.002	0.002	0	0	0.00%
S331-173	PH	UNITS	10	04MAY2009 - 26APR2010	50	7.386	0.236	7.000	7.200	7.400	7.500	8.000	0	0	0.00%
S331-173	TEMP	CENT	7	04MAY2009 - 26APR2010	52	25.275	3.293	15.800	22.800	26.100	28.200	29.500	0	0	0.00%
S331-173	TKN	mg N/L	21	04MAY2009 - 26APR2010	44	1.344	0.115	0.980	1.300	1.345	1.405	1.680	0	0	0.00%
S331-173	TN	mg N/L	80	04MAY2009 - 26APR2010	44	1.367	0.130	1.036	1.314	1.367	1.407	1.801	0	0	0.00%
S331-173	TOT. CL	mg/L	32	04MAY2009 - 26APR2010	44	62.050	11.112	50.900	55.000	57.500	63.150	92.500	0	0	0.00%
S331-173	TOT. MTHY HG	ug/L	203	19OCT2009 - 19OCT2009	1	0.000		0.000	0.000	0.000	0.000	0.000	0	0	0.00%
S331-173	TOT. SO4	mg/L	33	13JUL2009 - 13APR2010	4	9.225	8.686	0.600	2.550	7.950	15.900	20.400	0	0	0.00%
S331-173	TOT. ULTRA TR	ug/L	207	14JUL2009 - 19OCT2009	2	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0	0	0.00%
S331-173	TP	mg P/L	25	04MAY2009 - 26APR2010	52	0.008	0.002	0.005	0.007	0.007	0.009	0.015	0	0	0.00%
S331-173	TSS	mg/L	16	04MAY2009 - 26APR2010	44	3.023	0.151	3.000	3.000	3.000	3.000	4.000	0	0	0.00%
S331-173	TURBIDITY	NTU	12	13JUL2009 - 13APR2010	4	1.575	1.090	0.900	0.950	1.100	2.200	3.200	0	0	0.00%
S331-173Auto	NOX	mg N/L	18;180	04MAY2009 - 26APR2010	326	0.039	0.043	0.005	0.012	0.025	0.054	0.326	0	0	0.00%
S331-173Auto	TKN	mg N/L	21	04MAY2009 - 26APR2010	344	1.334	0.132	0.840	1.280	1.330	1.400	1.720	0	0	0.00%
S331-173Auto	TN	mg N/L	80	04MAY2009 - 26APR2010	344	1.372	0.142	0.911	1.301	1.358	1.430	1.796	0	0	0.00%
S331-173Auto	TP	mg P/L	25	04MAY2009 - 26APR2010	344	0.009	0.004	0.005	0.007	0.008	0.010	0.052	0	0	0.00%
S332B	DIS. CA	mg/L	30	01JUN2009 - 26APR2010	39	71.597	4.913	59.800	67.300	71.400	74.500	81.700	0	0	0.00%
S332B	DIS. K	mg/L	29	01JUN2009 - 26APR2010	39	3.203	0.528	2.500	2.700	3.200	3.600	4.400	0	0	0.00%
S332B	DIS. MG	mg/L	31	01JUN2009 - 26APR2010	39	9.895	1.745	6.900	8.600	9.400	11.200	14.300	0	0	0.00%
S332B	DIS. NA	mg/L	28	01JUN2009 - 26APR2010	39	37.931	6.203	29.200	33.700	36.400	39.500	53.500	0	0	0.00%
S332B	DO	mg/L	8	04MAY2009 - 26APR2010	49	2.911	1.365	0.490	1.810	2.670	3.970	5.540	0	45	91.84%
S332B	FLDCOND.	UMHOS/	9	04MAY2009 - 26APR2010	51	616.255	41.715	571.000	588.000	611.000	632.000	799.000	0	0	0.00%
S332B	HARDNESS	mg/L C	35	01JUN2009 - 26APR2010	39	219.5897	9.939231	199.7	212.8	219.9	226.2	238	0	0	0.00%

Table C-3. Continued.

STATION	TEST NAME	UNITS	TEST NUMBER	PERIOD OF RECORD	# OF SAMPLES	MEAN	STD	MIN	Q25	MEDIAN	Q75	MAX	# BELOW DETECTION LIMIT	# OF EXCURSIONS	% EXCURSIONS
S332B	NOX	mg N/L	18;180	01JUN2009 - 13APR2010	21	0.043	0.069	0.009	0.012	0.021	0.051	0.330	0	0	0.00%
S332B	OPO4	mg P/L	23	01JUN2009 - 26APR2010	37	0.002	0.000	0.002	0.002	0.002	0.002	0.003	0	0	0.00%
S332B	PH	UNITS	10	04MAY2009 - 26APR2010	50	7.280	0.171	6.900	7.100	7.250	7.400	7.600	0	0	0.00%
S332B	TEMP	CENT	7	04MAY2009 - 26APR2010	52	25.144	2.883	17.000	23.100	25.500	27.500	28.900	0	0	0.00%
S332B	TKN	mg N/L	21	01JUN2009 - 26APR2010	39	1.153	0.189	0.560	1.100	1.180	1.280	1.380	0	0	0.00%
S332B	TN	mg N/L	80	01JUN2009 - 26APR2010	39	1.176	0.197	0.611	1.113	1.223	1.294	1.690	0	0	0.00%
S332B	TOT. CL	mg/L	32	01JUN2009 - 26APR2010	39	57.990	10.163	44.000	52.400	54.600	59.100	87.100	0	0	0.00%
S332B	TP	mg P/L	25	04MAY2009 - 26APR2010	52	0.007	0.002	0.005	0.006	0.007	0.008	0.016	0	0	0.00%
S332B	TSS	mg/L	16	01JUN2009 - 26APR2010	39	3.179	0.790	3.000	3.000	3.000	3.000	7.000	0	0	0.00%
S332BAuto	NOX	mg N/L	18;180	04MAY2009 - 26APR2010	41	0.035	0.031	0.009	0.013	0.025	0.045	0.133	0	0	0.00%
S332BAuto	TKN	mg N/L	21	04MAY2009 - 26APR2010	42	1.134	0.195	0.620	1.110	1.150	1.220	1.730	0	0	0.00%
S332BAuto	TN	mg N/L	80	04MAY2009 - 26APR2010	42	1.169	0.203	0.660	1.129	1.176	1.249	1.806	0	0	0.00%
S332BAuto	TP	mg P/L	25	04MAY2009 - 26APR2010	41	0.008	0.002	0.005	0.006	0.007	0.008	0.015	0	0	0.00%
S332C	DIS. CA	mg/L	30	29JUN2009 - 26APR2010	21	71.000	2.549	67.200	68.500	71.000	72.900	75.600	0	0	0.00%
S332C	DIS. K	mg/L	29	29JUN2009 - 26APR2010	21	2.957	0.189	2.500	2.900	3.000	3.100	3.200	0	0	0.00%
S332C	DIS. MG	mg/L	31	29JUN2009 - 26APR2010	21	8.900	0.667	7.400	8.400	9.000	9.400	9.700	0	0	0.00%
S332C	DIS. NA	mg/L	28	29JUN2009 - 26APR2010	21	35.767	2.130	32.000	34.500	36.000	36.500	41.300	0	0	0.00%
S332C	DO	mg/L	8	04MAY2009 - 26APR2010	49	2.950	1.638	0.560	1.560	2.440	4.200	5.690	0	39	79.59%
S332C	FLDCOND.	UMHOS/	9	04MAY2009 - 26APR2010	51	603.7255	41.11111	556	580	594	615	794	0	0	0.00%
S332C	HARDNESS	mg/L C	35	29JUN2009 - 26APR2010	21	213.938	6.612	202.400	208.800	215.700	219.200	224.400	0	0	0.00%
S332C	NOX	mg N/L	18;180	13JUL2009 - 02NOV2009	10	0.011	0.003	0.007	0.008	0.010	0.011	0.017	0	0	0.00%
S332C	OPO4	mg P/L	23	29JUN2009 - 26APR2010	21	0.002	0.000	0.002	0.002	0.002	0.002	0.003	0	0	0.00%
S332C	PH	UNITS	10	04MAY2009 - 26APR2010	50	7.246	0.180	6.900	7.100	7.200	7.400	7.600	0	0	0.00%
S332C	TEMP	CENT	7	04MAY2009 - 26APR2010	52	25.567	2.640	17.800	23.850	26.500	27.550	29.900	0	0	0.00%
S332C	TKN	mg N/L	21	29JUN2009 - 26APR2010	21	1.027	0.109	0.710	0.970	1.030	1.110	1.220	0	0	0.00%
S332C	TN	mg N/L	80	29JUN2009 - 26APR2010	21	1.032	0.109	0.710	0.970	1.030	1.118	1.230	0	0	0.00%
S332C	TOT. CL	mg/L	32	29JUN2009 - 26APR2010	21	54.533	3.629	48.400	52.300	54.100	55.900	66.900	0	0	0.00%
S332C	TP	mg P/L	25	04MAY2009 - 26APR2010	51	0.007	0.002	0.004	0.006	0.006	0.007	0.020	0	0	0.00%
S332C	TSS	mg/L	16	29JUN2009 - 26APR2010	21	3.048	0.218	3.000	3.000	3.000	3.000	4.000	0	0	0.00%
S332CAuto	NOX	mg N/L	18;180	29JUN2009 - 26APR2010	23	0.016	0.012	0.007	0.009	0.011	0.016	0.054	0	0	0.00%
S332CAuto	TKN	mg N/L	21	29JUN2009 - 26APR2010	24	1.009	0.115	0.800	0.955	1.000	1.075	1.310	0	0	0.00%
S332CAuto	TN	mg N/L	80	29JUN2009 - 26APR2010	24	1.024	0.117	0.817	0.965	1.022	1.087	1.353	0	0	0.00%
S332CAuto	TP	mg P/L	25	29JUN2009 - 26APR2010	24	0.007	0.001	0.005	0.007	0.007	0.008	0.010	0	0	0.00%
BERMB3	DIS. CA	mg/L	30	27JUL2009 - 02NOV2009	5	52.040	3.914	46.100	50.900	52.100	55.400	55.700	0	0	0.00%
BERMB3	DIS. K	mg/L	29	27JUL2009 - 02NOV2009	5	2.820	0.377	2.200	2.800	2.900	3.000	3.200	0	0	0.00%
BERMB3	DIS. MG	mg/L	31	27JUL2009 - 02NOV2009	5	7.160	1.571	4.700	6.900	7.300	8.000	8.900	0	0	0.00%
BERMB3	DIS. NA	mg/L	28	27JUL2009 - 02NOV2009	5	30.000	6.277	20.300	28.800	30.300	33.600	37.000	0	0	0.00%
BERMB3	DO	mg/L	8	27JUL2009 - 06OCT2009	4	3.645	0.831	2.710	2.980	3.640	4.310	4.590	0	4	100.00%
BERMB3	FLDCOND.	UMHOS/	9	27JUL2009 - 02NOV2009	5	475.800	56.193	389.000	460.000	487.000	505.000	538.000	0	0	0.00%
BERMB3	HARDNESS	mg/L C	35	27JUL2009 - 02NOV2009	5	159.500	14.879	134.500	158.700	163.600	168.400	172.300	0	0	0.00%

Table C-3. Continued.

STATION	TEST NAME	UNITS	TEST NUMBER	PERIOD OF RECORD	# OF SAMPLES	MEAN	STD	MIN	Q25	MEDIAN	Q75	MAX	# BELOW DETECTION LIMIT	# OF EXCURSIONS	% EXCURSIONS
BERMB3	NOX	mg N/L	18;180	08SEP2009 - 02NOV2009	4	0.005	0.001	0.005	0.005	0.005	0.006	0.006	0	0	0.00%
BERMB3	OPO4	mg P/L	23	08SEP2009 - 02NOV2009	4	0.002	0.000	0.002	0.002	0.002	0.002	0.002	0	0	0.00%
BERMB3	PH	UNITS	10	27JUL2009 - 02NOV2009	5	7.120	0.130	7.000	7.000	7.100	7.200	7.300	0	0	0.00%
BERMB3	TEMP	CENT	7	27JUL2009 - 02NOV2009	5	28.200	0.500	27.400	28.100	28.300	28.500	28.700	0	0	0.00%
BERMB3	TKN	mg N/L	21	27JUL2009 - 02NOV2009	5	0.980	0.106	0.870	0.890	0.960	1.080	1.100	0	0	0.00%
BERMB3	TN	mg N/L	80	27JUL2009 - 02NOV2009	5	0.981	0.105	0.870	0.896	0.960	1.080	1.100	0	0	0.00%
BERMB3	TOT. CL	mg/L	32	27JUL2009 - 02NOV2009	5	47.100	10.360	32.200	44.200	47.100	51.500	60.500	0	0	0.00%
BERMB3	TOT. SO4	mg/L	33	27JUL2009 - 06OCT2009	3	1.567	0.839	0.600	0.600	2.000	2.100	2.100	0	0	0.00%
BERMB3	TP	mg P/L	25	27JUL2009 - 02NOV2009	5	0.022	0.006	0.015	0.019	0.021	0.026	0.030	0	0	0.00%
BERMB3	TSS	mg/L	16	27JUL2009 - 02NOV2009	5	3.000	0.000	3.000	3.000	3.000	3.000	3.000	0	0	0.00%
BERMB3	TURBIDITY	NTU	12	27JUL2009 - 06OCT2009	3	1.200	0.300	0.900	0.900	1.200	1.500	1.500	0	0	0.00%
S332DX	CA_I	mg/L	188	03AUG2009 - 24MAR2010	2	2.600	0.424	2.300	2.300	2.600	2.900	2.900	0	0	0.00%
S332DX	DIS. CA	mg/L	30	04MAY2009 - 26APR2010	46	72.415	4.073	65.800	68.900	72.100	74.800	88.700	0	0	0.00%
S332DX	DIS. K	mg/L	29	04MAY2009 - 26APR2010	46	2.889	0.429	2.400	2.600	2.800	3.000	4.600	0	0	0.00%
S332DX	DIS. MG	mg/L	31	04MAY2009 - 26APR2010	46	8.917	1.482	7.200	8.100	8.750	9.100	14.800	0	0	0.00%
S332DX	DIS. NA	mg/L	28	04MAY2009 - 26APR2010	46	37.093	5.569	31.500	34.200	35.600	37.100	57.600	0	0	0.00%
S332DX	DIS. ORGAN.	mg/L	89;181	13JUL2009 - 13APR2010	4	14.150	1.408	12.600	13.200	14.000	15.100	16.000	0	0	0.00%
S332DX	DO	mg/L	8	04MAY2009 - 26APR2010	49	3.099	1.701	0.930	1.690	2.640	4.810	7.770	0	39	79.59%
S332DX	FLDCOND.	UMHOS/	9	04MAY2009 - 26APR2010	51	599.431	45.143	528.000	570.000	587.000	611.000	753.000	0	0	0.00%
S332DX	HARDNESS	mg/LC	35	04MAY2009 - 26APR2010	46	217.602	12.656	201.500	209.300	215.850	223.600	279.700	0	0	0.00%
S332DX	NOX	mg N/L	18;180	04MAY2009 - 13APR2010	27	0.050296	0.061353	7.00E-03	0.013	0.025	0.064	0.3	0	0	0.00%
S332DX	OPO4	mg P/L	23	04MAY2009 - 26APR2010	44	0.002	0.000	0.002	0.002	0.002	0.002	0.004	0	0	0.00%
S332DX	PH	UNITS	10	04MAY2009 - 26APR2010	50	7.286	0.219	6.900	7.100	7.300	7.400	7.800	0	0	0.00%
S332DX	TEMP	CENT	7	04MAY2009 - 26APR2010	52	25.325	2.653	17.100	23.650	26.150	27.500	28.900	0	0	0.00%
S332DX	TKN	mg N/L	21	04MAY2009 - 26APR2010	46	0.977	0.134	0.630	0.920	0.980	1.040	1.280	0	0	0.00%
S332DX	TN	mg N/L	80	04MAY2009 - 26APR2010	46	1.007	0.166	0.651	0.930	0.991	1.097	1.580	0	0	0.00%
S332DX	TOT. CL	mg/L	32	04MAY2009 - 26APR2010	48	54.463	12.100	9.500	52.250	53.700	55.400	88.900	0	0	0.00%
S332DX	TOT. MTHY HG	ug/L	203	19OCT2009 - 14APR2010	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0	0.00%
S332DX	TOT. SO4	mg/L	33	13JUL2009 - 13APR2010	4	4.625	3.304	0.700	2.000	4.800	7.250	8.200	0	0	0.00%
S332DX	TOT. ULTRA TR	ug/L	207	14JUL2009 - 14APR2010	4	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0	0	0.00%
S332DX	TP	mg P/L	25	04MAY2009 - 26APR2010	51	0.007	0.001	0.005	0.006	0.006	0.007	0.012	0	0	0.00%
S332DX	TSS	mg/L	16	04MAY2009 - 26APR2010	46	3.000	0.000	3.000	3.000	3.000	3.000	3.000	0	0	0.00%
S332DX	TURBIDITY	NTU	12	13JUL2009 - 13APR2010	6	5.500	5.458	1.300	1.500	2.600	12.000	13.000	0	0	0.00%
S332DXAuto	NOX	mg N/L	18;180	04MAY2009 - 26APR2010	337	0.036	0.038	0.005	0.009	0.016	0.059	0.211	0	0	0.00%
S332DXAuto	TKN	mg N/L	21	04MAY2009 - 26APR2010	357	0.992	0.157	0.560	0.920	0.990	1.080	1.690	0	0	0.00%
S332DXAuto	TN	mg N/L	80	04MAY2009 - 26APR2010	357	1.026	0.179	0.584	0.930	1.011	1.119	1.819	0	0	0.00%
S332DXAuto	TP	mg P/L	25	04MAY2009 - 26APR2010	357	0.008	0.004	0.004	0.006	0.007	0.008	0.056	0	0	0.00%
S356-334	DIS. CA	mg/L	30	05MAY2009 - 20APR2010	33	64.055	8.490	48.900	60.400	62.400	65.300	88.700	0	0	0.00%
S356-334	DIS. K	mg/L	29	05MAY2009 - 20APR2010	33	4.245	1.071	1.900	3.600	4.300	5.200	5.800	0	0	0.00%
S356-334	DIS. MG	mg/L	31	05MAY2009 - 20APR2010	33	13.421	2.294	7.900	12.200	13.600	15.100	17.100	0	0	0.00%

Table C-3. Continued.

STATION	TEST NAME	UNITS	TEST NUMBER	PERIOD OF RECORD	# OF SAMPLES	MEAN	STD	MIN	Q 25	MEDIAN	Q 75	MAX	# BELOW DETECTION LIMIT	# OF EXCURSIONS	% EXCURSIONS
S356-334	DIS. NA	mg/L	28	05MAY2009 - 20APR2010	33	45.139	8.677	31.100	39.300	42.200	48.800	65.300	0	0	0.00%
S356-334	DO	mg/L	8	05MAY2009 - 27APR2010	51	3.629	1.604	0.720	2.310	3.390	5.010	7.490	0	37	72.55%
S356-334	FLDCOND.	UMHOS/	9	05MAY2009 - 27APR2010	52	629.827	50.947	552.000	594.000	620.000	653.500	788.000	0	0	0.00%
S356-334	HARDNESS	mg/LC	35	05MAY2009 - 20APR2010	33	215.264	17.866	184.400	203.200	212.200	223.200	284.900	0	0	0.00%
S356-334	NOX	mg N/L	18;180	05MAY2009 - 20APR2010	22	0.048	0.025	0.017	0.032	0.039	0.053	0.110	0	0	0.00%
S356-334	OPO4	mg P/L	23	05MAY2009 - 20APR2010	31	0.002	0.000	0.002	0.002	0.002	0.002	0.002	0	0	0.00%
S356-334	PH	UNITS	10	05MAY2009 - 27APR2010	52	7.258	0.205	6.600	7.100	7.200	7.400	7.700	0	0	0.00%
S356-334	TEMP	CENT	7	05MAY2009 - 27APR2010	52	26.038	3.514	17.500	23.650	26.100	29.050	30.900	0	0	0.00%
S356-334	TKN	mg N/L	21	05MAY2009 - 20APR2010	33	1.418182	0.11444	1.16	1.37	1.41	1.49	1.65	0	0	0.00%
S356-334	TN	mg N/L	80	05MAY2009 - 20APR2010	33	1.450	0.114	1.192	1.400	1.428	1.539	1.703	0	0	0.00%
S356-334	TOT. CL	mg/L	32	05MAY2009 - 20APR2010	33	69.088	13.951	44.300	60.600	65.600	74.100	104.000	0	0	0.00%
S356-334	TOT. MTHY HG	ug/L	203	19OCT2009 - 19OCT2009	1	0.000		0.000	0.000	0.000	0.000	0.000	0	0	0.00%
S356-334	TOT. SO4	mg/L	33	07JUL2009 - 14APR2010	4	15.200	11.241	0.100	8.250	16.700	22.150	27.300	0	0	0.00%
S356-334	TOT. ULTRA TR	ug/L	207	14JUL2009 - 19OCT2009	2	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0	0	0.00%
S356-334	TP	mg P/L	25	05MAY2009 - 27APR2010	52	0.012	0.005	0.006	0.008	0.010	0.013	0.031	0	0	0.00%
S356-334	TSS	mg/L	16	05MAY2009 - 20APR2010	33	3.091	0.384	3.000	3.000	3.000	3.000	5.000	0	0	0.00%
S356-334	TURBIDITY	NTU	12	07JUL2009 - 14APR2010	4	1.575	0.310	1.300	1.350	1.500	1.800	2.000	0	0	0.00%
S356-334Auto	NOX	mg N/L	18;180	05MAY2009 - 27APR2010	346	0.044	0.054	0.005	0.019	0.031	0.051	0.486	0	0	0.00%
S356-334Auto	TKN	mg N/L	21	05MAY2009 - 27APR2010	352	1.442	0.100	1.100	1.370	1.440	1.500	1.830	0	0	0.00%
S356-334Auto	TN	mg N/L	80	05MAY2009 - 27APR2010	353	1.483	0.131	0.500	1.403	1.467	1.556	2.106	0	0	0.00%
S356-334Auto	TP	mg P/L	25	05MAY2009 - 27APR2010	346	0.011	0.005	0.005	0.009	0.010	0.012	0.084	0	0	0.00%

# Attachment D: Time-Series and Box Plots for Non-Everglades Construction Project Water Quality Monitoring Data Exhibiting Excursions from Class III Numeric Standards for Water Year 2010

Shi Kui Xue and Steven Hill

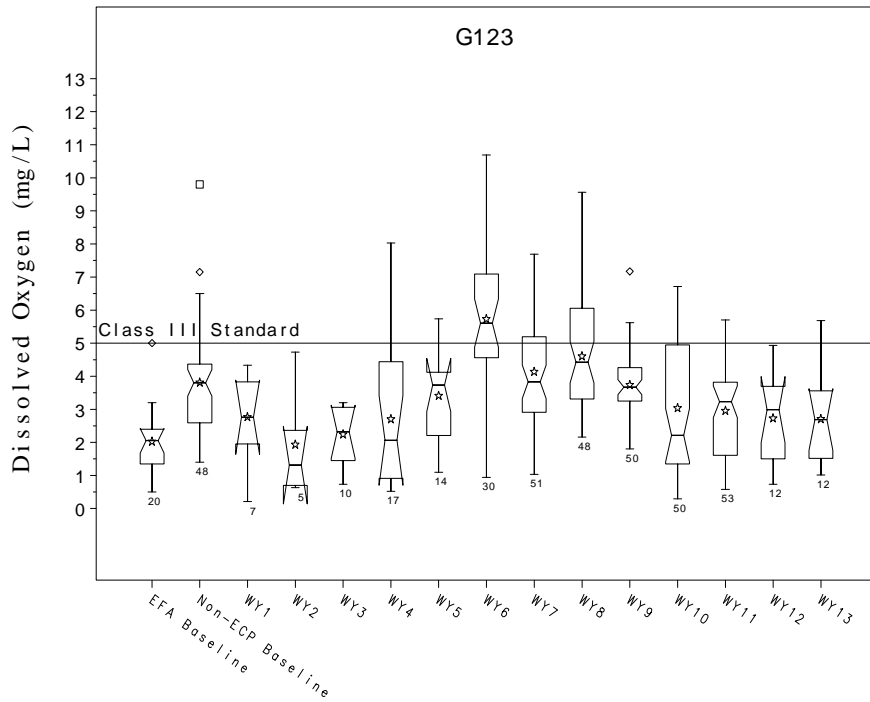
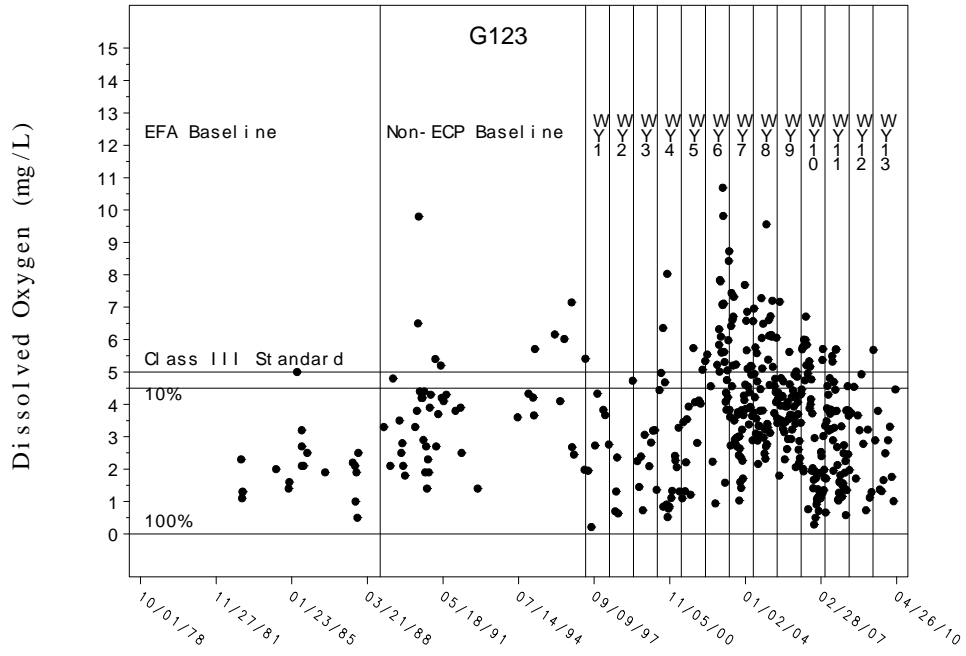
## Key to Abbreviations

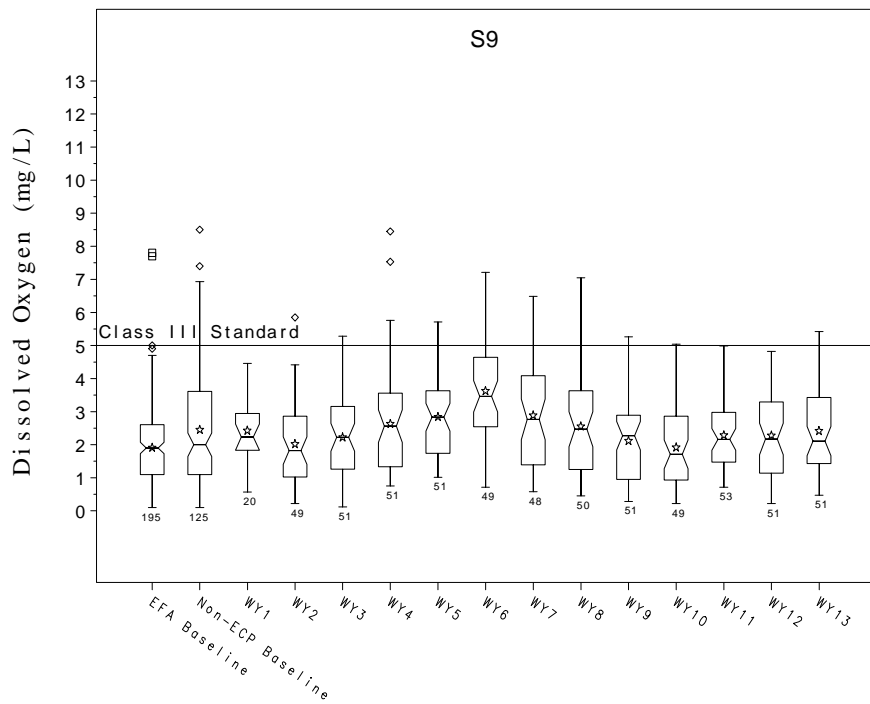
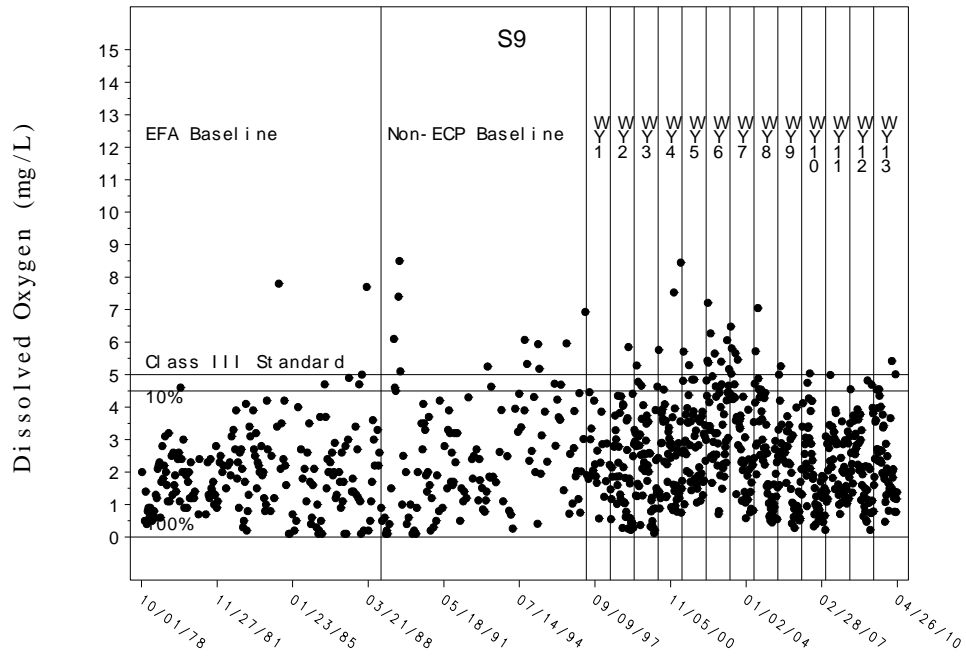
**WY1-12:** Water Year 1-12 (May 1, 1997 through April 30, 2009)

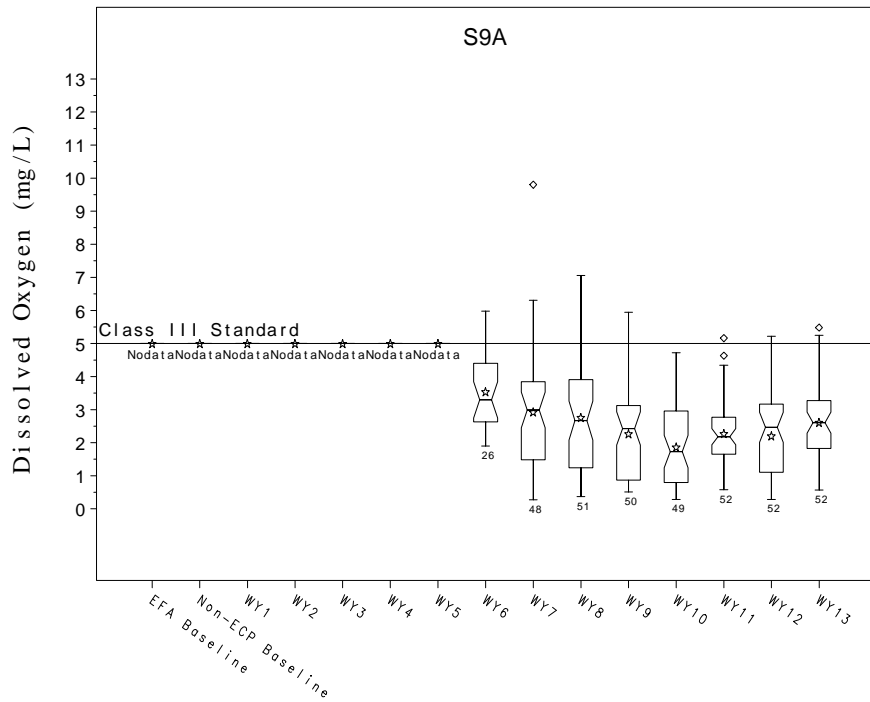
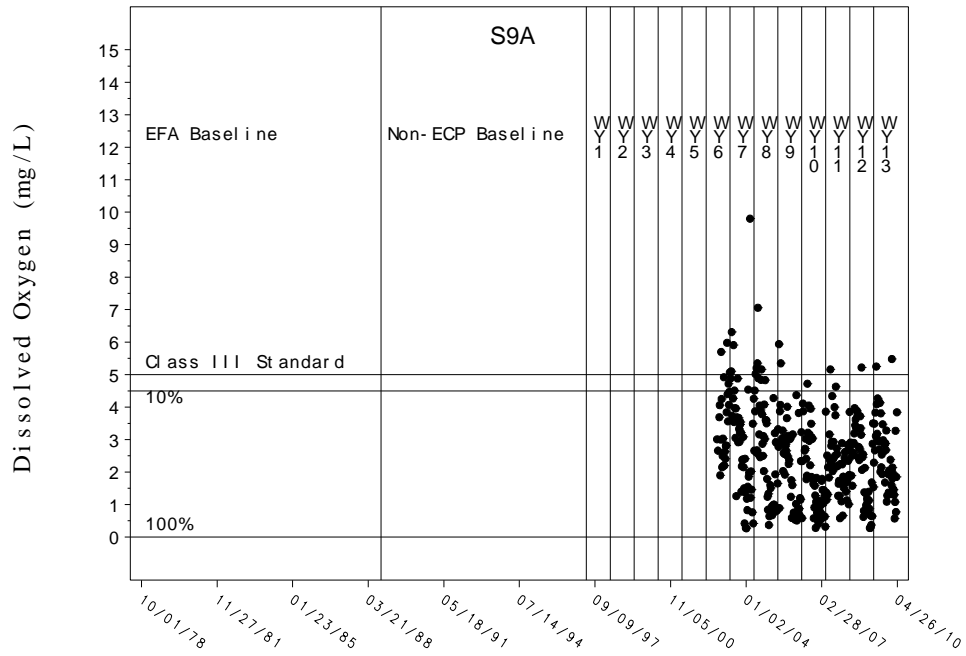
**WY13:** Water Year 13 (May 1, 2009 through April 30, 2010)

## NOTES:

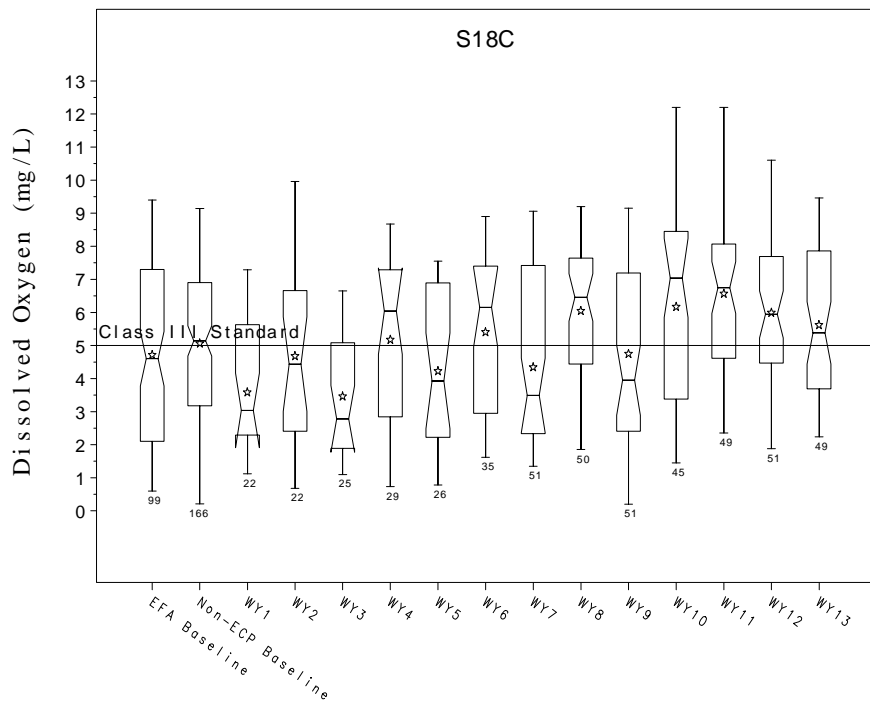
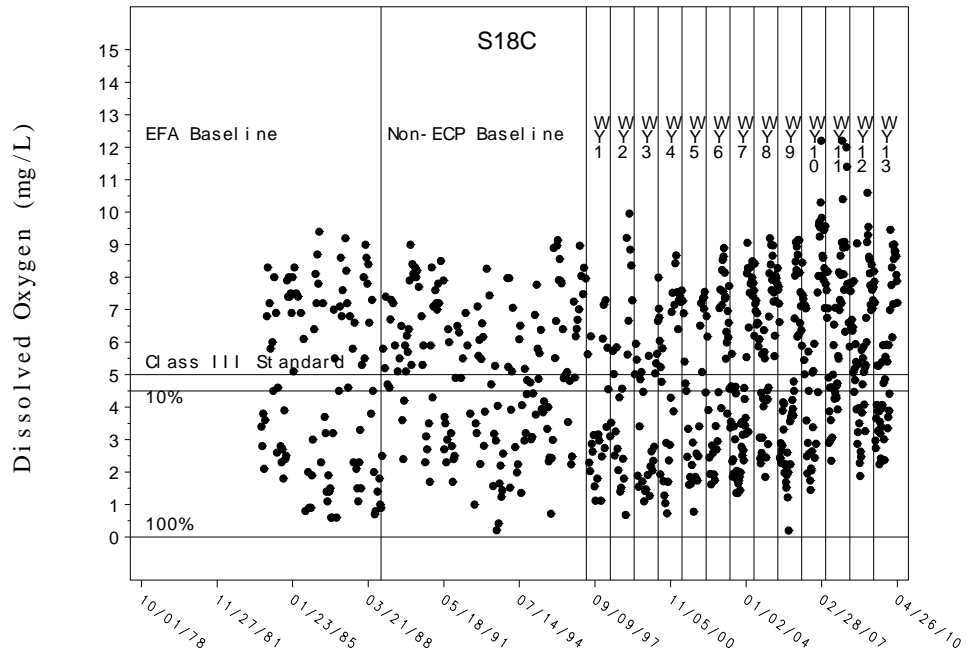
The graphs in this attachment correspond to the non-Everglades Construction Project (non-ECP) water quality monitoring sites exhibiting excursions during Water Year 13 (WY13), as shown in **Table 3**. The graph sequencing follows the station and parameter order shown in that table. The non-ECP structure locations are depicted in **Figure 1** of this appendix. Additionally, the graphs are identified by the monitoring site name. In most cases, the monitoring site name corresponds to the structure. If the monitoring site is a surrogate location for a structure, then the structure name(s) is/are shown in parentheses below the monitoring site name.

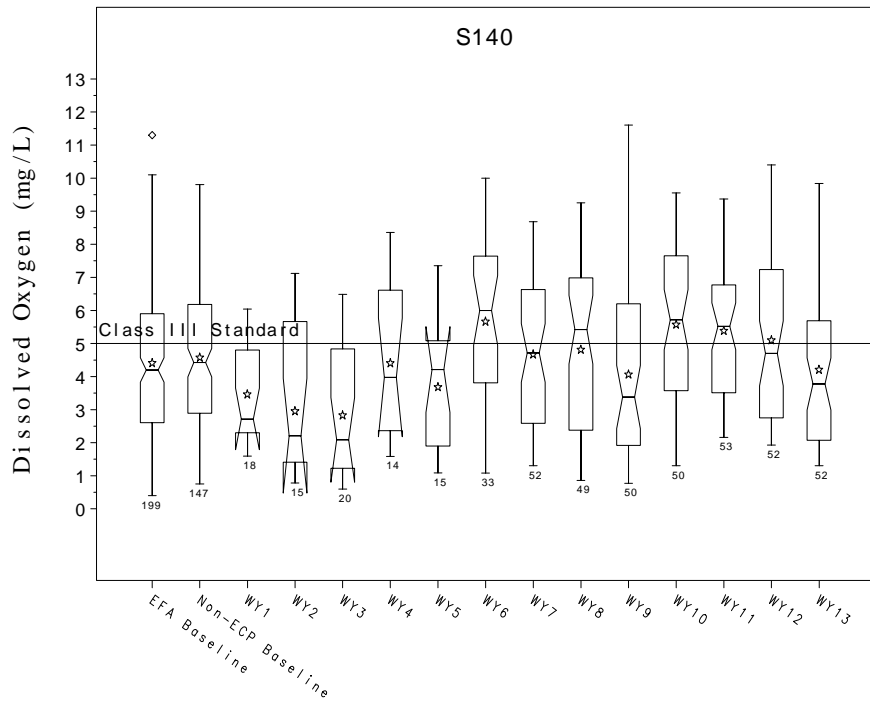
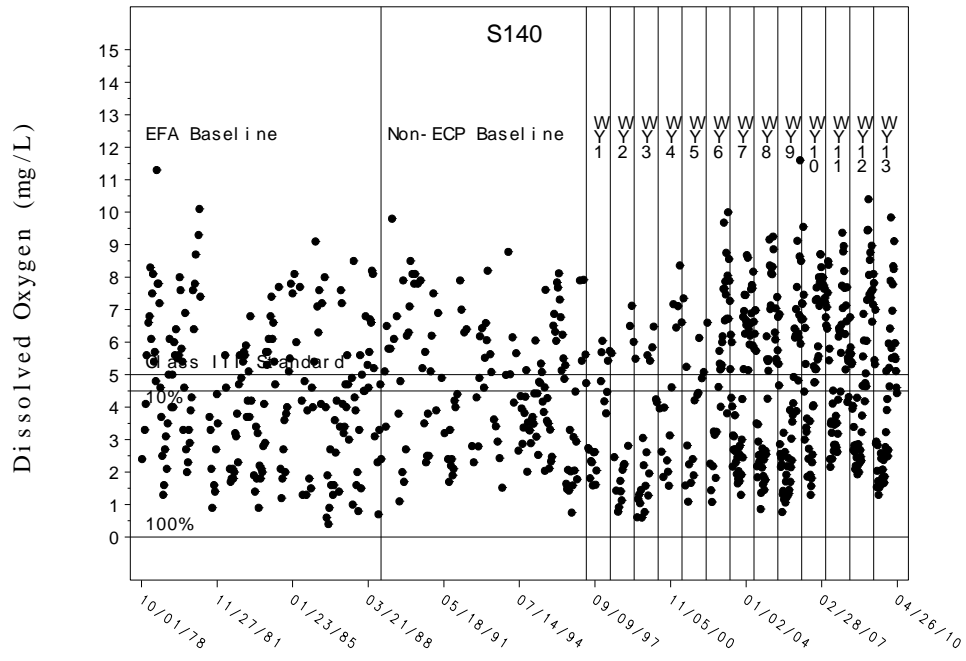


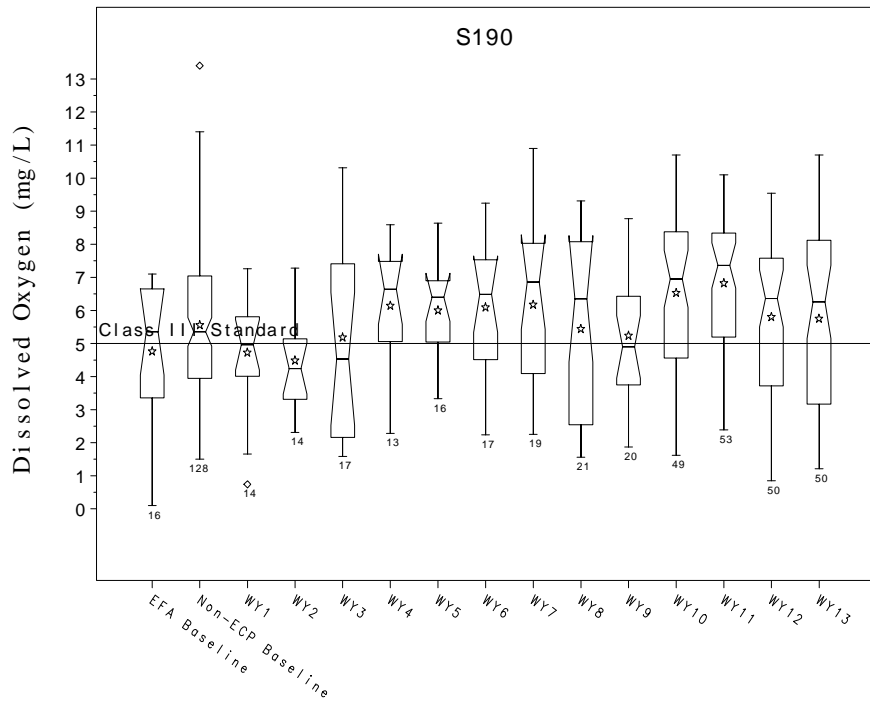
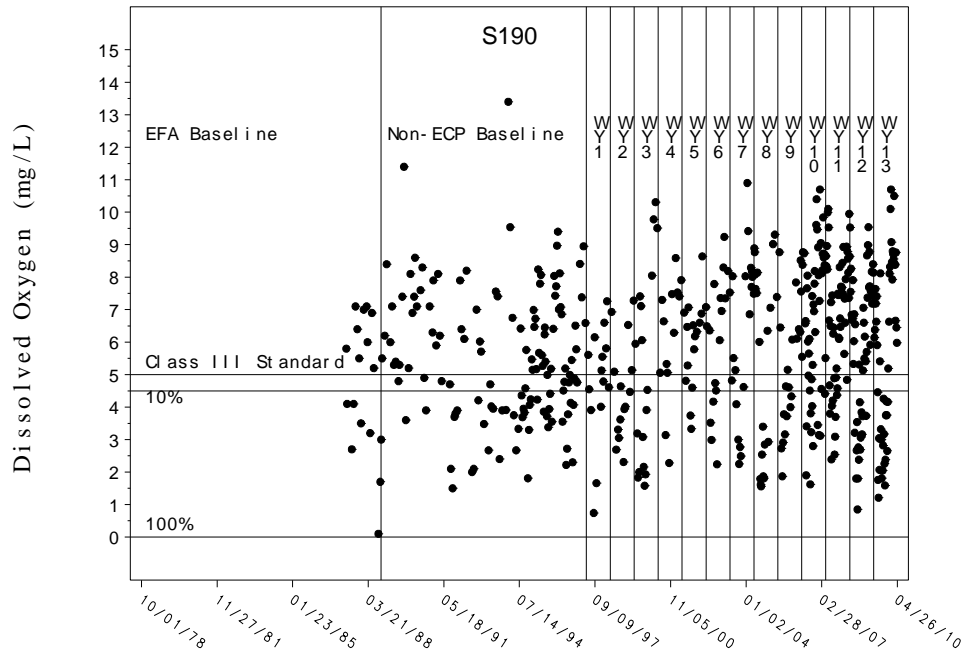


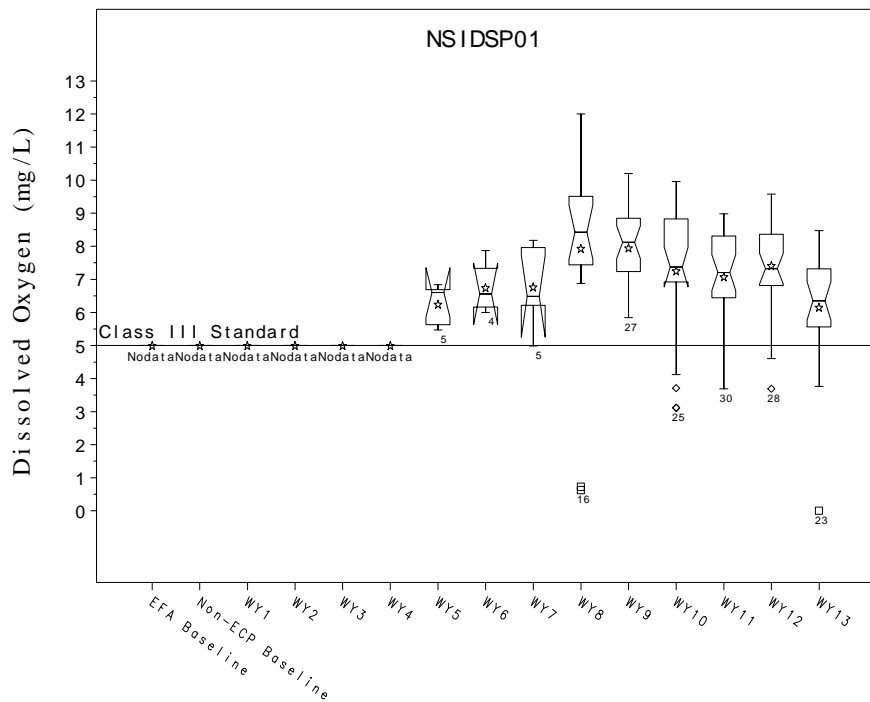
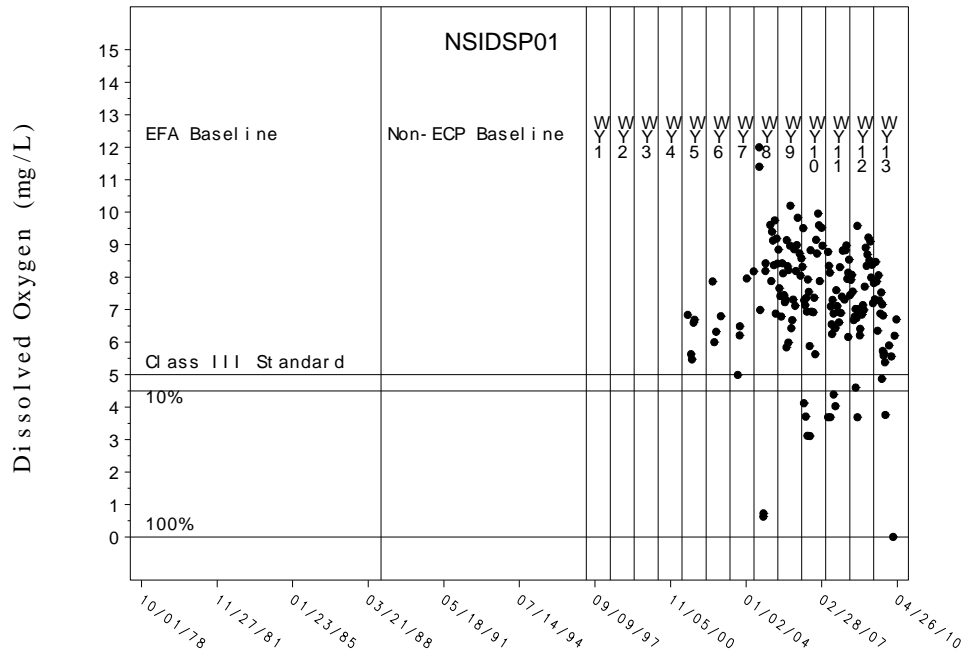


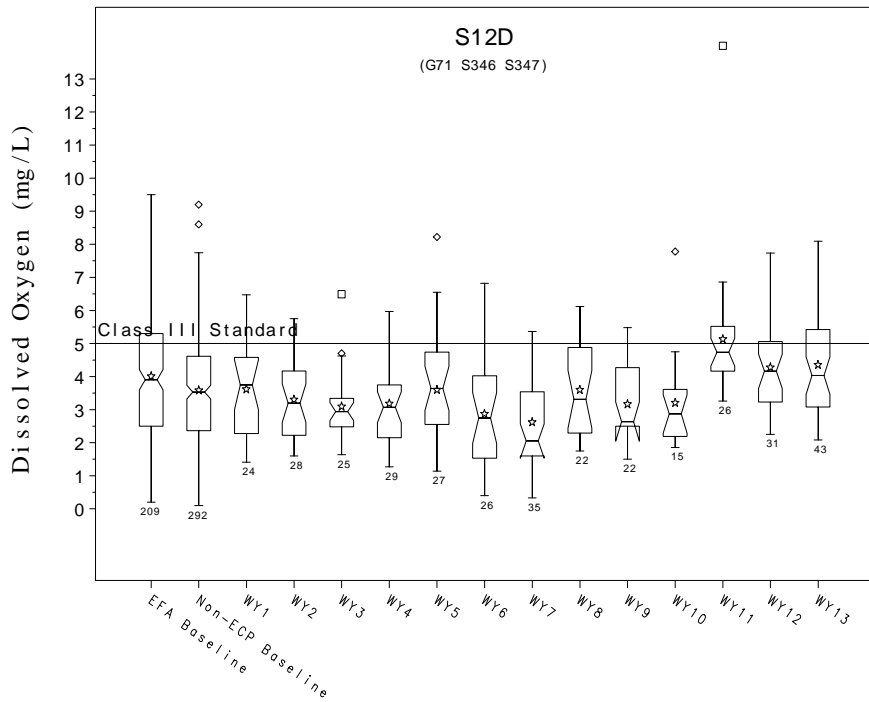
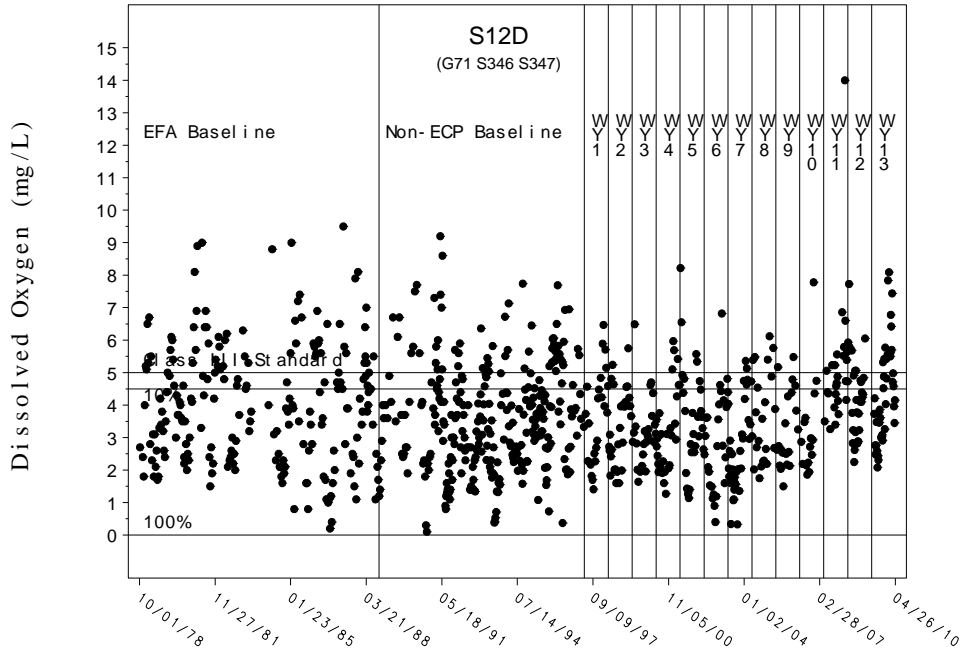


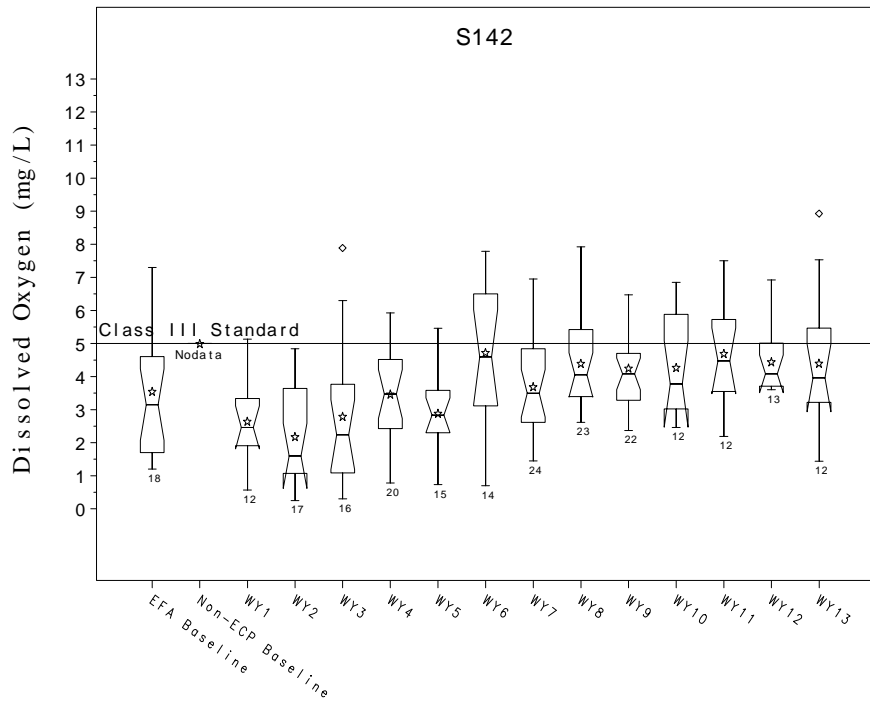
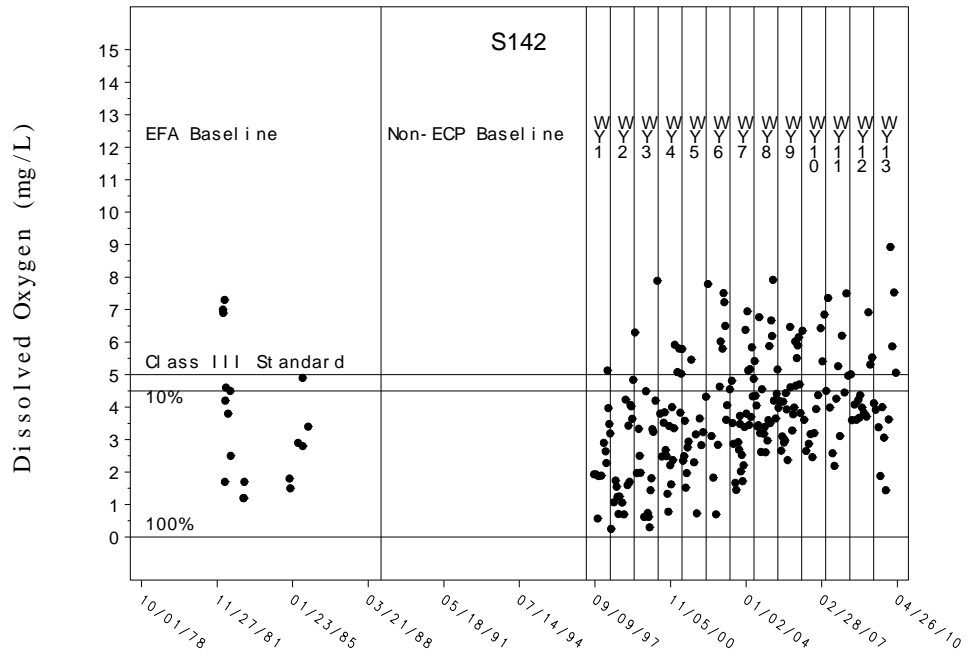


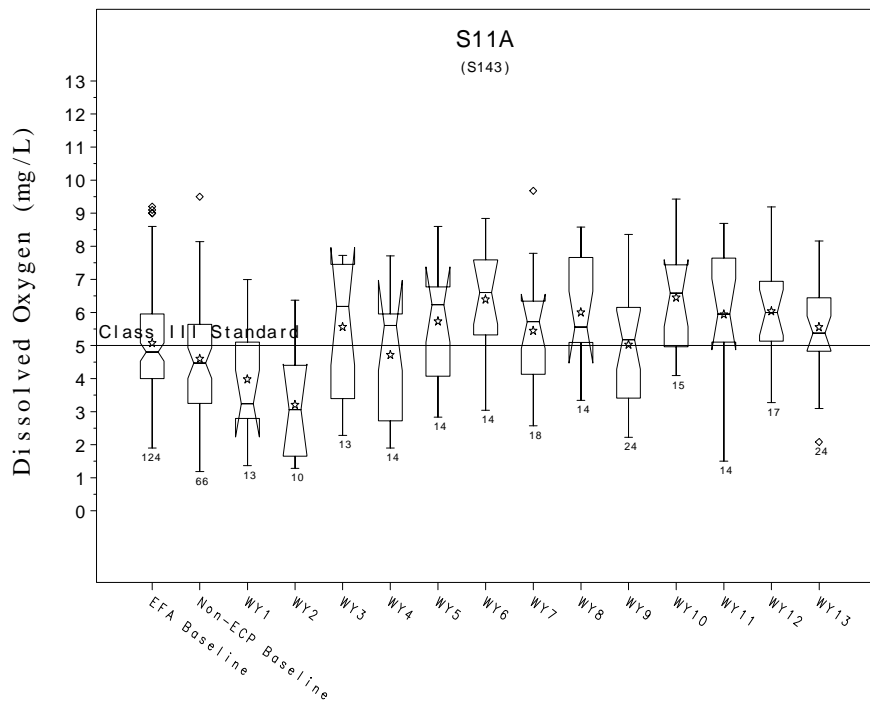
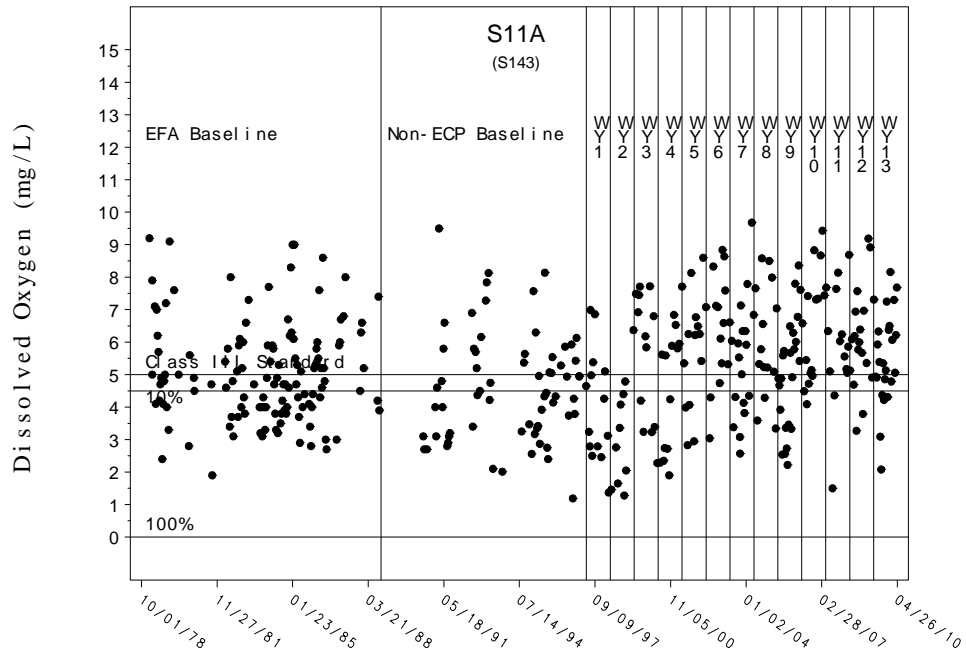


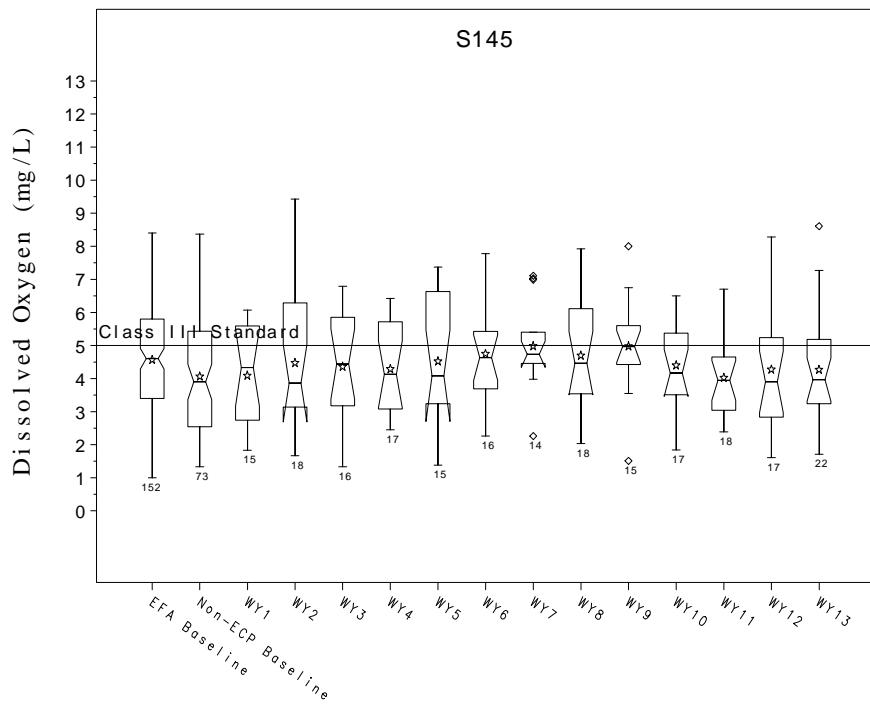
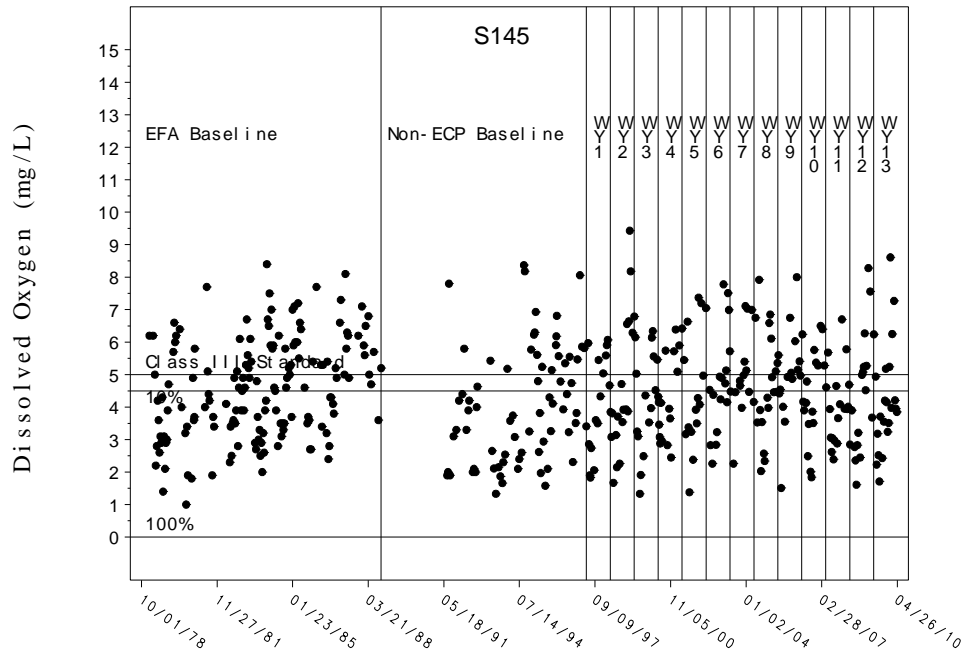




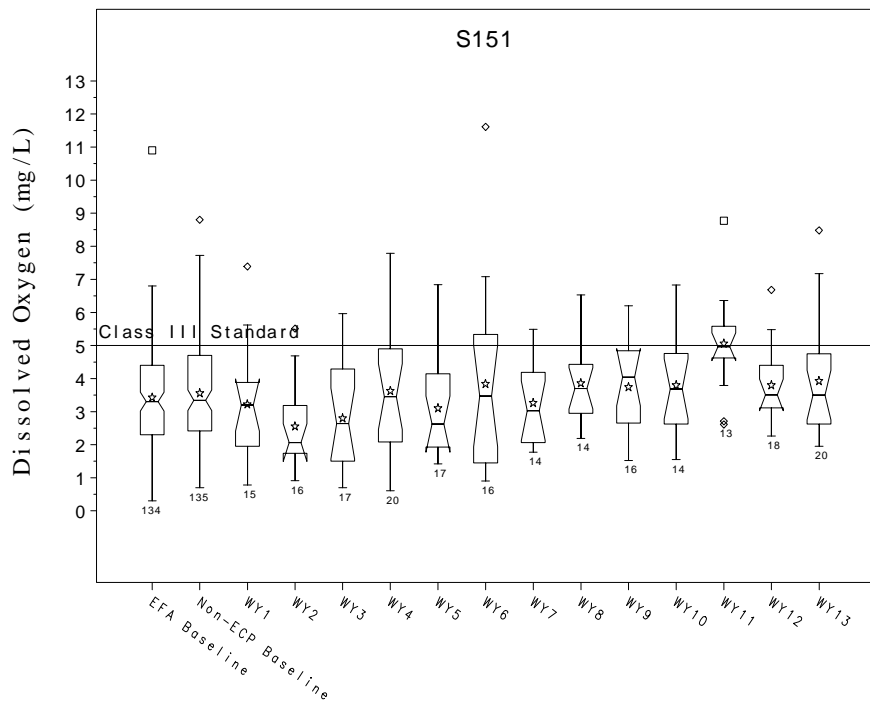
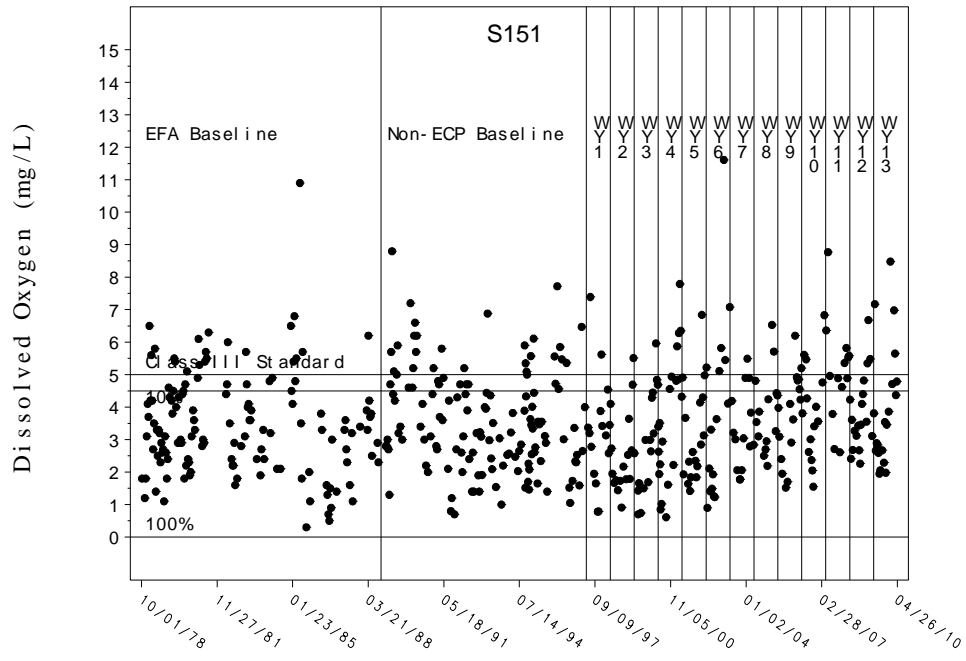


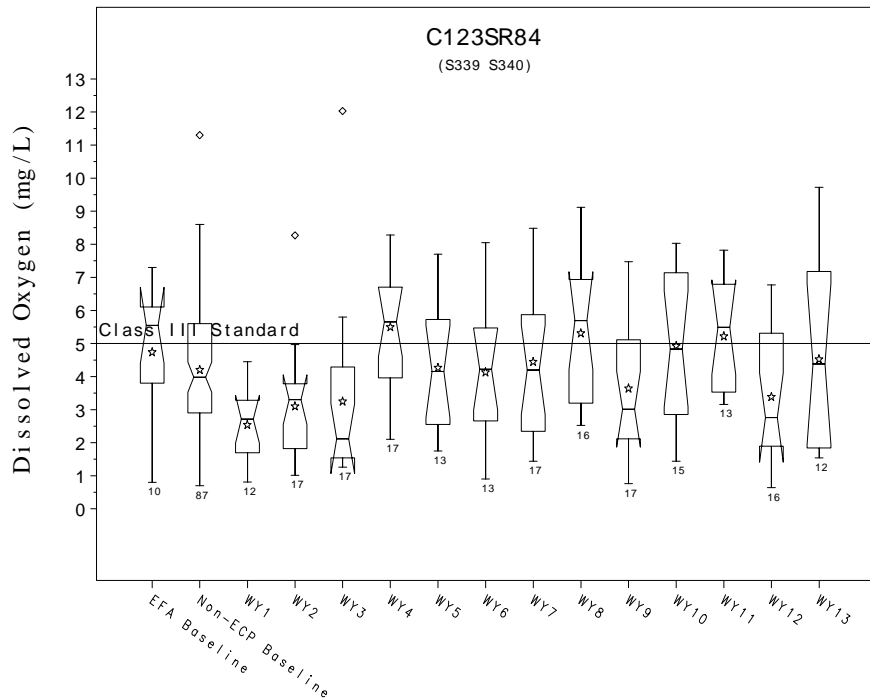
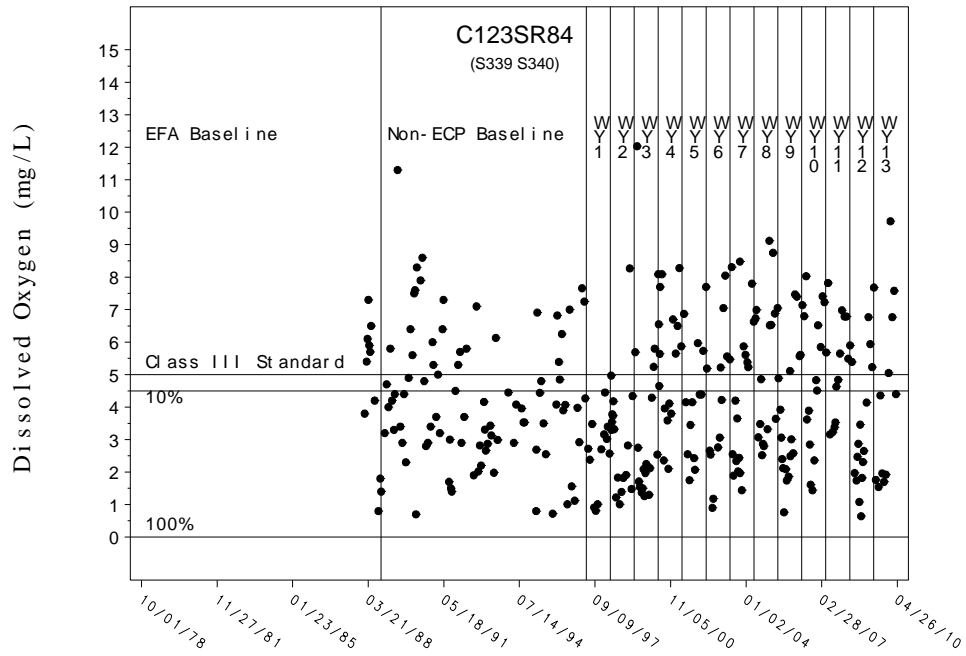


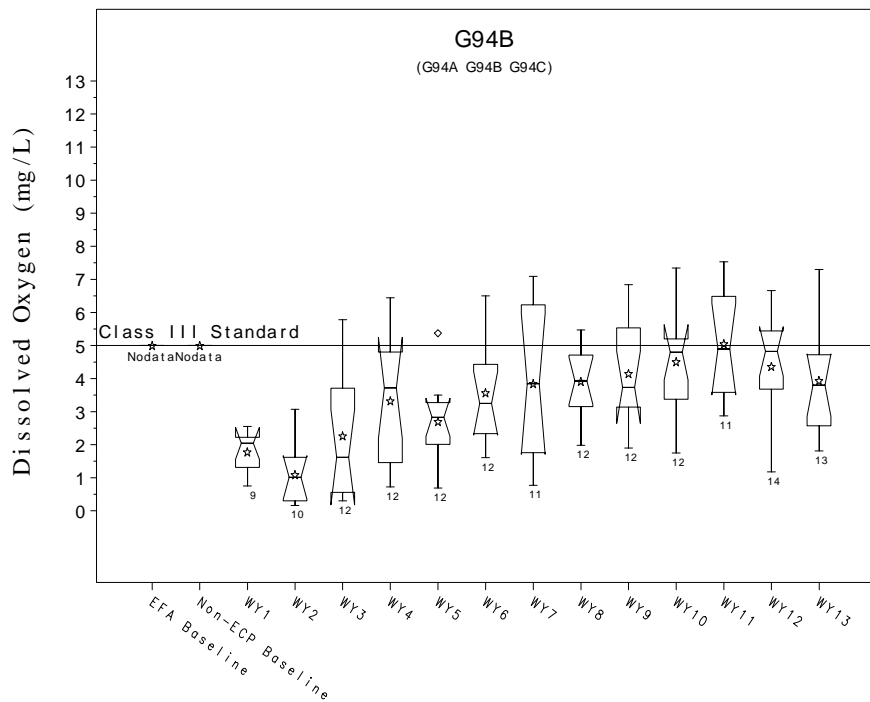
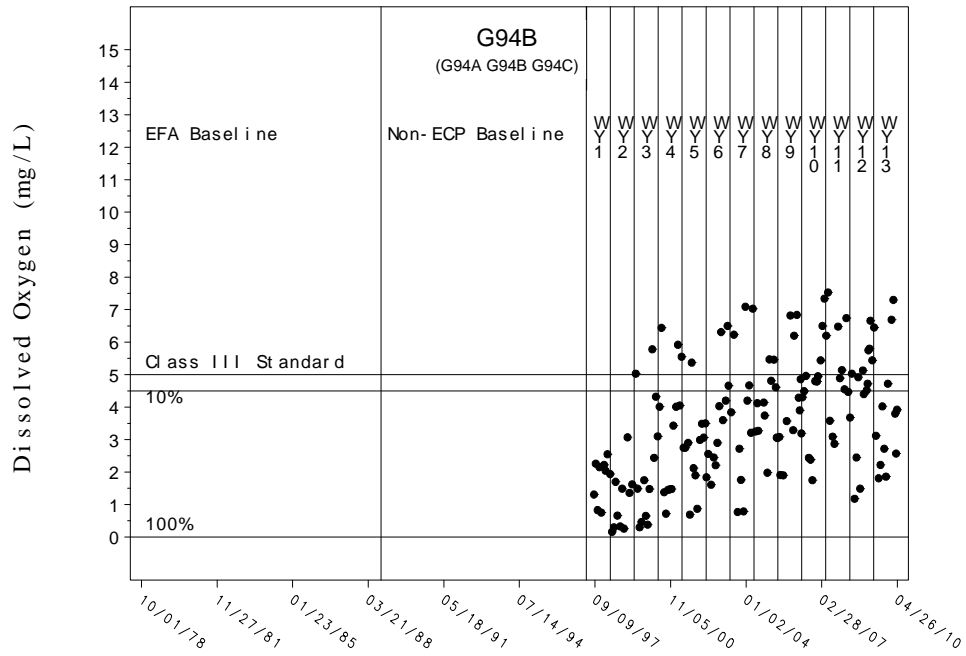


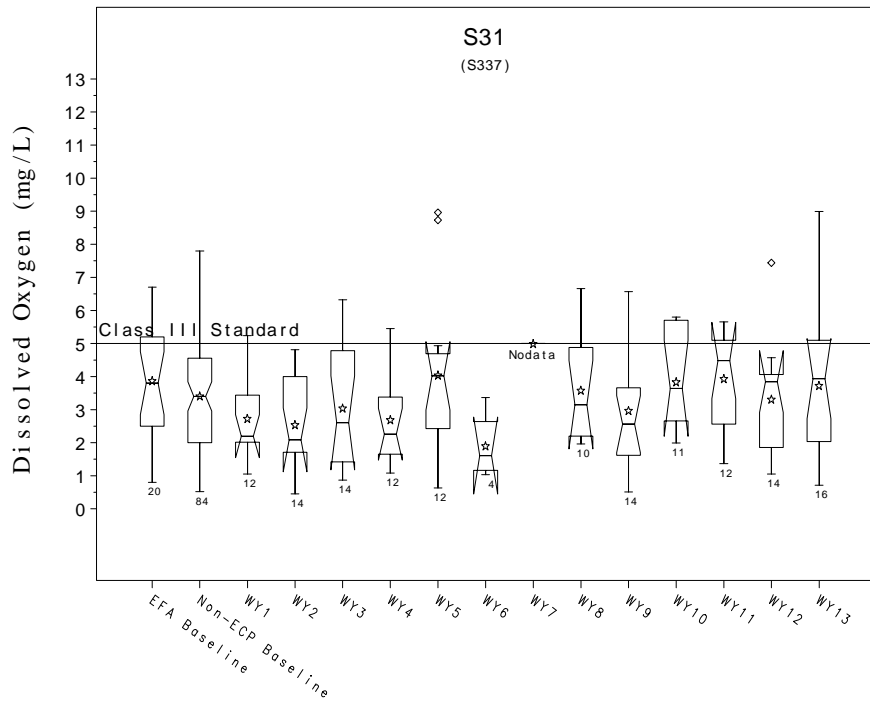
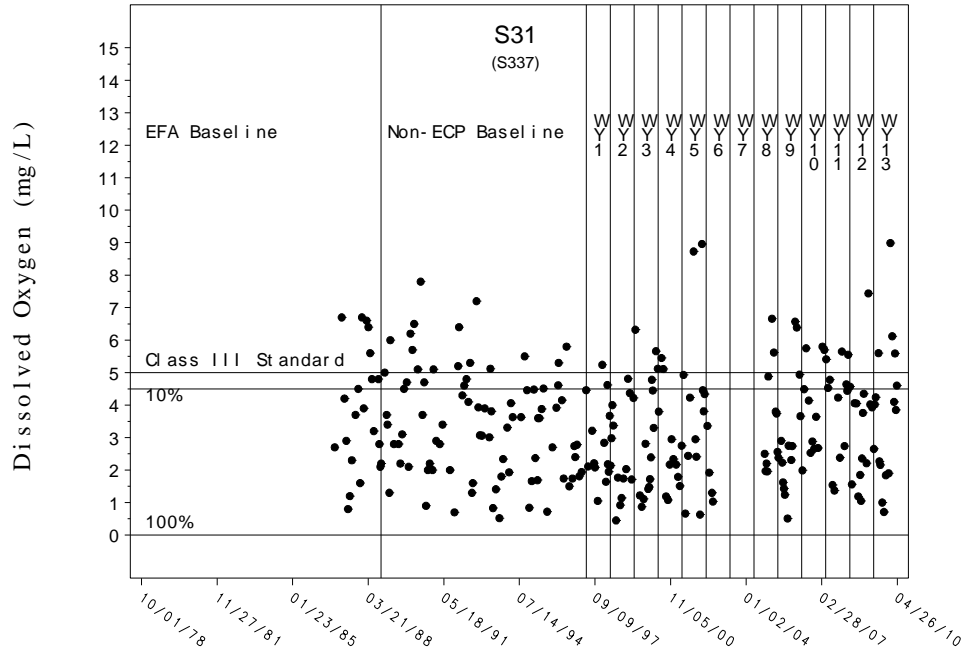


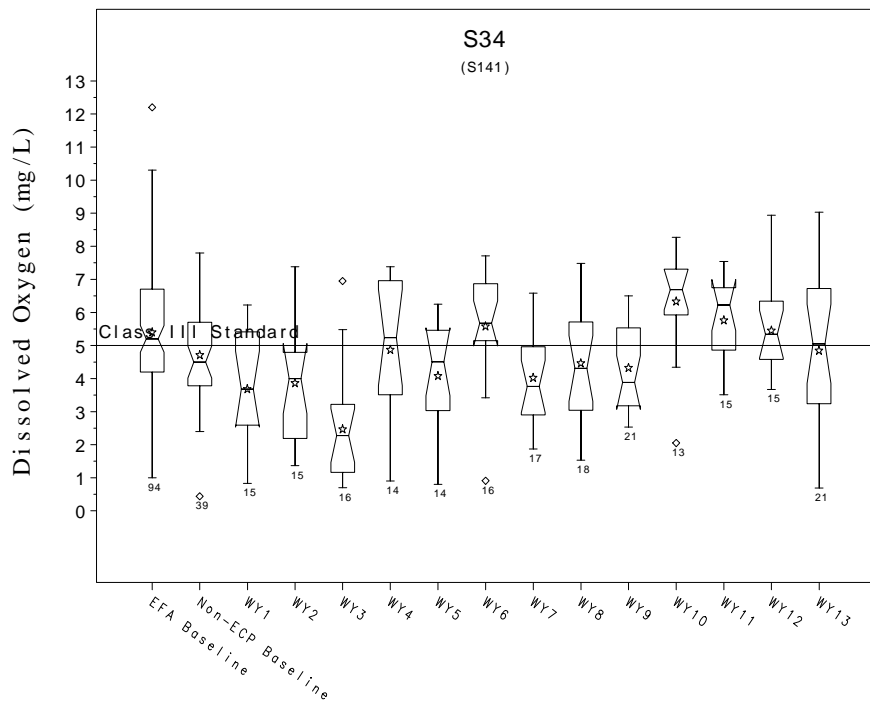
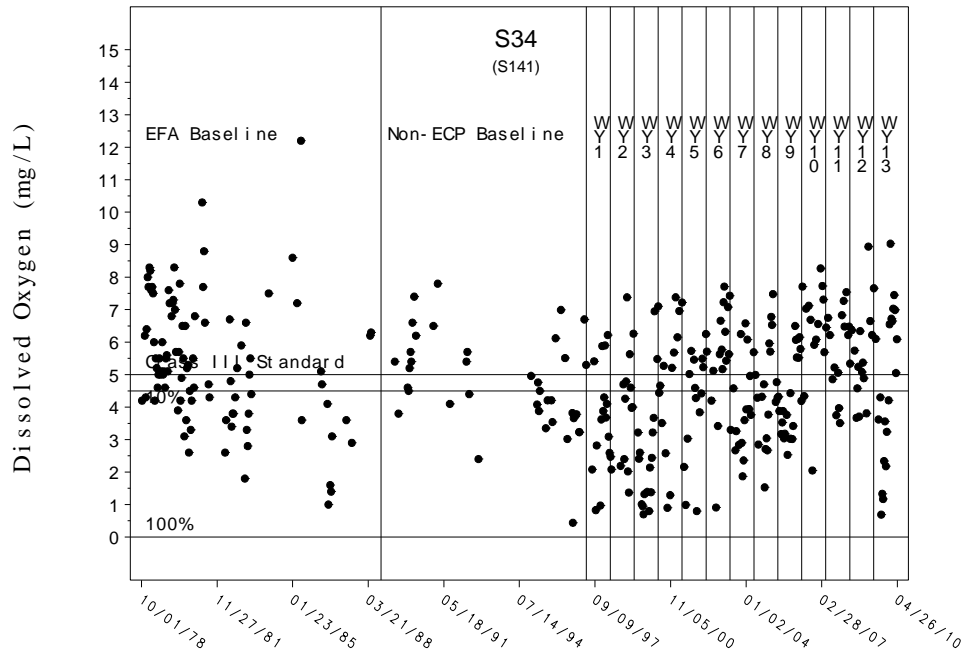


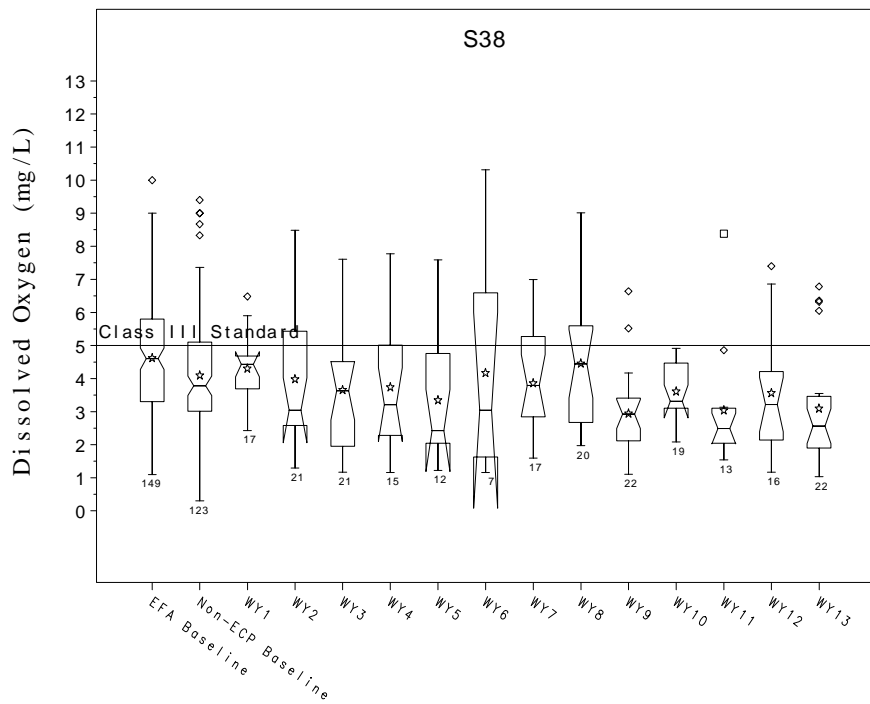
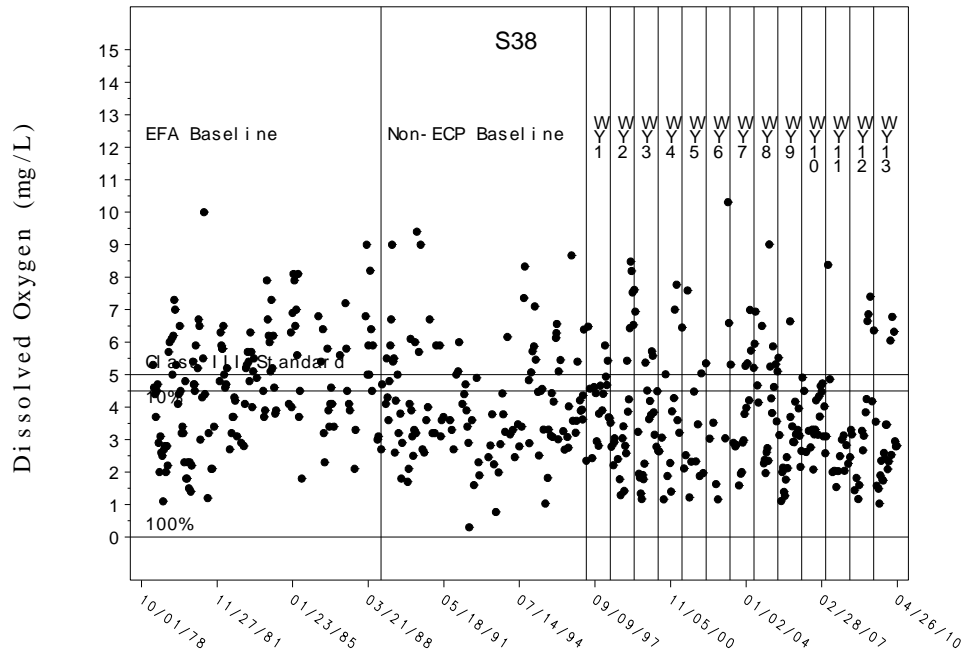


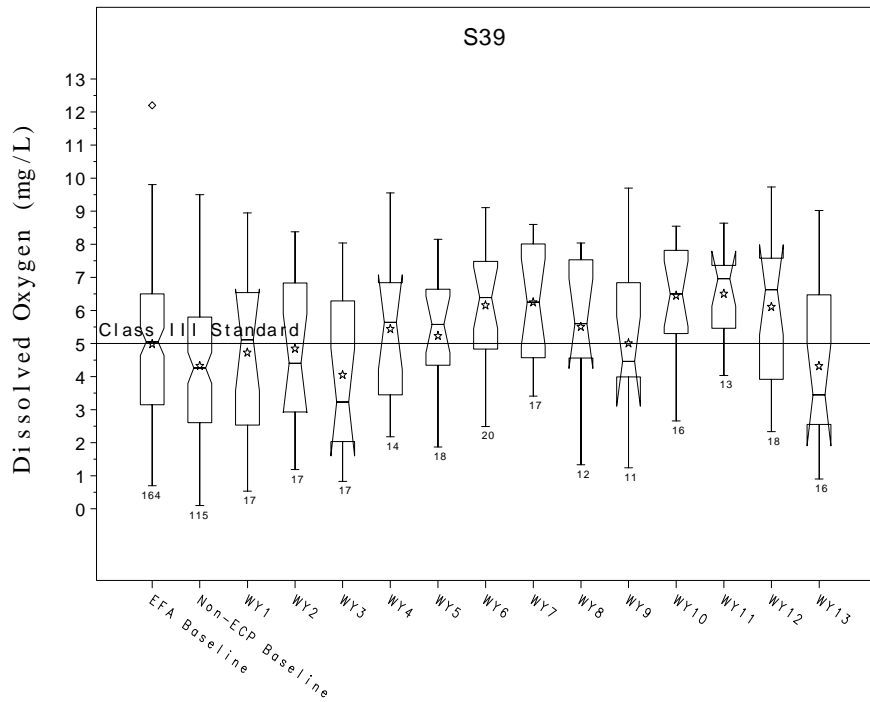
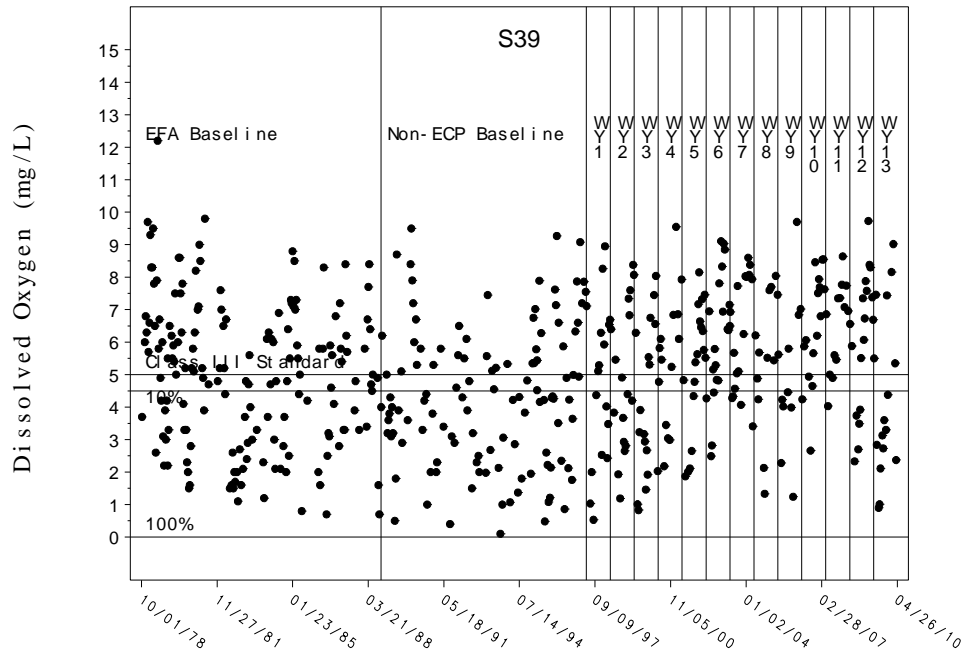


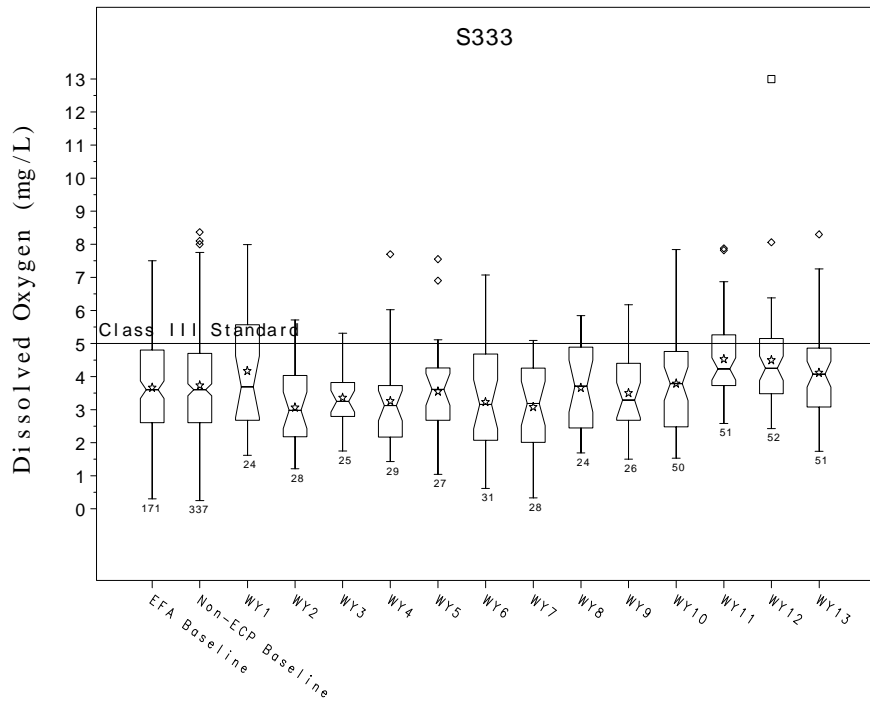
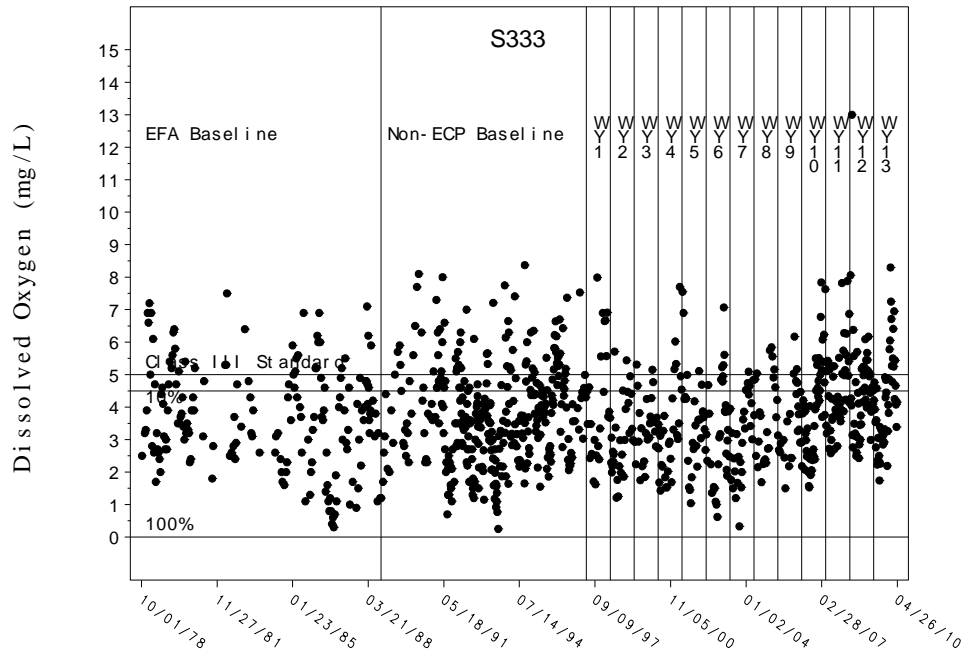




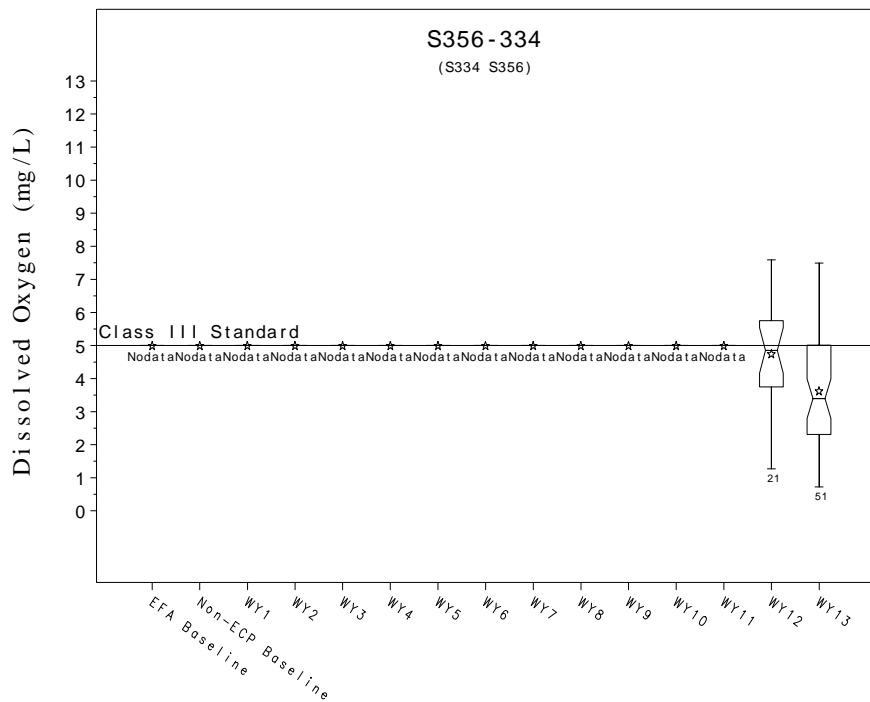
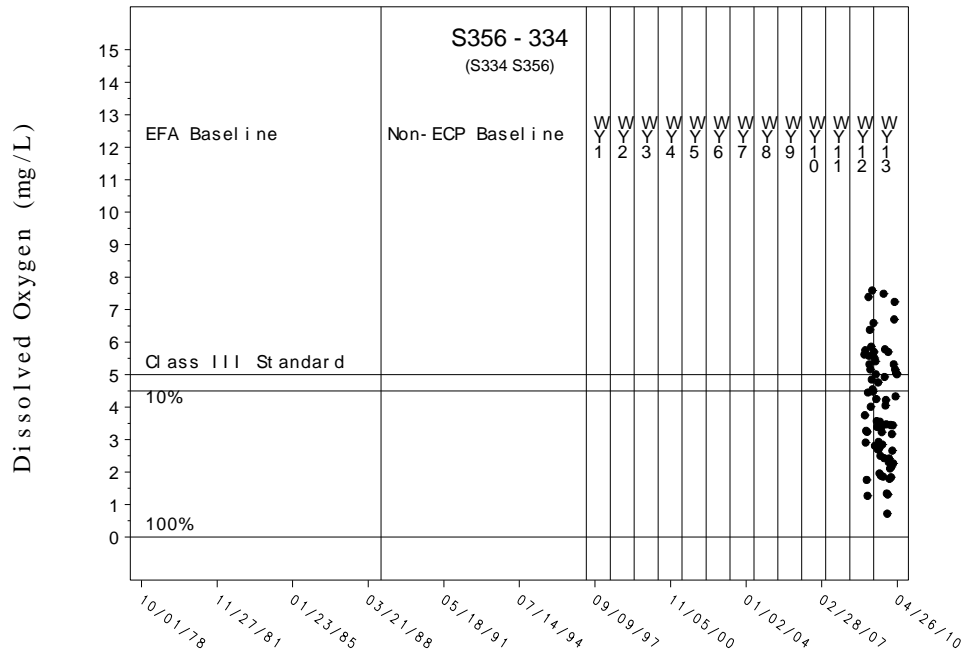


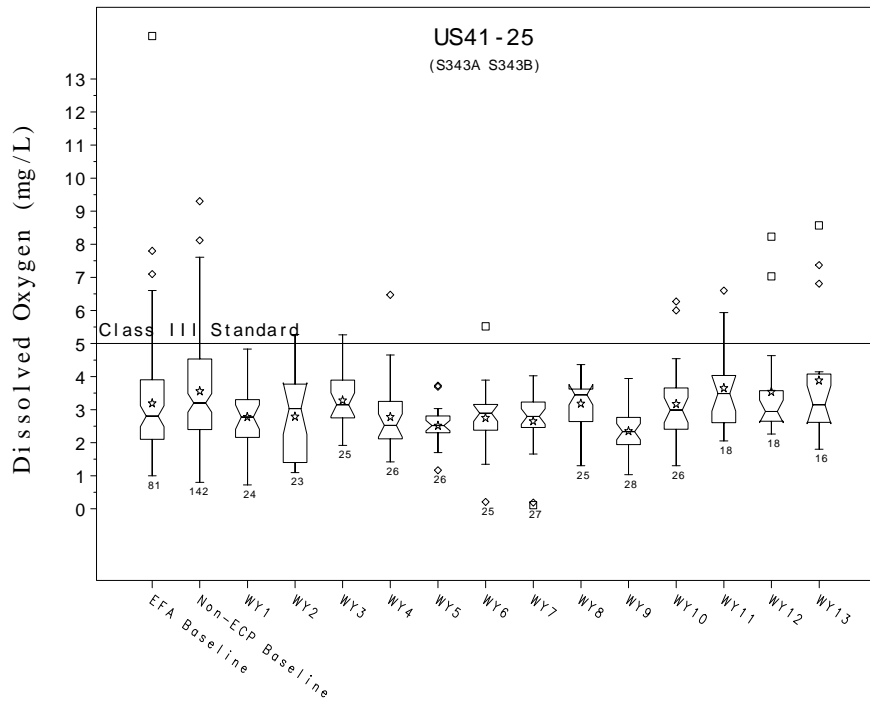
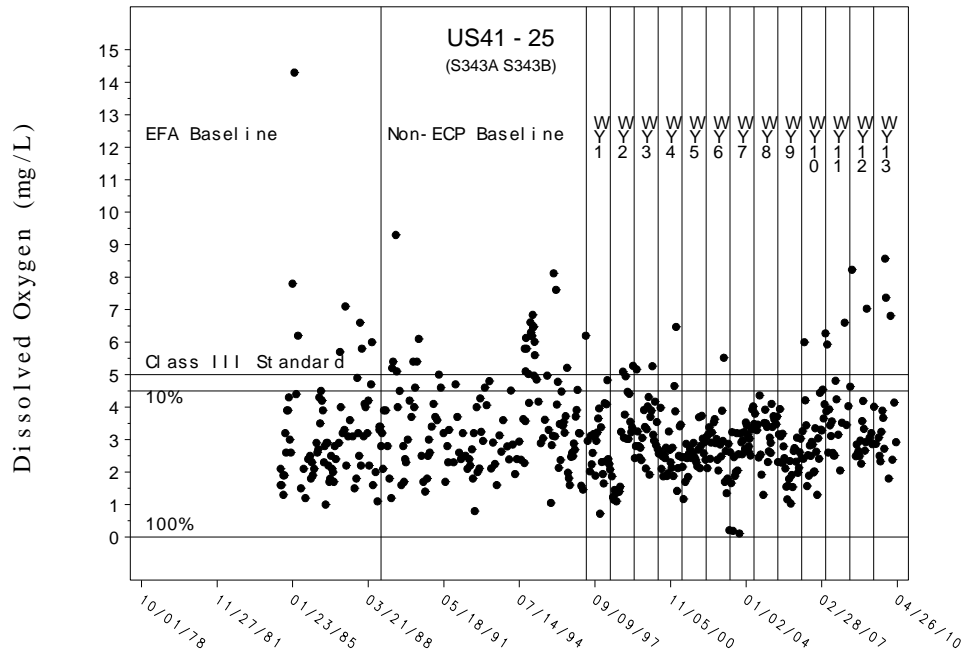


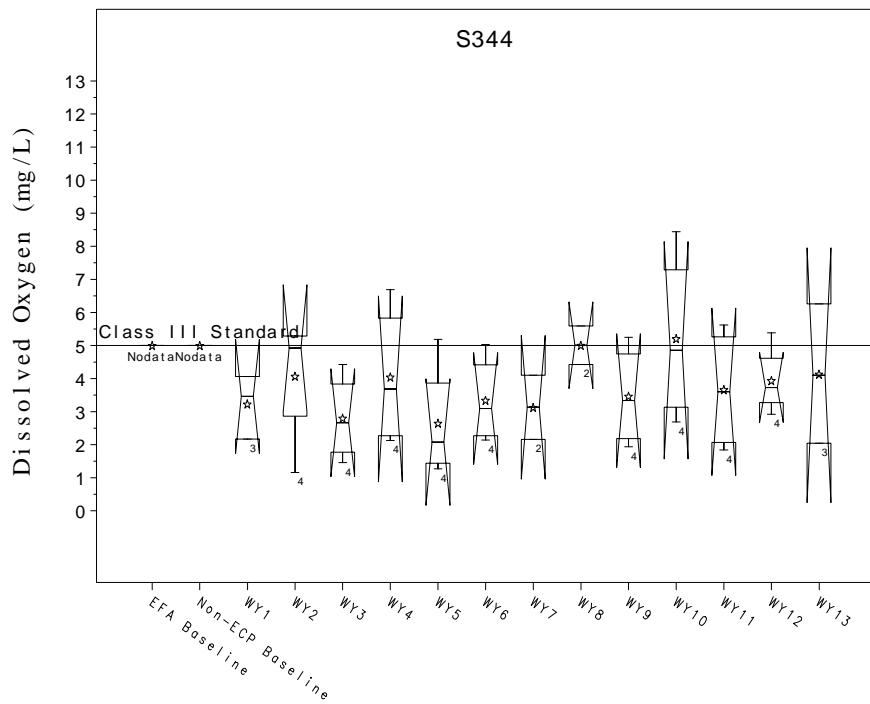
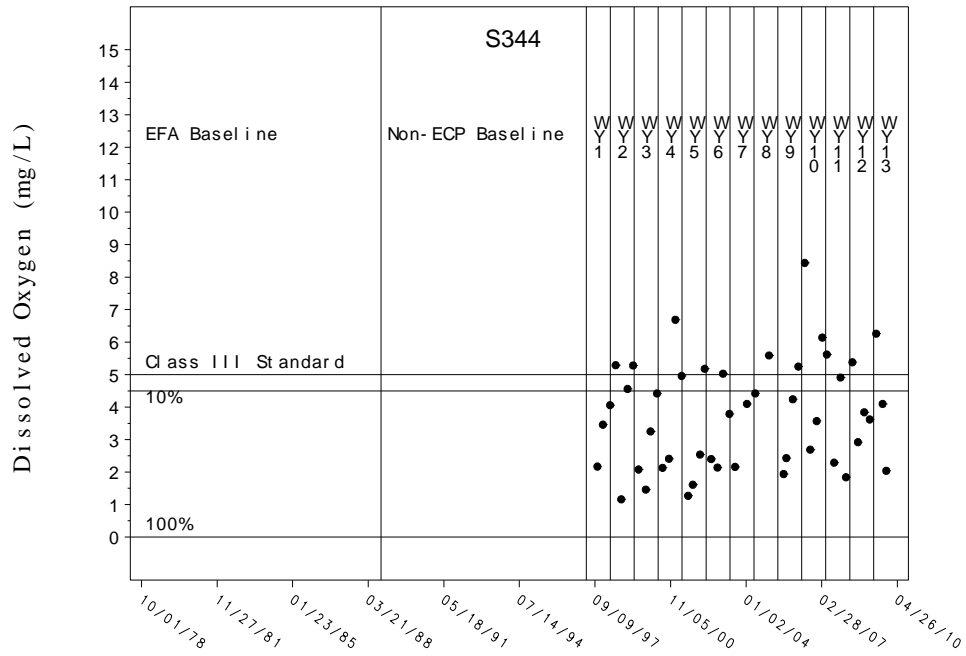


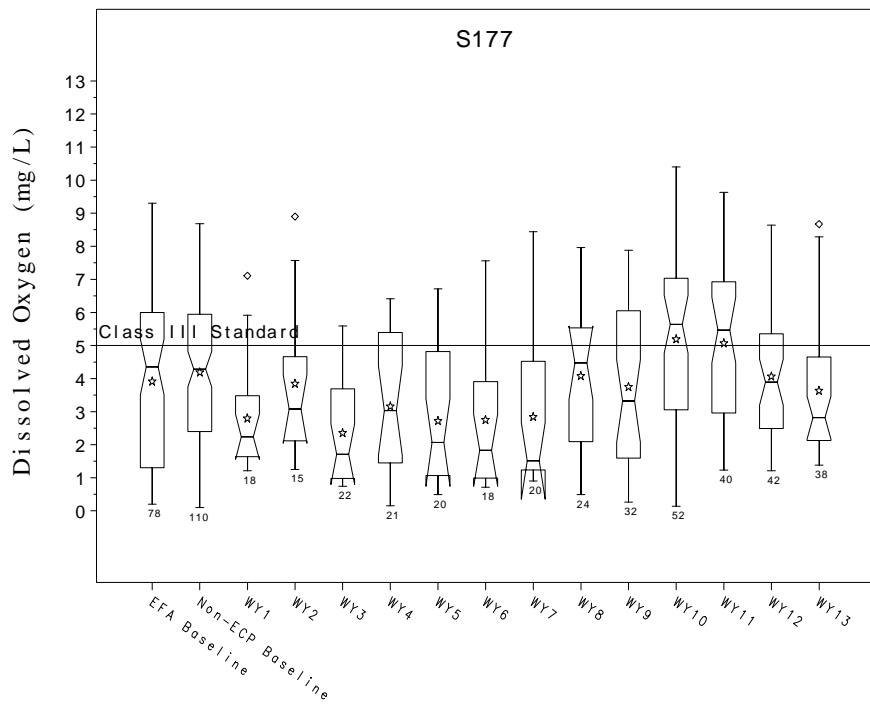
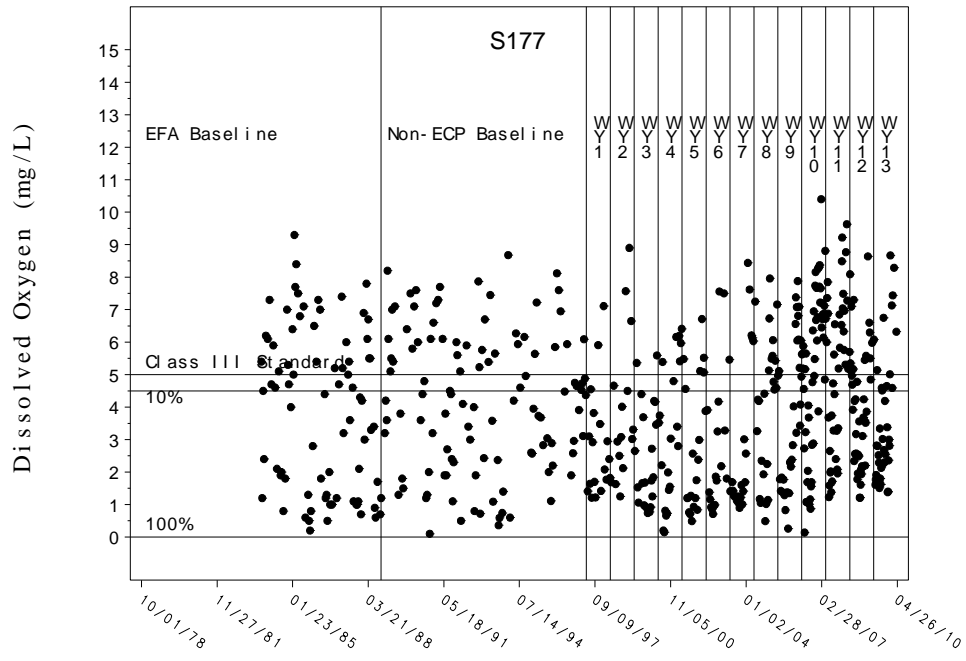


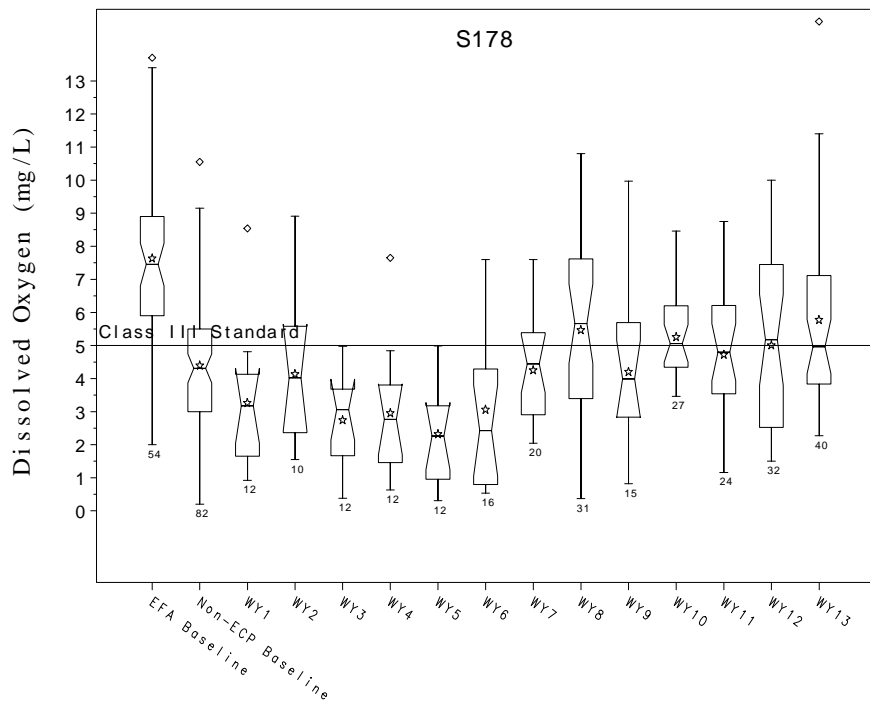
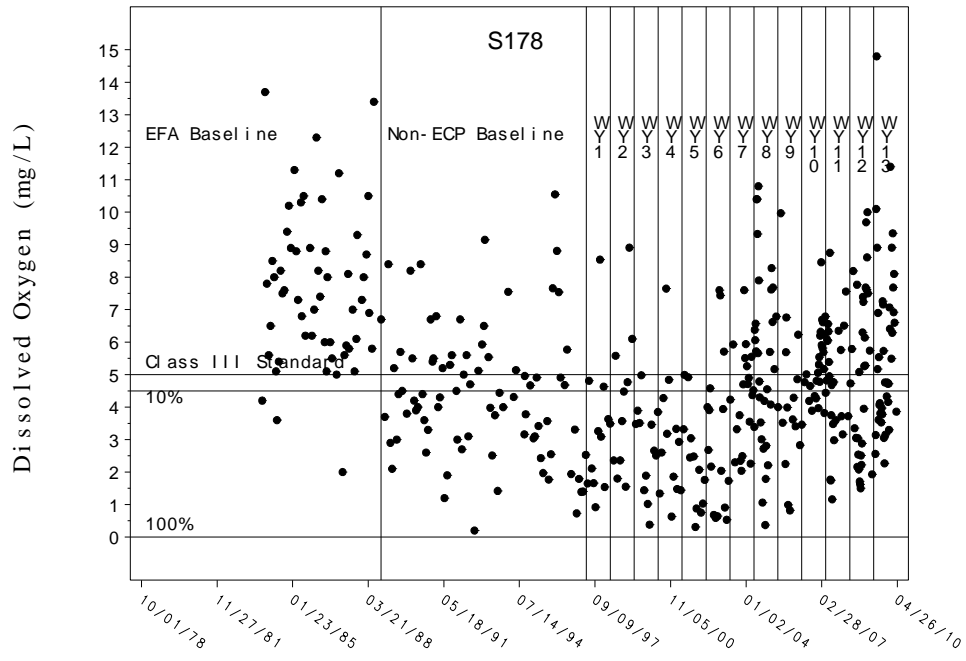


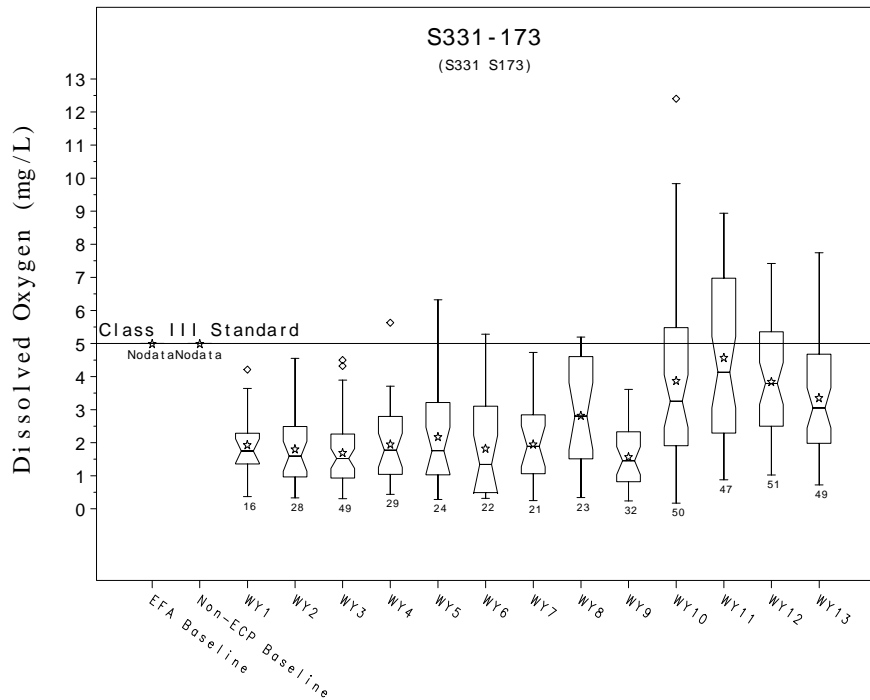
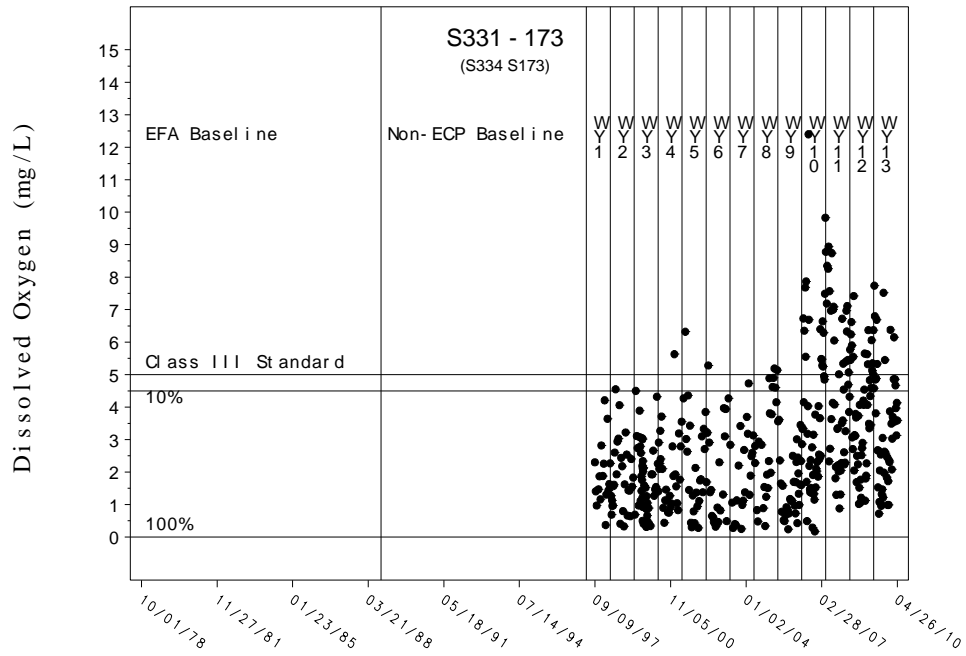


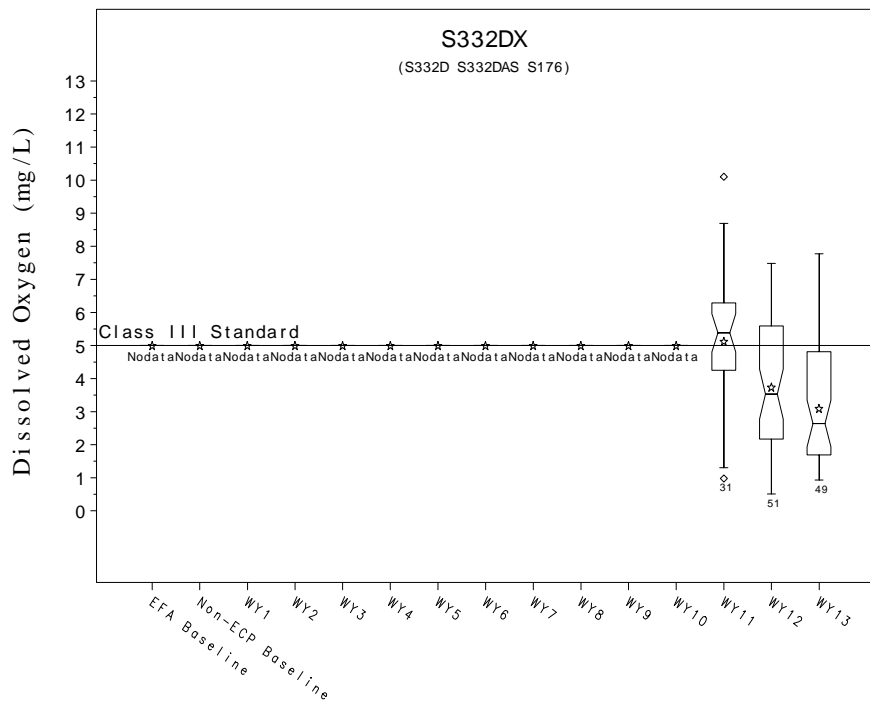
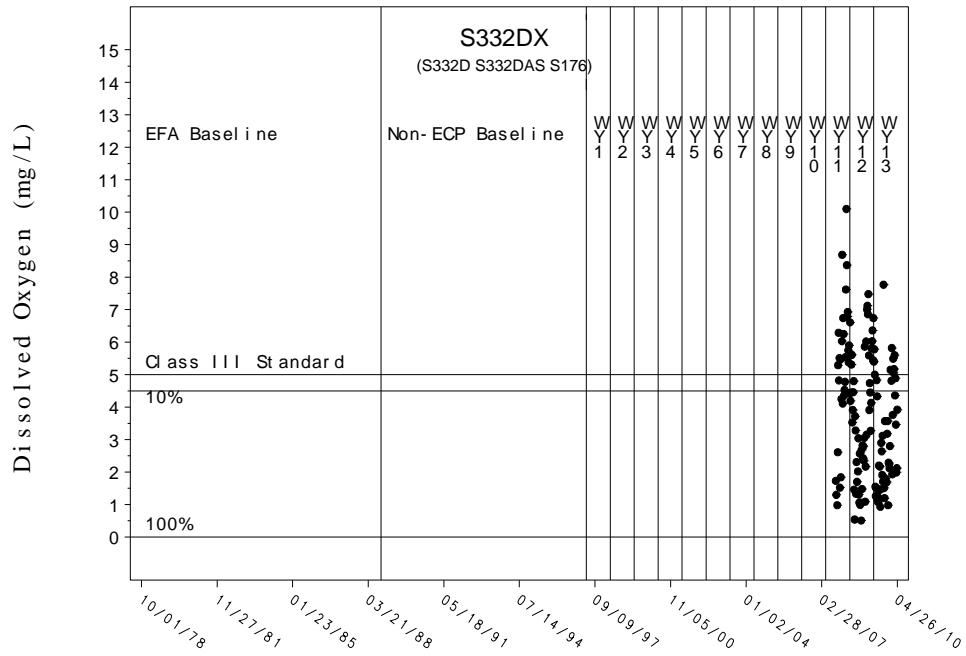


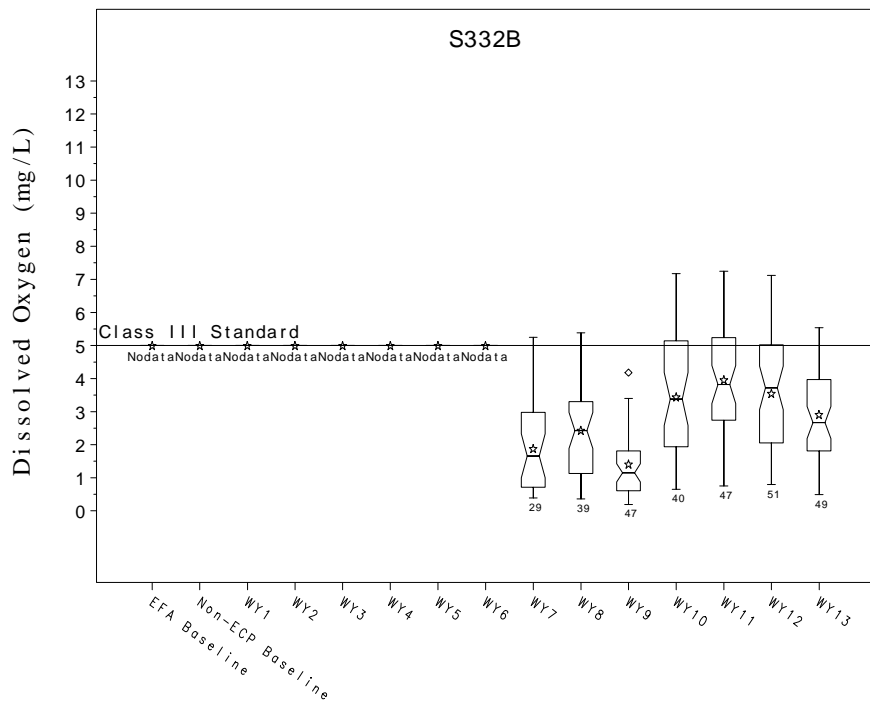
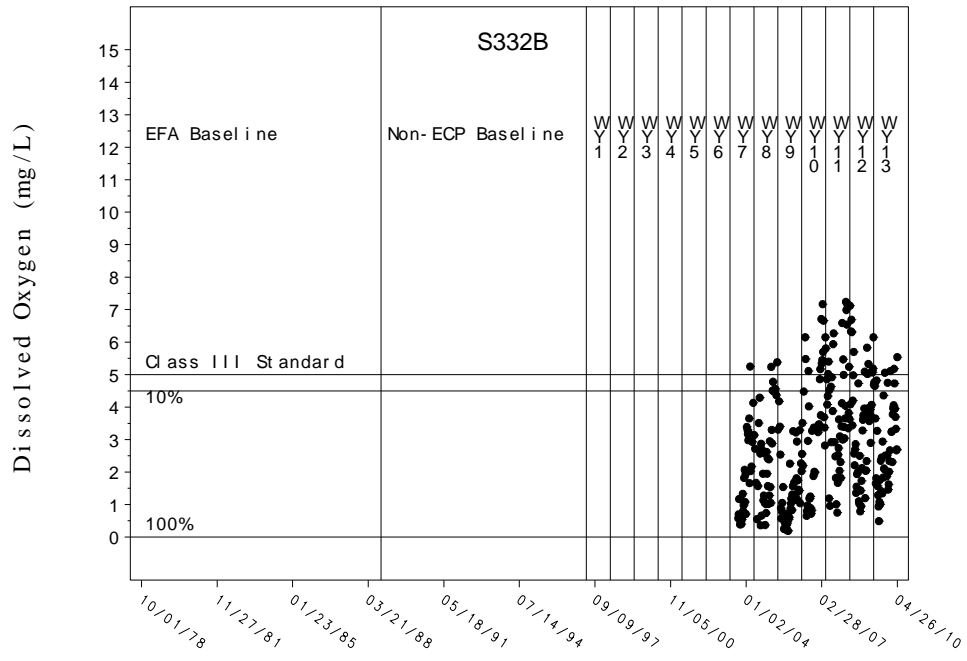




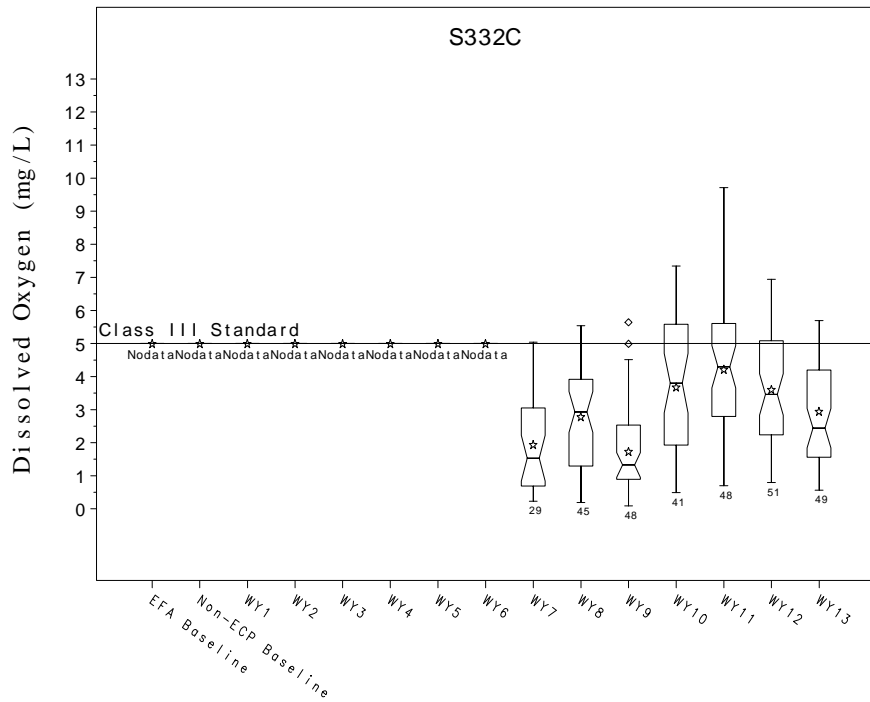
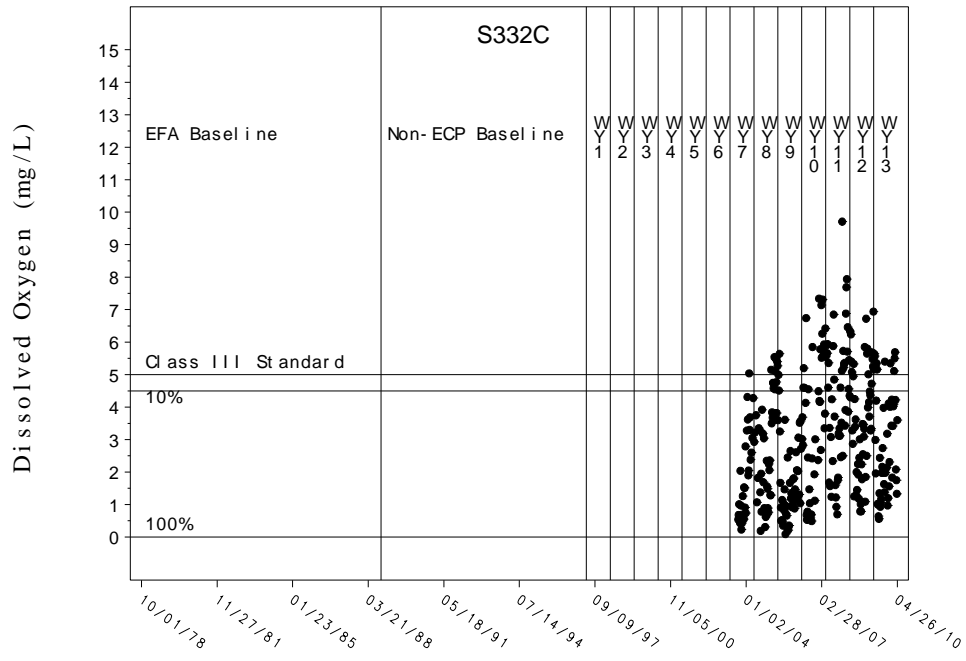


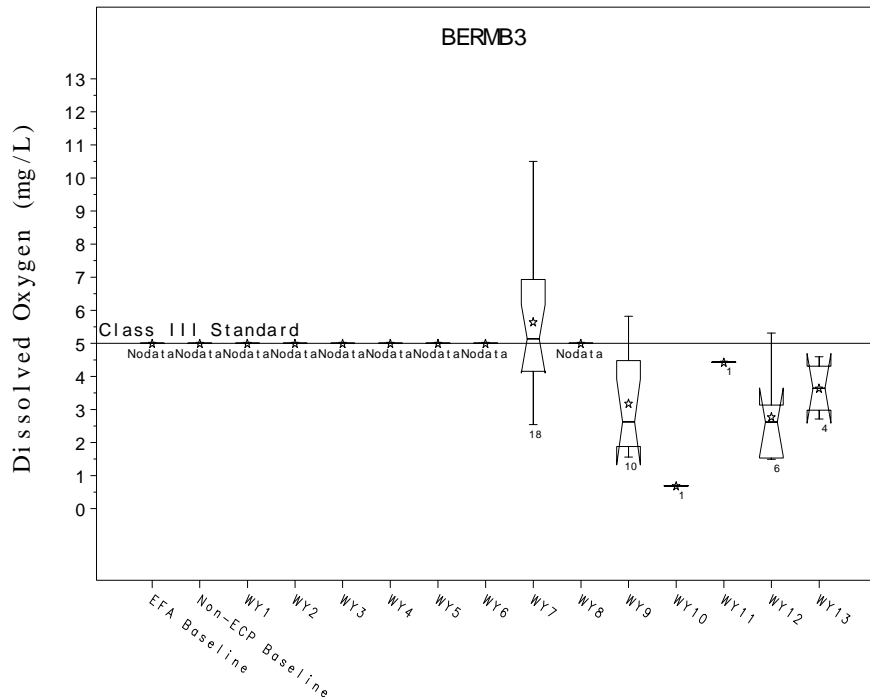
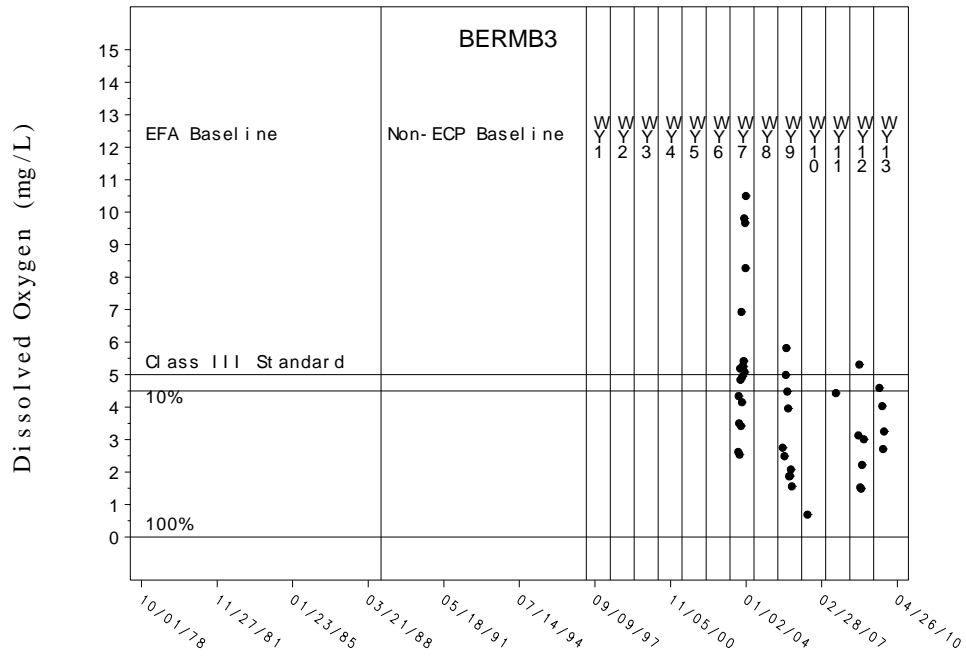












# Attachment E: Time-Series and Box Plots of Total Phosphorus at Non-Everglades Construction Project Monitoring Sites for Water Year 2010 and Earlier Periods

Shi Kui Xue and Steven Hill

## Key to Abbreviations

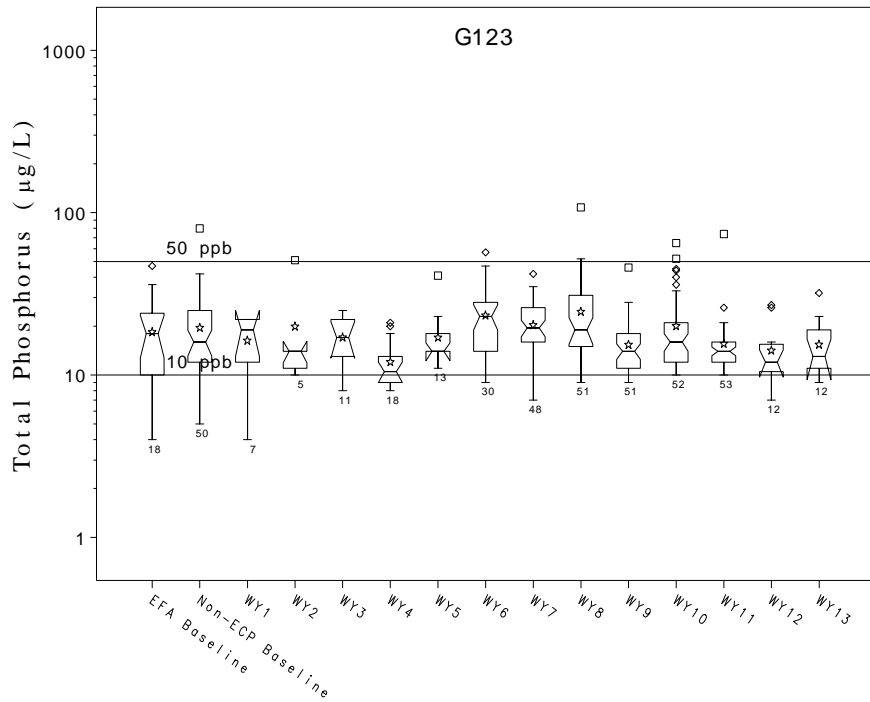
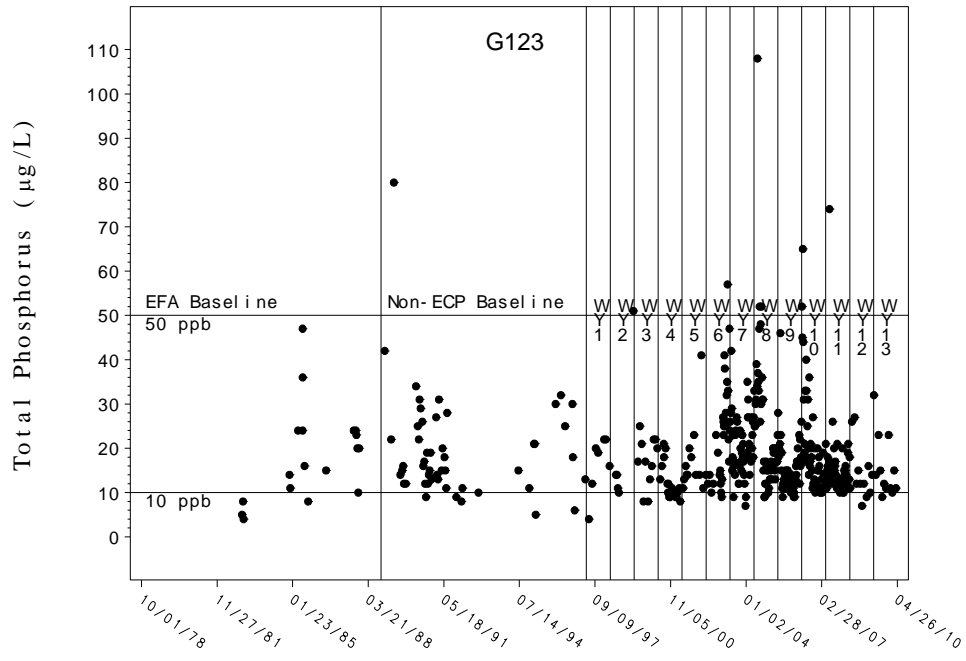
**WY1-12:** Water Year 1-12 (May 1, 1997 through April 30, 2009)

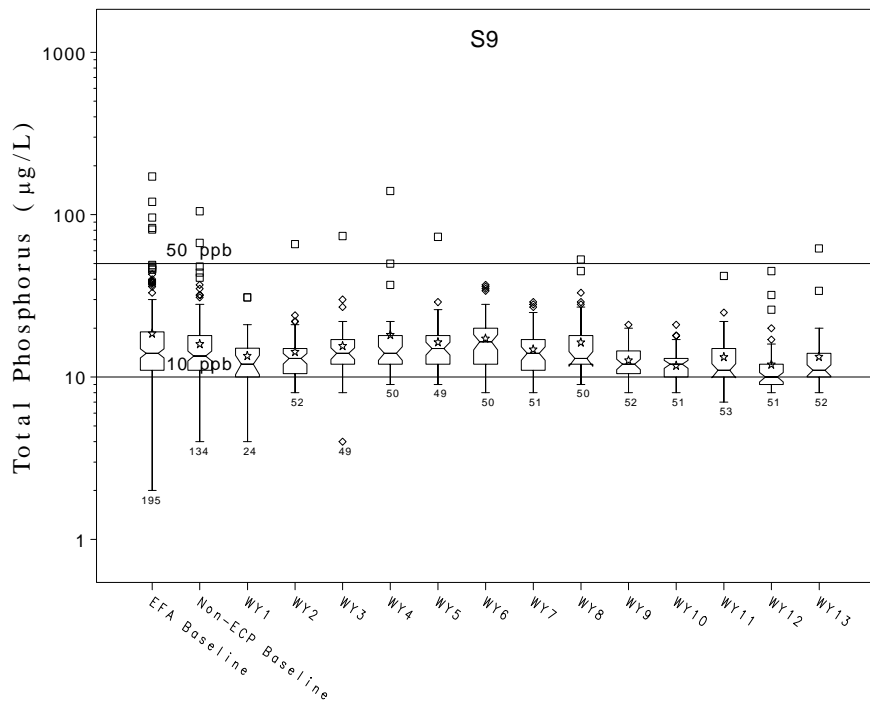
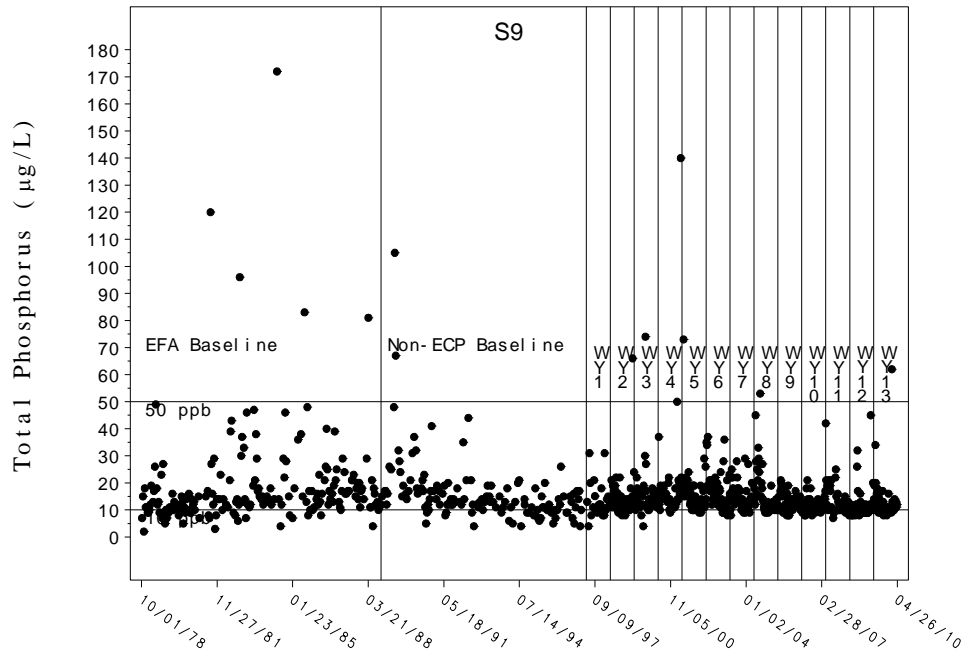
**WY13:** Water Year 13 (May 1, 2009 through April 30, 2010)

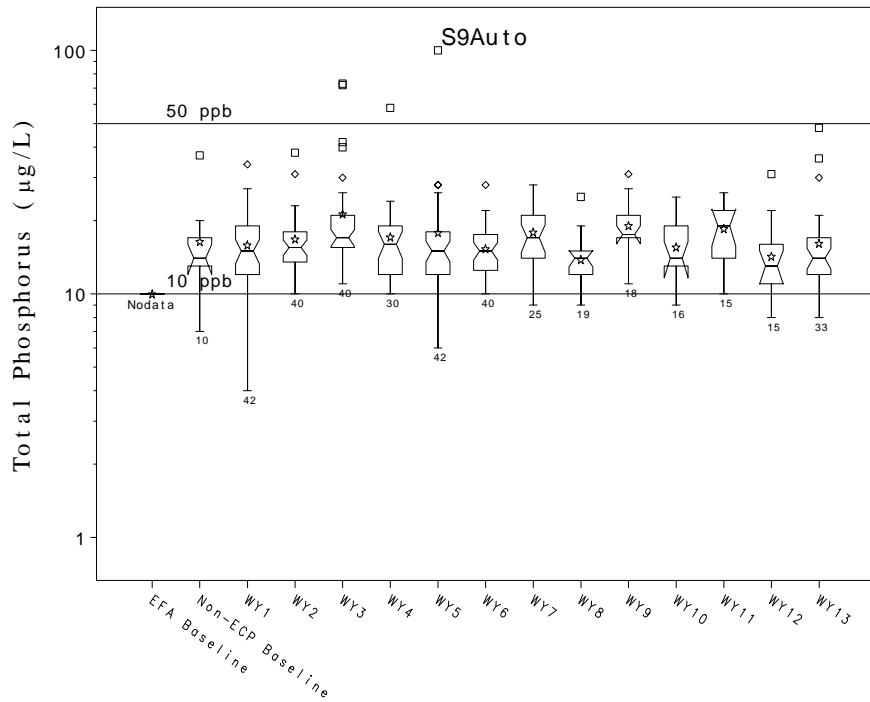
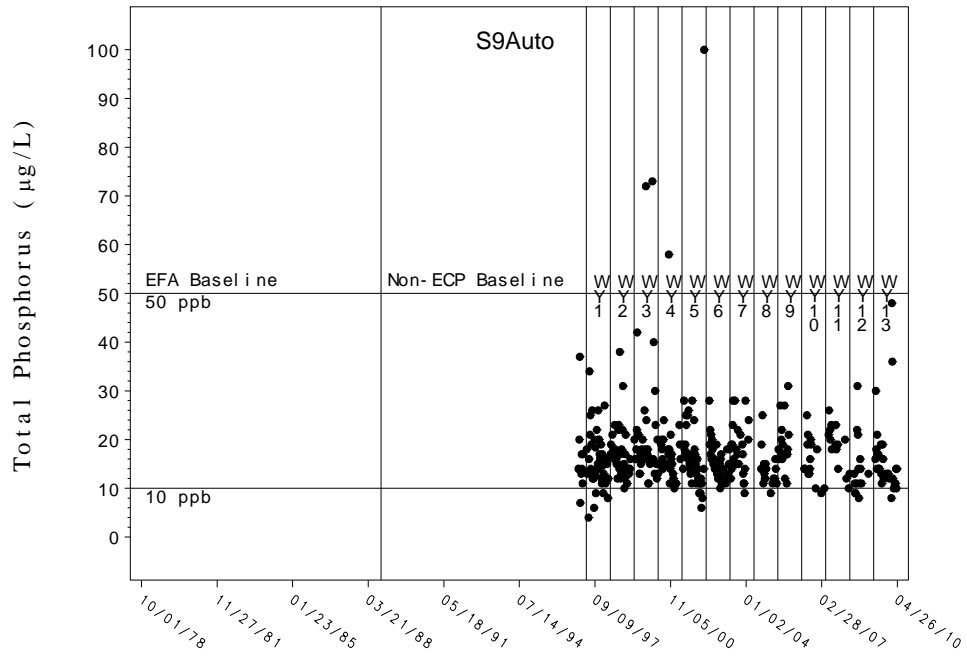
## NOTES:

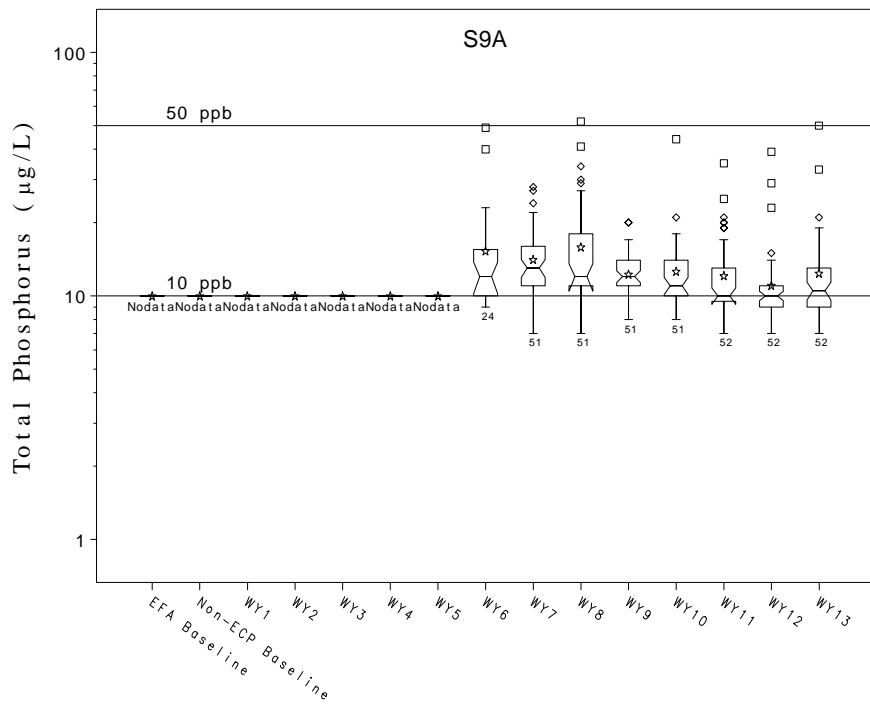
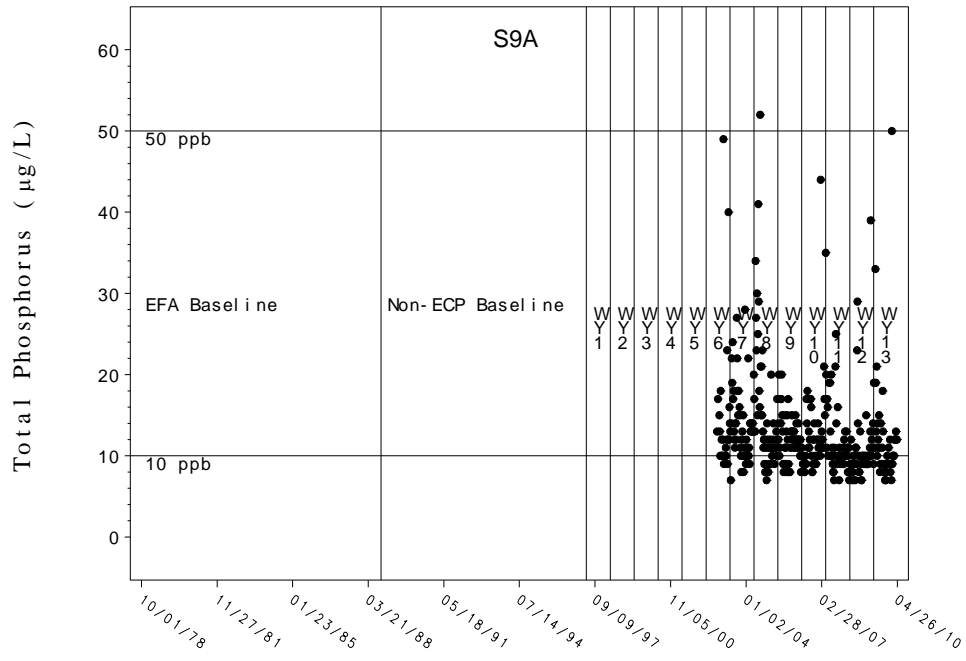
The graphs in this attachment depict total phosphorus (TP) concentration data collected from Water Year 1 through Water Year 13 (WY1–WY13) for the non-Everglades Construction Project (non-ECP) water quality monitoring sites. The graph sequencing follows the station order shown in **Attachment B**, Table B-1. The non-ECP structure locations are depicted in **Figure 1** of this appendix. Additionally, the graphs are identified by monitoring site name. In most cases, the monitoring site name corresponds to the structure. If the monitoring site is a surrogate location for a structure, the structure name(s) is/are shown in parentheses below the monitoring site name.

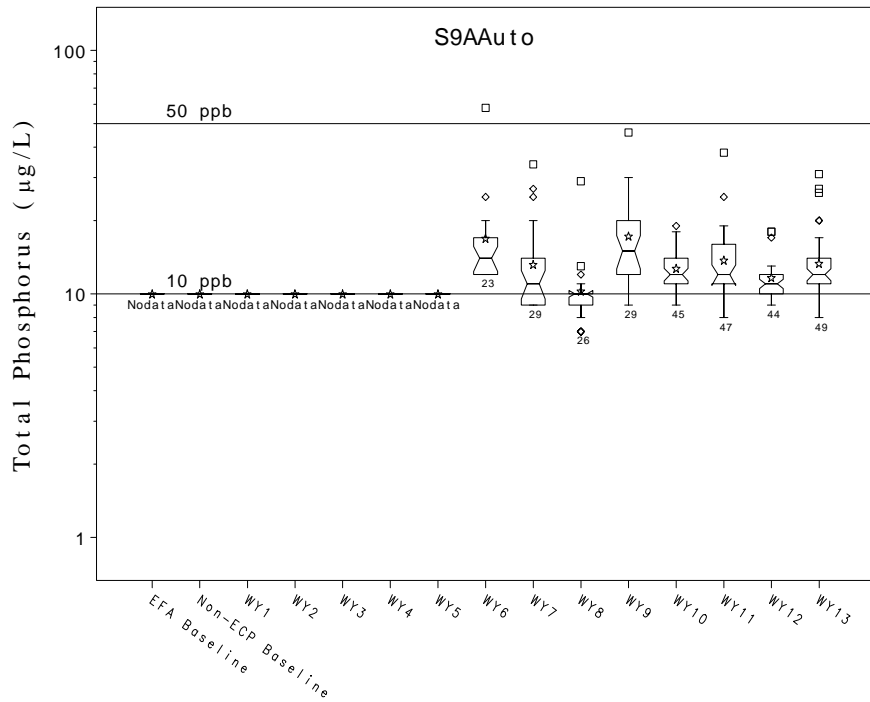
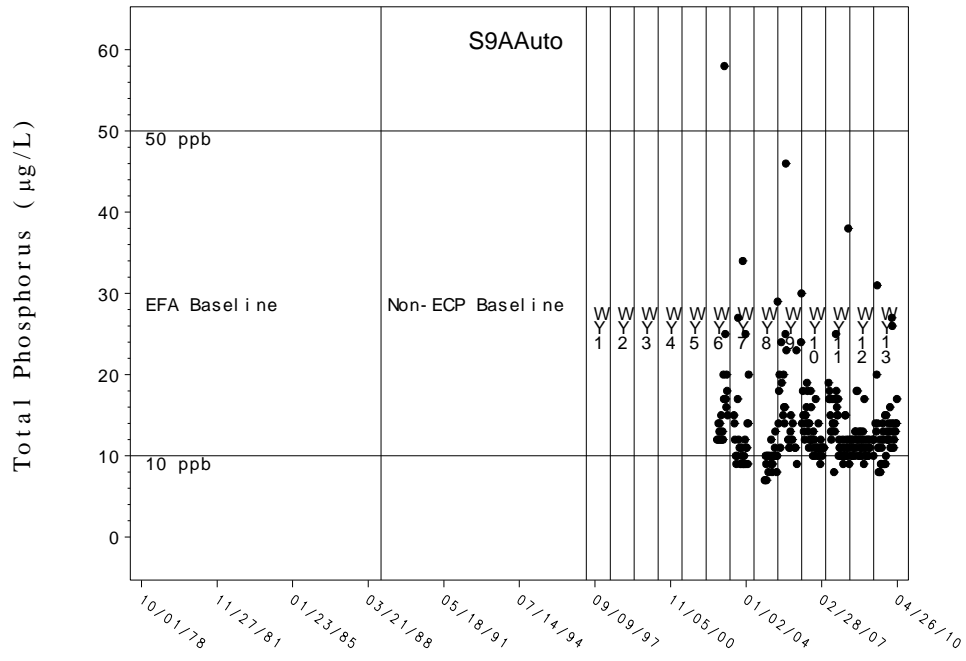
Most graphs depict TP data collected by grab sampling methods. The graphs for sites with auto-sampler data are annotated with “Auto.” The TP data collected by both methods are not shown as combined data in the graphs.



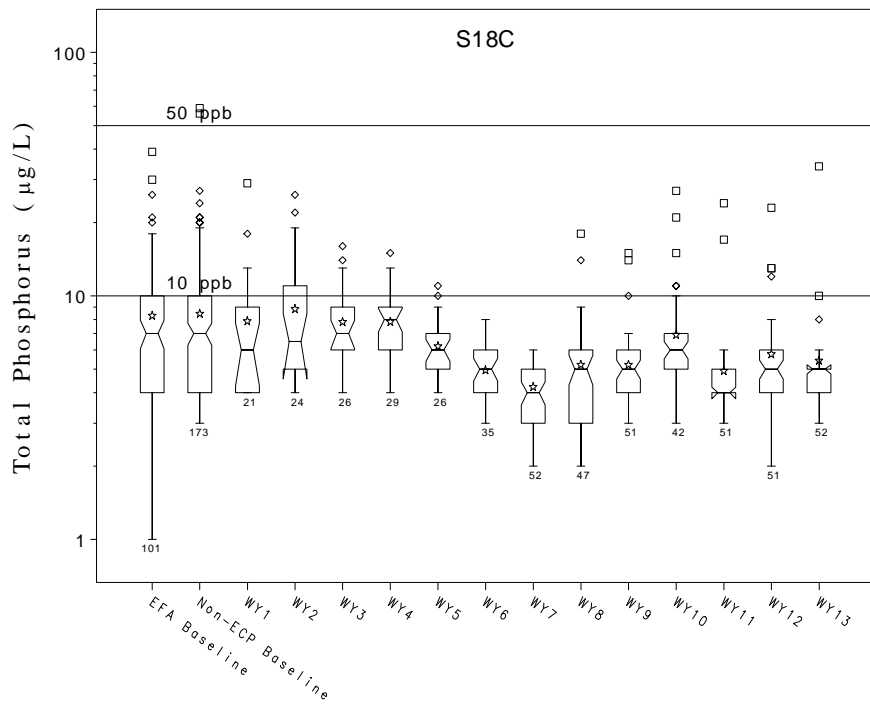
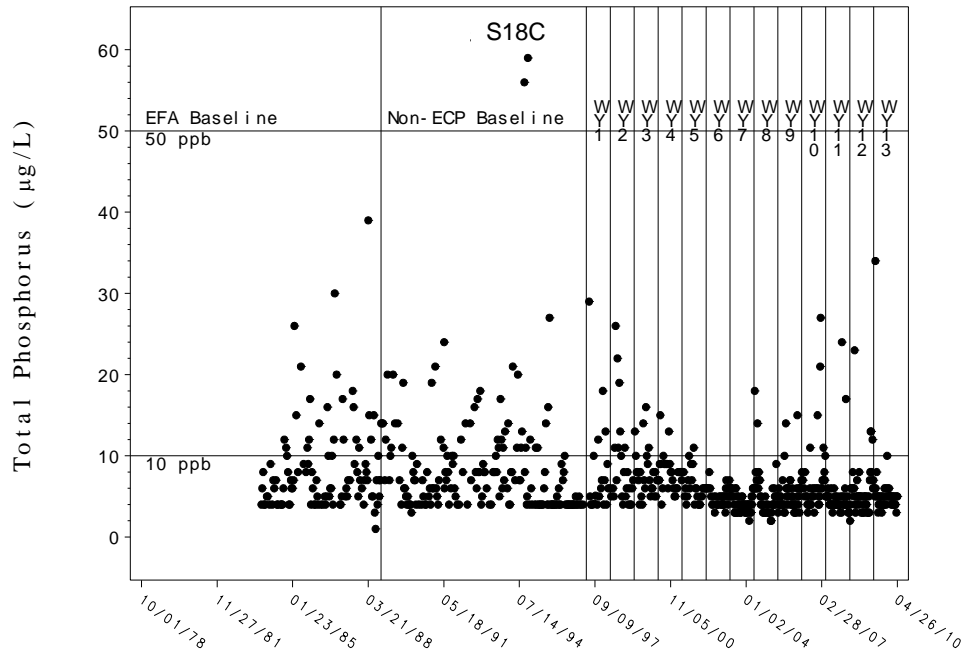


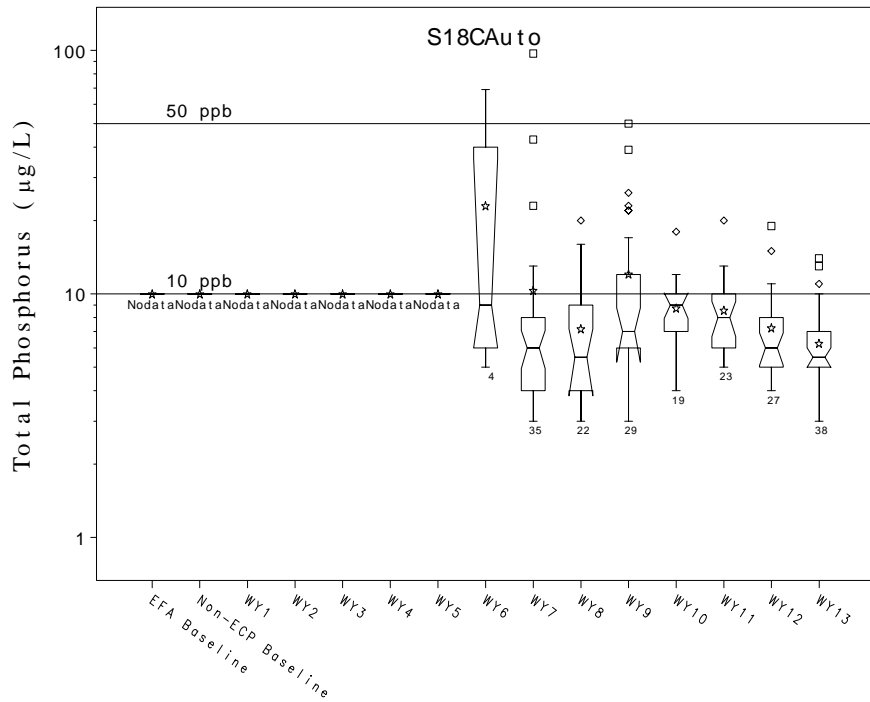
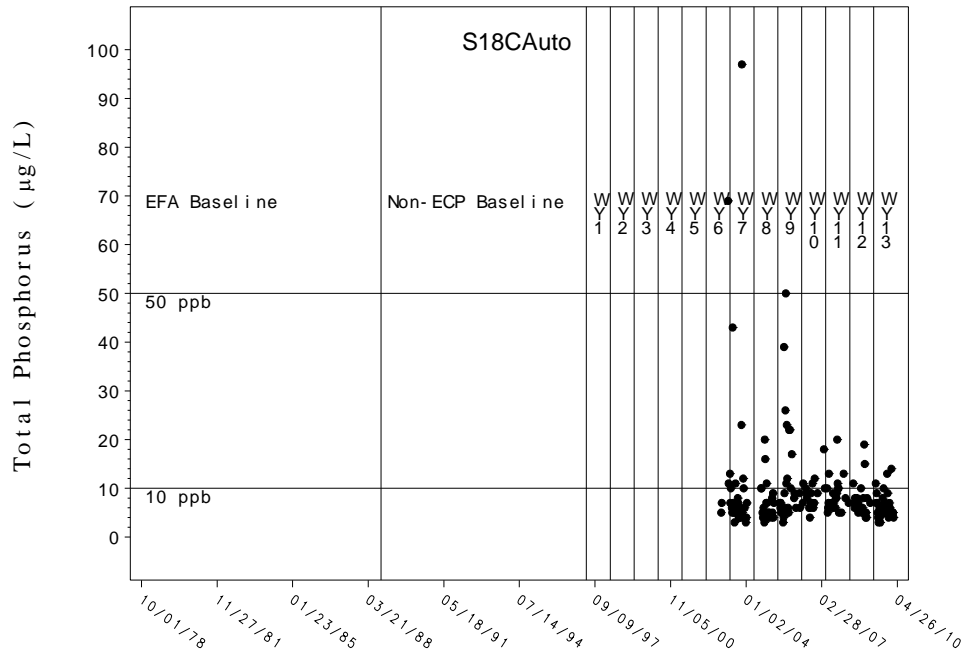


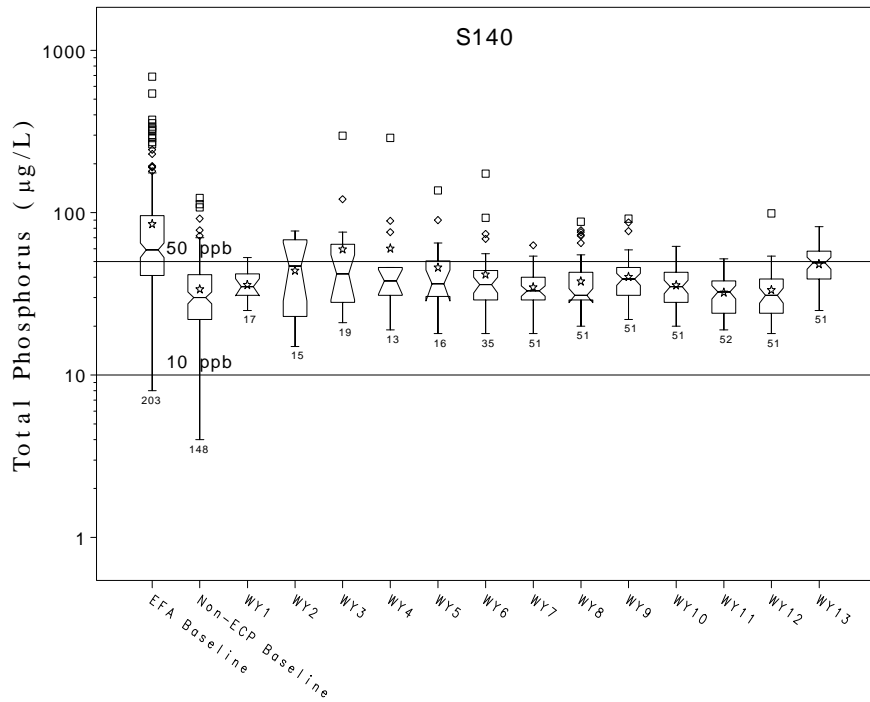
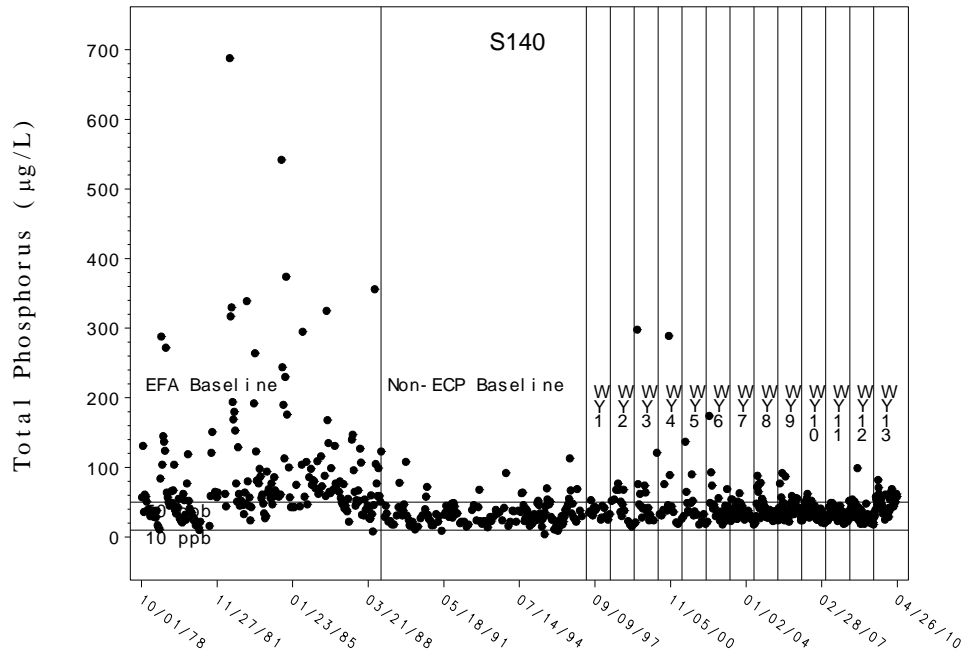


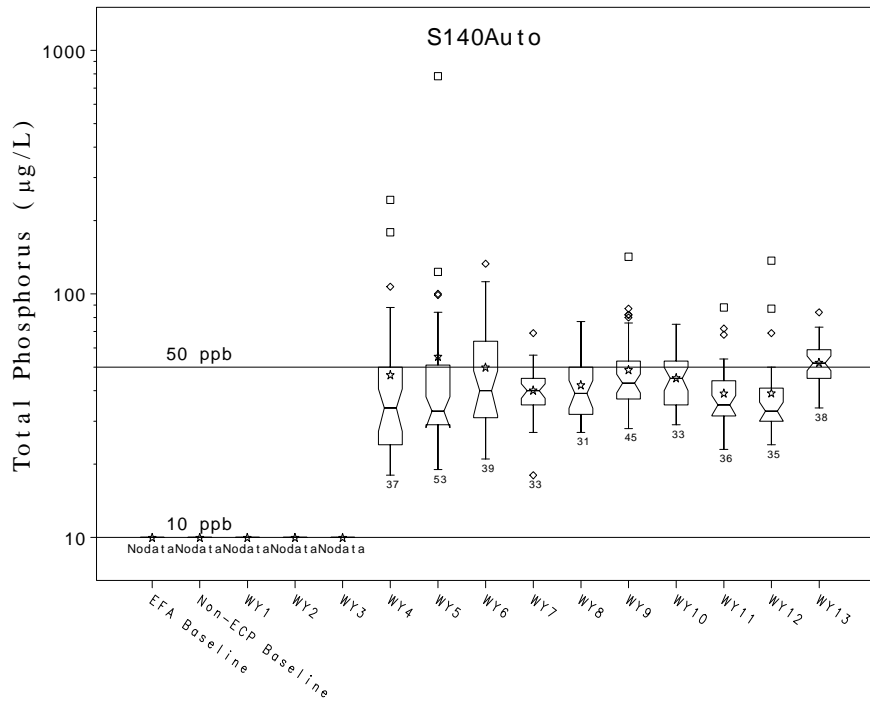
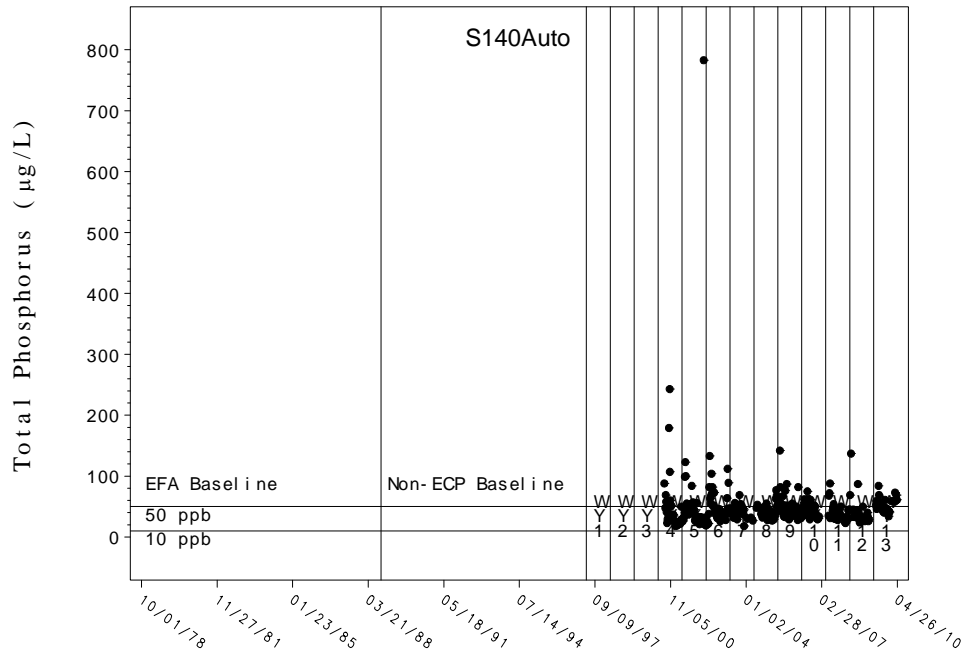


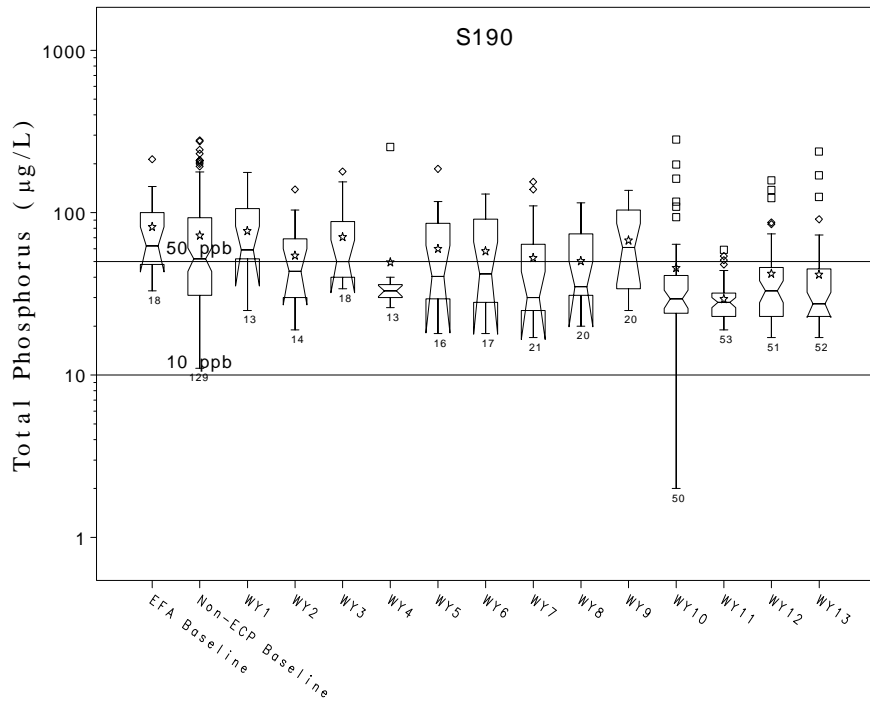
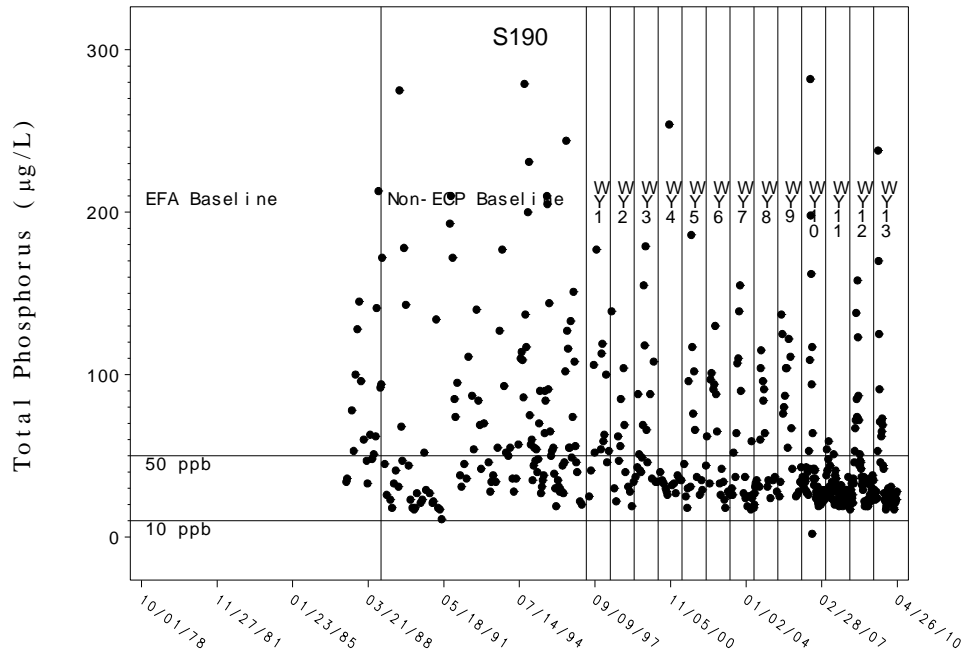


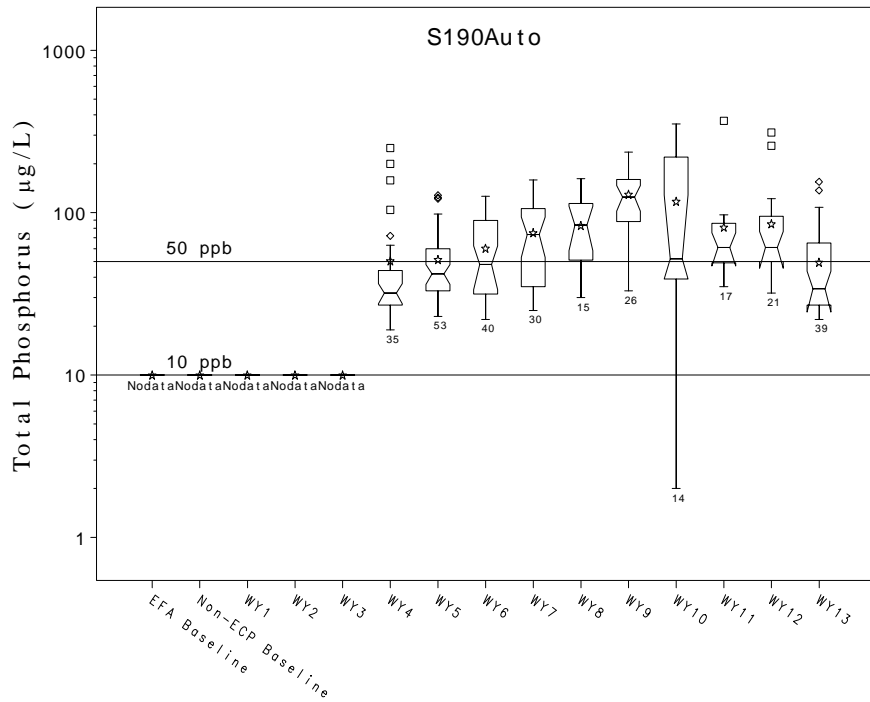
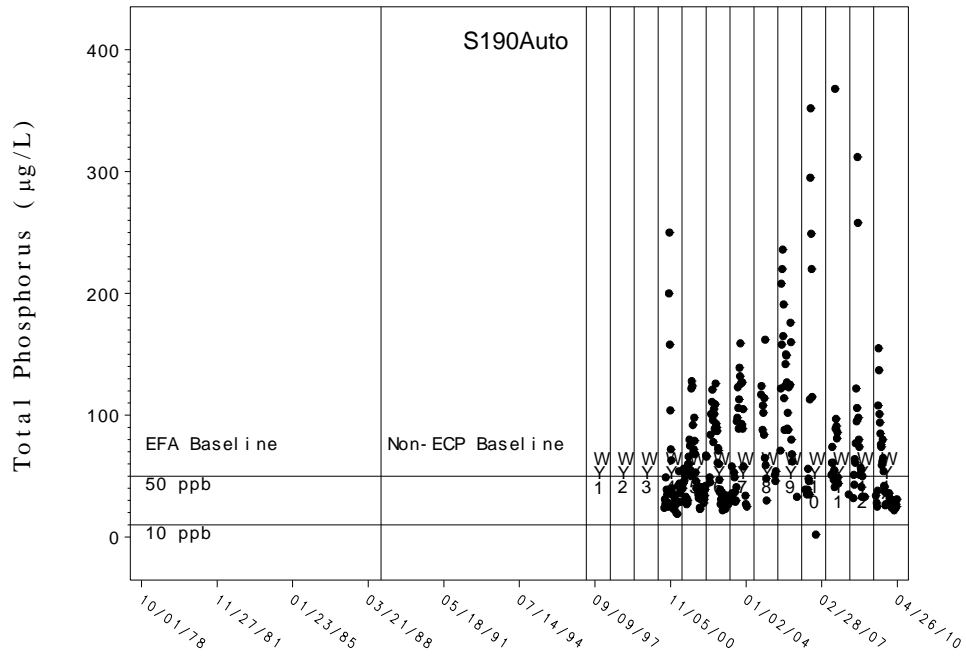


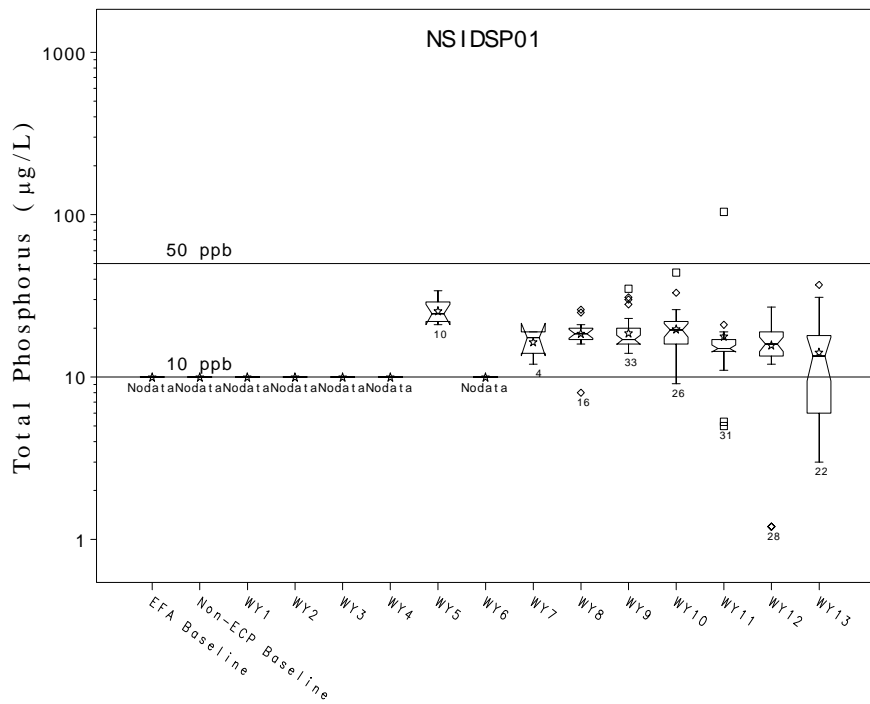
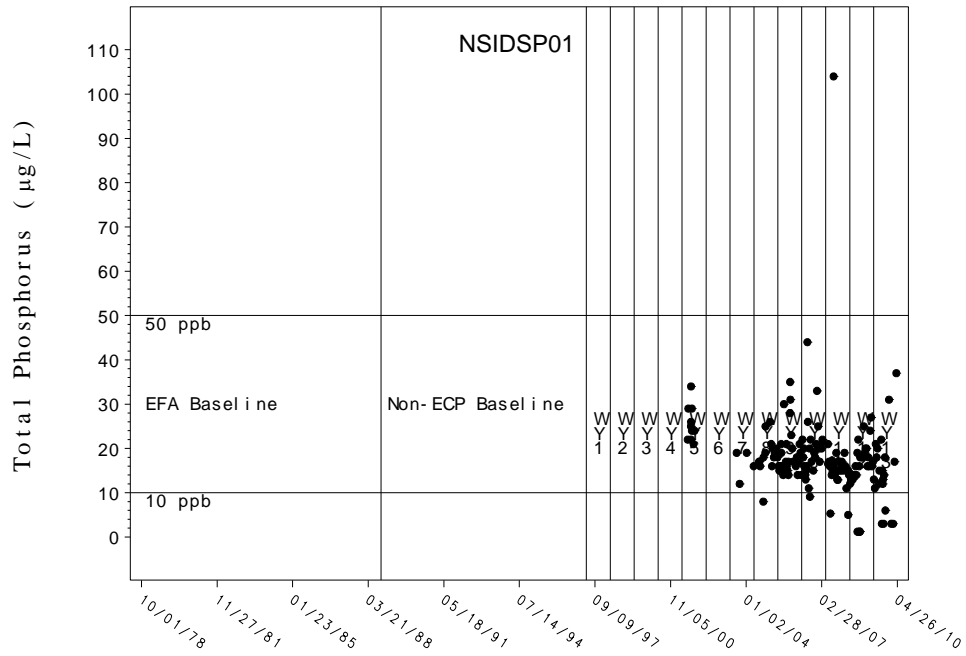


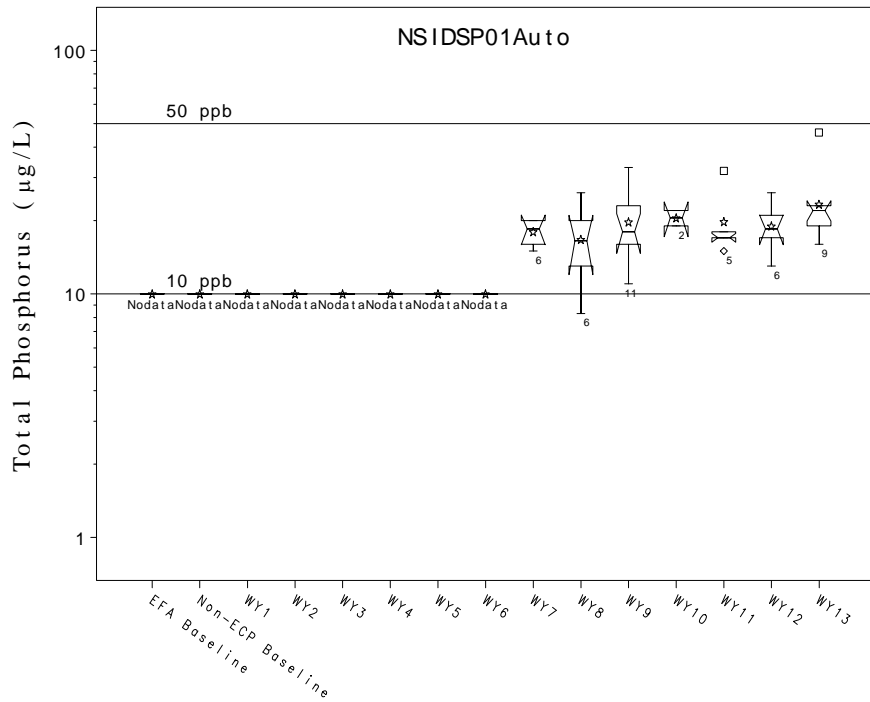
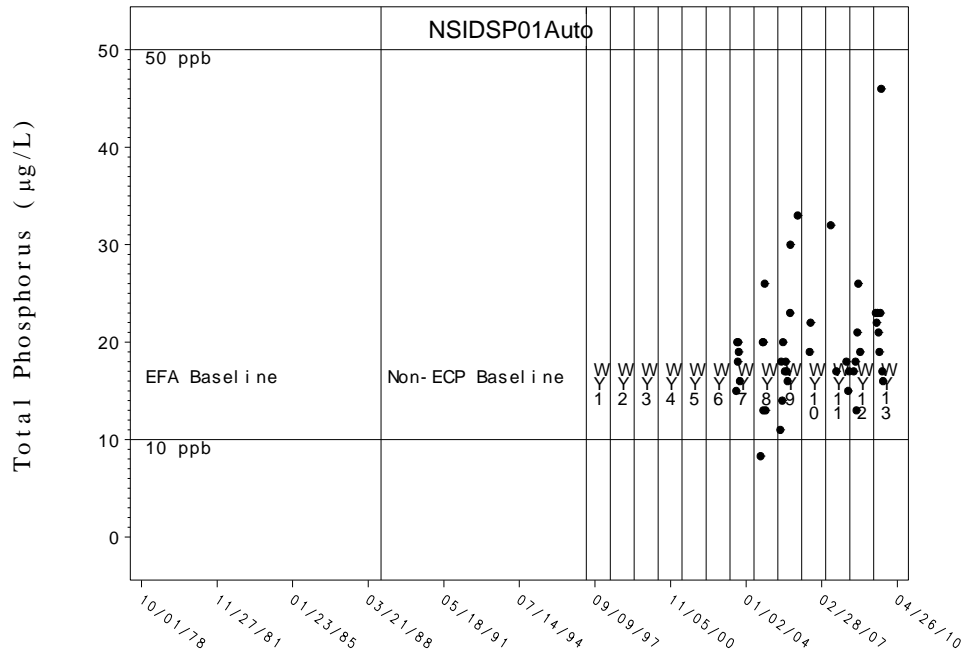




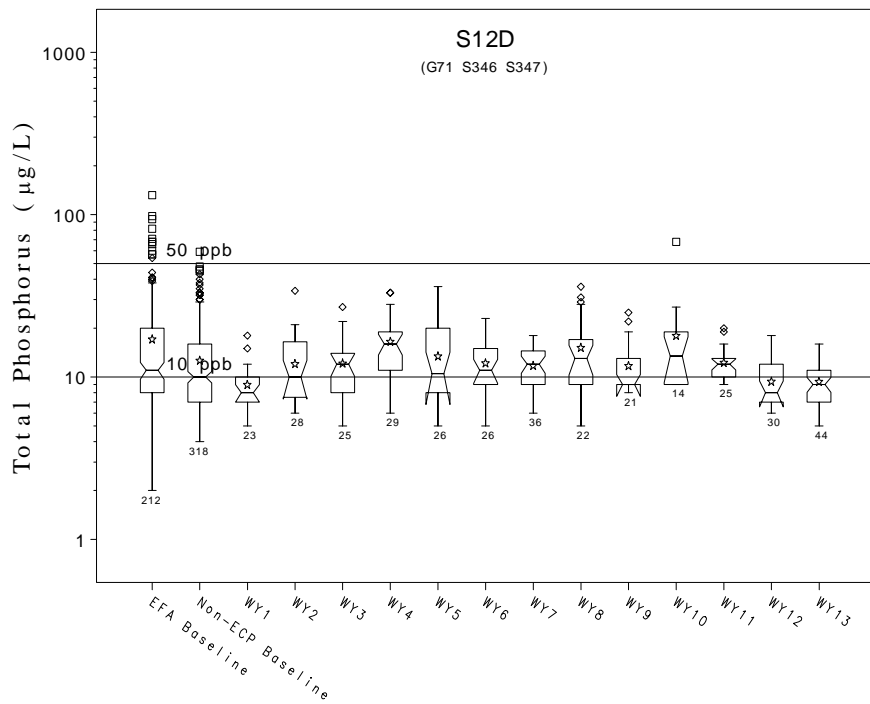
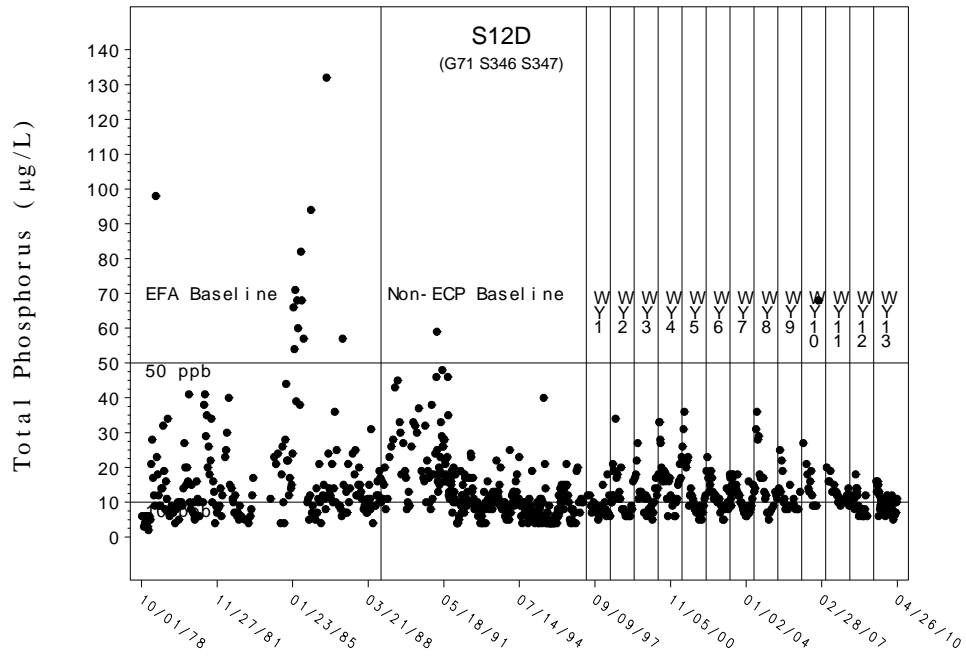


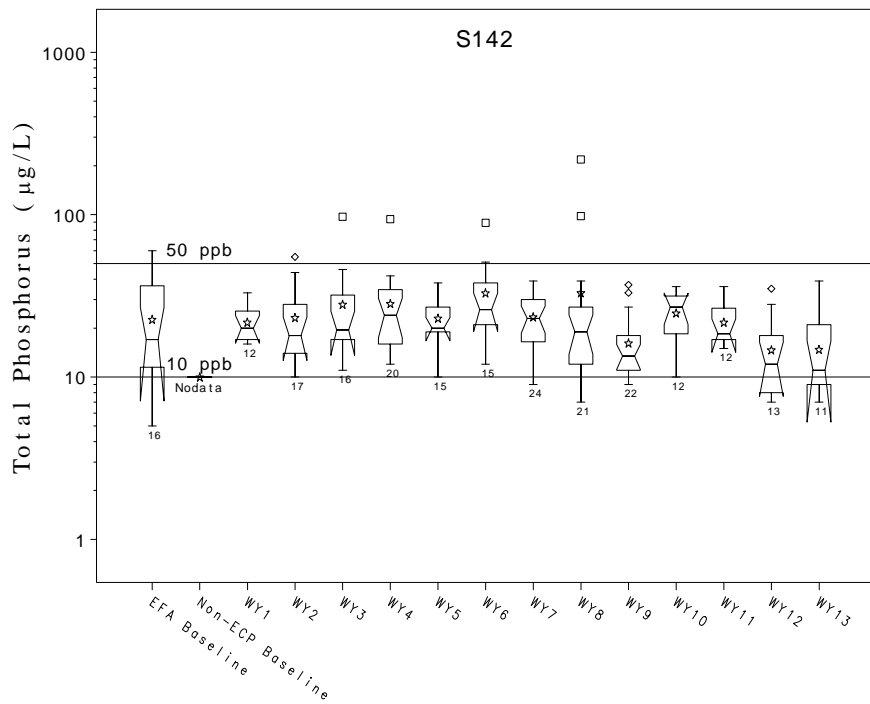
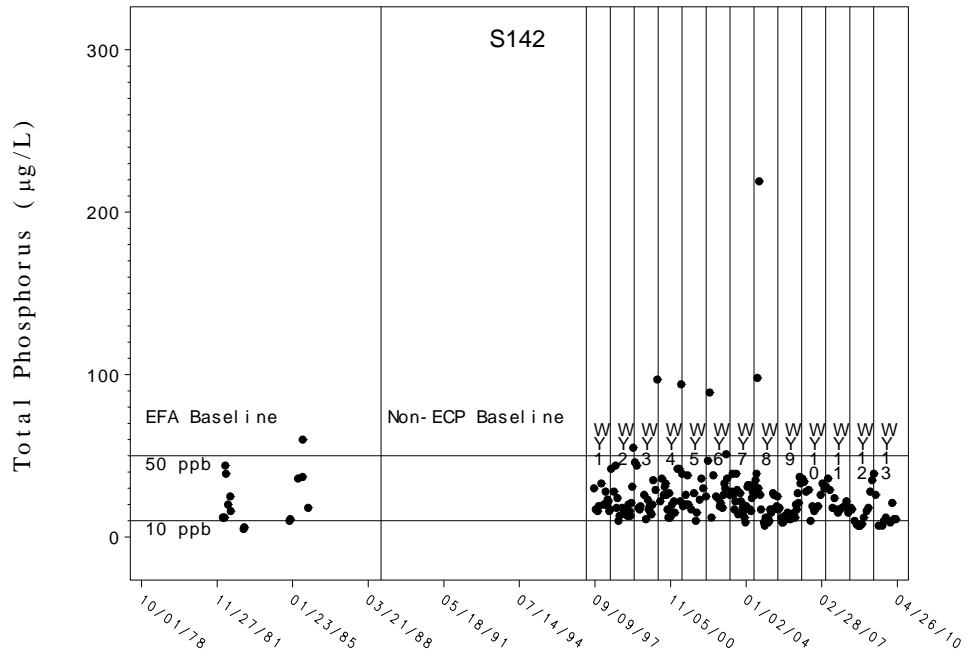


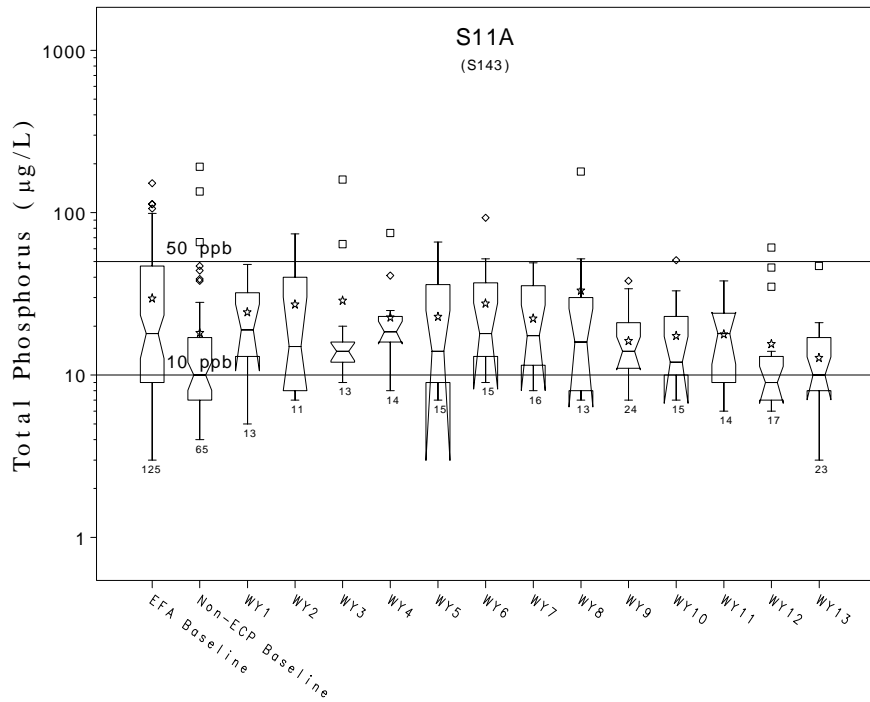
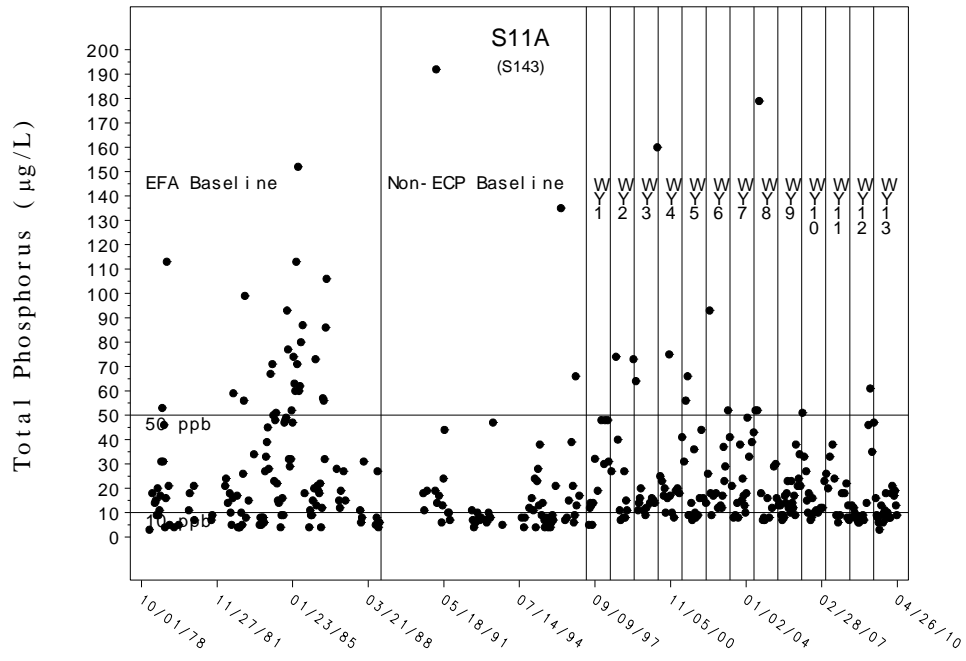


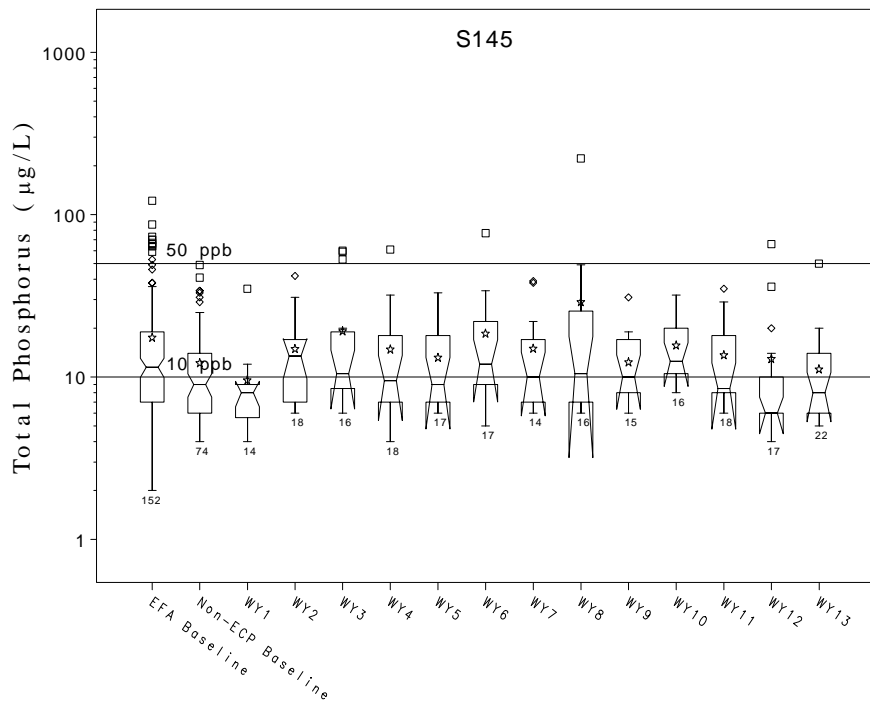
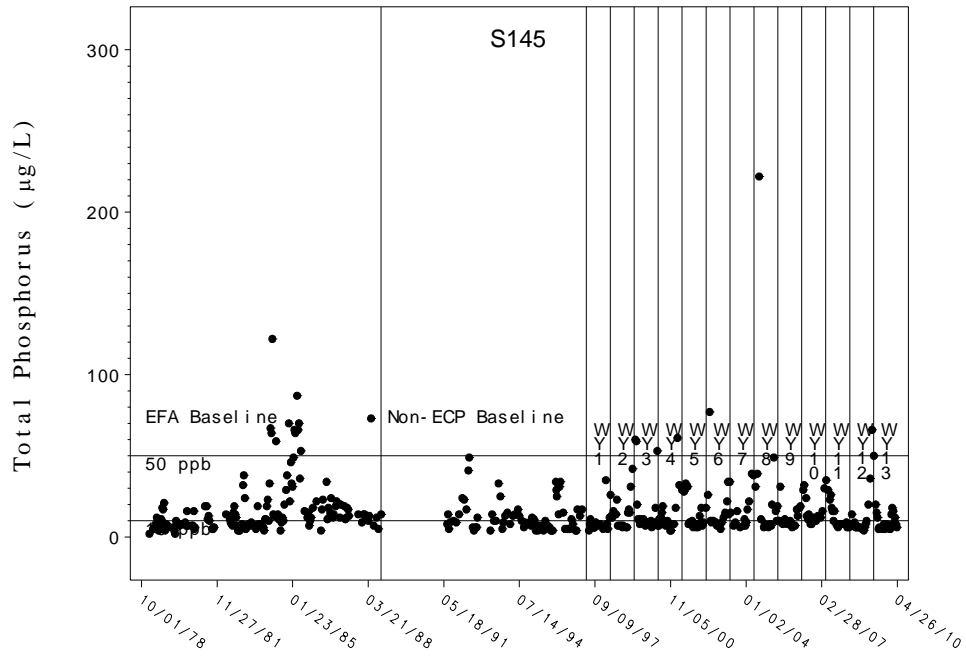


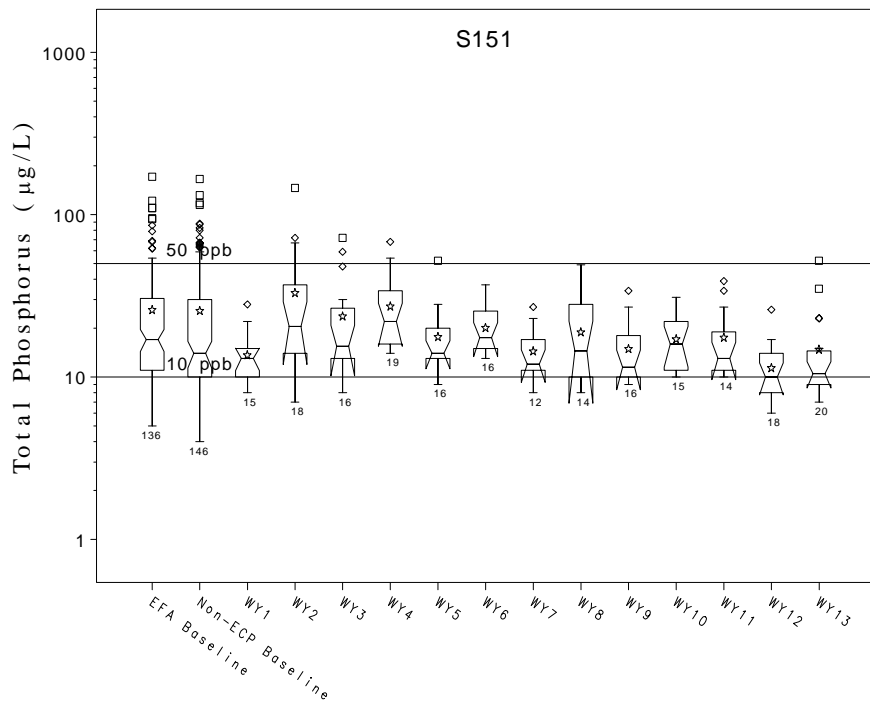
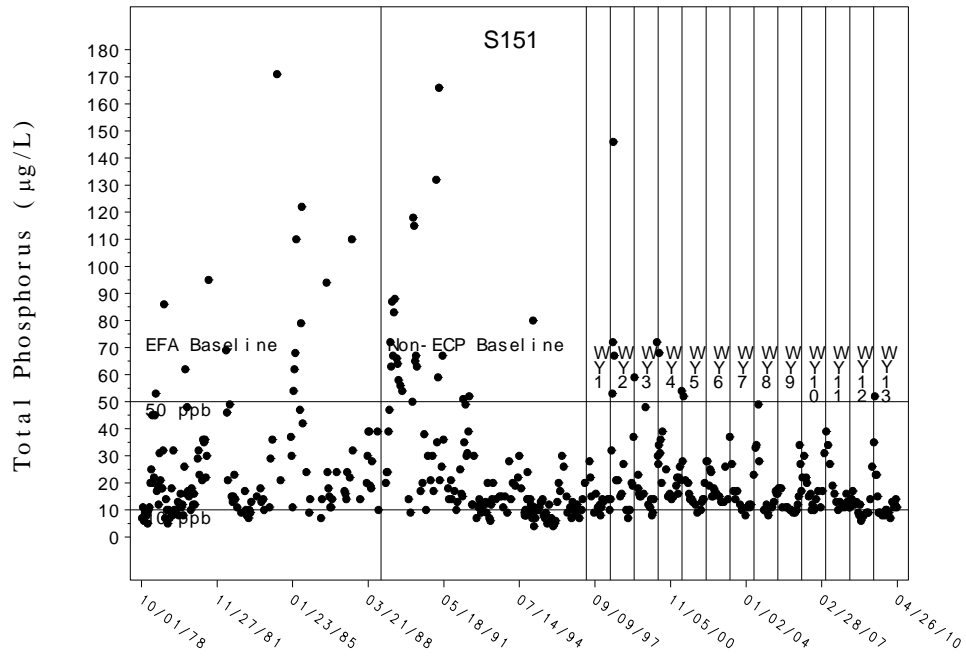


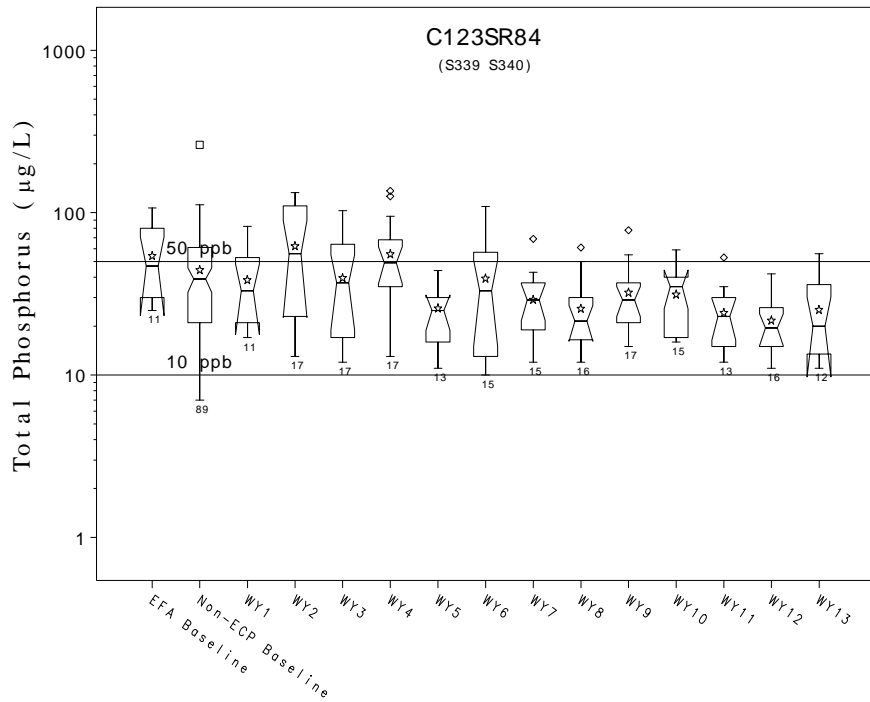
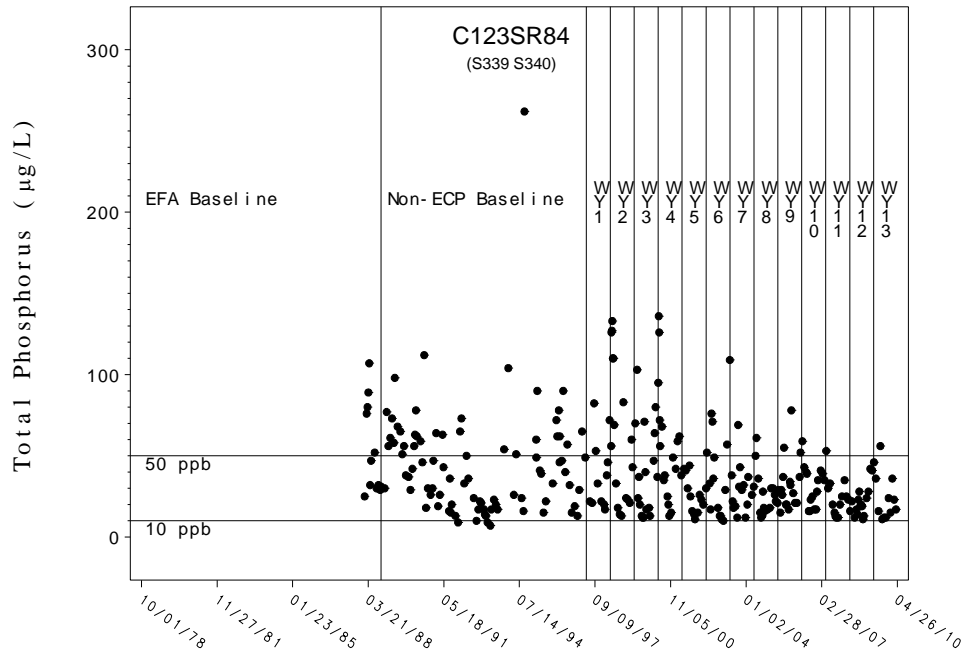


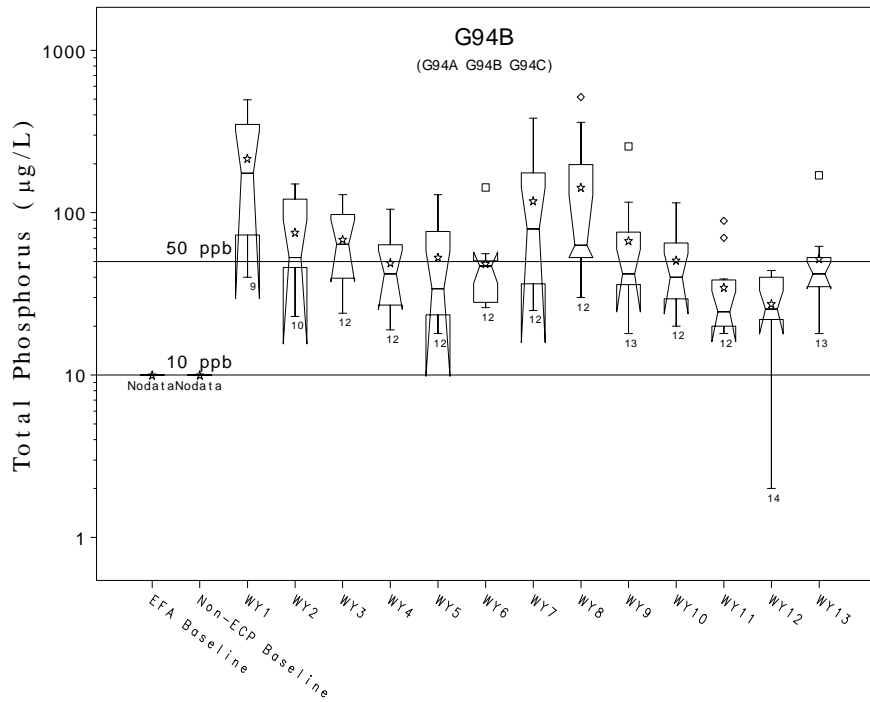
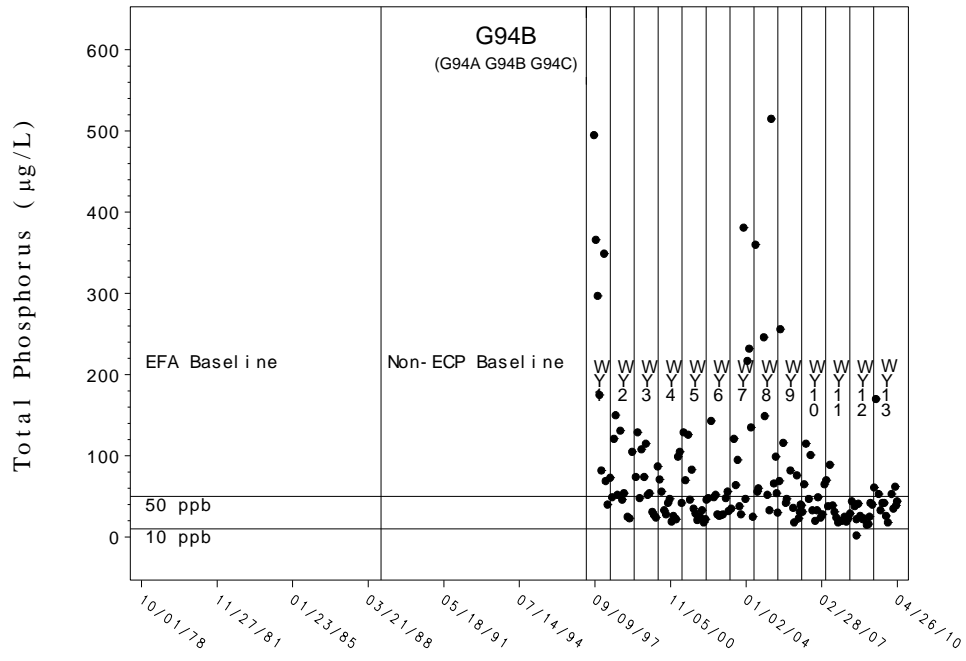


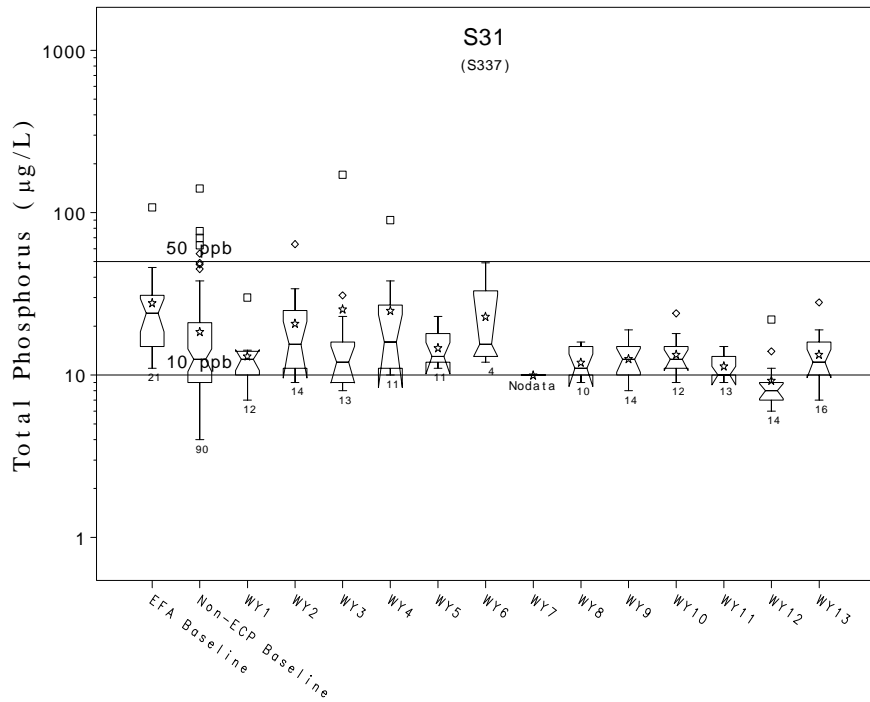
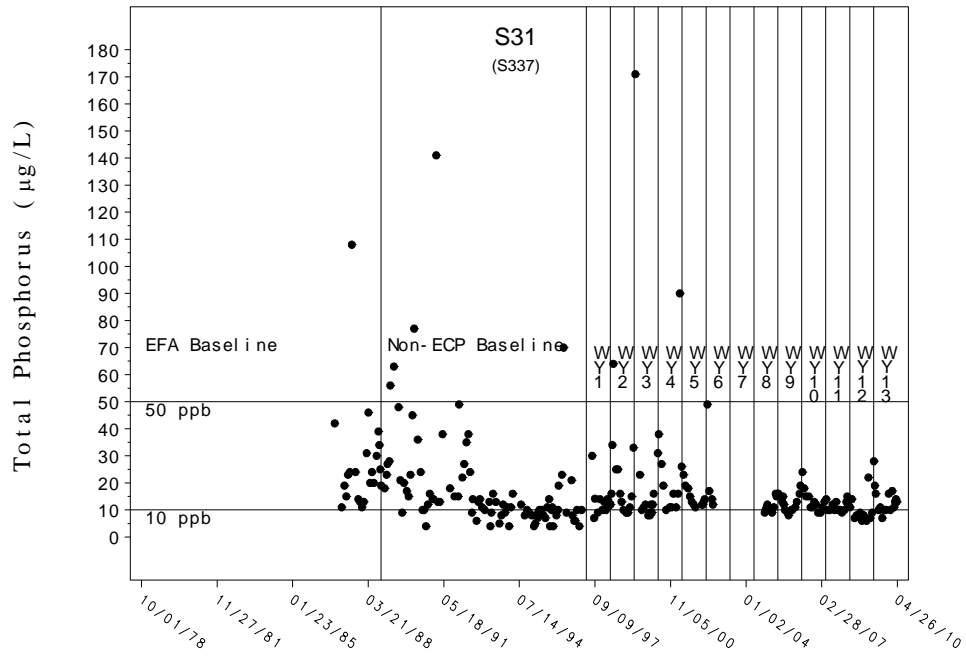




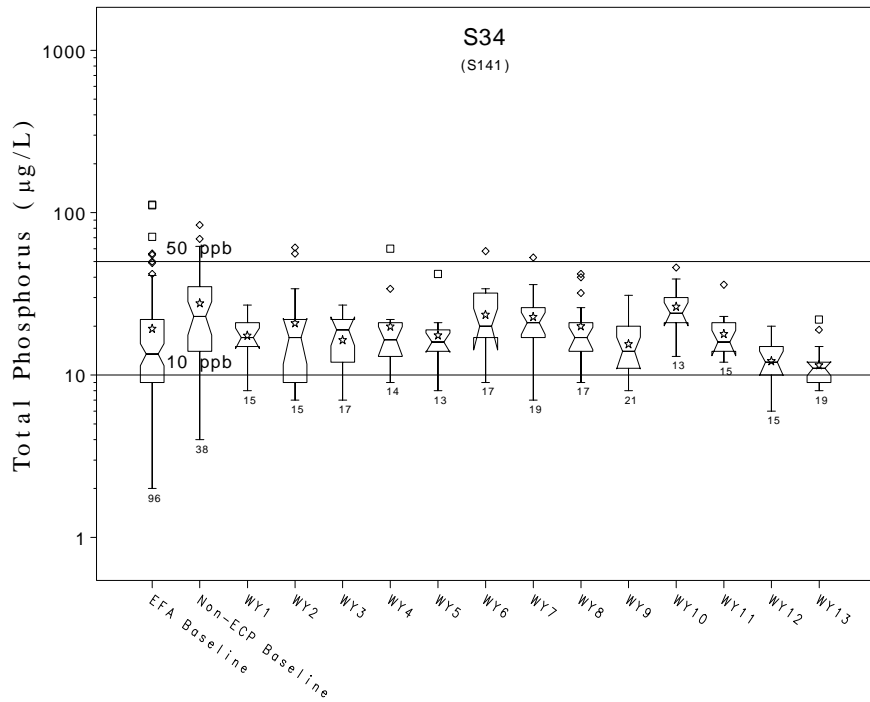
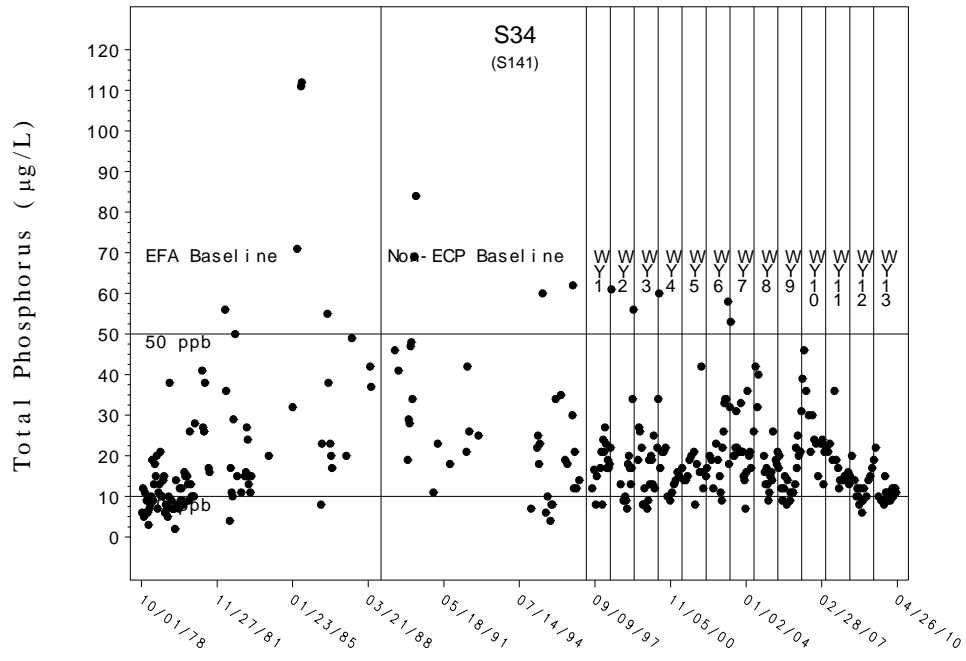


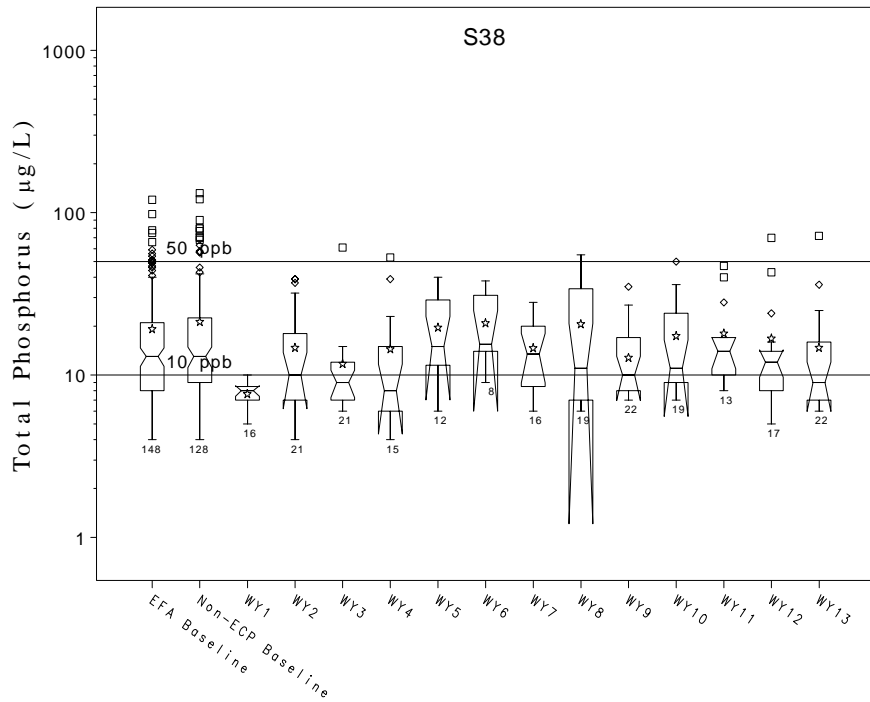
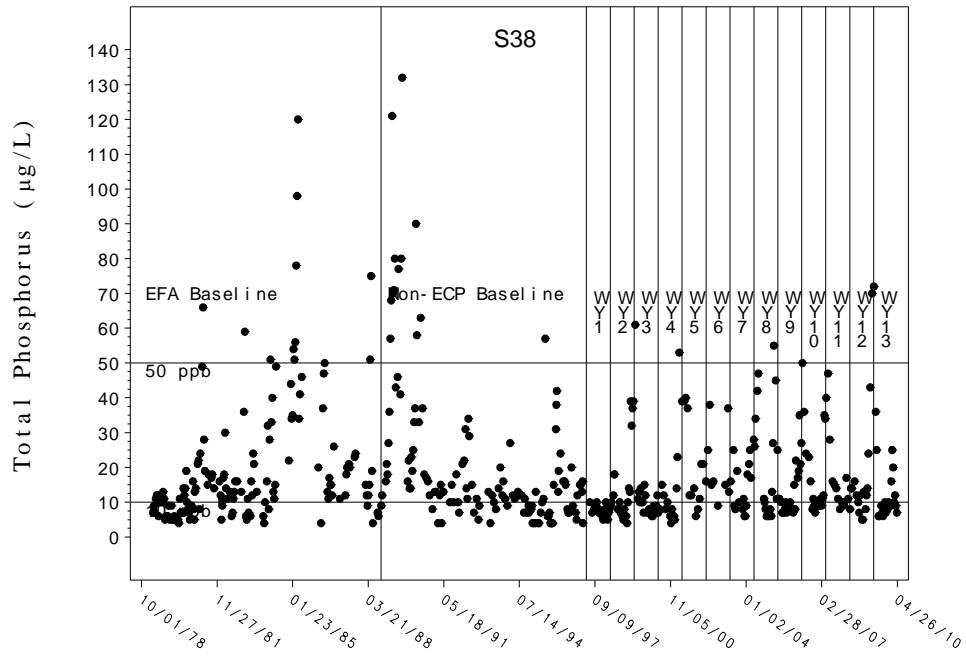


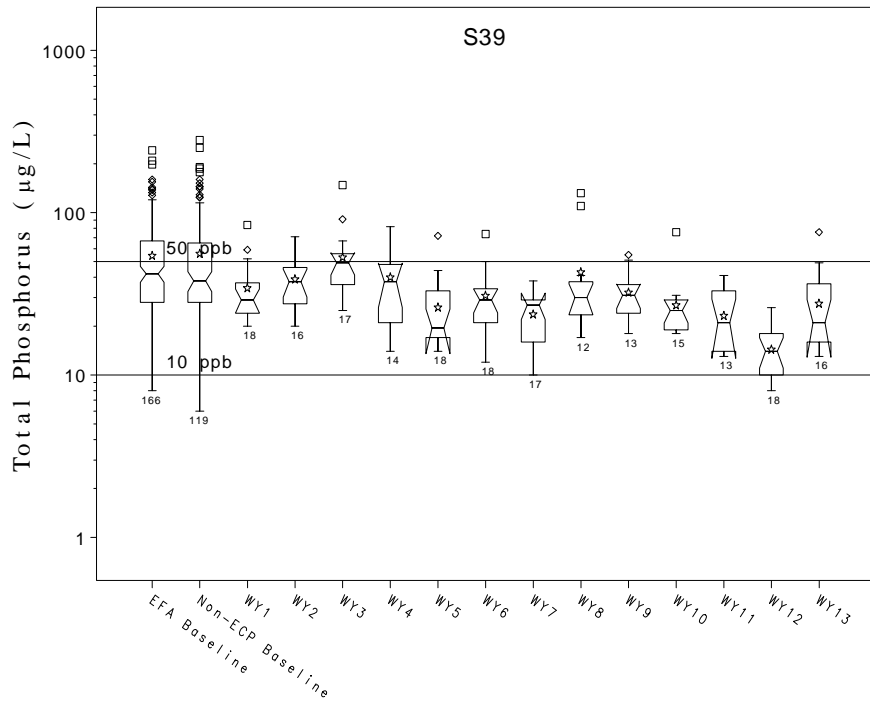
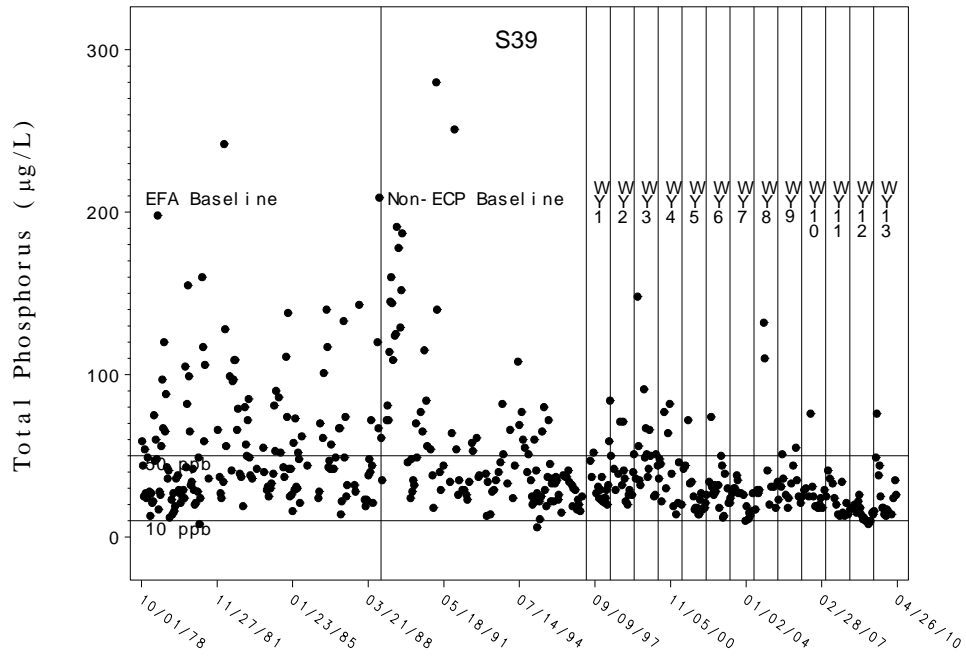


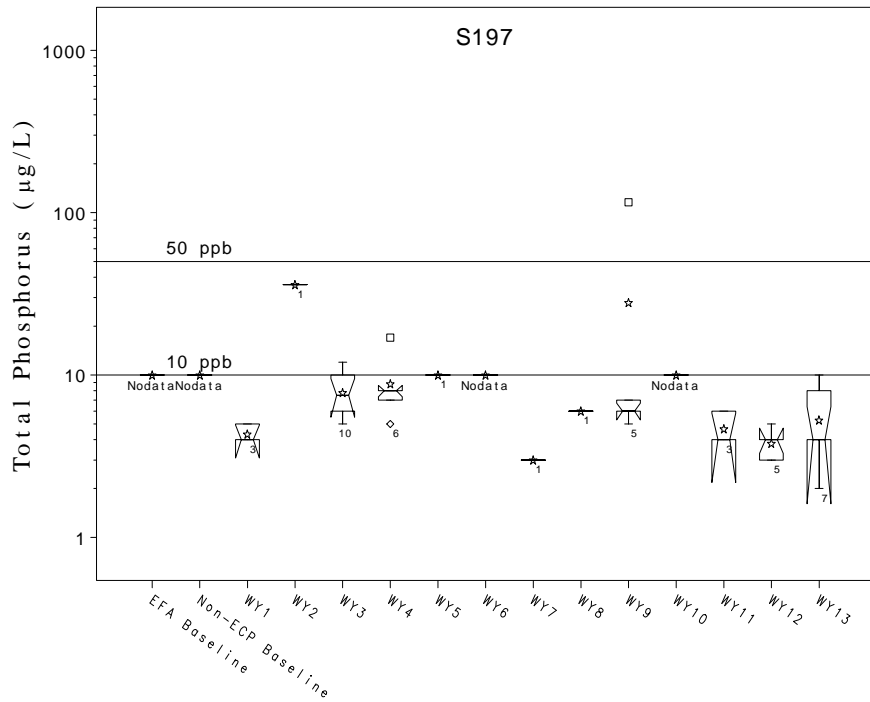
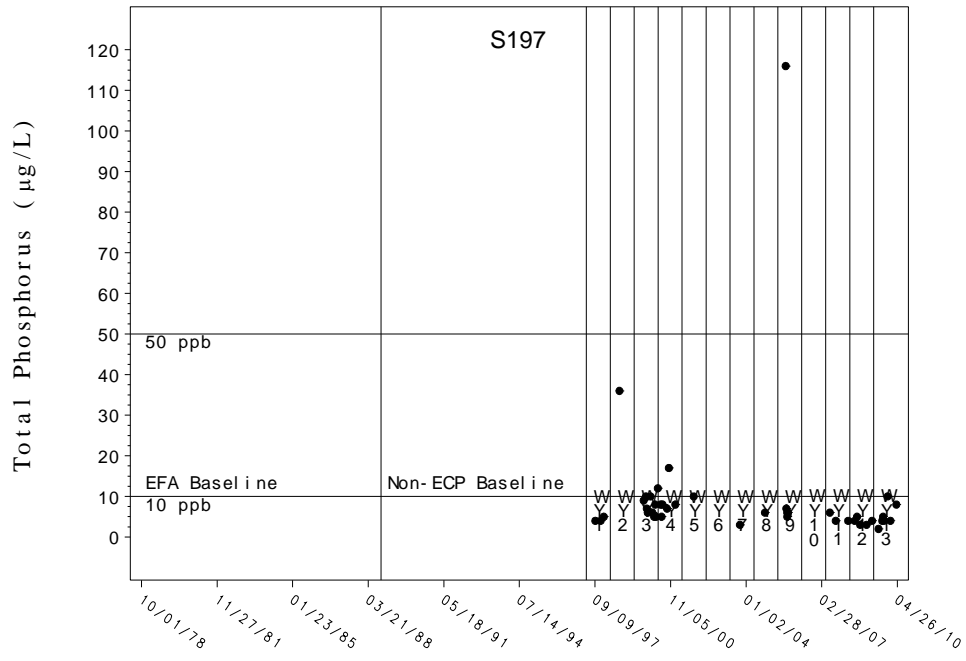


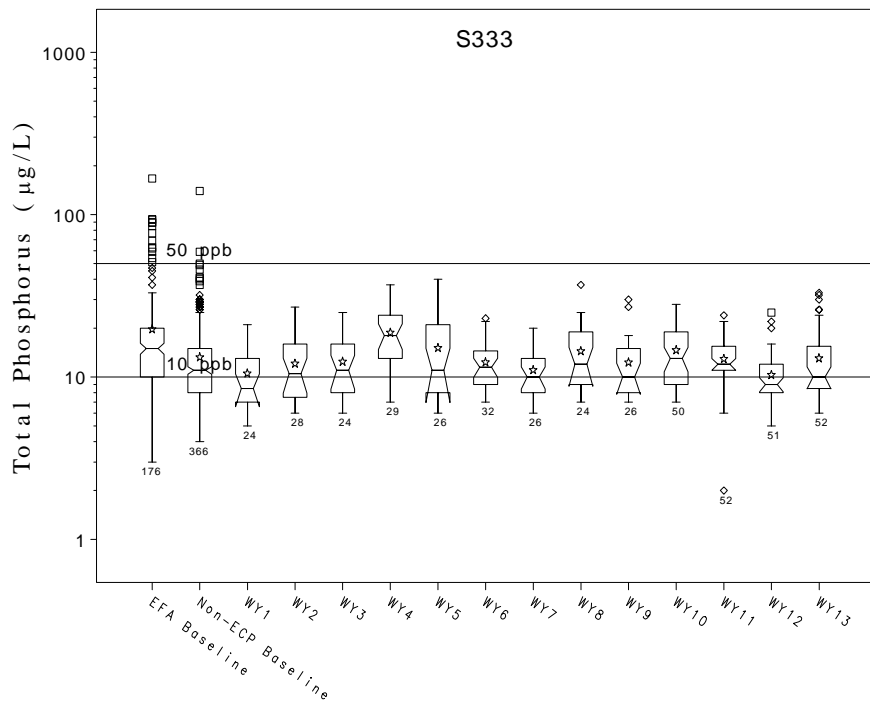
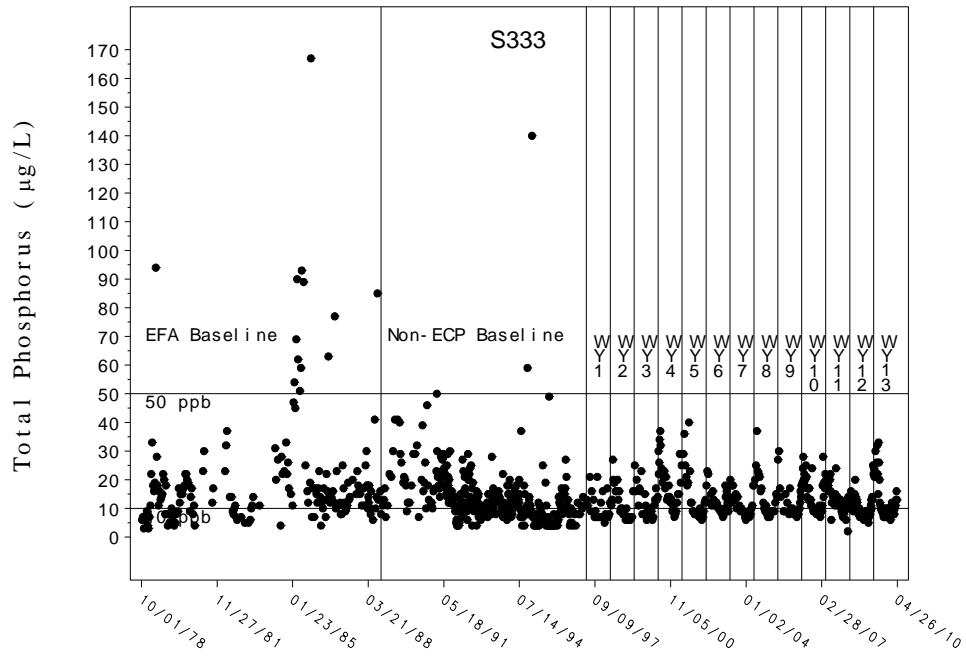


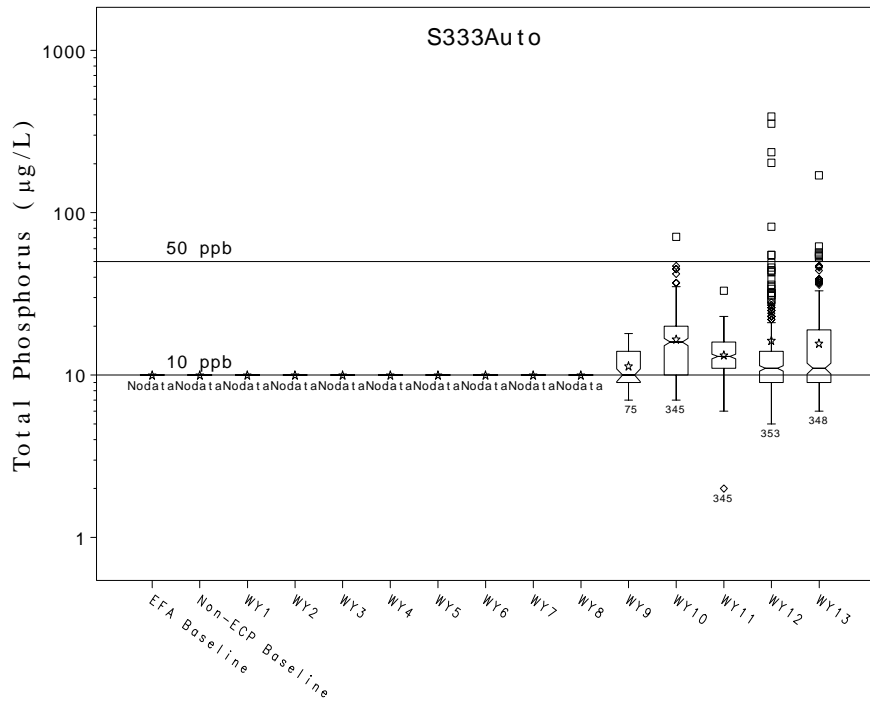
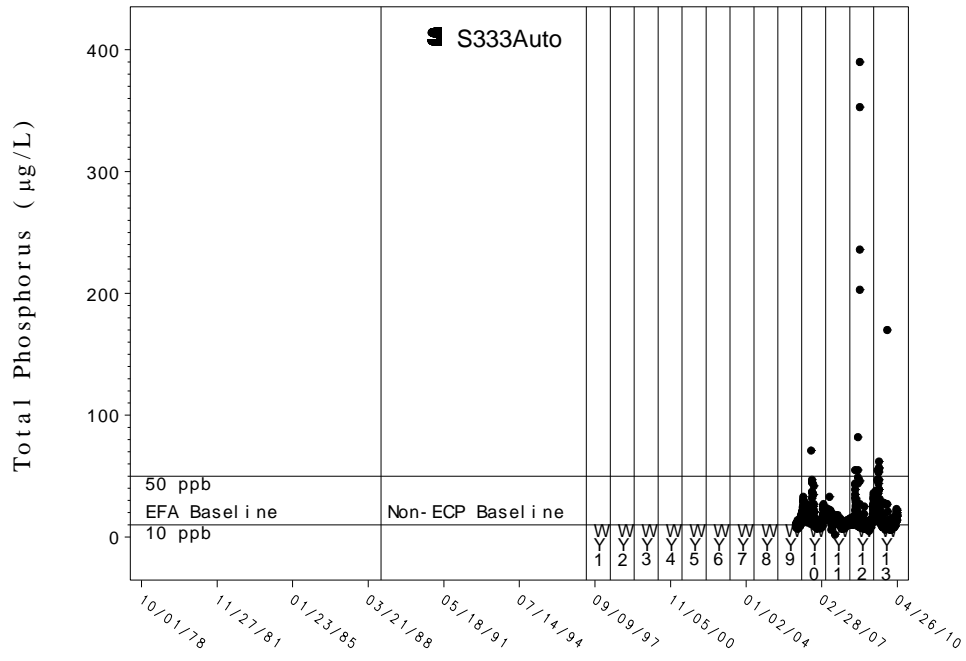


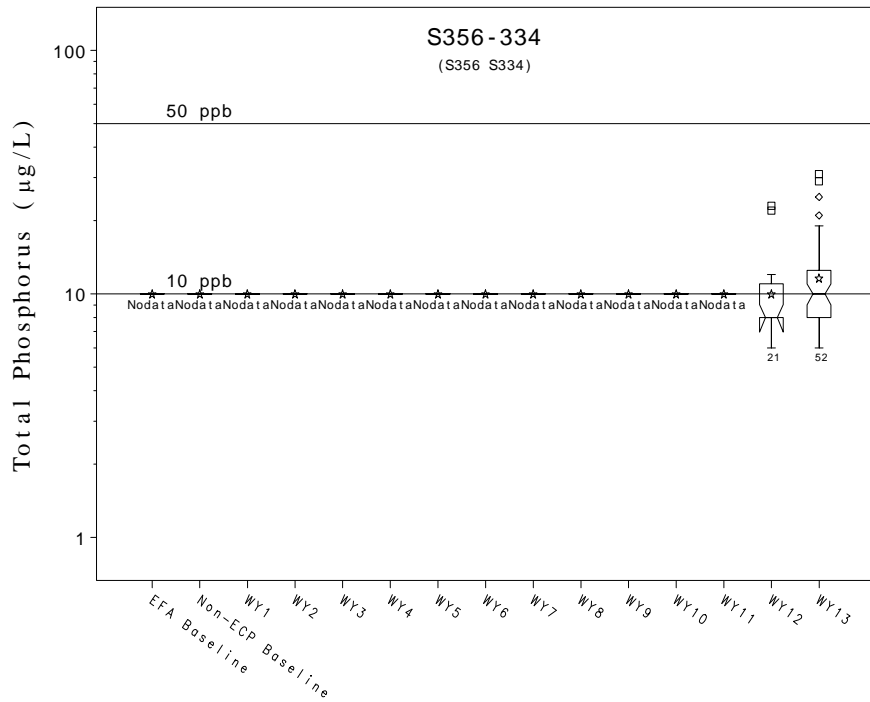
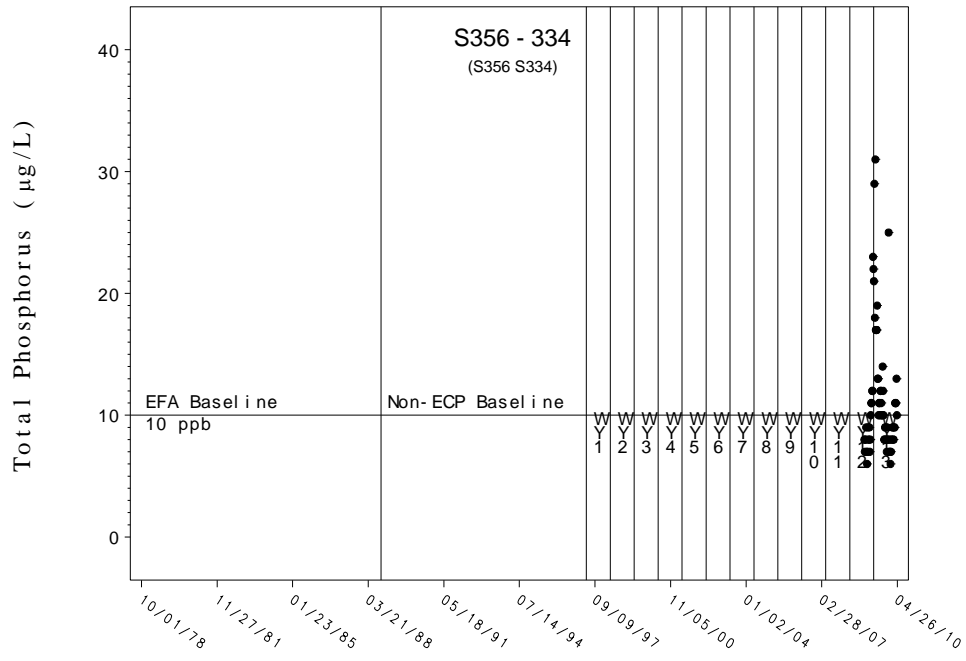


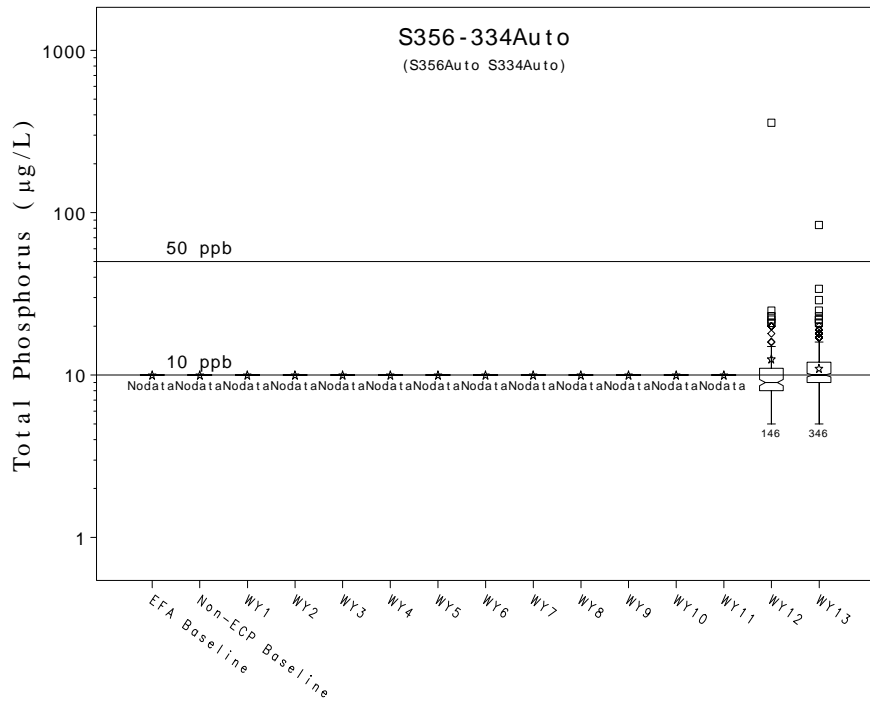
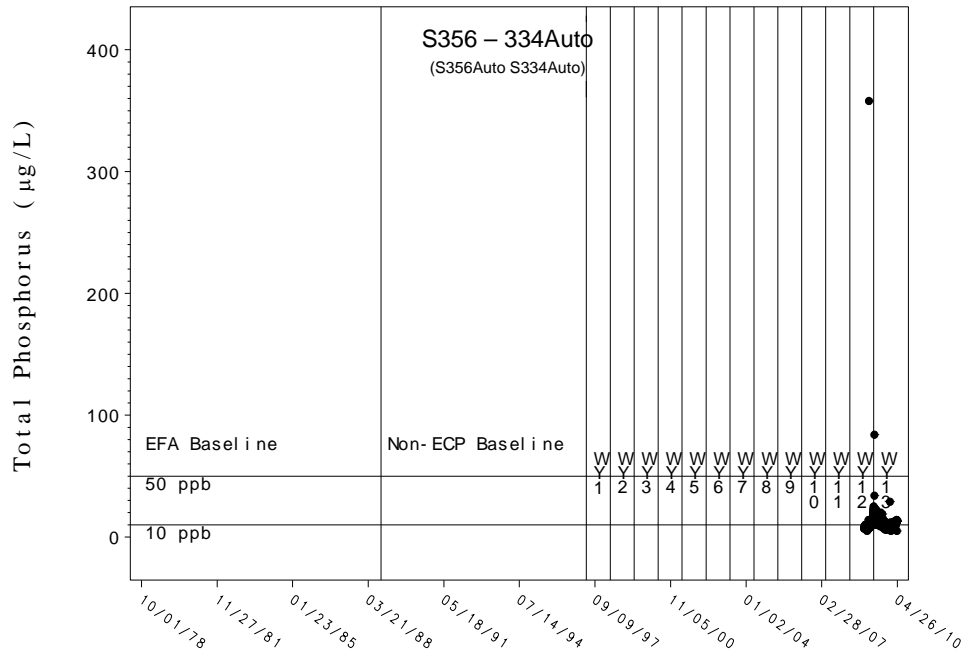




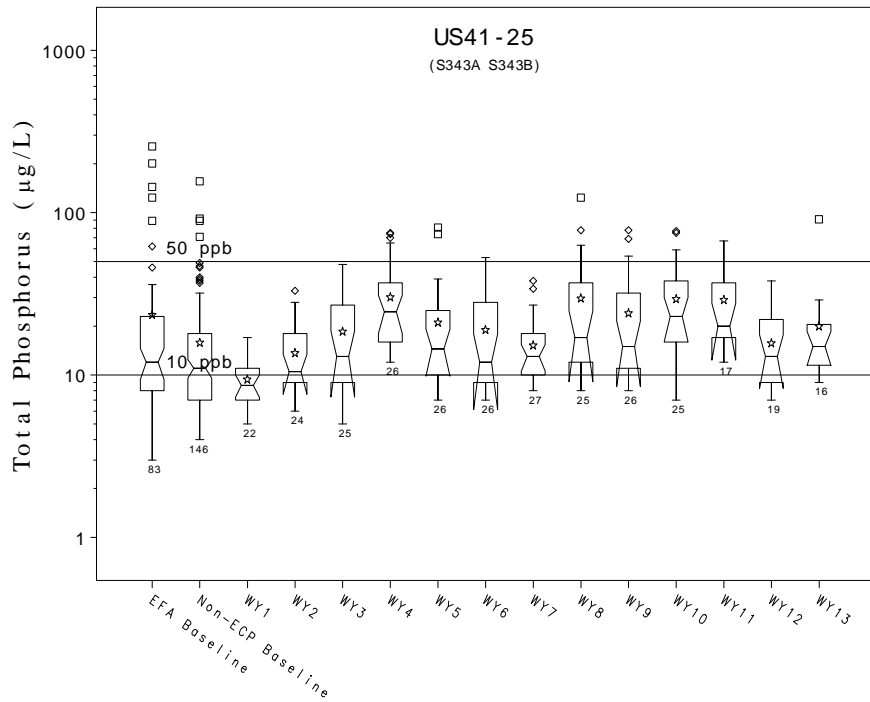
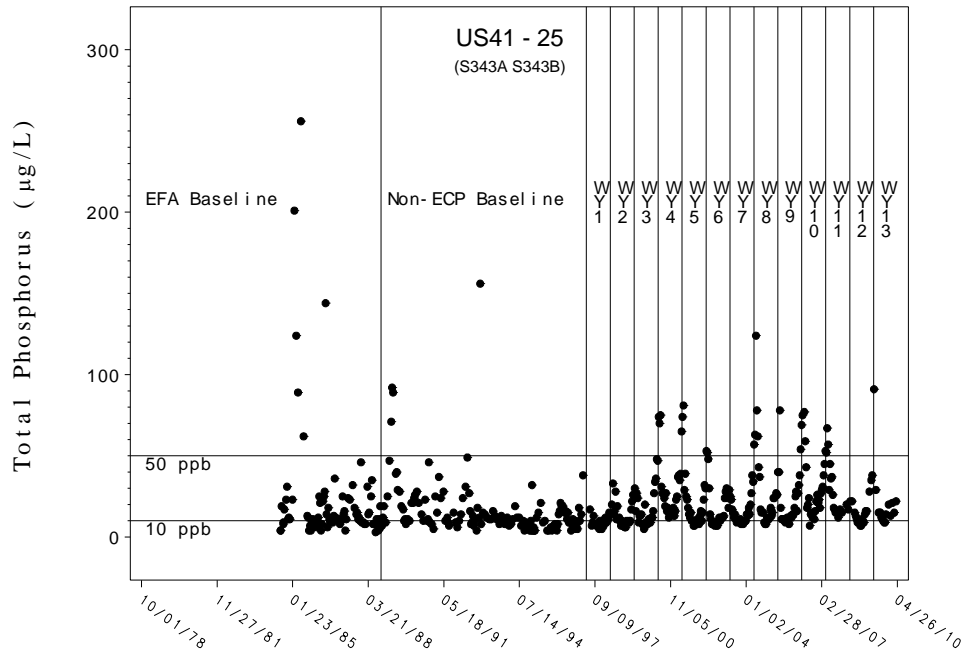


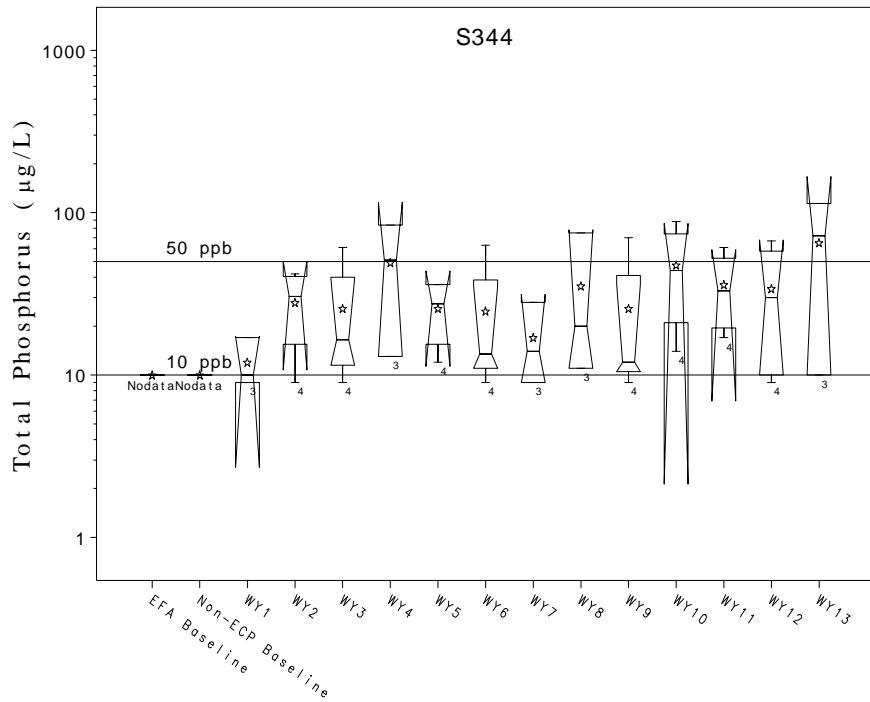
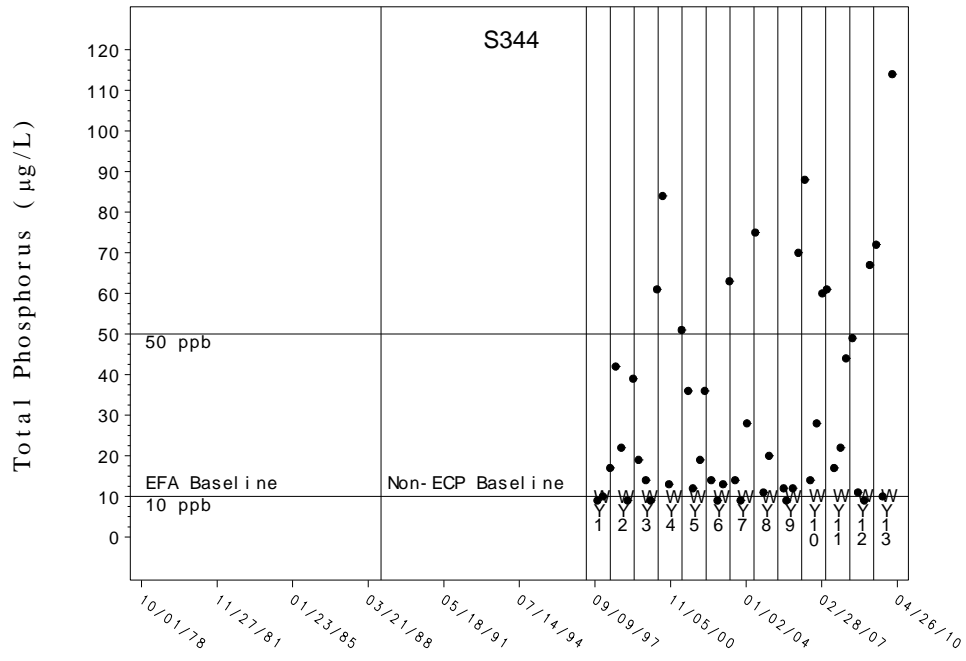


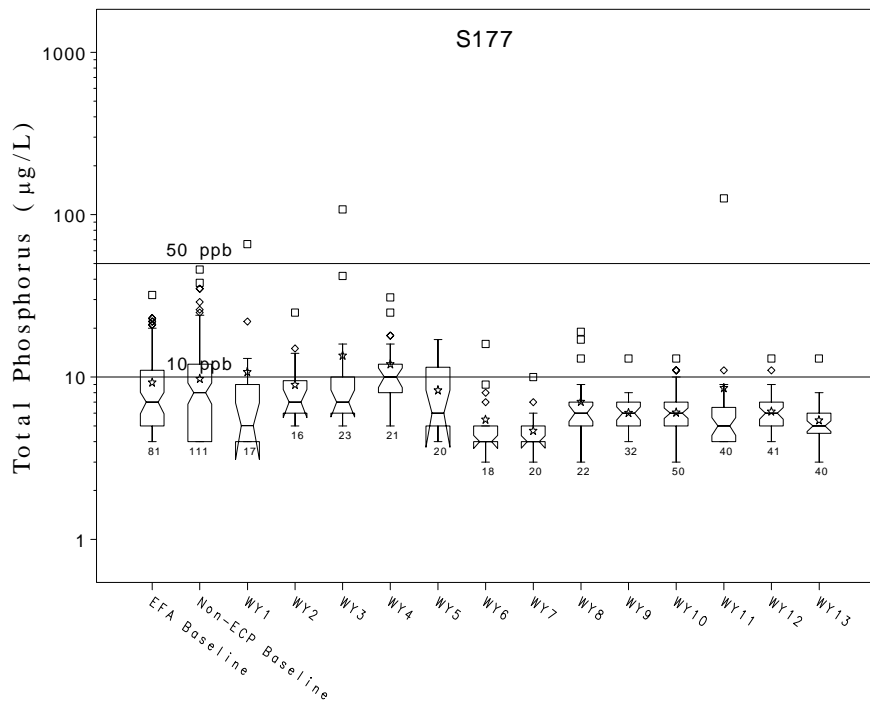
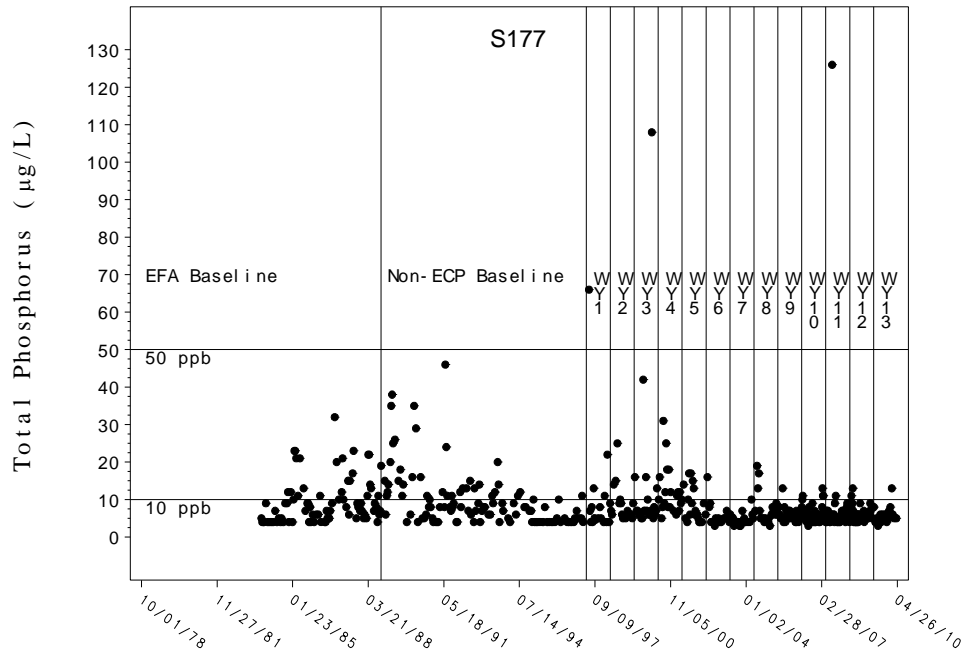


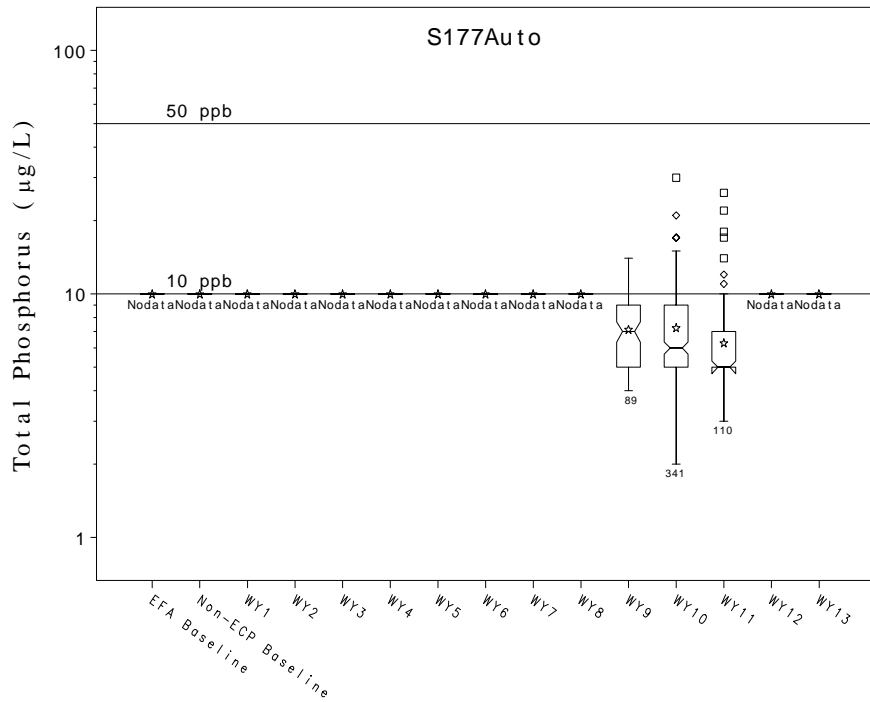
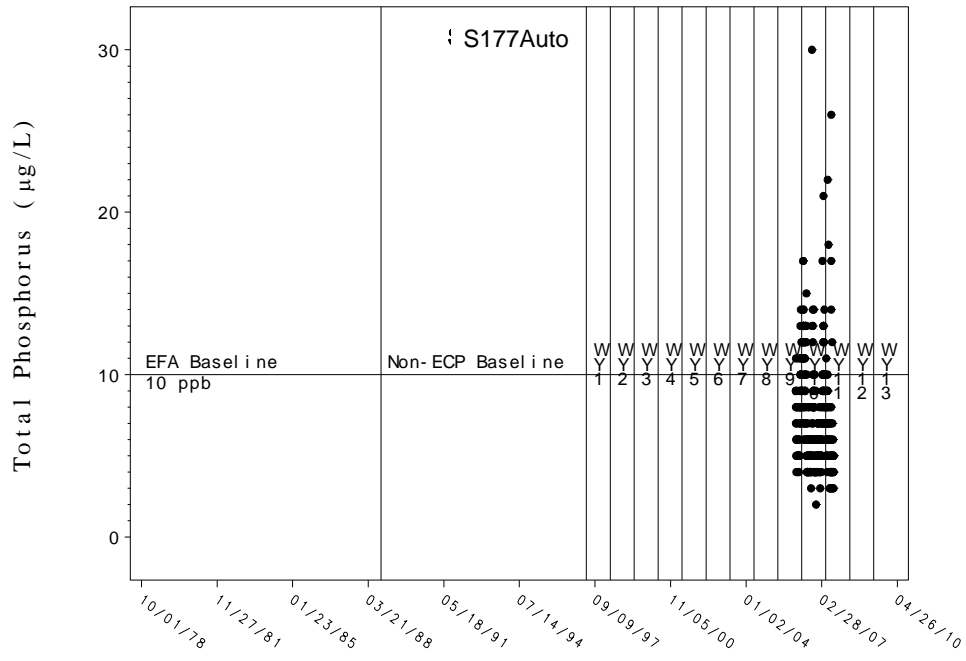


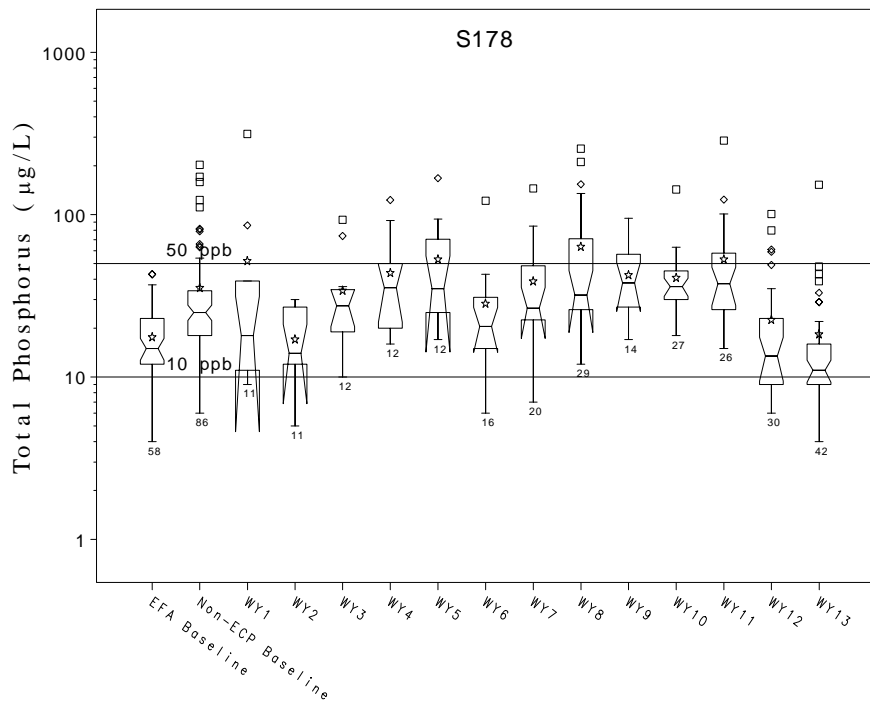
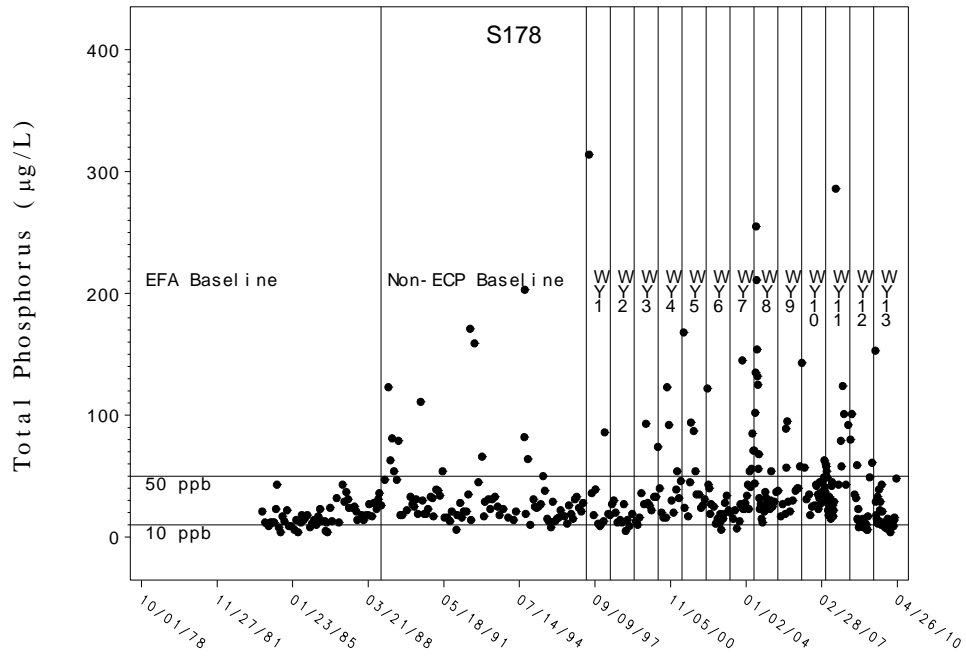


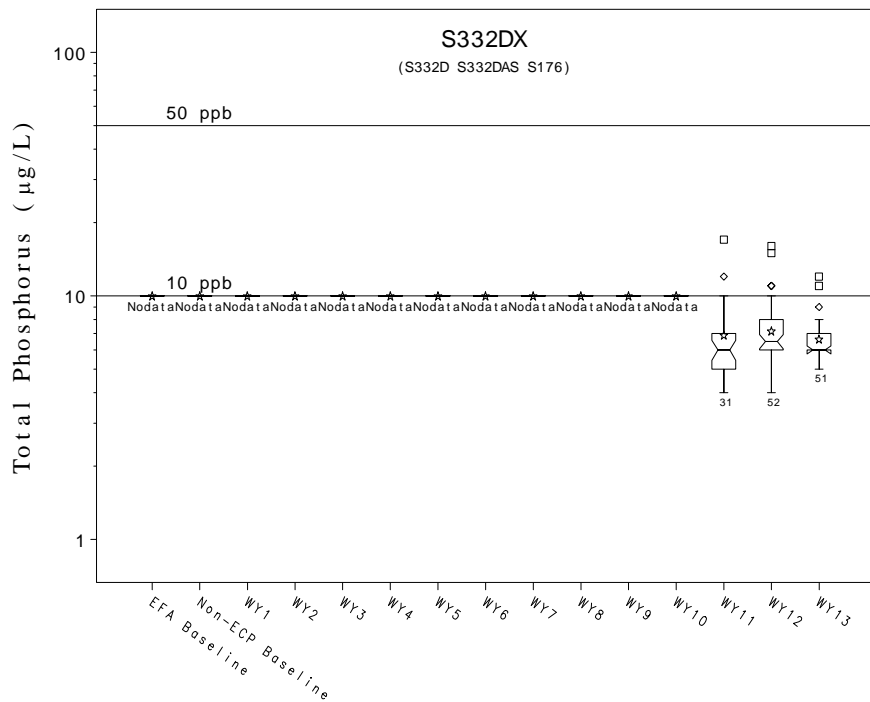
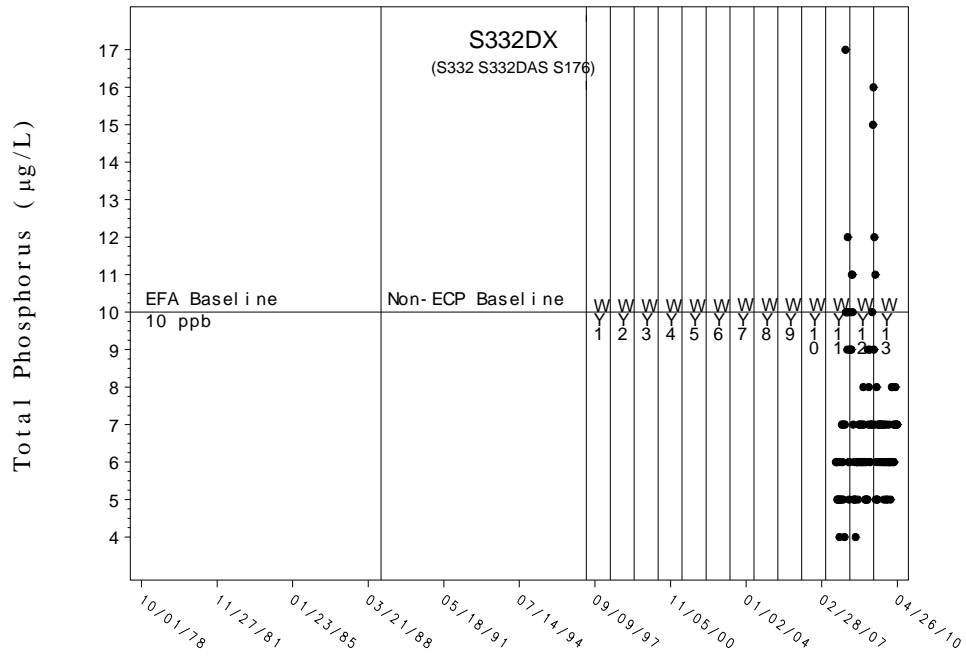


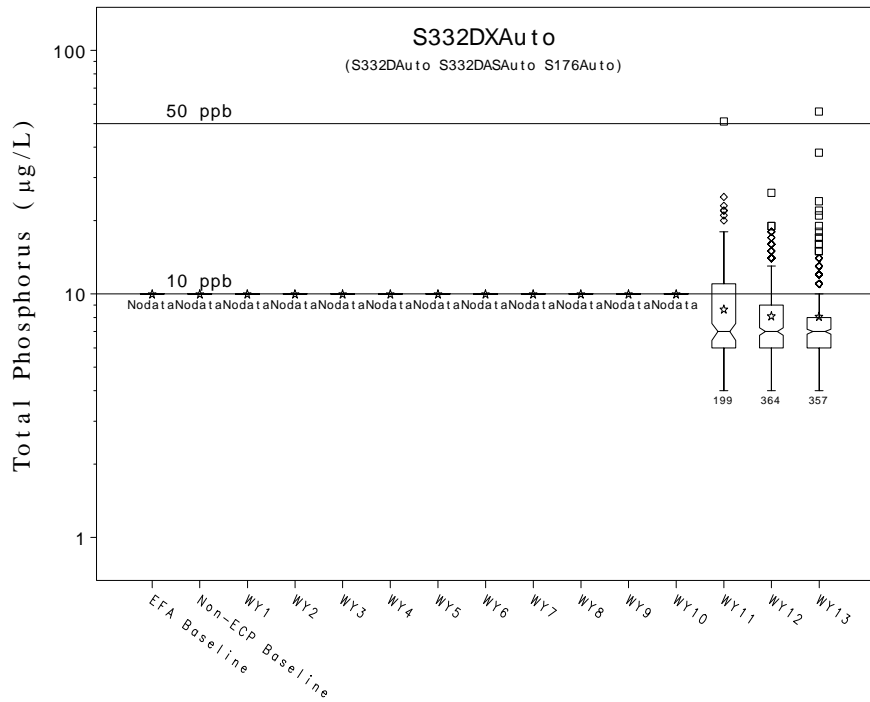
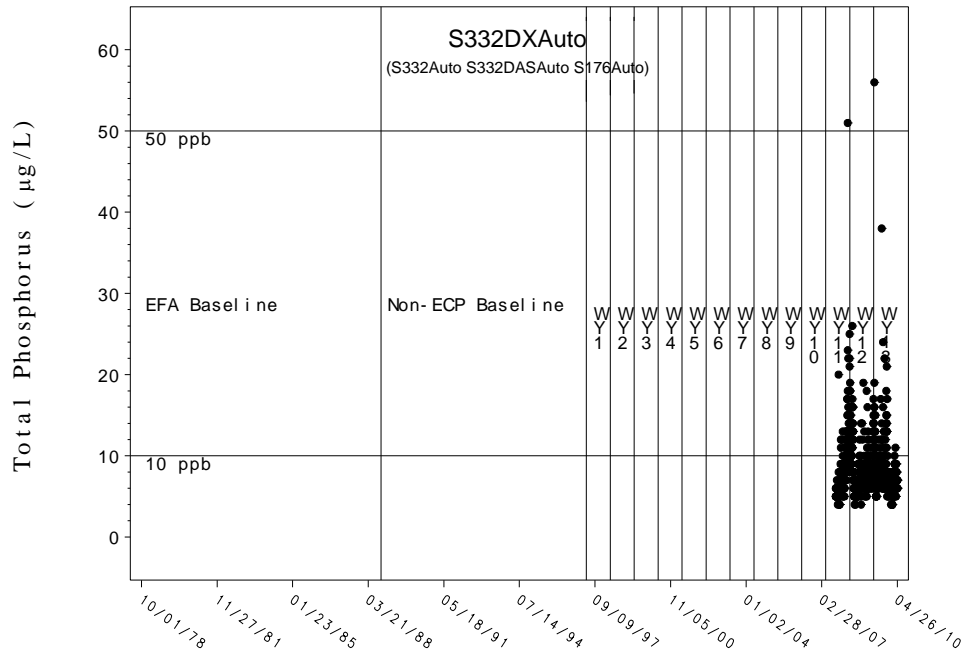


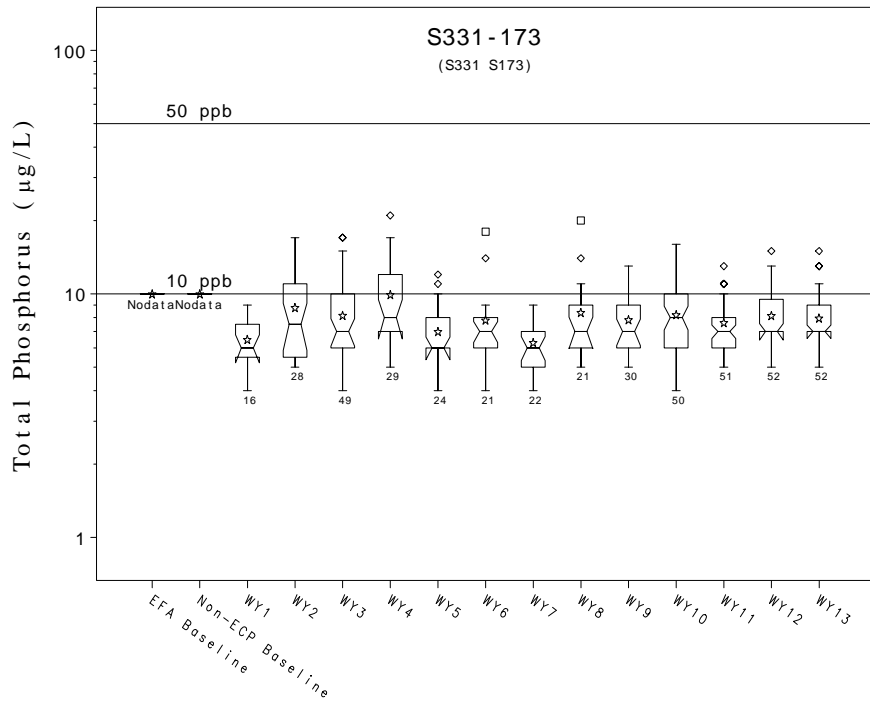
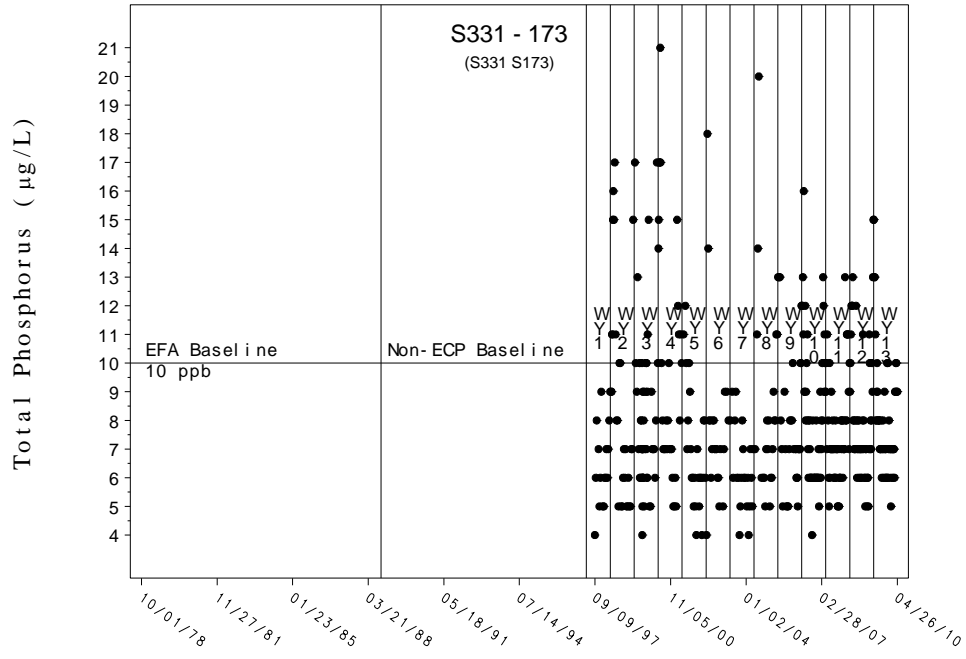




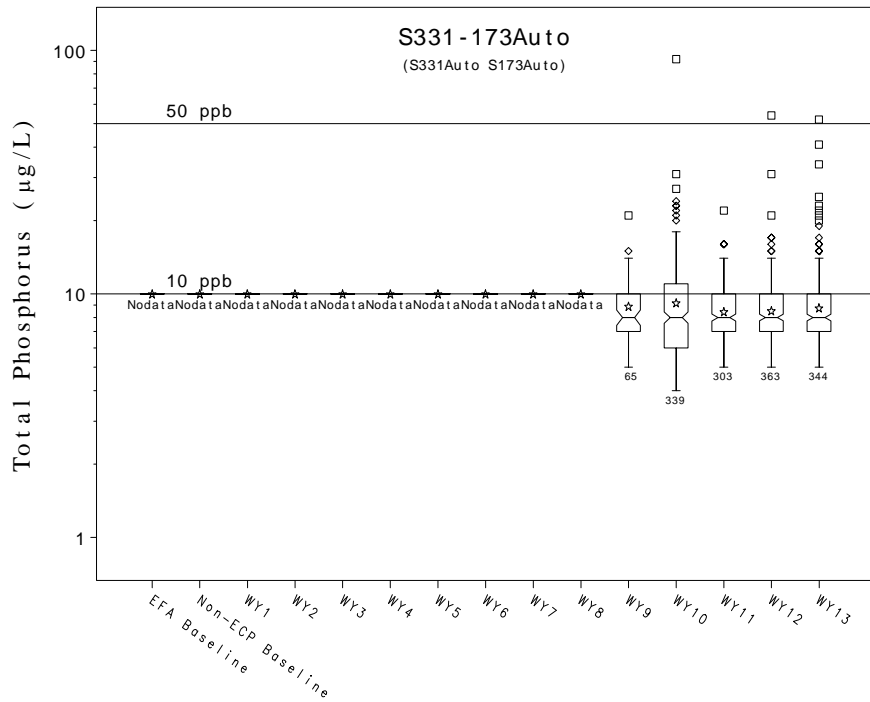
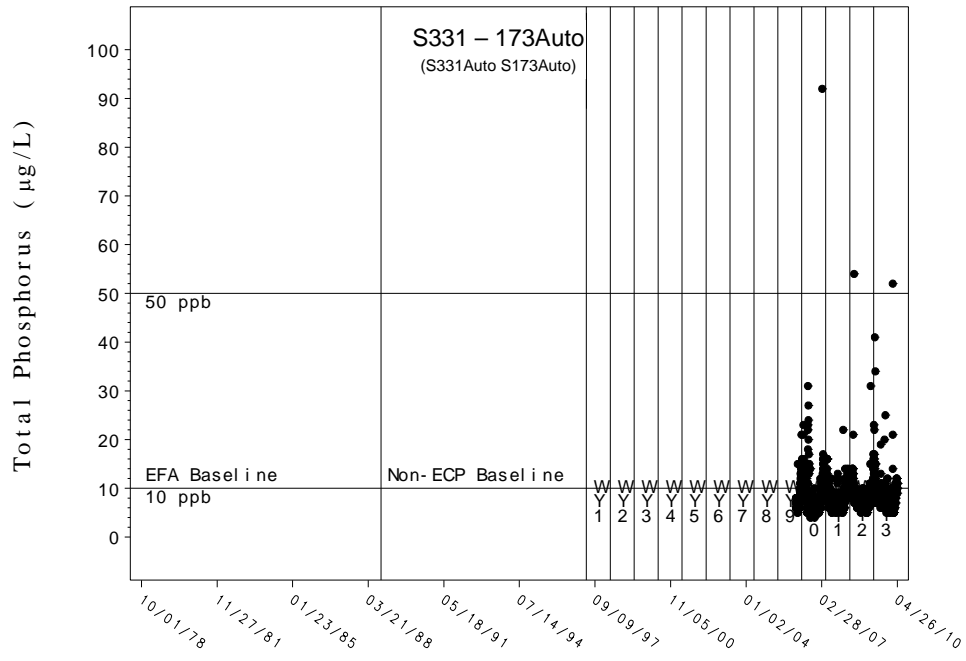


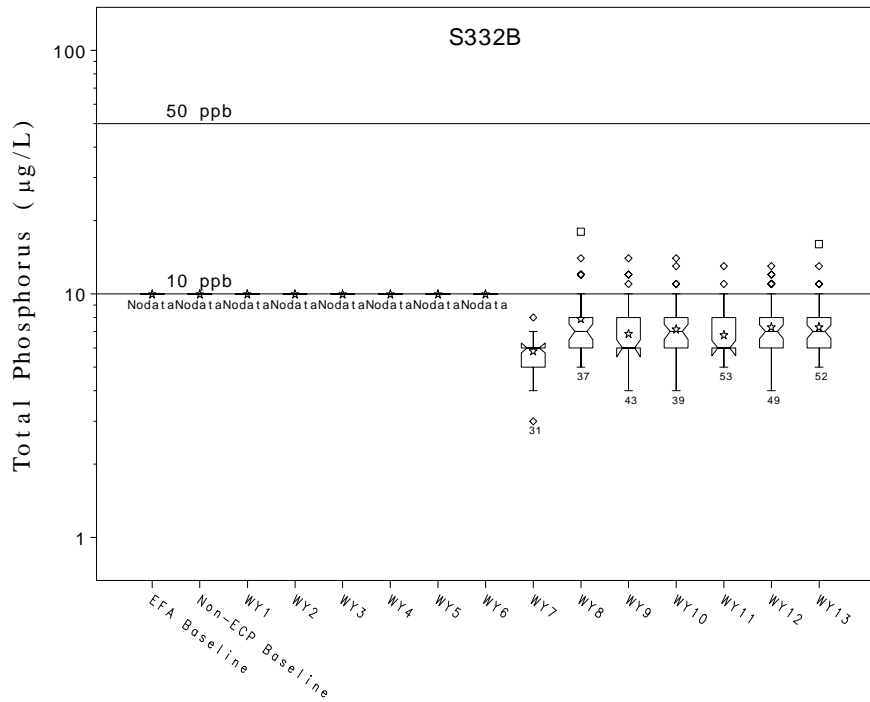
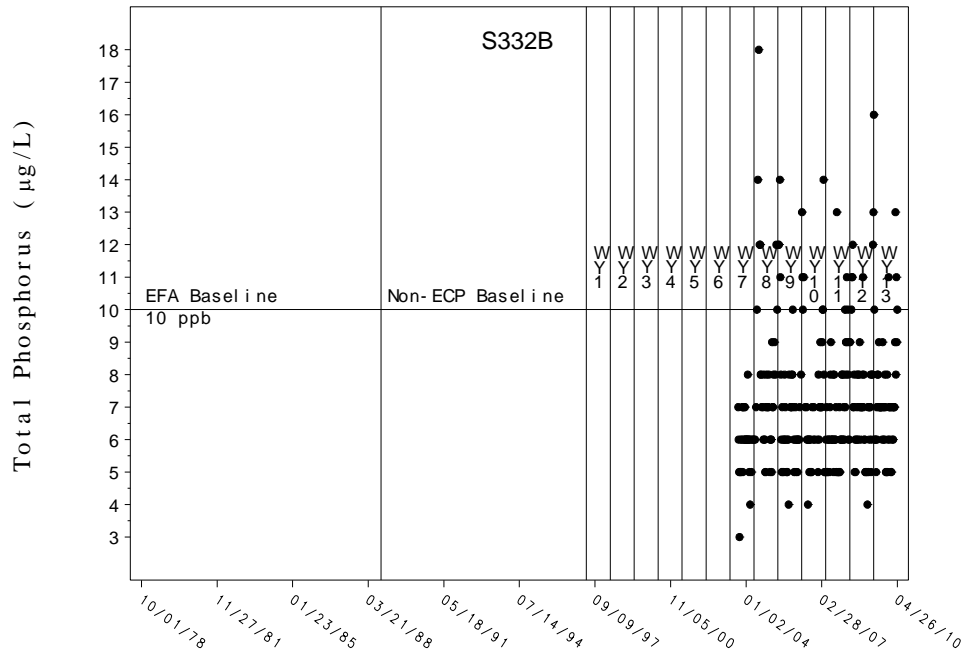


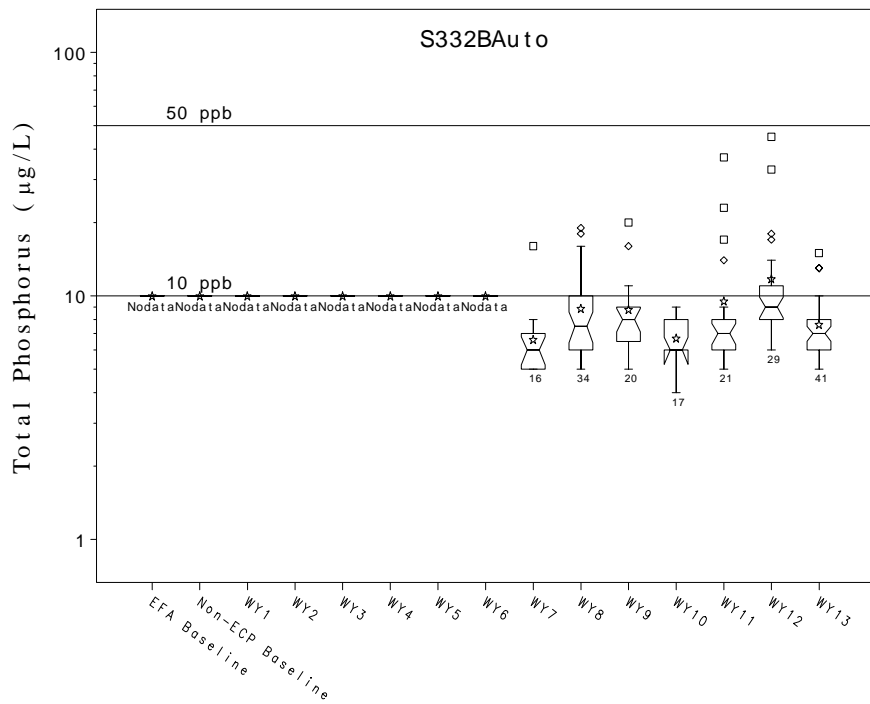
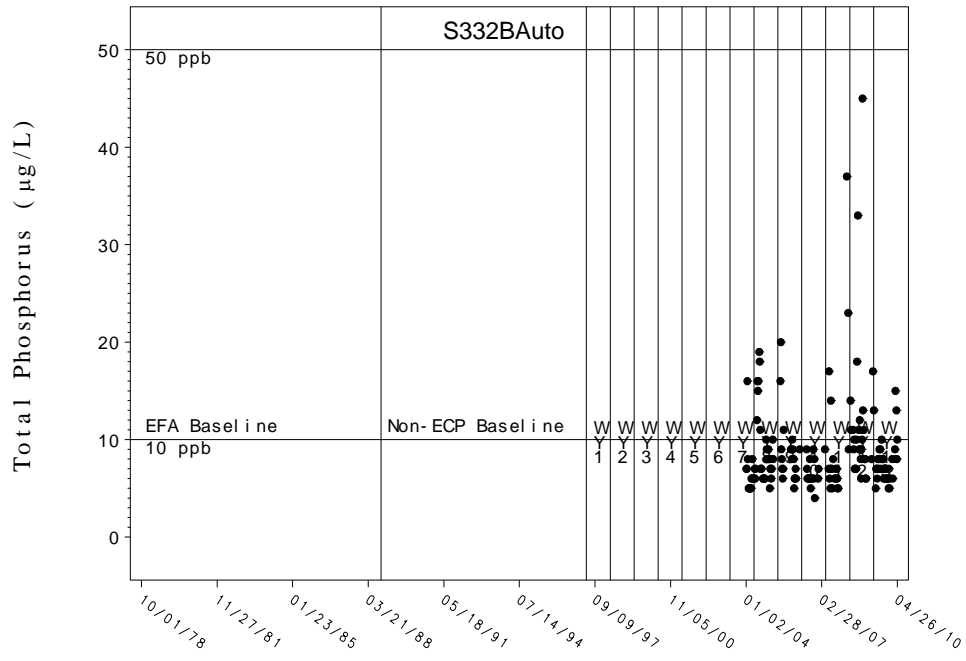


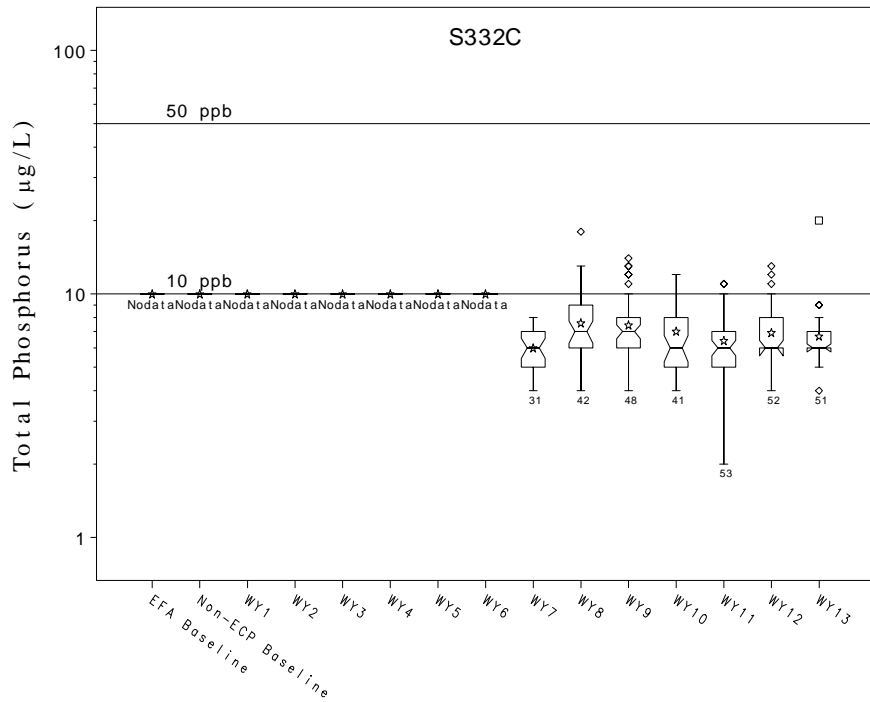
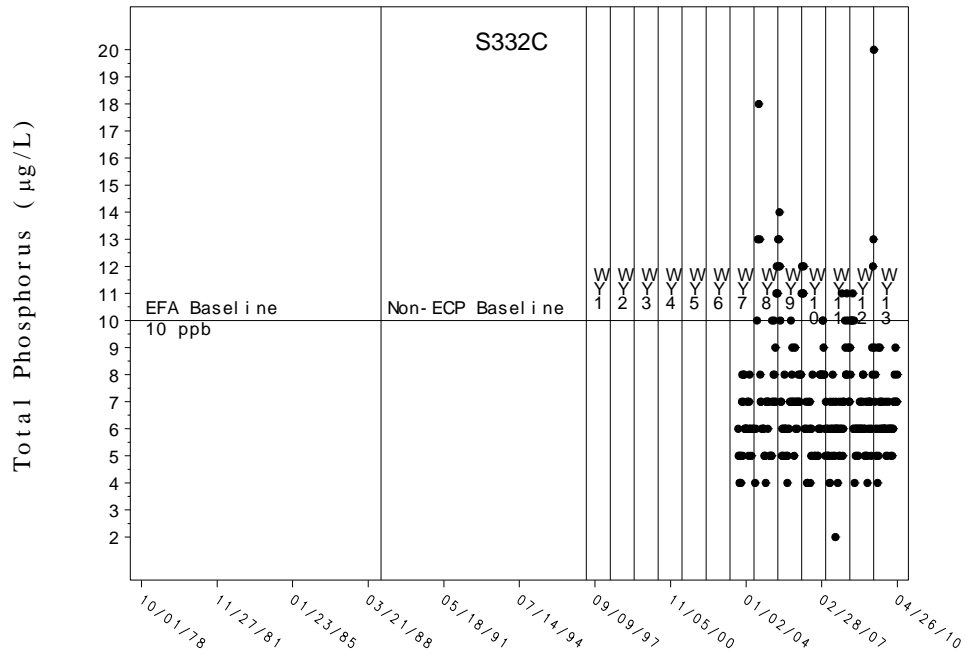


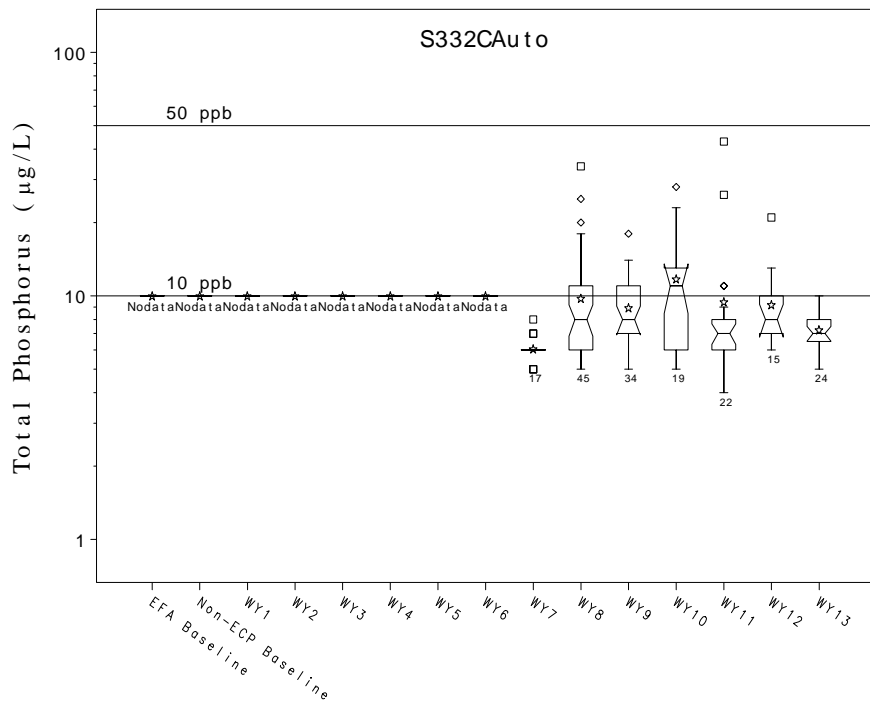
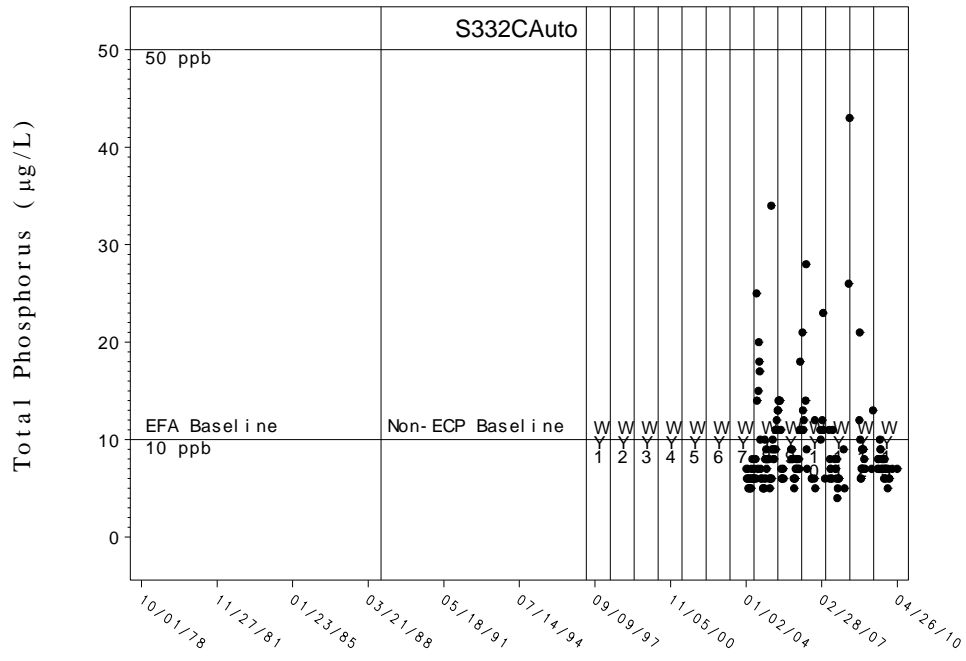


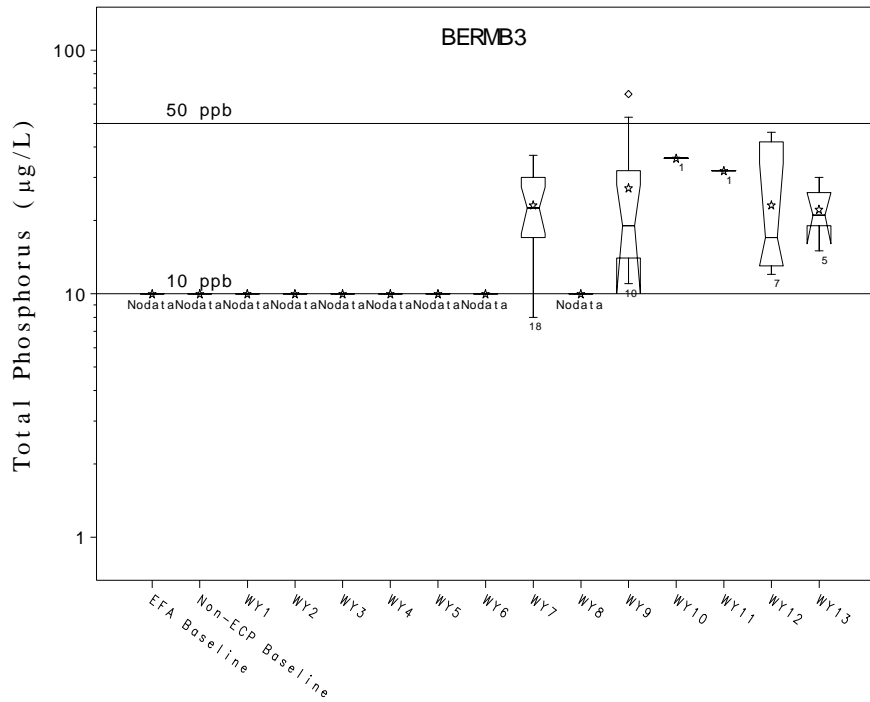
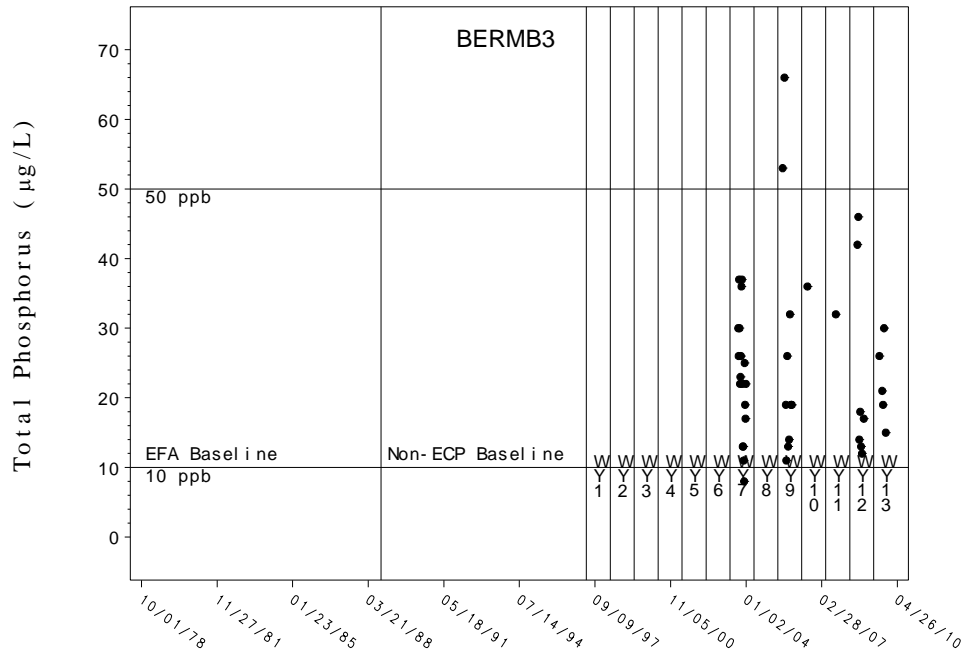












# **Attachment F: Statements of Authenticity for Analytical and Sampling Programs**

**SOUTH FLORIDA WATER MANAGEMENT DISTRICT**

WATER QUALITY ANALYSIS DIVISION 1480-9 Skees Road, West Palm Beach, FL 33411  
(561) 681-2500 • Fax (561) 681-2539 • <http://www.sfwmd.gov/site/index.php?id=339>

**STATEMENT OF AUTHENTICITY OF  
ANALYTICAL PROGRAM**

**DATE:** July 7, 2009  
**PROJECT:** Non-ECP  
**PERMIT:** FDEP Permit No. 06,502590709 (Non-ECP Permit)  
**SUBJECT:** Specific Permit Condition 12(e)

The implementation of the analytical program is in compliance with the procedures for authenticity, precision, detection limits, and accuracy as described in the South Florida Water Management District's Quality Assurance Manual in accordance with the requirements under 62-160 F.A.C and the National Environmental Laboratory Accreditation Conference (NELAC).

A handwritten signature in black ink, appearing to read "David Struve".

David Struve  
Director, Water Quality Analysis Division  
Environmental Monitoring and Assessment Department

7/7/09  
Date





## SOUTH FLORIDA WATER MANAGEMENT DISTRICT

### STATEMENT OF AUTHENTICITY OF SAMPLING PROGRAM

**DATE:** July 22, 2010

**PROJECT:** Non-ECP

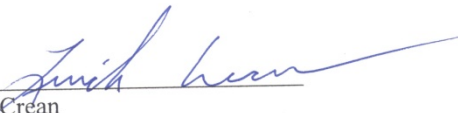
**PERMIT:** FDEP Permit No. 06,502590709 (Non-ECP Permit)

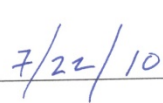
**SUBJECT:** **Permit Specific Condition 12(e)**  
**Reporting Period – May 1, 2009 through April 30, 2010**

The implementation of the sampling program is in compliance with the procedures for authenticity, precision, detection limits, and accuracy as described in the South Florida Water Management District's Quality Assurance Manual in accordance with the requirements under 62-160 F.A.C.

Signature

Date

  
\_\_\_\_\_  
Linda Crean  
Director, Water Quality Monitoring Division  
Environmental Monitoring and Assessment Department

  
\_\_\_\_\_  
7/22/10

**SOUTH FLORIDA WATER MANAGEMENT DISTRICT**

WATER QUALITY ANALYSIS DIVISION 1480-9 Skees Road, West Palm Beach, FL 33411  
(561) 681-2500 • Fax (561) 681-2539 • <http://www.sfwmd.gov/site/index.php?id=339>

**STATEMENT OF AUTHENTICITY OF  
ANALYTICAL PROGRAM**

**DATE:** July 21, 2010  
**PROJECT:** Non-ECP  
**PERMIT:** FDEP Permit No. 06,502590709 (Non-ECP Permit)  
**SUBJECT:** Specific Permit Condition 12(e)

The implementation of the analytical program is in compliance with the procedures for authenticity, precision, detection limits, and accuracy as described in the South Florida Water Management District's Quality Assurance Manual in accordance with the requirements under 62-160 F.A.C. and the National Environmental Laboratory Accreditation Program (NELAP).

A handwritten signature in black ink, appearing to read "David M. Struve", written over a horizontal line.

David M. Struve  
Director, Analytical Services Division  
Restoration Sciences Department

A handwritten date "7/21/10" in black ink, written over a horizontal line.

Date

GOVERNING BOARD

EXECUTIVE OFFICE

# **Attachment G: Supporting Information on Water Quality and Flow Data for Non-ECP Monitoring Locations for Water Year 2010**

Contact: Shi Kui Xue

In accordance with Specific Conditions 12(b) and 12(g)  
of the non-ECP permit (FDEP Permit No. 06, 502590709),  
this supporting information is available upon request.