Annual Report Form
For Individual NPDES Permits For
Municipal Separate Storm Sewer Systems
(RULE 62-624.600(2), F.A.C.)

- This Annual Report Form must be completed and submitted to the Department to satisfy the annual reporting requirements established in Rule 62-624.600, F.A.C.
- Submit this fully completed and signed form and any REQUIRED attachments by email to the NPDES Stormwater Program Administrator or to the MS4 coordinator (http://www.dep.state.fl.us/water/stormwater/npdes/contacts.htm). Files larger than 10MB may be placed on the FTP site at: ftp://ftp.dep.state.fl.us/pub/NPDES_Stormwater/. After uploading files, email the MS4 coordinator or NPDES Program Administrator to notify them the report is ready for downloading; or by mail to the address in the box at right.
- Refer to the Form Instructions for guidance on completing each section.
- **Please print or type information in the appropriate areas below.**

Submit the form and attachments to:
Florida Department of Environmental Protection
Mail Station 3585
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

SECTION I. BACKGROUND INFORMATION			
A.	Permittee Name: Florida Department of Transportation District One		
B.	Permit Name: Palm Beach County MS4		
C.	Permit Number: FLS000018-004		
D.	Annual Report Year: ☐ Year 1 ☒ Year 2 ☐ Year 3 ☐ Year 4 ☐ Year 5 ☐ Other, specify Year:		
E.	Reporting Time Period (month/year): 10 / 2017 through 09 / 2018		
F.	Name of the Responsible Authority: Kelley Hall. P.E.		
	Title: Deputy Maintenance Engineer		
	Mailing Address: P.O. Box 9828		
	City: Ft. Lauderdale	Zip Code: 33310	County: Broward
	Telephone Number: 954-934-1209	Fax Number: 954-934-1354	
	E-mail Address: Kelley.hall@dot.state.fl.us		
G.	Name of the Designated Stormwater Management Program Contact (if different from Section I.F above): Troy Craig		
	Title: NPDES Coordinator		
	Department: Roadway Maintenance		
	Mailing Address: P.O. Box 9828		
	City: Ft. Lauderdale	Zip Code: 33310	County: Broward
	Telephone Number: 954-934-1213	Fax Number: 954-934-1354	
	E-mail Address: troy.craig@dot.state.fl.us		

SECTION II. MS4 MAJOR OUTFALL INVENTORY (Not Applicable In Year 1)	
A.	Number of outfalls ADDED to the outfall inventory in the current reporting year (insert "0" if none): 0 (Does this number include non-major outfalls? ☒ Yes ☐ No ☐ Not Applicable)
B.	Number of outfalls REMOVED from the outfall inventory in the current reporting year (insert "0" if none): 0 (Does this number include non-major outfalls? ☒ Yes ☐ No ☐ Not Applicable)
C.	Is the change in the total number of outfalls due to lands annexed or vacated? ☐ Yes ☐ No ☒ Not Applicable

SECTION III. PART V.B. ASSESSMENT PROGRAM	
A.	Provide a brief statement as to the status of water quality monitoring plan implementation. Status may include sampling frequency changes, monitoring location changes, or sampling waiver conditions. *DEP Note: If permittee participates in a collaborative monitoring plan, permittee may refer to a joint response as defined by the interlocal agreement.* Name and date of the approved plan: **Current approved plan for the Group Monitoring Plan is September 8, 2016 (with issuance of the Cycle 4 permit). Our newly-developed, individual Assessment Plan was submitted on 9/8/17.** Status: **The Group Monitoring Report is included in the Cycle 4, Year 2 Joint Annual Report. The newly-developed, individual Assessment Plan has been approved by FDEP on 5/15/2018.**
B.	Provide a brief discussion of the monitoring and loading results to date which includes a summary of the water quality monitoring data and / or stormwater pollutant loading changes from the reporting year. *DEP Note: Results must be specific to the permittee's SWMP.* ***Please refer to the Cycle 4, Year 2 Joint Annual Report for a summary of the Group's water quality monitoring results for the reporting period. Refer to the Cycle 3, Year 6 Joint Annual Report for proposed pollutant loading analysis changes. The best available information on existing pollutant loading estimates is documented in the Cycle 3, Year 3 Joint Annual Report.***
C.	Attach a monitoring data summary, as required by the permit. Summary must include an analysis of the data to evaluate the relationship between changes in water quality and/or stormwater pollutant loading. *DEP Note: Analysis must be specific to the permittee's SWMP.* **See response for Section III.B., above.**

SECTION IV. FISCAL ANALYSIS	
A.	Total expenditures for the NPDES stormwater management program for the current reporting year: $848,899.66
B.	Total budget for the NPDES stormwater management program for the subsequent reporting year: $17,000,000
C.	Did subsequent program resources decrease from the current reporting period? Y ☐ / N ☒ If program resources decreased, provide a discussion of the impacts on the implementation of the SWMP.

SECTION V. MATERIALS TO BE SUBMITTED WITH THIS ANNUAL REPORT FORM

Only the following materials are to be submitted to the Department along with this fully completed and signed Annual Report Form (check the appropriate box to indicate whether the item is attached or is not applicable):

Attached	N/A	Required Attachments	Permit Citation	Attachment Number/Title
☐	☐	Any additional information required to be submitted in this current annual reporting year in accordance with Part III.A of your permit that is not otherwise included in Section VII below.	Part III.A	
☐	☐	If program resources have decreased from the previous year, a discussion of the impacts on the implementation of the SWMP.	Part II.F	
☐	☐	An explanation of why the minimum inspection frequency in Table II.A.1.a. was not met, if applicable.	Part II.A.1	
☐	☐	A list of the flood control projects that did not include stormwater treatment and an explanation for each of why it did not (if applicable).	Part III.A.4	
☐	☐	A monitoring data summary as directed in Section III.C above and in accordance with Rule 62-624.600(2)(c), F.A.C.	Part V.B.3.	
☐	☐	YEAR 1 ONLY: An inventory of all known major outfalls and a map depicting the location of the major outfalls (hard copy or CD-ROM) in accordance with Rule 62-624.600(2)(a), F.A.C.	Part III.A.1	
☐	☐	Year 3 ONLY: The estimates of pollutant loadings and event mean concentrations for each major outfall or each major watershed in accordance with Rule 62-624.600(2)(b), F.A.C.	Part V.A	
☐	☐	YEAR 3: Summary of TMDL Monitoring Results (if applicable).	Part VIII.B.2	
☐	☐	YEAR 3: Bacteria Pollution Control Plan (if applicable).	Part VIII.B.3	
☐	☐	YEAR 4: A report on any amendments to the applicable legal authority (if applicable).	Part III.A.7.a	
☐	☐	YEAR 4: Permit re-application information in accordance with Rule 62-624.420(2), F.A.C. • The monitoring plan (with revisions, if applicable). • If the total annual pollutant loadings have not decreased over the past two permit cycles, revisions to the SWMP, as appropriate.	Part V.B.3 Part V.A.3	
☐	☐	YEAR 4: TMDL Supplemental SWMP (if applicable).	Part VIII.B.3	

DO NOT SUBMIT ANY OTHER MATERIALS
(such as records and logs of activities, monitoring raw data, public outreach materials, etc.)

SECTION VI. CERTIFICATION STATEMENT AND SIGNATURE

The Responsible Authority listed in Section I.F above must sign the following certification statement, as per Rule 62-620.305, F.A.C:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based upon my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name of Responsible Authority (type or print): Kelley Hall, P.E.

Title: Deputy Maintenance Engineer

Signature: Kelley Hall Date: 3/12/2019

SECTION VII.	STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE								
A.	**B.**					**C.**	**D.**	**E.**	**F.**
Permit Citation/ SWMP Element	**Permit Requirement/Quantifiable SWMP Activity**					**Number of Activities Performed**	**Documentation / Record**	**Entity Performing the Activity**	**Comments**
Part III.A.1	**Structural Controls and Stormwater Collection Systems Operation**								
	Report the current known inventory. Report the number of inspection and maintenance activities conducted for each applicable type of structure included in Table II.A.1.a, and the percentage of the total inventory of each type of structure inspected and maintained. *Note: Delete structures that are not in your MS4's inventory. The permittee may choose its own unit of measurement for each structural control to be consistent with the unit of measurement in the documentation. Unit options include: miles, linear feet, acres, etc.*								
	Type of Structure	**Number of Structures**	**Number of Inspections**	**Percent Inspected**	**Number of Maintenance Activities**	**Percent Maintained**			
	Dry retention systems	25	25	100%	25	100%	GIS Collector	NPDES Coordinator & Roadway Maintenance	
	Underdrain filter systems	0	0	0	0	0			
	Exfiltration trench / French drains (lf)	0	0	0	0	0			
	Grass treatment swales (miles)	27.85	63	100%	63	100%	GIS inventory OMS	NPDES Coordinator & Roadway Maintenance	NPDES Coordinator & Maintenance Contractors
	Dry detention systems	7	7	100%	7	100%	GIS Collector	NPDES Coordinator & Roadway Maintenance	
	Wet detention systems	7	7	100%	7	100%	GIS Collector	NPDES Coordinator & Roadway Maintenance	
	Detention with filtration systems	0	0	0	0	0			
	Alum Injection systems	0	0	0	0	0			
	Pollution control boxes	0	0	0	0	0			
	pump stations	0	0	0	0	0			

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	Major outfalls	14	14	100%	14	100%	GIS Inventory,OMS,	NPDES Coordinator & Roadway Maintenance	
	Weirs or other control structures	14	14	100%	14	100%	GIS Inventory,OMS, MRP	NPDES Coordinator & Roadway Maintenance	Included with major outfalls,ponds, inlets and catch basins.
	pipes / culverts (LF)	14,828	N/A	6%	6,450	43%	GIS Inventory RCI, OMS, MRP	Roadway Maintenance & Construction	6,450 LF cleaned
	Canals	2	2	100%	0	100%	GIS Inventory RCI, OMS, MRP	NPDES Coordinator & Roadway Maintenance	For future reports canals will be in 1000 ft sections.
	Inlets / catch basins / grates	601	65	10%	65	10%	GIS Inventory RCI, OMS, MRP	Roadway Maintenance & Construction	
	Ditches / conveyance swales (miles)	27.85	63	100%	63	100%	RCI/OMS/MRP	Roadway Maintenance & Construction	
	If the minimum inspection frequencies set forth in Table II.A.1.a. of the permit or the SSWMP were not met, provide as an attachment an explanation of why they were not and a description of the actions that will be taken to ensure that they will be met.	☐							

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Permit Citation/ SWMP Element	**Permit Requirement/Quantifiable SWMP Activity**	**Number of Activities Performed**	**Documentation / Record**	**Entity Performing the Activity**	**Comments**
Part III.A.1 Summary	Provide an evaluation of the Stormwater Management Program according to Part VI.B.3 of the permit.				
	Strengths: FTE has implemented Ponds and Canal Maintenance Contract.				
	Limitations: Part of Palm Beach County is in AM contract.				
	SWMP revisions implemented to address limitations: None at this time.				
Part III.A.2	**Areas of New Development and Significant Redevelopment**				
	Continue to employ the FDOT Drainage Connection Permit requirements to ensure that appropriate stormwater treatment and permitting occurs prior to discharge into the FDOT system. FDOT shall refer connecting entities failing to meet the DCP requirements or maintain the discharge of acceptable water quality, after sufficient warning by FDOT, to DEP and/or the appropriate Water Management District to regulate the stormwater quality through local or State rules, ordinances, and codes. Report the number of enforcement referrals completed.				
	Number of enforcement referrals completed	0	NPDES	Palm Beach County	
Part III.A.2 Summary	Provide an evaluation of the Stormwater Management Program according to Part VI.B.3 of the permit.				
	Strengths: Permit requirements to ensure that appropriate stormwater treatment and permitting occurs.				
	Limitations: very little control over quality of water entering FDOT system.				
	SWMP revisions implemented to address limitations: None at this time.				
Part III.A.3	**Roadways**				
	Report on the litter control program, including the frequency of litter collection, an estimate of the total number of road miles cleaned or amount of area covered by the activities, and an estimate of the quantity of litter collected. *Note: The permittee does not contract activities, delete CONTRACTOR activities.*				
	PERMITTEE Litter Control: Frequency of litter collection	N/A	N/A	N/A	We pick up litter off the road every day. We just don't quantify it.
	PERMITTEE Litter Control: Estimated amount of area maintained (lf)	N/A	N/A	N/A	
	PERMITTEE Litter Control: Estimated amount of litter collected (cy)	N/A	N/A	N/A	
	CONTRACTOR Litter Control: Frequency of litter collection	54 cycles	OMS	Knight Property Jorgensen	
	CONTRACTOR Litter Control: Estimated amount of area maintained (lf)	26,862. ACRE	OMS	Knight Property Jorgensen	
	CONTRACTOR Litter Control: Estimated amount of litter collected (cy)	186,926.00 lbs	OMS and NPDES	Knight Property Jorgensen	Dump tickets
	OPTIONAL: If an Adopt-A-Road or similar program is implemented, report the total number of road miles cleaned and an estimate of the quantity of litter collected. If you do not participate in an Adopt-A-Road program, report "0".				

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Permit Citation/ SWMP Element	**Permit Requirement/Quantifiable SWMP Activity**	**Number of Activities Performed**	**Documentation / Record**	**Entity Performing the Activity**	**Comments**
	Trash Pick-up Events: Total miles cleaned	N/A			
	Trash Pick-up Events: Estimated amount of litter collected (cy)	N/A			
	Adopt-A-Road: Total miles cleaned	N/A			
	Adopt-A-Road: Estimated amount of litter collected (cy)	N/A			
	Report on the street sweeping program, including the frequency of the sweeping, total miles swept, an estimate of the quantity of sweepings collected, and the total nitrogen and total phosphorus loadings that were removed by the collection of sweepings. If no street sweeping program is implemented, provide the explanation of why not in column F.				
	Frequency of street sweeping	87 cycles	OMS, AM Report	Star Cleaning USA	
	Total miles swept	9,530	OMS, AM Report	Star Cleaning USA	
	Estimated quantity of sweeping material collected (cy / tons)	253.51	NPDES Coordinator	NPDES Coordinator	
	Total phosphorous loadings removed (pounds)	183	NPDES Coordinator	NPDES Coordinator	FSA Assesment Tool
	Total nitrogen loadings removed (pounds)	286	NPDES Coordinator	NPDES Coordinator	FSA Assesment tool
	Report the equipment yards and maintenances shops that support road maintenance activities, and the number of inspections conducted for each facility.				
	Name of Facility	**Number of Inspections**			
	FTE does not have any.	N/A			

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Part III.A.3 Summary	Provide an evaluation of the Stormwater Management Program according to Part VI.B.3 of the permit.				
	Strengths: FTE increases sweeping and litter collection as needed.				
	Limitations: 3 landfills on system and garbage trucks lose a lot of garbage on the road.				
	SWMP revisions implemented to address limitations: None at this time.				
Part III.A.4	**Flood Control Projects**				
	Report the total number of flood control projects that were constructed by the permittee during the reporting period and the number of those projects that did NOT include stormwater treatment. The permittee shall provide a list of the projects where stormwater treatment was not included with an explanation for each of why it was not. Report on any stormwater retrofit planning activities and the associated implementation of retrofitting projects to reduce stormwater pollutant loads from existing drainage systems that do not have treatment BMPs.				
	Flood control projects completed during the reporting period	0	Project Solve	TPK Construction	
	Flood control projects completed that did not include stormwater treatment	0	Project Solve	TPK Construction	
	Stormwater retrofit projects planned/under construction	0	Project Solve	TPKConstruction	
	Stormwater retrofit projects completed	0	Project Solve	TPK Construction	
	If there were projects that did not include stormwater treatment, provide as an attachment a list of the projects and an explanation for each of why it did not.	☐			
Part III.A.4 Summary	Provide an evaluation of the Stormwater Management Program according to Part VI.B.3 of the permit.				
	Strengths: FTE always meets required treatment for stormwater discharge.				
	Limitations: None				
	SWMP revisions implemented to address limitations: None at this time.				

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Permit Citation/ SWMP Element	**Permit Requirement/Quantifiable SWMP Activity**	**Number of Activities Performed**	**Documentation / Record**	**Entity Performing the Activity**	**Comments**
Part III.A.5	**Municipal Waste Treatment, Storage, and Disposal Facilities Not Covered by an NPDES Stormwater Permit**				
	Report the applicable facilities and the number of the inspections conducted for each facility.				
	Name of Facility	**Number of Inspections**			
	FTE does not have any	N/A			
Part III.A.5 Summary	Provide an evaluation of the Stormwater Management Program according to Part VI.B.3 of the permit.				
	Strengths: N/A				
	Limitations: N/A				
	SWMP revisions implemented to address limitations: N/A				
Part III.A.6	**Pesticides, Herbicides, and Fertilizer Application**				
	Report the number of permittee personnel applicators and contracted commercial applicators of pesticides and herbicides who are FDACS certified / licensed. Report the number of permittee personnel who have been trained through the Green Industry BMP Program and the number of contracted commercial applicators of fertilizer who are FDACS certified / licensed.				
	PERSONNEL: FDACS certified applicators of pesticides/herbicides	2	Roadway staff licences	Roadway Maintenance staff	
	CONTRACTORS: FDACS certified/licensed applicators of pesticides/ herbicides	6	Roadway Maintenance Contract	Crause services, T&M and Jorgensen	
	PERSONNEL: Green Industry BMP Program training completed	2	NPDES record	Environmental Program Manager	
	CONTRACTORS: FDACS certified / licensed applicators of fertilizer	0	Roadway Maintenance Contract	Crause services, T&M and Jorgensen	
Part III.A.6 Summary	Provide an evaluation of the Stormwater Management Program according to Part VI.B.3 of the permit.				
	Strengths: Application is being done correctly due to FTE hiring licenced and certified applicators.				
	Limitations: Knowing if the applicators are the licenced person.				
	SWMP revisions implemented to address limitations: None at this time.				
Part III.A.7.a	**Illicit Discharges and Improper Disposal — Inspections, Ordinances, and Enforcement Measures**				
	Not Applicable to FDOT. Enforcement is completed through our Joint Part Agreements.				

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Part III.A.7.c	**Illicit Discharges and Improper Disposal — Investigation of Suspected Illicit Discharges and/or Improper Disposal**				
	Report on the proactive inspection program, including the number of inspections conducted by the permittee, the number of illicit activities found, and the number and type of enforcement actions taken.				
	Proactive inspections for suspected illicit discharges	32	MRP Inspections	Turnpike Roadway Maintenance	MRP inspections, spills and Construction inspections.
	Illicit discharges found during a proactive inspection	0			
	Number of enforcement referrals completed	0			
	Report on the reactive investigation program as it relates to responding to reports of suspected illicit discharges, including the number of reports received, the number of investigations conducted, the number of illicit activities found, and the number and type of enforcement actions taken.				
	Reports of suspected illicit discharges received	0	NPDES Coordinator	NPDES Coordinator	
	Reactive investigations of reports of suspected illicit discharges etc.	0	NPDES Coordinator	NPDES Coordinator	
	Illicit discharges etc. found during reactive investigation	0	NPDES Coordinator	NPDES Coordinator	
	Number of enforcement referrals completed	0	NPDES Coordinator	NPDES Coordinator	
	Report the type of training activities, and the number of permittee personnel and contractors trained (both in-house and outside training) within the reporting year.				
	Personnel trained	13	Tier 1 IDDE cert	FDOT	TRESS # BT-19-0048
	Contractors trained	35	Tier 1 IDDE cert	FDOT	TRESS # BT-19-0048
Part III.A.7.d	**Illicit Discharges and Improper Disposal — Spill Prevention and Response**				
	Report on the spill prevention and response activities, including the number of spills addressed.				
	Hazardous and non-hazardous material spills responded to	9	HRC and TPK Permitting	Turnpike contaminatio n coordinator	
	Report the type of training activities, and the number of permittee personnel and contractors trained (both in-house and outside training) within the reporting year.				
	Personnel trained	2	NPDES Coordinator	Turnpike Roadway Maintenance	40hr HAZWOPER Training
	Contractors trained	12	HRC ER response personel	HRC	40hr HAZWOPER Training

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Part III.A.7.e	**Illicit Discharges and Improper Disposal — Public Reporting**				
	Not Applicable to FDOT.				
Part III.A.7.f	**Illicit Discharges and Improper Disposal — Oils, Toxics, and Household Hazardous Waste Control**				
	Continue to include a notice with each FDOT Drainage Connection Permit with information on used oil recycling, proper hazardous waste disposal, stormwater regulations, and spill reporting. Report the number of notices distributed.				
	Number of notices distributed	2	Permits Coordinator	Turnpike Roadway Maintenance	
Part III.A.7.g	**Illicit Discharges and Improper Disposal — Limitation of Sanitary Sewer Seepage**				
	Advise the appropriate utility owner of a violation if constituents common to wastewater contamination are discovered in FDOT's MS4. Report the number of violations referred to the appropriate utility owner and the name of the utility owner.				
	Owner of the sanitary sewer system				
	Number of violations referred	0	NPDES Coordinator	NPDES Coordinator	
Part III.A.7 Summary	For activities required by Part III.A.7: Provide an evaluation of the Stormwater Management Program according to Part VI.B.3 of the permit.				
	Strengths: FTE has a comprehensive illicit discharge training online for all contractors and staff.				
	Limitations: Difficult to get everyone to do the training every year.				
	SWMP Revisions implemented to address limitations: None at this time.				
Part III.A.8.a	**Industrial and High-Risk Runoff — Identification of Priorities and Procedures for Inspections**				
	Report on the high risk facilities inventory, including the type and total number of high risk facilities and the number of facilities newly added each year. Report on the high risk facilities inspection program, including the number of outfall inspections conducted and the number of enforcement referrals completed.				

Type of Facility	Number of Facilities	Number of Inspections	Enforcement Referrals			
Operating municipal landfills	N/A	N/A	N/A			FTE does not operate these facilities.
Hazardous waste treatment, storage, disposal and recovery (HWTSDR) facilities	N/A	N/A	N/A			
EPCRA Title III, Section 313 facilities (TRI)	N/A	N/A	N/A			
Facilities determined as high risk by the permittee	N/A	N/A	N/A			None identified

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Part III.A.8.b	**Industrial and High-Risk Runoff — Monitoring for High Risk Industries**				
	Not Applicable to FDOT.				
Part III.A.8 Summary	For activities required by Part III.A.8: Provide an evaluation of the Stormwater Management Program according to Part VI.B.3 of the permit.				
	Strengths: N/A				
	Limitations: N/A				
	SWMP revisions implemented to address limitations: N/A				
Part III.A.9.a	**Construction Site Runoff — Site Planning and Non-Structural and Structural Best Management Practices**				
	Employ FDOT DCP conditions that include the use of stormwater, erosion, and sedimentation control BMPs during construction to reduce pollutants to the MS4 and receiving waters. Report the number of permits issued.				
	Number of Discharge Connection Permits issued	2	TPK Permits Department	TPK Permits Department	
Part III.A.9.b	**Construction Site Runoff — Inspection and Enforcement**				
	Report on the inspection program for privately-operated and permittee-operated construction sites, including the number of active construction sites during the reporting year, the number of inspections of active construction sites, the percentage of active construction sites inspected, and the number and type of enforcement actions / referrals taken. For FDOT District Five, privately-operated sites are those sites within FDOT's right-of-way that were issued a DCP.				
	PERMITTEE SITES: Active construction sites	3	Project Solve	TPK Construction	Project was a resurfacing
	PERMITTEE SITES: Pre-, During, and Post inspections of active construction sites for E&S and waste control BMPs	31	Project Solve	TPK Construction	More inspections occurred, but were out side of reporting period.
	PERMITTEE SITES: Percentage of active construction sites inspected	100%	Project Solve	TPK Construction	
	PRIVATE SITES: Active construction sites	N/A			
	PRIVATE SITES: Pre-, During, and Post inspections of active construction sites for E&S and waste control BMPs	N/A			
	PRIVATE SITES: Percentage of active construction sites inspected	N/A			
	Enforcement Action	0	Project Solve	TPK Construction	
Part III.A.9.c	**Construction Site Runoff — Site Operator Training**				
	Report the type of training activities, the number of inspectors, site plan reviewers and site operators trained (both in-house and outside training).				
		DEP Certification	**Annual Training**		
	Permittee construction site inspectors	**7**	7	TPK Construction	TPK Construction

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	Permittee construction site plan reviewers	N/A	Construction	Construction	
	Permittee construction site operators	N/A			
Part III.A.9 Summary	For activities required by Part III.A.9: Provide an evaluation of the Stormwater Management Program according to Part VI.B.3 of the permit.				
	Strengths: FTE Project Solve is a very efficient way to track construction projects.				
	Limitations: FTE uses CEI's to conduct SWPP inspections. NPDES Coordinator is not involved, unless there is a problem.				
	SWMP revisions implemented to address limitations: Not at this time.				

SECTION VIII. CHANGES TO THE STORMWATER MANAGEMENT PROGRAM (SWMP) ACTIVITIES (Not Applicable In Year 4)		
A.	**Permit Citation/ SWMP Element**	**Proposed Changes to the Stormwater Management Program Activities Established as Specific Requirements Under Part III.A of the Permit (Including the Rationale for the Change) — REQUIRES DEP APPROVAL PRIOR TO CHANGE IF PROPOSING TO REPLACE OR DELETE AN ACTIVITY.**
		No proposed changes at this time.
B.	**Permit Citation/ SWMP Element**	**Changes to the Stormwater Management Program Activities NOT Established as Specific Requirements Under Part III.A of the Permit (Including the Rationale for the Change)**
		No proposed changes at this time.

SECTION IX. TMDL Status Report

A. YEAR 1 Provide a table summarizing the status of the TMDL process. Include a list of prioritized TMDLs and their monitoring and implementation schedule; and include the Identification number of the outfall prioritized for TMDL monitoring.

WBID Number	Segment/ Waterbody/ Basin	Pollutant of Concern	TMDL DEP / EPA	Percent Reduction (WLA)	Priority Rank	Priority Outfall	Monitoring Summary / BPCP Due Date	Supplemental SWMP Due Date
3226C	Loxahatchee River	Fecal Coliform	☒ / ☒	91%	1	N93013	(*Year 3 AR*)	(*Year 4 AR; N/A) if BPCP*)
			☐ / ☐					
			☐ / ☐					

B. YEAR 3 and annually thereafter, provide a summary of the estimated load reductions that have occurred for the pollutant(s) of concern being discharged from the MS4 to the TMDL water body during the reporting period and cumulatively since the date the Supplemental SWMP was implemented.

Year 3: Submit a Monitoring data summary or BPCP (if applicable).

Year 4: Submit a Supplemental SWMP (if applicable).

WBID Number	Pollutant of Concern	Monitoring Summary / BPCP Submitted	Supplemental SWMP Submitted	Projected load reductions OR Actual load reductions to date
		(*Year 3 AR*)	(*Year 4 AR; N/A if BPCP*)	

C. Provide a brief statement as to the status of TMDL implementation according to Part VIII.B. of the permit (e.g. status of monitoring to validate WLA):

FTE is evaluating its Fecal Coliform contribution to WBID 3226C with a Walk the Right of Way Report. We are also participating in the LOX River (RAP)

FTE NPDES Assessment Report

Assessment Report Objective:

The objective of this assessment report is to provide information for the Florida's Turnpike Enterprise (FTE) to determine the overall effectiveness of its Stormwater Management Program (SWMP) in reducing stormwater pollutant loading for its Municipal Separate Storm Sewer System (MS4) to receiving water bodies.

Assessment Approach:

Florida's Turnpike Enterprise uses a two-part approach to evaluate water quality and pollutant loading within its discharge areas. This evaluation and response plan includes using Palm Beach County ambient water quality station data in conjunction with Palm Beach County specific pollutant loading Event Mean Concentration (EMC) Value for major highways in the year 3 assessment. This approach allows FTE to; evaluate trends in pollutants loading from the MS4, evaluate trends in water quality (of discharge from the MS4), and identify portions of the MS4 to be targeted for loading reduction/corrective action.

Palm Beach County Monitoring Locations:

Based on the location of the outfalls of our MS4, eight monitoring stations have been selected. The following table identifies these monitoring stations, along with relevant information about each location.

Monitoring Station #	Location Description	Receiving Water Body	Parameters Sampled
C18G92	Palm Beach Co Sta	C-18	TN,TP,DO,CON,PH, Chl-a, Temp, Metals
C18S46	Palm Beach Co Sta	C-18	TN,TP,DO,CON,PH, Chl-a, Temp, Metals
38B	Palm Beach Co Sta	C-51	TN,TP,DO,CON,PH, Chl-a, Temp, Metals
37B	Palm Beach Co Sta	C-51	TN,TP,DO,CON,PH, Chl-a, Temp, Metals
C51S155	Palm Beach Co Sta	C-51	TN,TP,DO,CON,PH, Chl-a, Temp, Metals
27B	Palm Beach Co Sta	C-16	TN,TP,DO,CON,PH, Chl-a, Temp, Metals
27A	Palm Beach Co Sta	C-16	TN,TP,DO,CON,PH, Chl-a, Temp, Metals
31E	Palm Beach Co Sta	C-15	TN,TP,DO,CON,PH, Chl-a, Temp, Metals
C15S40	Palm Beach Co Sta	C-15	TN,TP,DO,CON,PH, Chl-a, Temp, Metals

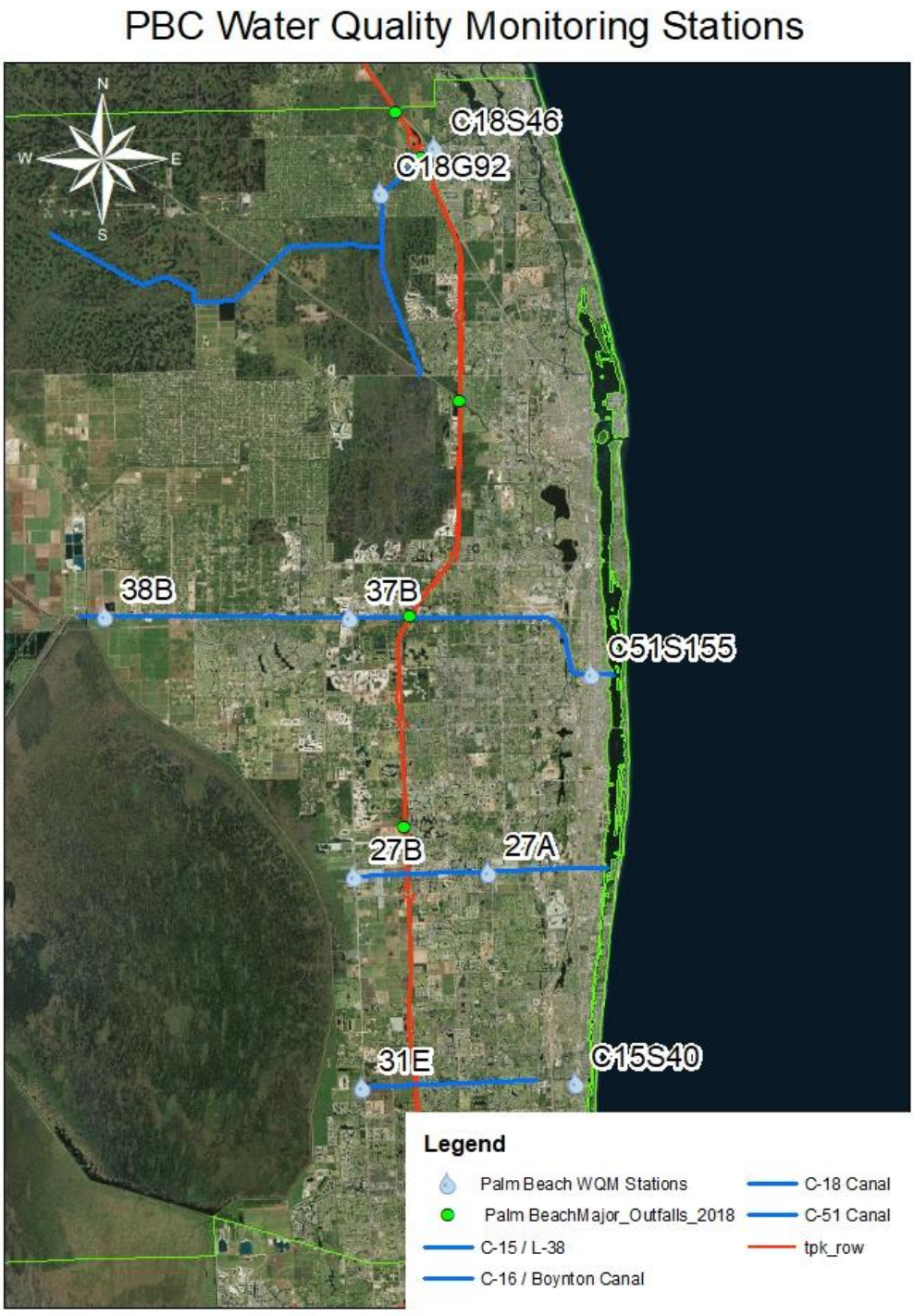

PBC Water Quality Monitoring Stations
N
W
E
S
C18S46
C18G92
38B
37B
C51S155
27B
27A
31E
C15S40
Legend
Palm Beach WQM Stations
Palm BeachMajor_Outfalls_2018
C-15 / L-38
C-16 / Boynton Canal
C-18 Canal
C-51 Canal
tpk_row

Figure 1.

C-18 Basin:

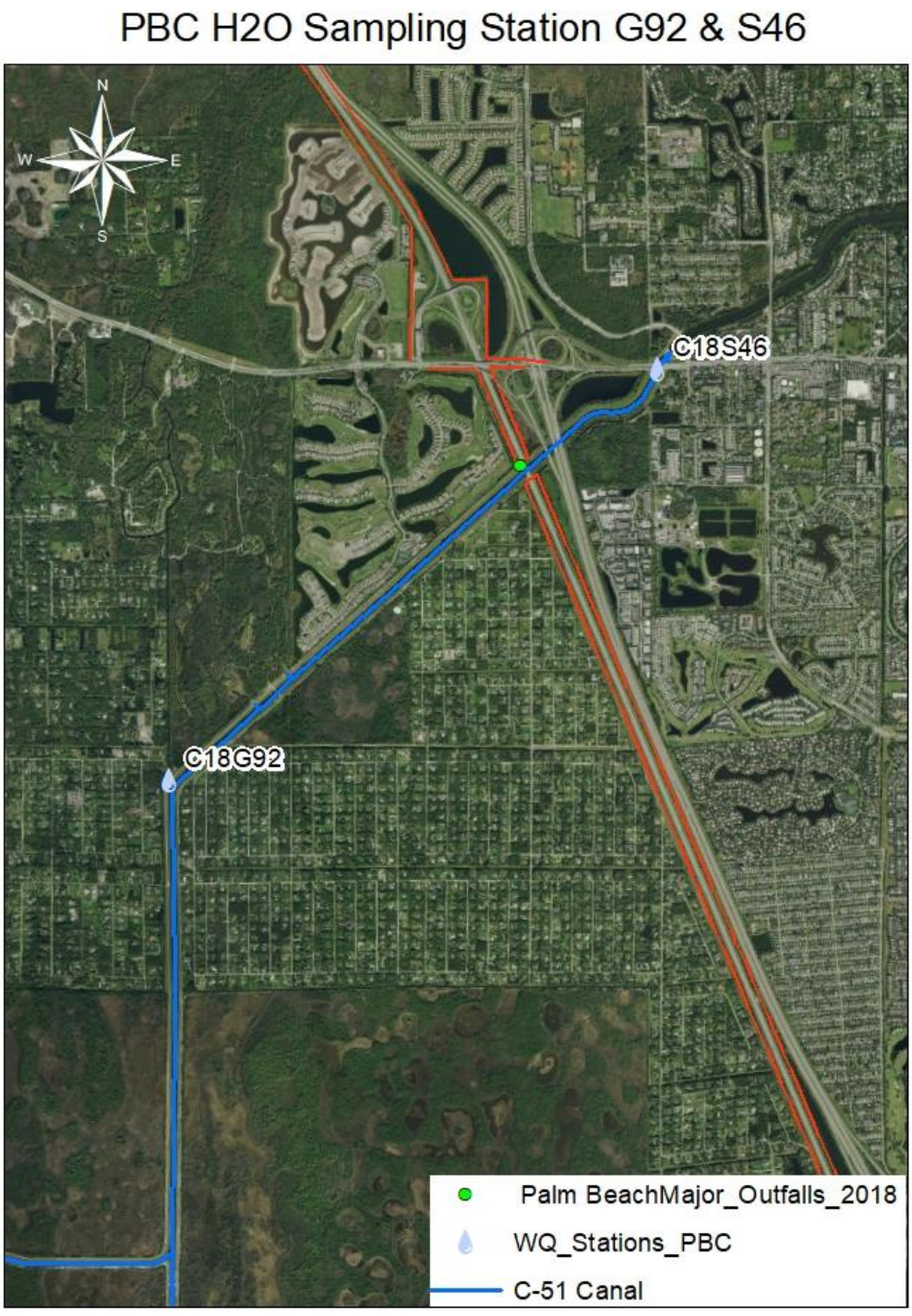
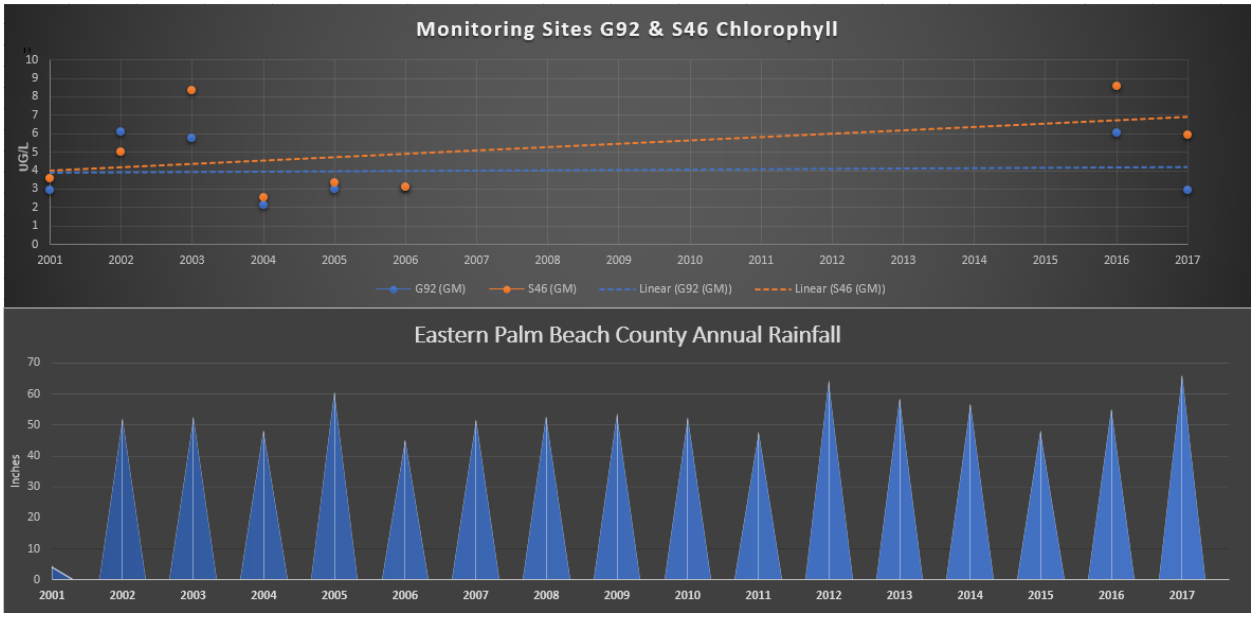


Figure 2.

C-18 Basin:

The C-18 Canal flows north-south, through the C-18 basin, an area of approximately 105.8 square miles (Figure 2). The canal is an extension of the Southwest Fork of the Loxahatchee River. The S-46 controls surface water elevations in C-18. The primary functions of the C-18 canal and control structures are flood protection, water supply, and water table maintenance. These features are also used to augment flows in the Northwest Fork of the Loxahatchee River. Water is supplied to the Northwest Fork of the Loxahatchee River from the C-18 by way of the G-92 structure and canals of the South Indian River Water Control District (SIRWCD).

Graph 1. C-18 Basin Monitoring stations G92 & S46 Chlorophyll:



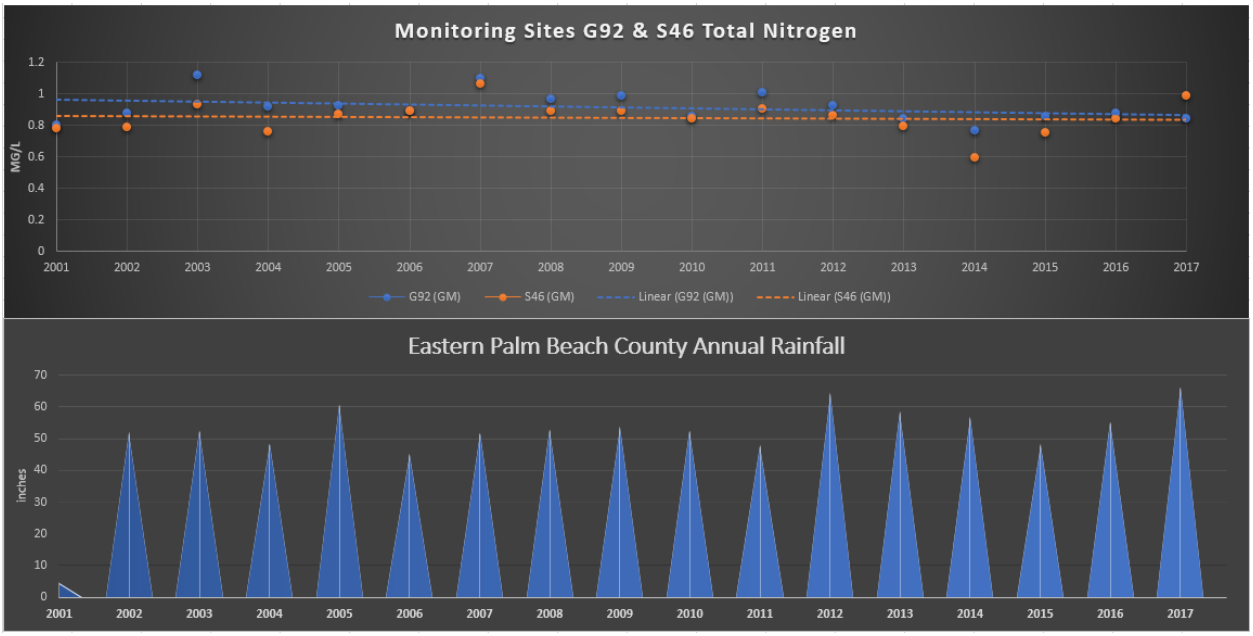
Evaluation:

Monitoring station G-92, west or upstream of FTE in the Jupiter Farms area provides background monitoring for chlorophyll-a values before the influence of FTE. Monitoring station G-92 had chlorophyll-a values ranging from 1 µ/L to 15.3 µ/L and a geometric mean of 3.72 µ/L over the 17-year monitoring period. Unfortunately, sample values are missing between 2007 and 2015, not allowing for a linear projection. However, available data years 2001-2006 & 2016, 2017 shows a slight increase of chlorophyll-a levels. This could potentially be due to large rain events, gate operation, and increase urbanization within the area.

Monitoring station S-46 is located east or downstream of FTE and north of Indiantown Rd had chlorophyll-a values ranging from 1 µ/L to 13.3 µ/L and a geometric mean of 4.59 µ/L. Headwaters show us increased chlorophyll-a values along the time scale. Based on the data chlorophyll-a is higher at the monitoring station S-46 east of FTE than station G-92. The highest value was 13. 3µg/L, well below water quality standard of 20 µg/L exceedance for freshwater Class III systems.

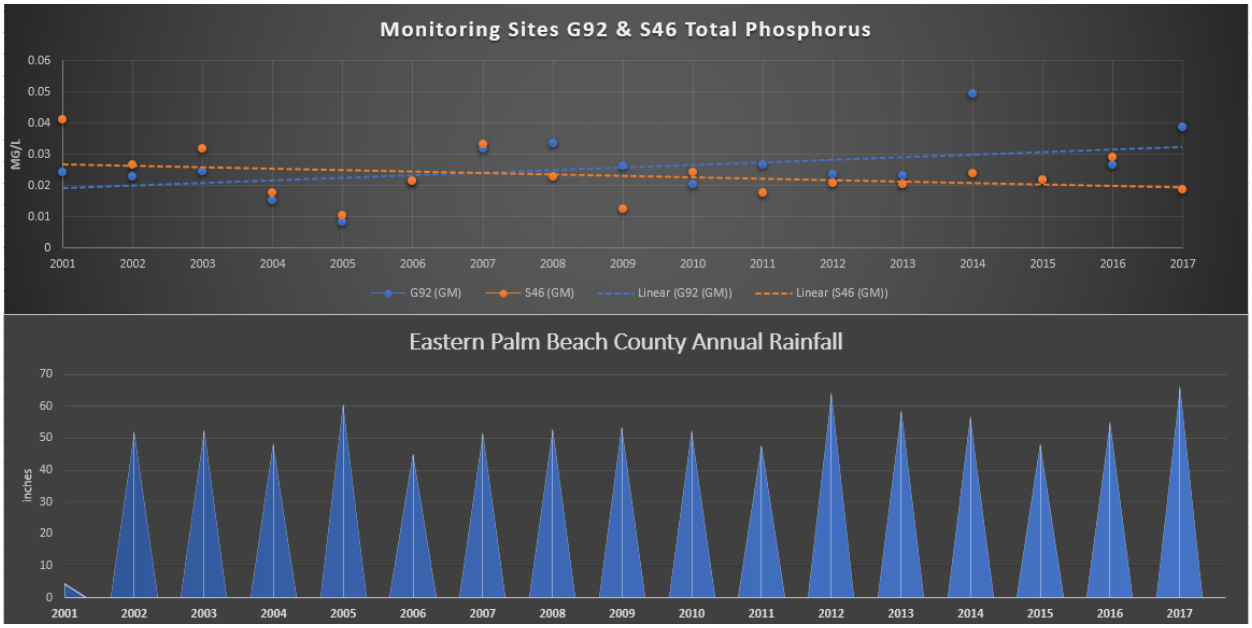
Chlorophyll-a values can increase due to many contributing factors including increased runoff, flow, rain events, and nutrient input. FTE does have a major outfall discharging directly to this water body and may be contributing to chlorophyll-a values. However, the runoff associated with a golf course that is in the middle of these two monitoring points may be contributing to the elevated chlorophyll-a levels. If this is the contributing factor, FTE does not have the ability to reduce these levels by implementing standard best management practices (BMPs)

Graph 2. C-18 Basin Monitoring stations G92 & S46 Total Nitrogen:



In graph 2, both monitoring stations, G-92 and S-46, show a slight decrease of total nitrogen (TN) from 2001-2017. Monitoring station G-92 had TN monitoring values ranging from 0.55 mg/L to 1.65 mg/L and a geometric mean of 0.91 mg/L. Without the missing chlorophyll-a data a comparison between chlorophyll-a and TN could not be accurately determined. High levels of TN do not necessarily correlate with algal blooms or high chlorophyll-a levels; however, rainfall, total phosphorus (TP) and illicit discharges can cause them.

Graph 3. C-18 Basin Monitoring stations G92 & S46 Total Phosporus:



Monitoring station G-92, west or upstream of FTE, appears to have a slight increase in total phosphorus (TP) from 0.024 mg/L to 0.038 mg/L. TP monitoring values at station G-92 range from 0.002 mg/L to 0.18 mg/L with a geometric mean of 0.02 mg/L over the 17-year monitoring period. This could be attributed to water releases from Lake Okeechobee and increased annual rainfall. It appears that rainfall increased annualy from 2012 to 2017. Monitoring station S46, east or downstream of FTE has a decreasing TP trend with monitoring values ranging from 0.01 mg/L to 0.10 mg/L and a geometric mean of 0.02 mg/L.This could be attributed to better BMPs implementation by communities and recreation areas, such as fertilizer reductions and routine stormwater structural maintenance .

To date, FTE has not increased surface area runoff through widening projects thus maintaining the amount impervious surface in the study area. FTE does not use fertilizer in its routine maintenance plan. Fertilizer is only used if needed in aiding a dying tree or for a short period of time during bold landscaping projects.

NPDES Major Outfall N93014 Discharge to C-18 Canal

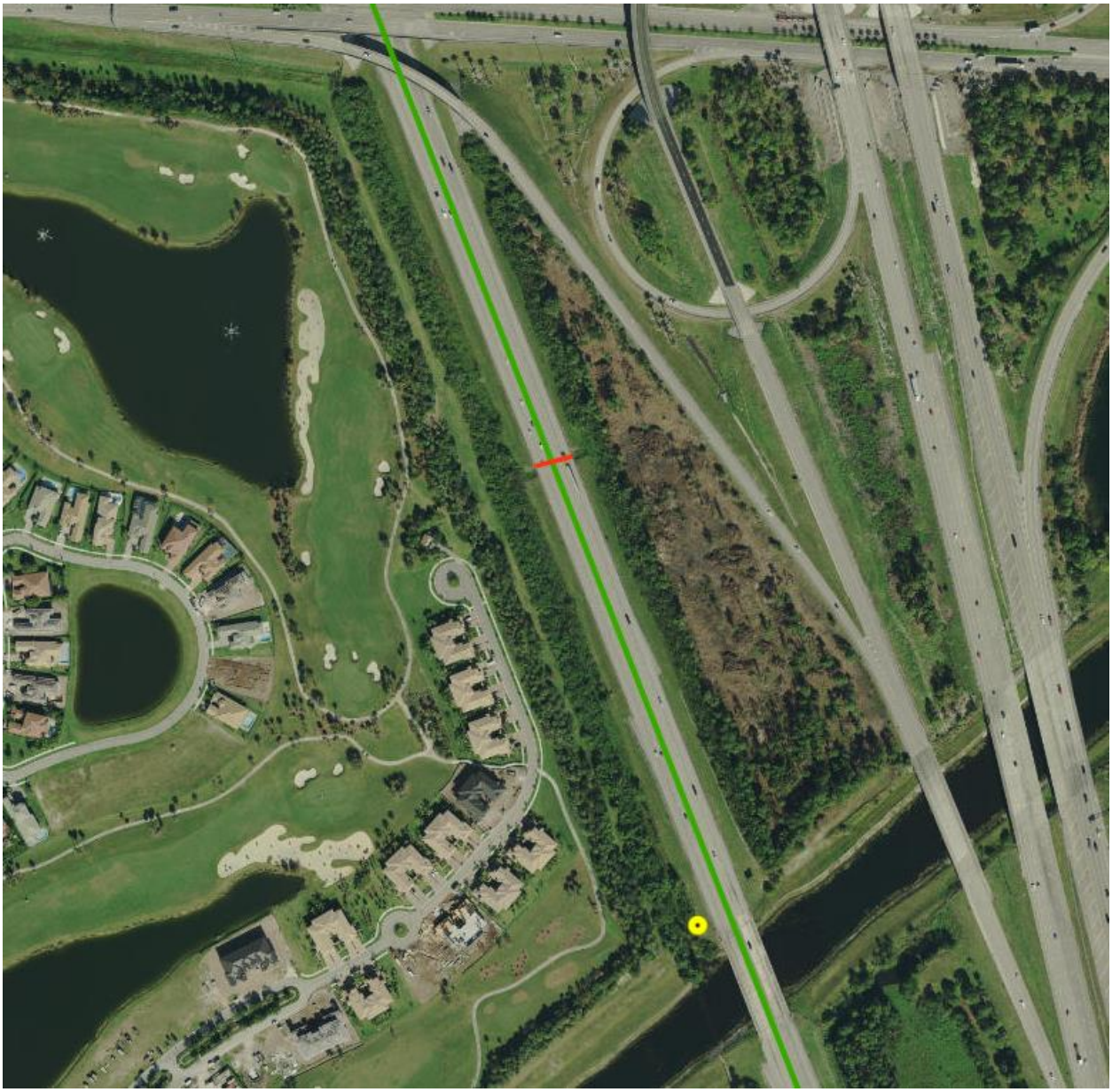


Figure 3.

NPDES Major Outfall N93014 Discharge to C-18 Canal

The outfall N93014 discharging to the C-18 is a ditch canal / swale southbound on FTE approximately 2,300 feet long and 30 feet across. It is partially hydrated depending on the season. This ditch canal/ swale also receives stormwater from the northbound ditch canal / swale approximately 1,800 feet long and 20 feet across. The two ditch canals / swales are connected by one cross drain (Figure 3)

C-51 Basin:

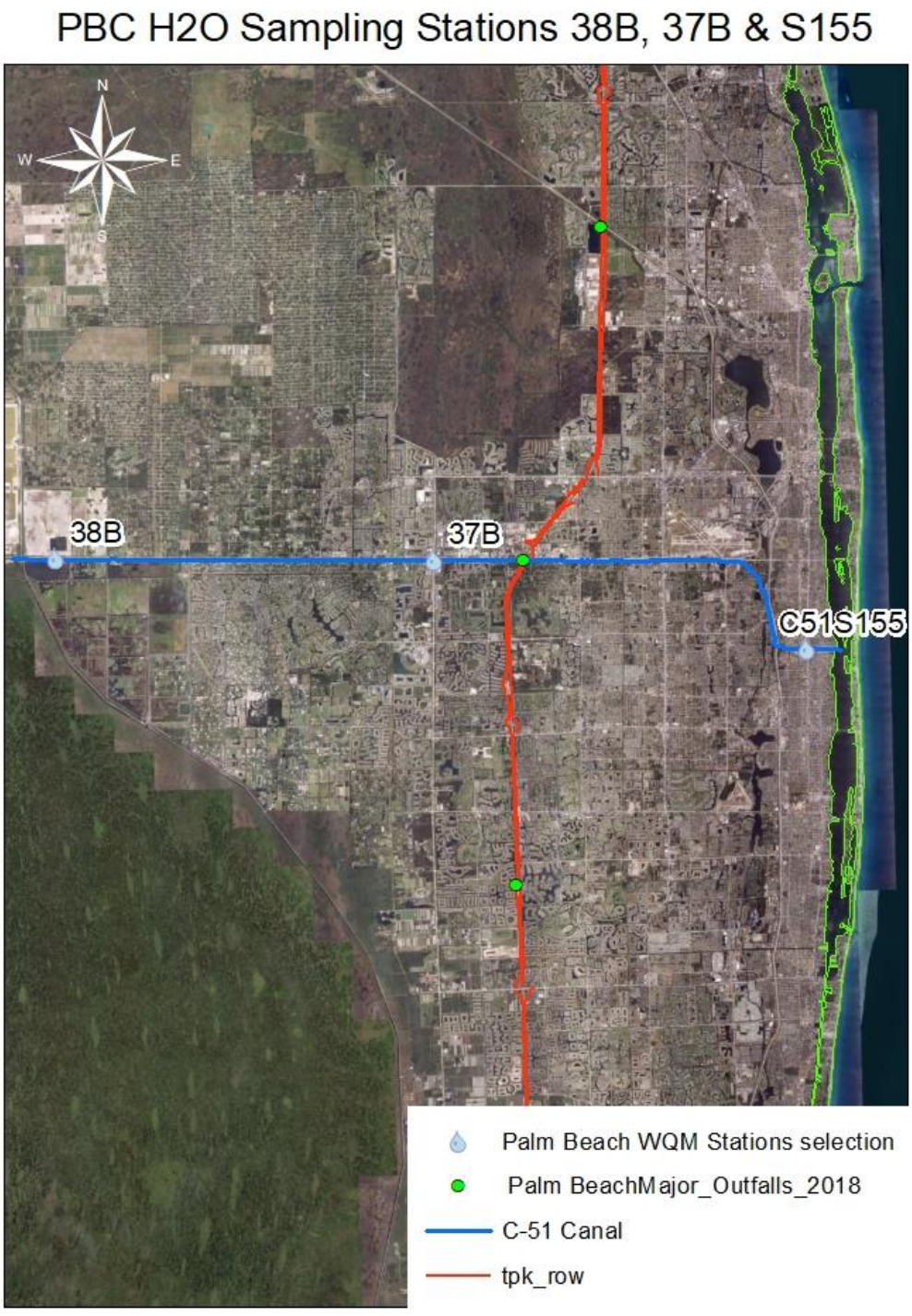


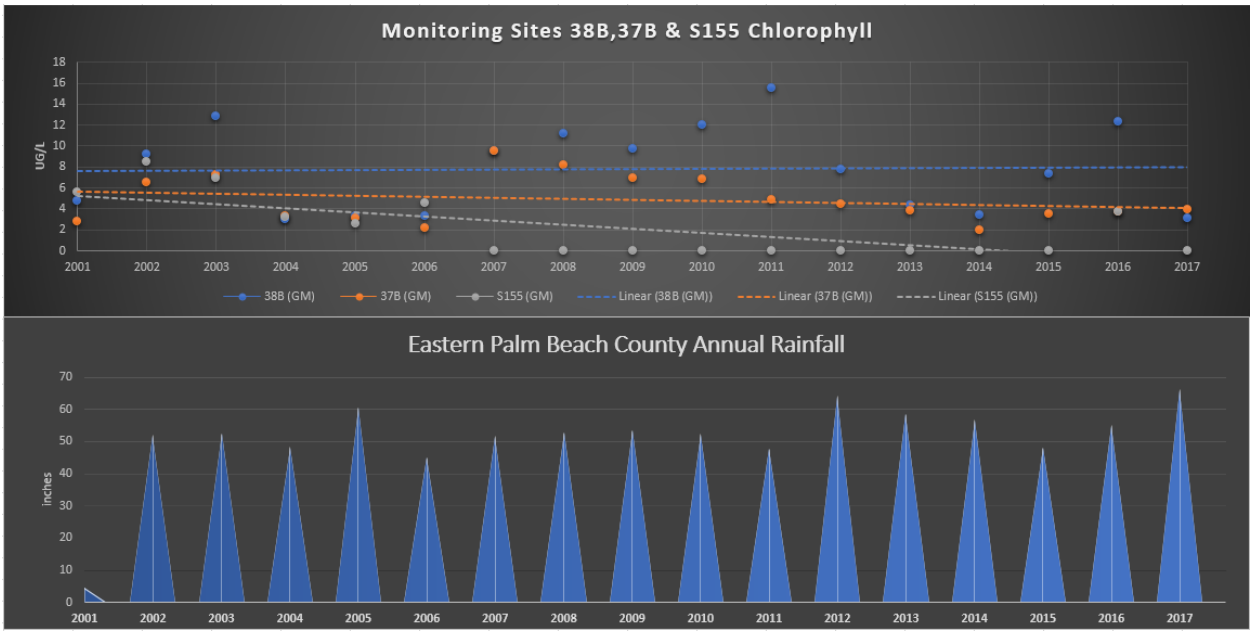
Figure 4.

C-51 Basin:

The SFWMD C-51 Basin consists approximately of the area south of Okeechobee Boulevard to Lake Worth Road and west of I-95 to State Road 7 (Figure 4). The C-51 Basin also includes areas west of State Road 7 from Okeechobee Boulevard to south of Boynton Beach Boulevard. The total drainage area within the C-51 Basin is approximately 65 square miles.
Drainage of the C-51 Basin is generally accomplished by a system of west/east lateral canals (L-1 to L-12) and by six north/south equalizing canals (E-1, E-2, E-2W, E-2E, E-3 and E-4). The SFWMD C-51 Canal serves as the major collector of flow for this basin. Runoff is conveyed from the interior network of laterals to the equalizing canals. The equalizing canals discharge from the south and north into the C-51 Canal, which flows east to the Lake Worth Lagoon.

Monitoring stations were chosen both upstream and downstream of the FTE to help determine stormwater discharge contributions to water quality.

Graph 4. C-51 Basin Monitoring stations 38B, 37B & S155 Chlorophyll

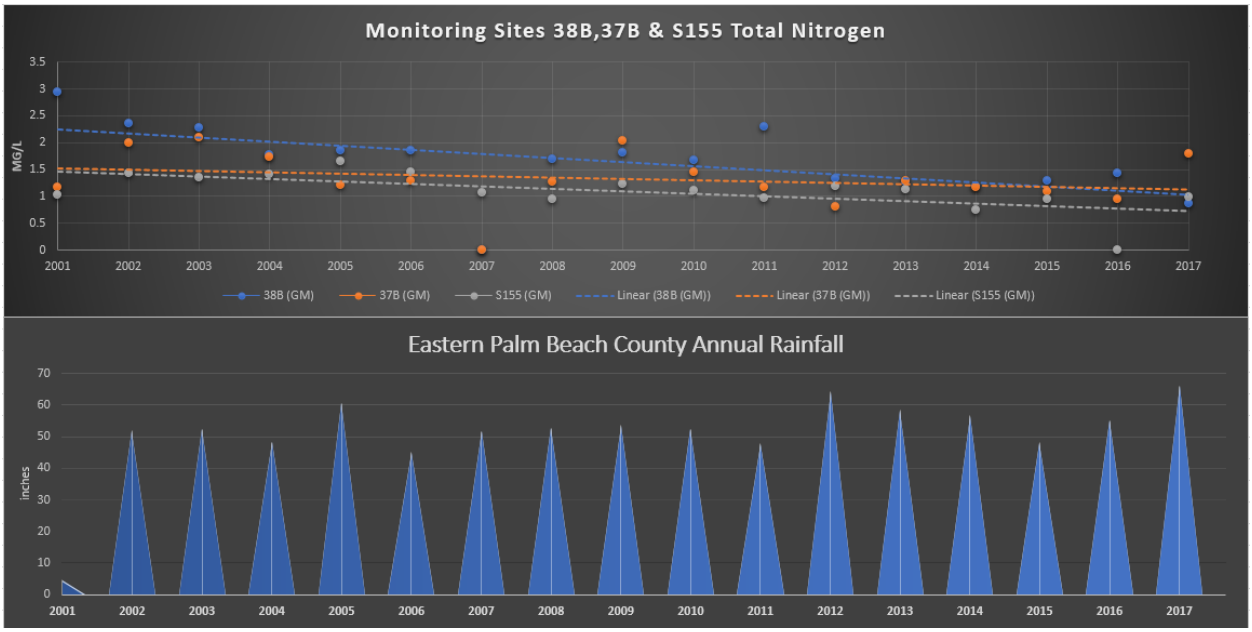


Evaluation:

Monitoring Station 38B is the most western or upstream site from FTE. Monitoring data at this site has chlorophyll-a values ranging from 2 µ/L to 70 µ/L with a geometric mean of 6.73 µ/L over the 17-year monitoring period. Monitoring station 37B is approximately in the center of Palm Beach County and has lower urban congestion compared to the eastern portions of the county. Here the chlorophyll-a geometric means are lower than at station 38B, with values ranging from 2 µ/L to 22 µ/L and a geometric mean of 4.42 µ/L over the 17-year monitoring period. Chlorophyll-a levels are dropping as they move west to east or downstream. MS4 maintenance and BMPs could be attributed to the reduction.

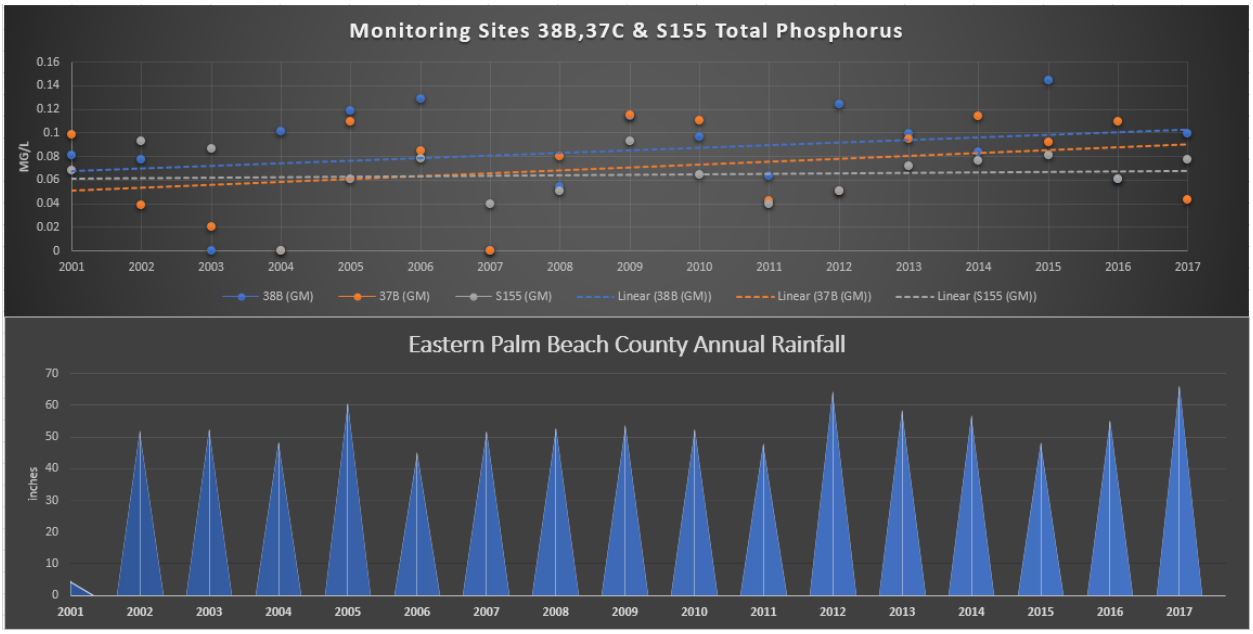
Monitoring station S155 is in the eastern section of Palm Beach County. This is the county's most highly urbanized area with the largest population. Water quality monitoring data for chlorophyll-a at station S155 is missing data from 2007-2015. With the data available, chlorophyll-a levels appears to be consistent with data from monitoring station 37B values, ranging from 2 µ/L to 45 µ/L and a geometric mean of 1.43 µ/L. This would suggest that even with heavy population density the clorophyll-a geometric mean values appear to be trending down as water moves through urbanized Palm Beach County. Both stations 37B and S155 have lower chlorophyll-a values than station 38B entering the system. The only values above 20 µg/L for chlorophyll-a were; station 38B 70 µg/L 2010, 37B 22.3 µg/L 2008 and S155 21.4 µg/L 2003.

Graph 5. C-51 Basin Monitoring stations 38B, 37B & S155 Total Nitrogen



All three monitoring stations 38B, 37B & S155 show trends in reduction of TN. Station 38B upstream of FTE had TN monitoring values ranging from 0.8 mg/L to 3.92 mg/L and a geometric mean of 1.66 mg/L over the 17-year monitoring period. Monitoring station 37B still upstream of FTE and in the center of Palm Beach County has TN values ranging from .07 mg/L to 7 mg/L with a geometric mean of 1.35mg/L. Monitoring station S155 east or downstream of FTE had monitoring values ranging from 0.04 mg/L to 3.88 mg/L and a geometric mean of 1.14 mg/L. Both chlorophyll-a and TN show decreasing trends. This could be due to education and outreach programs targeted at fertilizer usage for both homeowners and landscape professionals.

Graph 6. C-51 Basin Monitoring stations 38B, 37B & S155 Total Phosphorus



All monitoring stations 38B, 37B & S155 show an increasing trend of TP. Monitoring station 38B, to the west or upstream of FTE, shows the largest increase with TP values ranging from 0.02 mg/L to 0.88 mg/L and a geometric mean of 0.092 mg/L over the 17-year monitoring period, followed by 37B with TP values ranging from 0.0 mg/L to 0.29 mg/L and a geometric mean of 0.072 mg/L over the 17-year monitoring period. Lastly S155 with TP values ranging from 0.02 mg/L to 0.19 mg/L and a geometric mean of 0.061 mg/L over the 17-year monitoring period. This could be due to agriculture within the basin as well as water released from Lake Okeechobee. This increase in total phosphorus could increase chlorophyll-a levels in the future. As more data becomes available, comparisons between the two parameters will be evaluated.

NPDES Major Outfall N93014 Discharge to C-51 Canal

Figure 5.

FTE Major outfall N93012 discharges water from SB ditch canal to the C-51. (Figure 5) Stormwater is first treated through linear stormwater features such as swales and structural BMPs like catch basins and ponds before discharged into the C-51 canal. Drainage swales are inspected, cleaned of trash and mowed. Catch basins and stormwater pipes are cleaned and maintained through routine maintenance activities.

C-16 Basin:

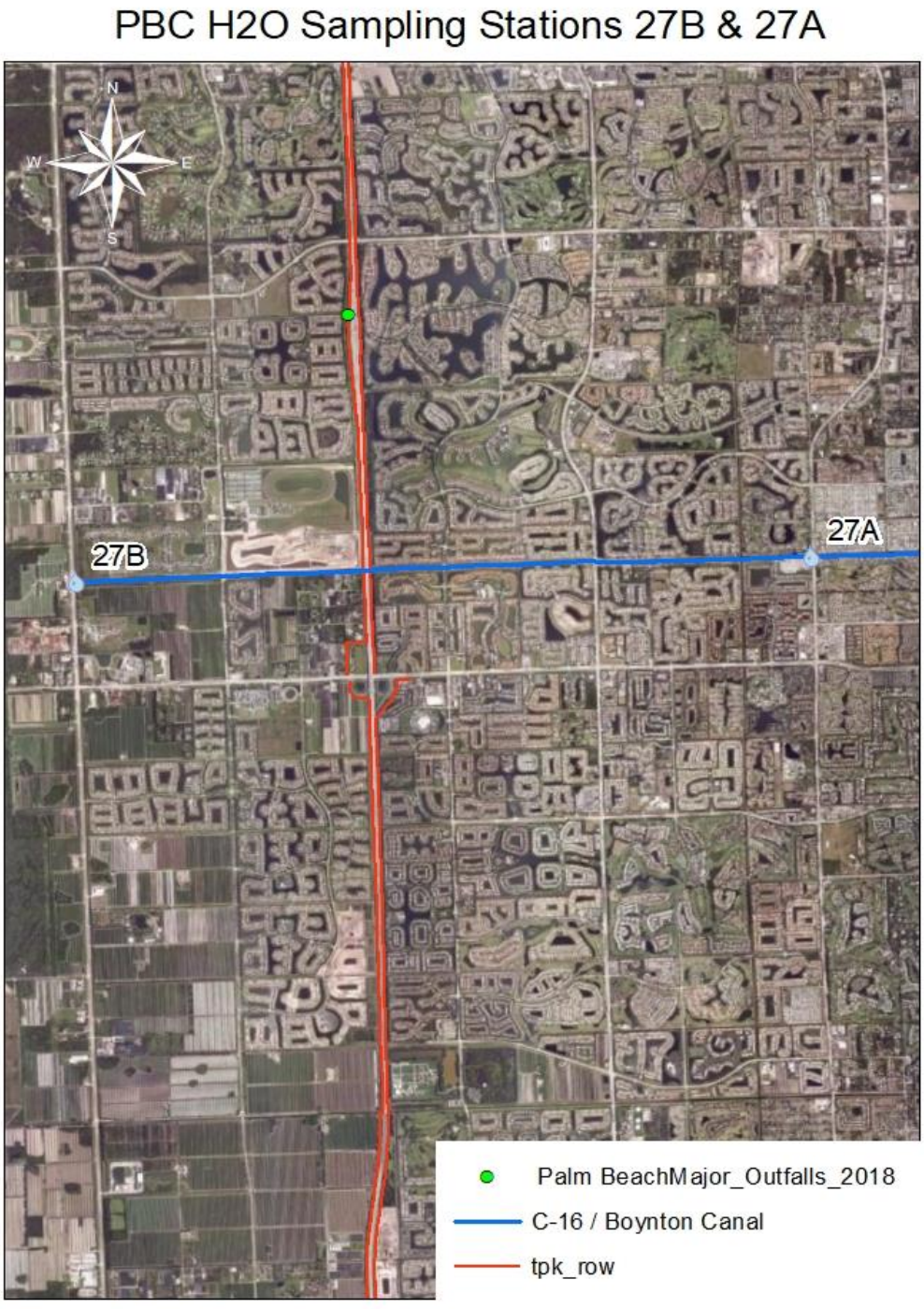
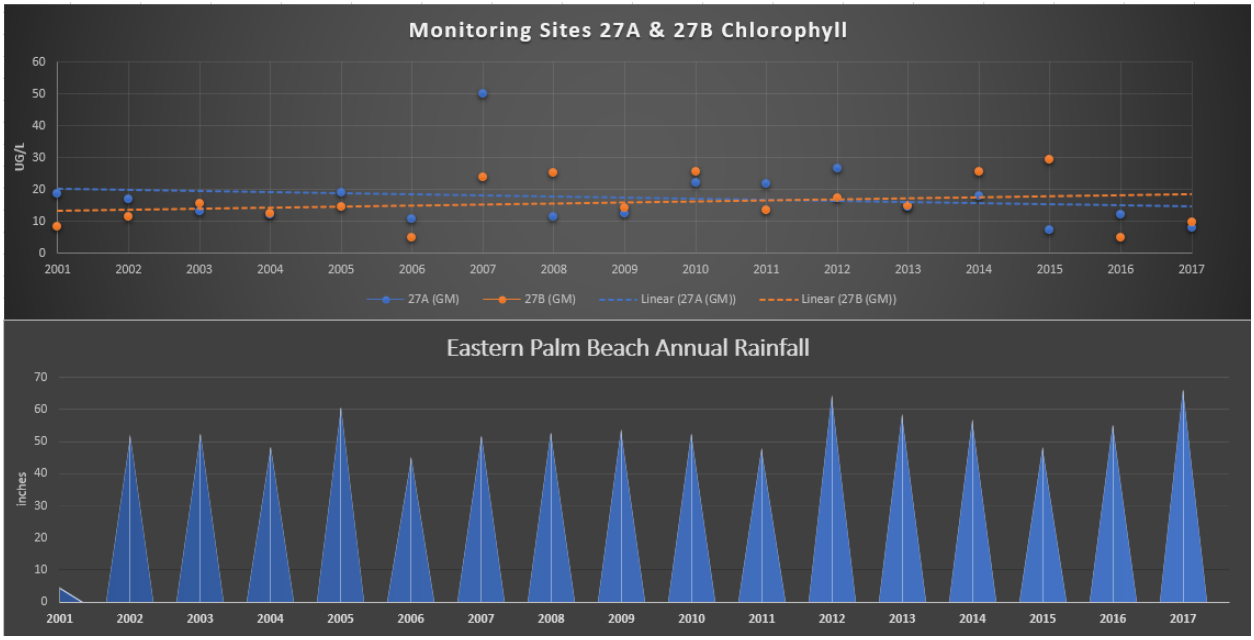


Figure 6.

C-16 Basin:

The C-16 Basin consists generally of the area south of Boynton Beach Boulevard to Lake Worth Road and east of State Road No. 7 to I-95 (Figure 6). The total drainage area within the C-16 Basin is approximately 65 square miles. Drainage of the C-16 Basin is accomplished by a system of west/east lateral canals (L-13 to L-24) and by five north/south equalizing canals (E-1, E-2W, E-2E, E-3 and E-4). This system of canals includes the C. Stanley Weaver Canal and the L-14 Canal which, along with the E-4 Canal serve as the major collectors of flow for this basin. Runoff is conveyed from the interior network of canals and laterals to either the C. Stanley Weaver Canal or the L-14 Canal. Flow from the L-14 Canal discharges to the E-4 Canal, which is partially a natural channel within Lake Osborne. The C. Stanley Waver Canal and the E-4 Canal discharge into the Intracoastal Waterway via the C-16 Canal, which is an eastern extension of the C. Stanley Weaver Canal.

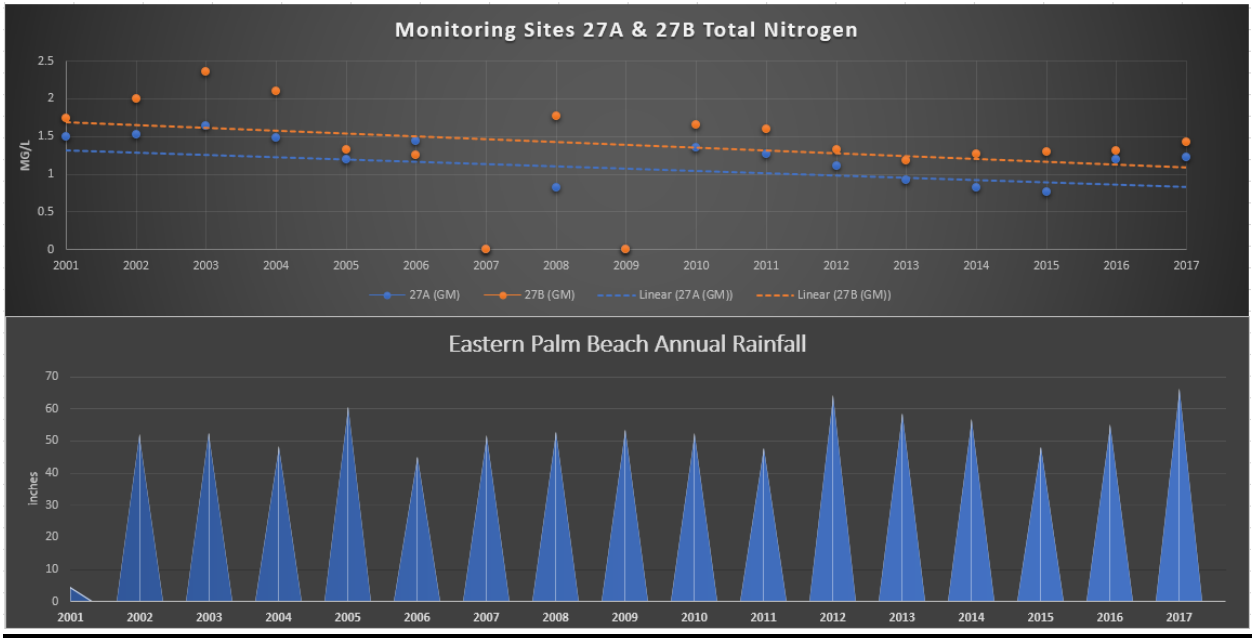
Graph 7. C-16 Basin Monitoring stations 27B & 27A Chlorophyll



Evaluation:

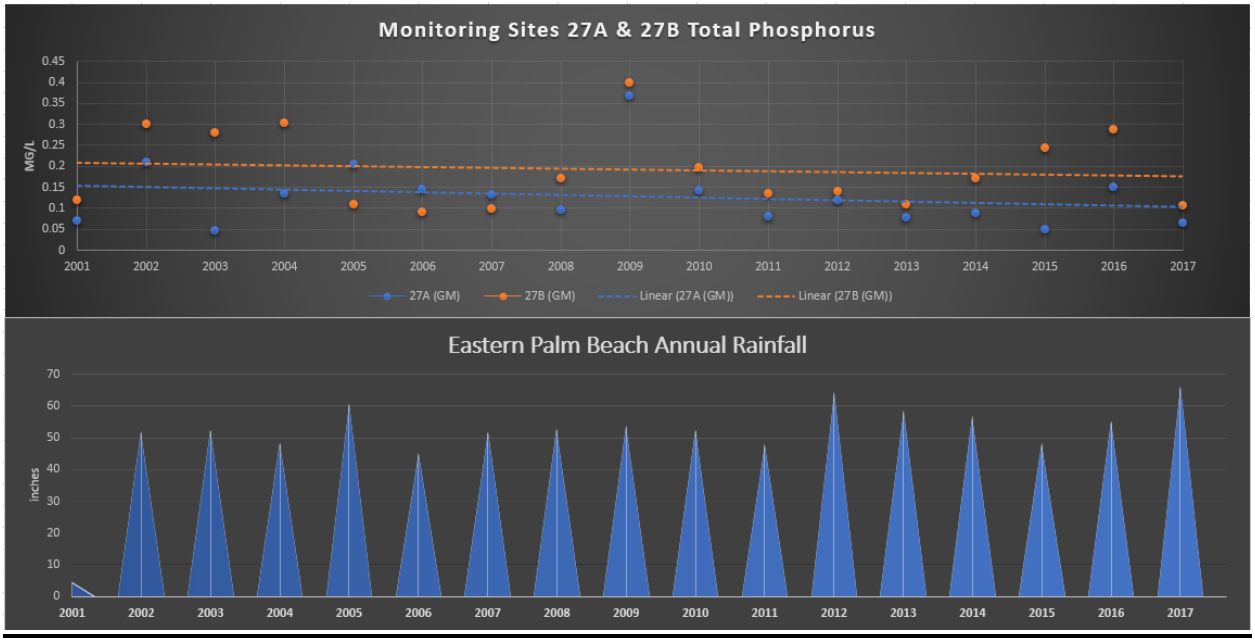
Monitoring station 27B west or upstream of FTE shows an increasing trend in Chlorophyll-a with values ranging from 1.5 µ/L to 76.4 µ/L and a geometric mean of 14.4 µ/L over the 17-year monitoring period. Monitoring station 27A east or downstream of FTE, had a decreasing chlorophyll-a trend with values ranging from 1.6 µ/L to 66 µ/L with a geometric mean of 15.51 µ/L over the 17-year monitoring period. Monitoring stations 27B and 27A each have 27 chlorophyll-a sample values over 20 µg/L. While investigating the area from satellite imagery, a horse racing track, a golf course, and many communities with lakes/ponds were present throughout the area. These areas could be contributing through activities such as fertilizer application which may result in higher chlorophyll-a levels.

Graph 8. C-16 Basin Monitoring stations 27B & 27A Total Nitrogen



Monitoring station 27B has an increasing TN trend, west or upstream of FTE with TN values ranging from 0.89 mg/L to 3.42 mg/L and a geometric mean of 1.5 3mg/L over the 17-year monitoring period. Monitoring station 27A east or downstream of FTE is showing a decreasing TN trend with values ranging from 0.15 mg/L to 2.69 mg/L and a geometric mean of 1.18 mg/L over the 17-year monitoring period. Chlorophyll-a trends are not consistent with TN trends.

Graph 9. C-16 Basin Monitoring stations 27B & 27A Total Phosphorus



Both monitoring stations show a decreasing trend in total phosphorus levels. Station 27B west or upstream of FTE has the highest TP values, ranging from 0.03 mg/L to 0.74 mg/L and a geometric mean of 0.17 mg/L over the 17-year monitoring period. Monitoring station 27B has an increasing TP trend from 2014-2017. Monitoring station 27A east or downstream of FTE had a decreasing TP trend with values ranging from 0.02 mg/L to 0.89 mg/L and a geometric mean of 0.113 mg/L.

FTE has no major outfall on the C-16 Canal.

C-15 Basin:

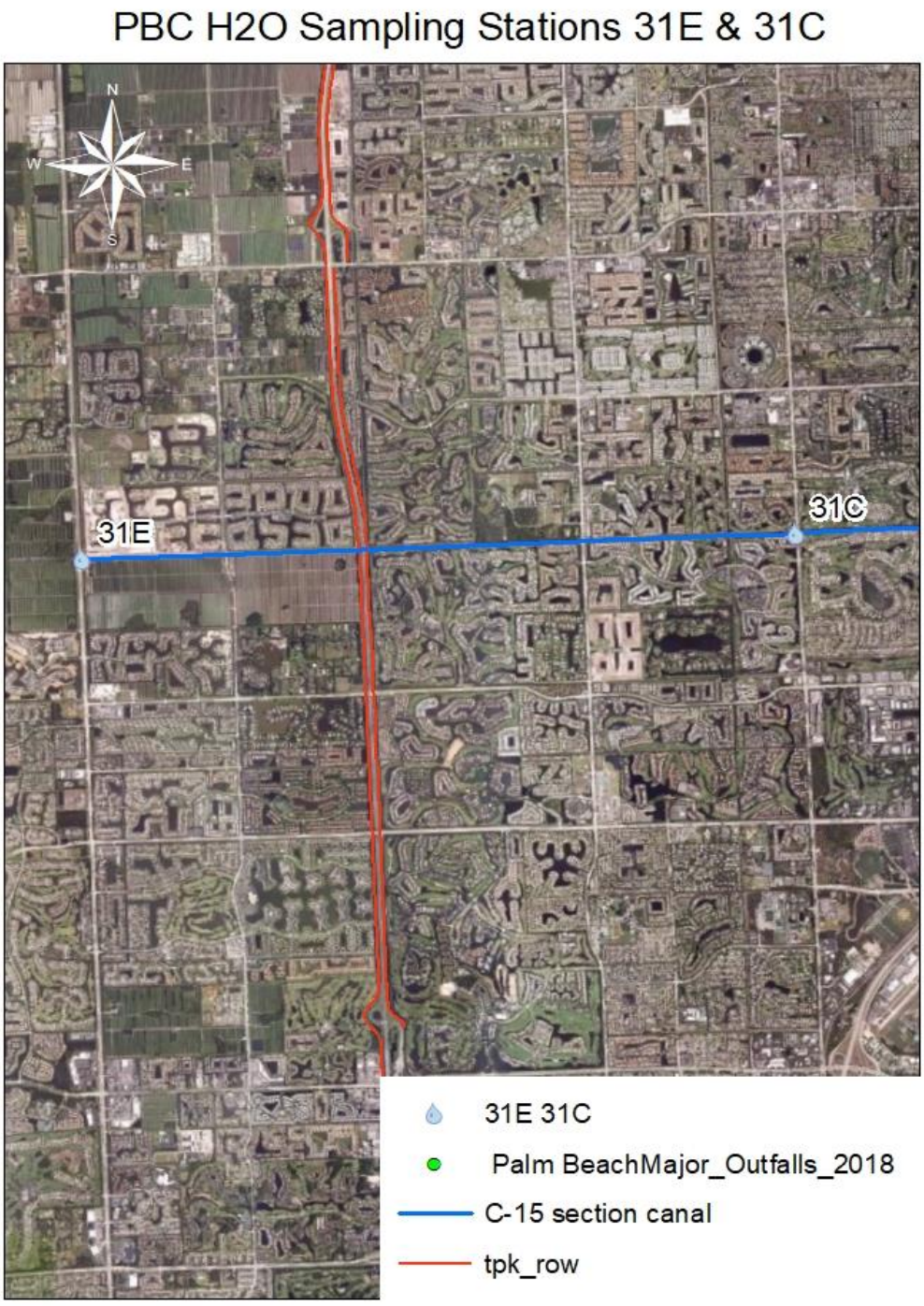
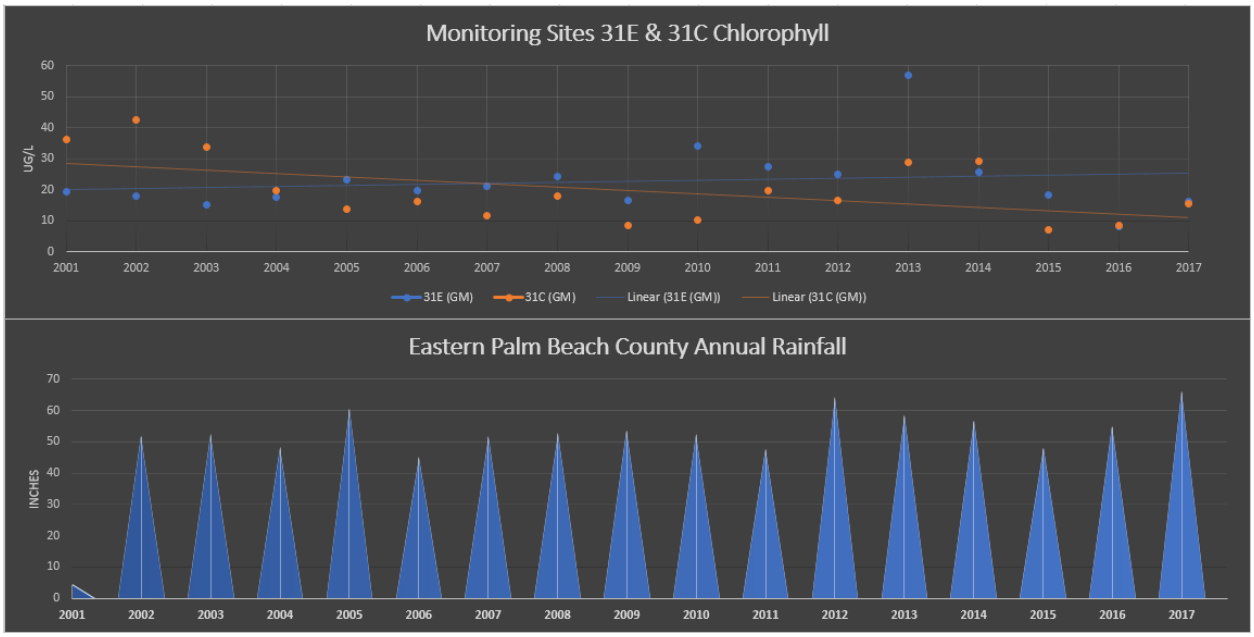


Figure 7.

C-15 Basin:

The C-15 Basin consists generally of the area south of Boynton Beach Boulevard to Yamato Road and west of I-95 to State Road No. 7. (figure 7). The total drainage area within the C-15 Basin is approximately 55 square miles. Drainage of the C-15 Basin is accomplished by a system of west/east lateral canals (L- 25 to L-42) and by five south/north equalizing canals (E-1, E-2W, E-2E, E-3 and E-4). Laterals L-30 and L-38 and the equalizing canal E-4 serve as the major collectors of flow for this basin. Runoff is conveyed from the interior network of canals to either the L-30 or L-38 Canal. Flow from the L-30 Canal is to the E-4 Canal. The E-4 Canal is partially a natural channel and runs through Lake Ida. The E-4 and L-38 Canals discharge into the Intracoastal Waterway via the C-15 Canal, which is an eastern extension of the L-38 Canal.

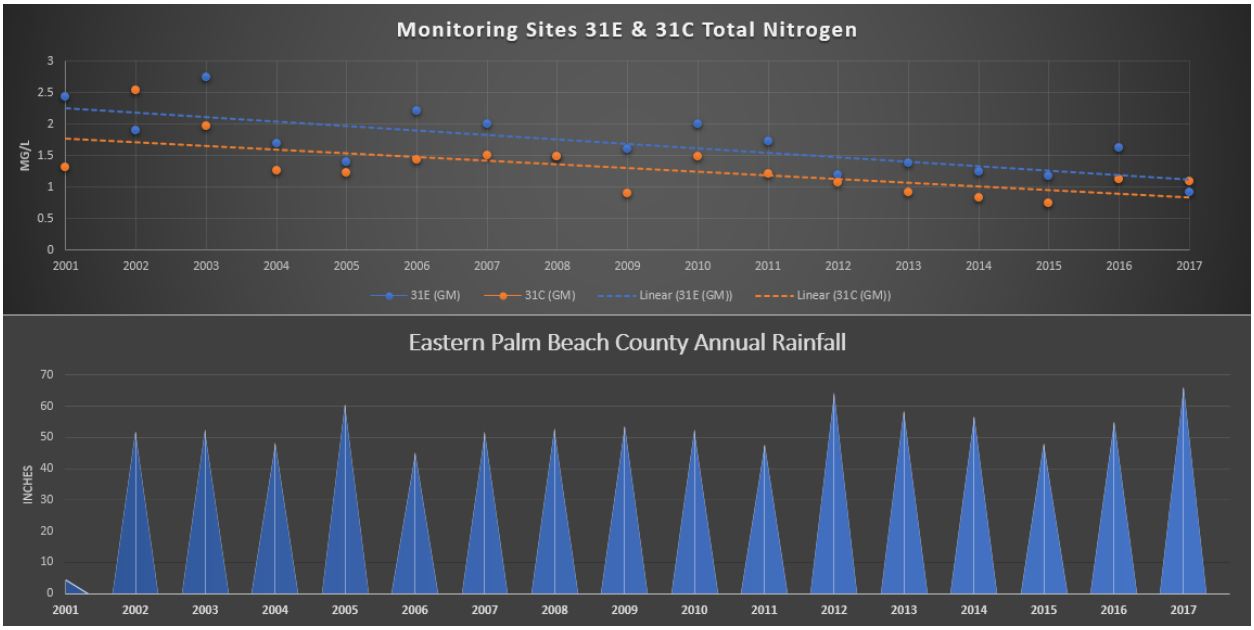
Graph 10. C-15 Basin Monitoring stations 31E & 31C Chlorophyll



Evaluation:

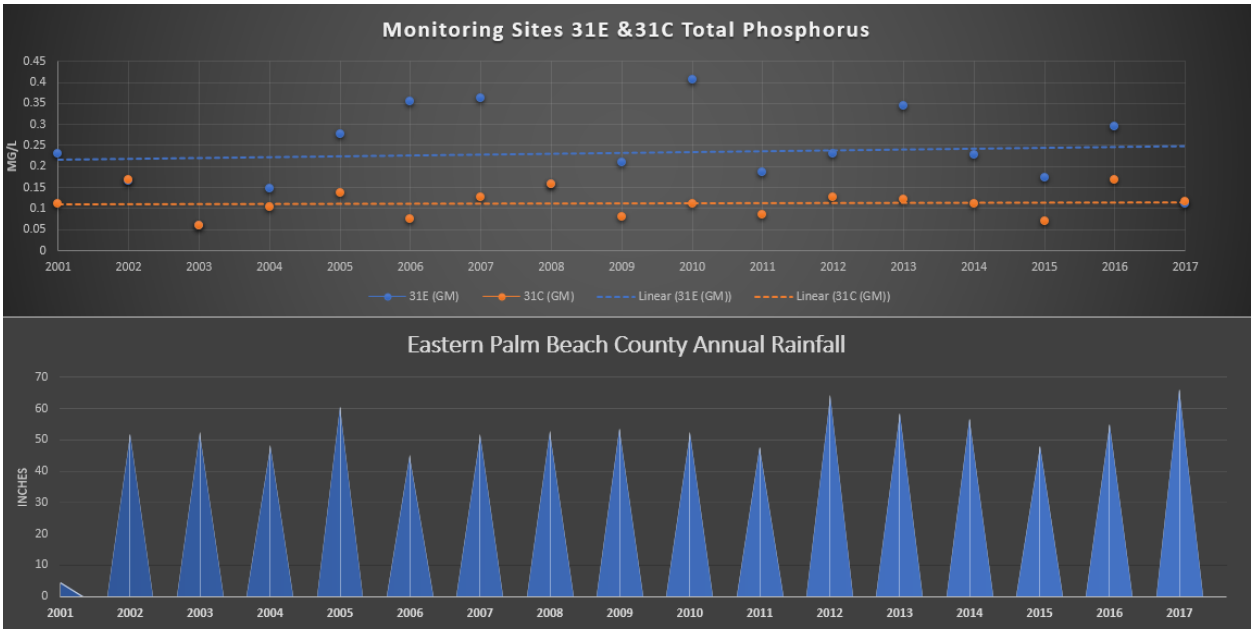
Monitoring station 31E west or upstream of FTE has an overall increasing chlorophyll-a trend with variability during the evaluation period. Monitoring station 31E chlorophyll-a values ranged from 3 µ/L to 96.8 µ/L and a geometric mean of 21.03 µ/L. 9 of 17 chlorophyll-a annual geometric mean values were at or above 20 µ/L, just meeting or exceeding standards. Monitoring station 31C east or downstream of FTE has a decreasing chlorophyll-a trend with values ranging from 3 µ/L to 68 µ/L and a geometric mean of 16.47 µ/L over the 17-year monitoring period. Monitoring station 31C had 5 of 17 annual geometric mean values at or above 20 µ/L. Station 31C is in the suburban area of Palm Beach County and chlorophyll-a values are decreasing over time and are lower than the water values upstream. Both monitoring stations have shown a decrease in chlorophyll-a levels from 2015-2017. This may be due to programs implemented to help reduce nutrient load.

Graph 11. C-15 Basin Monitoring stations 31E & 31C Total Nitrogen



Both monitoring stations 31E and 31C show a decreasing trend in total nitrogen. Monitoring station 31E west or upstream of FTE had TN values ranging from 0.39 mg/L to 3.9 mg/L with a geometric mean of 1.62 mg/L over the 17-year monitoring period. Monitoring station 31C east or downstream of FTE had TN values ranging from 0.62 mg/L to 2.61 mg/L with a geometric mean of 1.23 mg/L. TN follows the decreasing chlorophyll-a trend at site 31C. Station 31E had higher TN values compared to downstream in the more urbanized area.

Graph 12. C-15 Basin Monitoring stations 31E & 31C Total Phosphorus



Both monitoring stations showed a slight increasing trend in total phosphorus. Monitoring station 31E west or upstream of FTE had TP values ranging from 0.02 mg/L to 0.99 mg/L and a geometric mean of 0.21 mg/L. Monitoring station 31E had elevated TP values with only a few mean values at or close to .04 mg/L. Monitoring station 31C east or downstream of FTE had TP values ranging from 0.01 mg/L to 0.56 mg/L and a geometric mean of 0.10 mg/L. Water upstream is introducing TP at levels to the C-15 that current BMPs may not be able to reduce.

Summary:

The C-18 basin chlorophyll-a both upstream and downstream sites showed an increase. TN at both sites had a slight decrease. TP upstream site had an increase and downstream site had a decrease value.

The C-51 basin chlorophyll-a upstream site showed an increase while the two downstream sites showed decreases. TN all three sites showed a decrease. TP all three sites showed an increase.

The C-16 basin chlorophyll-a upstream site increased while the downstream site decreased. TN at both sites upstream and downstream decreased. TP at both sites showed slight decreases.

The C-15 basin chlorophyll-a upstream increased and downstream decreased. TN at both sites upstream and downstream decreased. TP at both sites upstream and downstream increased.

Chlorophyll-a increased in all four of the upstream basins and decreased in 3 of the downstream basins. TN decreased both upstream and downstream in all four basins. TP increased in 3 basins upstream. Downstream had two basins increase and two basins decreases.

In summary, nutrient levels of all three parameters increased from northern Palm Beach County to southern Palm Beach County. This is probably due to urban build up and population dynamics of the southern region. In almost all samplings, values coming from the western sites or upstream had higher chlorophyll-a, total nitrogen and total phosphorus values than those at the eastern sites or downstream. This is probably due to more agricultural land use upstream.

FTE has no direct discharge to a water of the state without prior BMPs. Treatment through stormwater ponds, swales, catch basins and other structural BMPs assist in removing excess nutrient before stormwater is discharged. FTE does not use fertilizer as routine maintenance, helping to not contribute to nutrient levels.

Suggested changes for year 3 report:

- Only use data from current to five years back. (it was good to see the history of the parameters but not needed moving forward.)
- Add heavy metals to the report. (These parameters may be more directly related to a major highway.)
- Focus on increasing trend areas.

References:

Mock, Roos & Associates, Inc. (2014). Lake Worth Drainage District 2014 Water Control Plan

http://www.lwdd.net/wp-content/uploads/2014/10/LWDD-Water-Control-Plan-for-2014.pdf

SFWMD, Canals in South Florida: A Technical Support Document

https://www.sfwmd.gov/sites/default/files/documents/canalssfl_appendixa-c.pdf