



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 Florida's Turnpike Enterprise
B.	Permit Name: Palm Beach County MS4
C.	Permit Number: FLS000018-004
D.	Annual Report Year: <input type="checkbox"/> Year 1 <input type="checkbox"/> Year 2 <input type="checkbox"/> Year 3 <input checked="" type="checkbox"/> Year 4 <input type="checkbox"/> Year 5 <input type="checkbox"/> Other, specify Year:
E.	Reporting Time Period (month/year): 10 / 2019 through 09 / 2020
F.	Name of the Responsible Authority: Kim Gutierrez 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: Kim.Gutierrez@dot.state.fl.us
G.	Name of the Designated Stormwater Management Program Contact (if different from Section I.F above): Allison Fetigan
	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: Allison.Fetigan@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): 3 (Does this number include non-major outfalls? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> 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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable)
C.	Is the change in the total number of outfalls due to lands annexed or vacated? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable

SECTION III. PART V.B. ASSESSMENT PROGRAM

A.	<p>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. <i>DEP Note: If permittee participates in a collaborative monitoring plan, permittee may refer to a joint response as defined by the interlocal agreement.</i></p> <p>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.</p> <p>Status: The Group Monitoring Report is included in the Cycle 4, Year 4 Joint Annual Report. The newly-developed, individual Assessment Plan has been approved by FDEP on 5/15/2018.</p>
B.	<p>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. <i>DEP Note: Results must be specific to the permittee's SWMP.</i></p> <p>Please refer to the Cycle 4, Year 4 Joint Annual Report for a summary of the Group's water quality monitoring results and group pollutant loading analysis for the reporting period.</p>
C.	<p>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. <i>DEP Note: Analysis must be specific to the permittee's SWMP. See response for Section III.B., above.</i></p>

SECTION IV. FISCAL ANALYSIS

A.	Total expenditures for the NPDES stormwater management program for the current reporting year: \$1,223,007.59
B.	Total budget for the NPDES stormwater management program for the subsequent reporting year: \$17,714,000
C.	<p>Did subsequent program resources decrease from the current reporting period? Y <input type="checkbox"/> / N <input checked="" type="checkbox"/></p> <p>If program resources decreased, provide a discussion of the impacts on the implementation of the SWMP.</p>

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
<input type="checkbox"/>	<input checked="" type="checkbox"/>	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	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	If program resources have decreased from the previous year, a discussion of the impacts on the implementation of the SWMP.	Part II.F	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	An explanation of why the minimum inspection frequency in Table II.A.1.a. was not met, if applicable.	Part II.A.1	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	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	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	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.	See Joint Annual Report & Annual Assessment Report
<input type="checkbox"/>	<input checked="" type="checkbox"/>	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	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	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	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	YEAR 3: Summary of TMDL Monitoring Results (if applicable).	Part VIII.B.2	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	YEAR 3: Bacteria Pollution Control Plan (if applicable).	Part VIII.B.3	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	YEAR 4: A report on any amendments to the applicable legal authority (if applicable).	Part III.A.7.a	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	YEAR 4: Permit re-application information in accordance with Rule 62-624.420(2), F.A.C. <ul style="list-style-type: none"> 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	See Joint Annual Report
<input type="checkbox"/>	<input checked="" type="checkbox"/>	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): Kim Gutierrez P.E.

Title: Deputy Maintenance Engineer

Signature:  Date: 3/15/2021

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.									
<i>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.</i>									
Type of Structure	Number of Structures	Number of Inspections	Percent Inspected	Number of Maintenance Activities	Percent Maintained				
Dry retention systems	23	23	100%	101	100%	GIS Collector, SAMS	FTE NPDES Coordinator & Roadway Maintenance	NPDES Coordinator, Mowing Cycles, Litter & Maintenance	
Grass treatment swales (miles)	27.85	205	100%	95	100%	GIS inventory OMS	FTE NPDES Coordinator & Roadway Maintenance	NPDES Coordinator, Mowing Cycles, Litter & MRP	
Dry detention systems	7	7	100%	101	100%	GIS Collector, SAMS	FTE NPDES Coordinator & Roadway Maintenance	NPDES Coordinator, Mowing Cycles, Litter & Maintenance	
Wet detention systems	22	22	100%	101	100%	GIS Collector, SAMS	FTE NPDES Coordinator & Roadway Maintenance	NPDES Coordinator, Mowing Cycles, Litter & Maintenance	
Major outfalls	17	17	100%	0	100%	GIS Inventory, OMS	NPDES Coordinator & Roadway Maintenance	NPDES Coordinator	
Weirs or other control structures	14	14	100%	0	100%	GIS Inventory, OMS, MRP	NPDES Coordinator & Roadway Maintenance	Included with major outfalls, ponds, inlets and catch	

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	pipes / culverts (LF)	17,747	5793	33%	5793	33%	GIS Inventory RCI, OMS, MRP	Roadway Maintenance & Construction	basins. 5793 LF cleaned	
		11	11	100%	0	100%	GIS Inventory, OMS	NPDES Coordinator & Roadway Maintenance	NPDES Coordinator, Updating GIS inventory	
	Inlets / catch basins / grates	808	163	20%	53	7%	GIS Inventory RCI, OMS, MRP	Roadway Maintenance & Construction	Cleaning manholes & inlets, AM Report	
		27.85	205	100%	95	100%	GIS Inventory, OMS,MRP	Roadway Maintenance & Construction	NPDES Coordinator, Mowing Cycles, Litter & MRP	
	Ditches / conveyance swales (miles)								All minimum inspection frequencies were met	
	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.					<input type="checkbox"/>				

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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.	0	Turnpike Permitting	Turnpike Permitting	
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. <i>Note: The permittee does not contract activities, delete CONTRACTOR activities.</i>				
	PERMITTEE Litter Control: Frequency of litter collection	0	FTE Contracts Department	FTE Contracts Department	FTE only uses contractors
	PERMITTEE Litter Control: Estimated amount of area maintained (lf)	0	FTE Contracts Department	FTE Contracts Department	FTE only uses contractors
	PERMITTEE Litter Control: Estimated amount of litter collected (cy)	0	FTE Contracts Department	FTE Contracts Department	FTE only uses contractors
	CONTRACTOR Litter Control: Frequency of litter collection	74 cycles	OMS, AM Report	SF Bushhog / Jorgensen	
	CONTRACTOR Litter Control: Estimated amount of area maintained (Acre)	25,447 ACRE	OMS, AM Report	SF Bushhog / Jorgensen	
	CONTRACTOR Litter Control: Estimated amount of litter collected (cy)	52,440 lbs	OMS, AM Report	SF Bushhog / Jorgensen	Dump tickets

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Permit Citation/ SWMP Element	Permit Requirement/Quantifiable SWMP Activity	Number of Activities Performed	Documentation / Record	Entity Performing the Activity	Comments
	<p>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".</p>				
	<p>Trash Pick-up Events: Total miles cleaned</p>	0	N/A	N/A	FTE does not have Adopt-A-Road program
	<p>Trash Pick-up Events: Estimated amount of litter collected (cy) Adopt-A-Road: Total miles cleaned</p>	0	N/A	N/A	
	<p>Adopt-A-Road: Estimated amount of litter collected (cy)</p>	0	N/A	N/A	
	<p>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.</p>				
	<p>Frequency of street sweeping</p>	131 cycles	OMS, AM Report	Star Cleaning USA / Priority Towing / Jorgensen	
	<p>Total miles swept</p>	12,266	OMS, AM Report	Star Cleaning USA / Priority Towing / Jorgensen	
	<p>Estimated quantity of sweeping material collected (cy / tons)</p>	319.4 tons	NPDES Coordinator, AM Report	Star Cleaning USA / Priority Towing / Jorgensen	
	<p>Total phosphorous loadings removed (pounds)</p>	212	NPDES Coordinator	NPDES Coordinator	FSA Assessment Tool
	<p>Total nitrogen loadings removed (pounds)</p>	390	NPDES Coordinator	NPDES Coordinator	FSA Assessment tool
	<p>Report the equipment yards and maintenances shops that support road maintenance activities, and the number of inspections conducted for each facility.</p>				
	<p>Name of Facility</p>	Number of Inspections			
	<p>FTE does not have any due to using contractors.</p>	0	FTE Contracts Department	FTE Contracts Department	FTE only uses contractors

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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.3 Summary	<p>Provide an evaluation of the Stormwater Management Program according to Part VI.B.3 of the permit.</p> <p>Strengths: FTE increases sweeping and litter collection as needed.</p> <p>Limitations: Dump trucks can lose a lot of garbage on the road.</p> <p>SWMP revisions implemented to address limitations: None at this time.</p>																													
Part III.A.4	<p>Flood Control Projects</p> <p>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.</p> <p>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.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Flood control projects completed during the reporting period</th> <th style="text-align: center;">0</th> <th style="text-align: center;">Project Solve</th> <th style="text-align: center;">TPK Construction</th> <th style="text-align: center;">2 resurfacing projects only</th> </tr> </thead> <tbody> <tr> <td>Flood control projects completed that did <u>not</u> include stormwater treatment</td> <td style="text-align: center;">0</td> <td style="text-align: center;">Project Solve</td> <td style="text-align: center;">TPK Construction</td> <td></td> </tr> <tr> <td>Stormwater retrofit projects planned/under construction</td> <td style="text-align: center;">2</td> <td style="text-align: center;">Project Solve</td> <td style="text-align: center;">TPK Construction</td> <td></td> </tr> <tr> <td>Stormwater retrofit projects completed</td> <td style="text-align: center;">0</td> <td style="text-align: center;">Project Solve</td> <td style="text-align: center;">TPK Construction</td> <td></td> </tr> <tr> <td>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.</td> <td style="text-align: center;"><input type="checkbox"/></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>Provide an evaluation of the Stormwater Management Program according to Part VI.B.3 of the permit.</p> <p>Strengths: FTE always meets required treatment for stormwater discharge.</p> <p>Limitations: None</p> <p>SWMP revisions implemented to address limitations: None at this time.</p>	Flood control projects completed during the reporting period	0	Project Solve	TPK Construction	2 resurfacing projects only	Flood control projects completed that did <u>not</u> include stormwater treatment	0	Project Solve	TPK Construction		Stormwater retrofit projects planned/under construction	2	Project Solve	TPK Construction		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.	<input type="checkbox"/>							
Flood control projects completed during the reporting period	0	Project Solve	TPK Construction	2 resurfacing projects only																										
Flood control projects completed that did <u>not</u> include stormwater treatment	0	Project Solve	TPK Construction																											
Stormwater retrofit projects planned/under construction	2	Project Solve	TPK Construction																											
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.	<input type="checkbox"/>																													
Part III.A.4 Summary	<p>Provide an evaluation of the Stormwater Management Program according to Part VI.B.3 of the permit.</p> <p>Strengths: FTE always meets required treatment for stormwater discharge.</p> <p>Limitations: None</p> <p>SWMP revisions implemented to address limitations: None at this time.</p>																													

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Part III.A.5	<p>Municipal Waste Treatment, Storage, and Disposal Facilities Not Covered by an NPDES Stormwater Permit</p> <p>Report the applicable facilities and the number of the inspections conducted for each facility.</p>	<p>Number of Inspections</p>			
	<p>Name of Facility</p>	<p>0</p>	<p>PBC Property Appraiser</p>	<p>PBC Property Appraiser</p>	
Part III.A.5 Summary	<p>Provide an evaluation of the Stormwater Management Program according to Part VI.B.3 of the permit.</p> <p>Strengths: N/A</p> <p>Limitations: N/A</p> <p>SWMP revisions implemented to address limitations: N/A</p>				
Part III.A.6	<p>Pesticides, Herbicides, and Fertilizer Application</p> <p>Report the number of permittee personnel applicators and contracted commercial applicators of pesticides and herbicides who are FDACS certified / licensed.</p> <p>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.</p>				
	<p>PERSONNEL: FDACS certified applicators of pesticides/herbicides</p>	<p>2</p>	<p>Roadway staff licences</p>	<p>Roadway Maintenance staff</p>	
	<p>CONTRACTORS: FDACS certified/licensed applicators of pesticides/ herbicides</p>	<p>6</p>	<p>Roadway Maintenance Contract</p>	<p>Airboat Addicts, K&S Services, T&M Lawn & Fence, Jorgensen</p>	
	<p>PERSONNEL: Green Industry BMP Program training completed</p>	<p>1</p>	<p>Roadway staff certificate</p>	<p>Roadway Maintenance staff</p>	
	<p>CONTRACTORS: FDACS certified / licensed applicators of fertilizer</p>	<p>2</p>	<p>Roadway Maintenance Contract</p>	<p>Arazoza Brothers</p>	
Part III.A.6 Summary	<p>Provide an evaluation of the Stormwater Management Program according to Part VI.B.3 of the permit.</p> <p>Strengths: Application is being done correctly due to FTE hiring licenced and certified applicators.</p> <p>Limitations: Knowing if the applicators are the licenced person.</p> <p>SWMP revisions implemented to address limitations: None at this time.</p>				
Part III.A.7.a	<p>Illicit Discharges and Improper Disposal — Inspections, Ordinances, and Enforcement Measures</p> <p>Not Applicable to FDOT. Enforcement is completed through our Joint Participation Agreements.</p>				

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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	655	MRP/CEI/ NPDES Inspections & Maintenance activities	Turnpike Roadway Maintenance	MRP inspections, Construction inspections
	Illicit discharges found during a proactive inspection	0	NPDES Coordinator	NPDES Coordinator	
	Number of enforcement referrals completed	0	NPDES Coordinator	NPDES Coordinator	
	Report on the reactive investigation program as it relates 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	
	Contractors trained	46	Tier 1 IDDE cert	FDOT	
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	1	HRC, DCIC and TPK Permitting	TPK DCIC	
	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	1	FTE DCIC	FTE DCIC	40hr HAZWOPER
	Contractors trained	9	HCR ER personnel	HRC	40hr HAZWOPER
Part III.A.7.e	Illicit Discharges and Improper Disposal — Public Reporting				
	Not Applicable to FDOT.				

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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.	2	Permits Coordinator	Permits Coordinator	
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.				
Part III.A.7	Owner of the sanitary sewer system Number of violations referred	0	NPDES Coordinator	NPDES Coordinator	
Part III.A.7	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.				
Part III.A.8.a	SWMP Revisions implemented to address limitations: None at this time. 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.				
Part III.A.8.b	Type of Facility	Number of Facilities	Number of Inspections	Enforcement Referrals	
	Operating municipal landfills	0	N/A	N/A	FDEP Solid Waste Facility Inventory
	Hazardous waste treatment, storage, disposal and recovery (HWTSDR) facilities	0	N/A	N/A	EPA Envirofacts
	EPCRA Title III, Section 313 facilities (TRI)	0	N/A	N/A	EPA Envirofacts
	Facilities determined as high risk by the permittee	0	N/A	N/A	NPDES Coordinator
Part III.A.8.b	Industrial and High-Risk Runoff — Monitoring for High Risk Industries Not Applicable to FTE.				None identified

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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.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.	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.	3	Project Solve	TPK Construction	1 Project is resurfacing
	PERMITTEE SITES: Active construction sites	246	Project Solve	TPK Construction	
	PERMITTEE SITES: Pre-, During, and Post inspections of active construction sites for E&S and waste control BMPs	100%	Project Solve	TPK Construction	
	PRIVATE SITES: Active construction sites	0	Project Solve	TPK Construction	No Private
	PRIVATE SITES: Pre-, During, and Post inspections of active construction sites for E&S and waste control BMPs	0	Project Solve	TPK Construction	No Private
	PRIVATE SITES: Percentage of active construction sites inspected	0	Project Solve	TPK Construction	No Private
	Enforcement Action	0	Project Solve	TPK Construction	No Private
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	14			
	Permittee construction site inspectors	14	TPK Construction	CEI & Contractors	
	Permittee construction site plan reviewers	6	TPK Construction	Contractors	
	Permittee construction site operators	6	TPK	Contractors	

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.9 Summary	<p>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.</p> <p>Strengths: FTE Project Solve is a very efficient way to track construction projects.</p> <p>Limitations: FTE uses CEI's to conduct SWPP inspections. NPDES Coordinator is not that involved, unless there is a problem.</p> <p>SWMP revisions implemented to address limitations: Not at this time.</p>	Construction			

SECTION VIII. CHANGES TO THE STORMWATER MANAGEMENT PROGRAM (SWMP) ACTIVITIES (Not Applicable In Year 4)

A.	Permit Citation/ SWMP Element	<p>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.</p> <p>No proposed changes at this time.</p>
B.	Permit Citation/ SWMP Element	<p>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)</p> <p>No proposed changes at this time.</p>

SECTION IX. TMDL Status Report

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	<input checked="" type="checkbox"/> / <input checked="" type="checkbox"/> <input type="checkbox"/> / <input type="checkbox"/> <input type="checkbox"/> / <input type="checkbox"/>	91%	1	N93013	(Year 3 AR)	(Year 4 AR; N/A if BPCP)

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)	

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 participating in the Loxahatchee River Pollutant Reduction Plan.



Florida Department of Transportation

RON DESANTIS
GOVERNOR

Florida's Turnpike Enterprise
P.O. Box 9828, Fort Lauderdale, FL 33310
954-975-4855

KEVIN J. THIBAUT, P.E.
SECRETARY

MS4 Permit No. FLS000018-004 Part V. – Monitoring Requirements; Sub-part A. – Assessment Program

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 include using Palm Beach Counties 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, nine 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
92	Palm Beach Co Sta	C-18	TN,TP,DO,CON,PH, Chl-a, Temp, Metals
81	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
31C	Palm Beach Co Sta	C-15	TN,TP,DO,CON,PH, Chl-a, Temp, Metals

PBC Water Quality Monitoring Stations



Figure 1.

C-18 Basin:

PBC H2O Sampling Stations 92 & 81

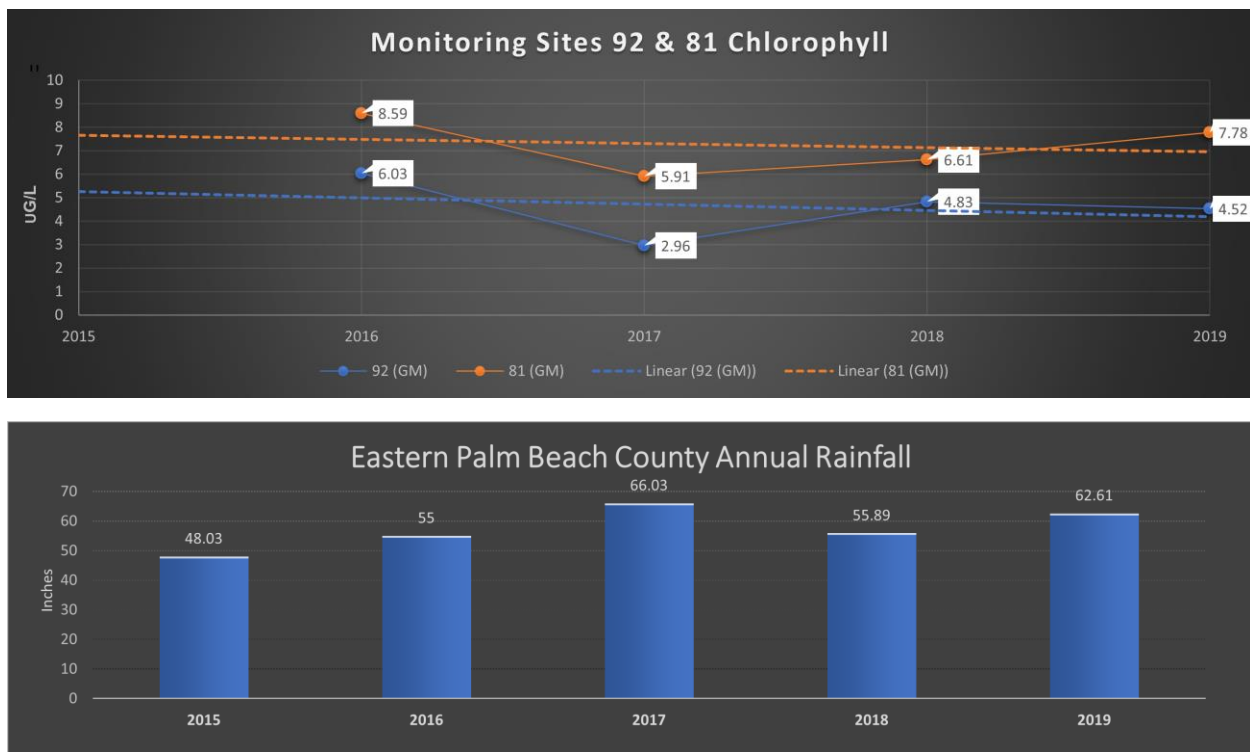


Figure 2.

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). Monitoring sites C18G92 and C18S46 were renamed 92 and 81, respectively.

Graph 1. C-18 Basin Monitoring stations 92 & 81 Chlorophyll:



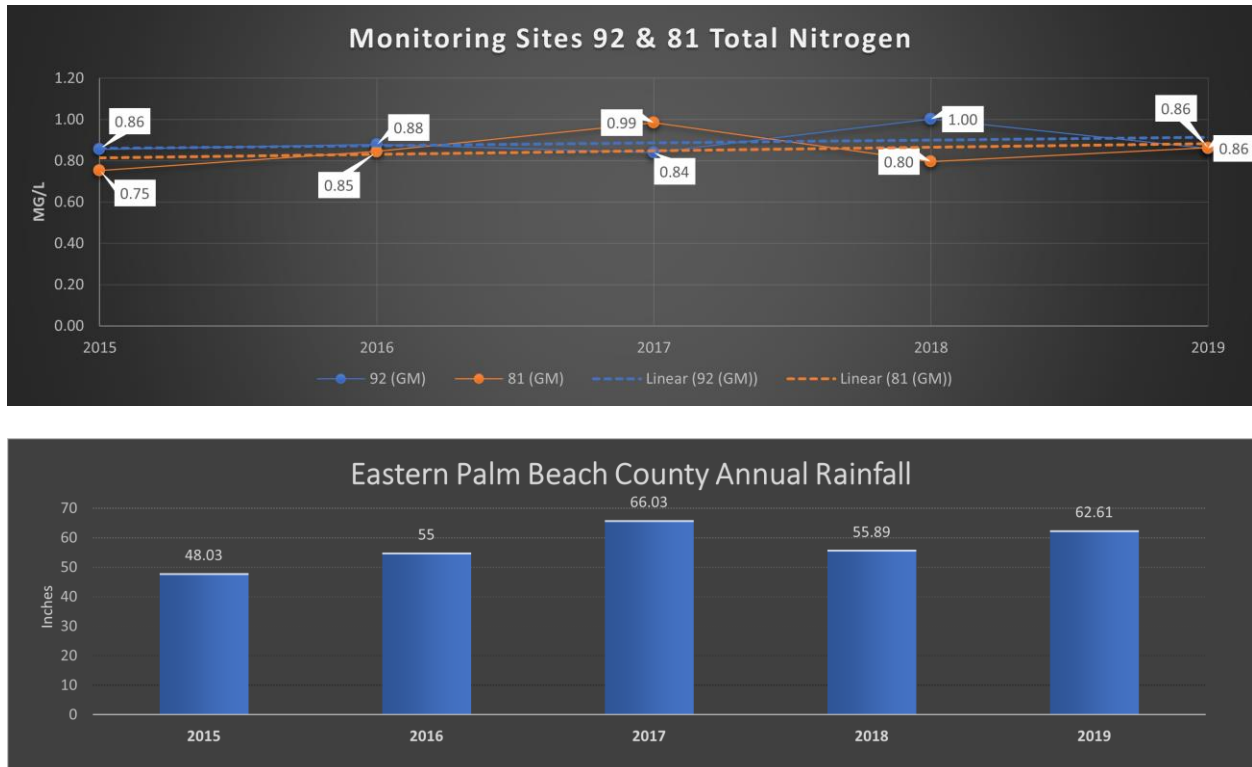
Evaluation:

Monitoring station 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 92 had chlorophyll-a values ranging from 1.6 μL to 10.9 μL and a geometric mean of 4.44 μL over the 4-year monitoring period. Unfortunately, sample values are missing in 2015, not allowing for a linear projection. However, available data years 2016-2019 shows a slight decrease of chlorophyll-a levels. This could potentially be due to better BMPs, gate operation, and increase awareness in urbanized areas.

Monitoring station 81 is located east or downstream of FTE and north of Indiantown Rd had chlorophyll-a values ranging from 2.5 μL to 15.8 μL and a geometric mean of 7.15 μL . Based

on the data chlorophyll-a is higher at the monitoring station 81 east of FTE than station 92. The highest value was 15.8 $\mu\text{g/L}$, below water quality standard of 20 $\mu\text{g/L}$ exceedance for freshwater Class III systems.

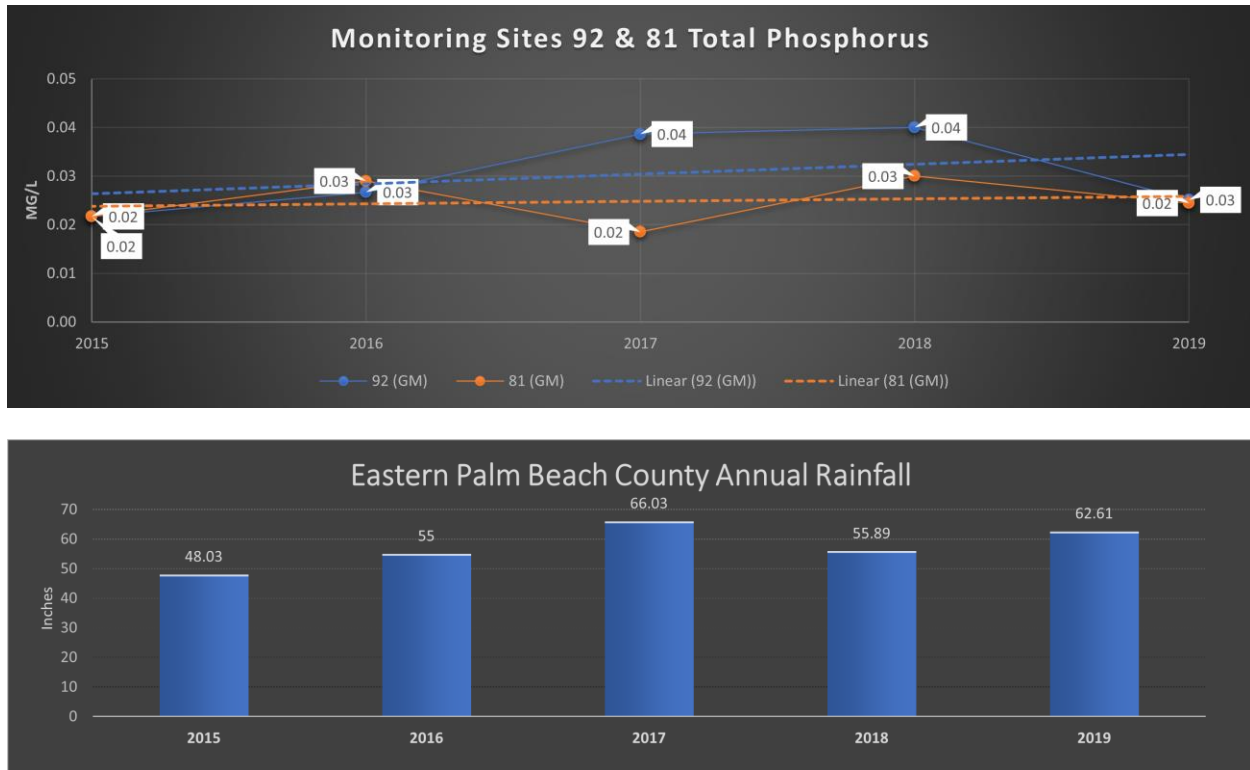
Graph 2. C-18 Basin Monitoring stations 92 & 81 Total Nitrogen:



Evaluation:

In graph 2, both monitoring stations, 92 and 81, show a slight increase of total nitrogen (TN) from 2015 to 2019. Monitoring station 92 had TN monitoring values ranging from 0.69 mg/L to 1.51 mg/L and a geometric mean of 0.89 mg/L. Monitoring station 81 had TN values ranging from 0.66 mg/L to 1.32 mg/L and a geometric mean of 0.84 mg/L. Chlorophyll-a data showed a decrease trend while TN shows a slight increase. Higher or increasing 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. Although TN shows a slight increasing trend from 2015-2019, the range of geometric means is relatively small. The geometric mean of 2019 for monitoring station 92 and 81, before and after Turnpike influence, is the same value of 0.86 mg/L.

Graph 3. C-18 Basin Monitoring stations 92 & 81 Total Phosphorus:



Evaluation:

Monitoring station 92, west or upstream of FTE, appears to have a slightly increasing trend, although values are extremely low. TP monitoring values at station 92 range from 0.01 mg/L to 0.18 mg/L with a geometric mean of 0.03 mg/L over the 5-year monitoring period. Monitoring station 81, east or downstream of FTE has a neutral TP trend with monitoring values ranging from 0.012 mg/L to 0.039 mg/L and a geometric mean of 0.02 mg/L. Monitoring station 81, which is downstream of FTE influence, has had lower or equal levels of TP from 2015 to 2019. Levels of TP are very low, for both monitoring stations 92 and 81. This could be attributed to better BMP 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 road widening projects within the C-18 basin, thus maintaining the same amount of 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

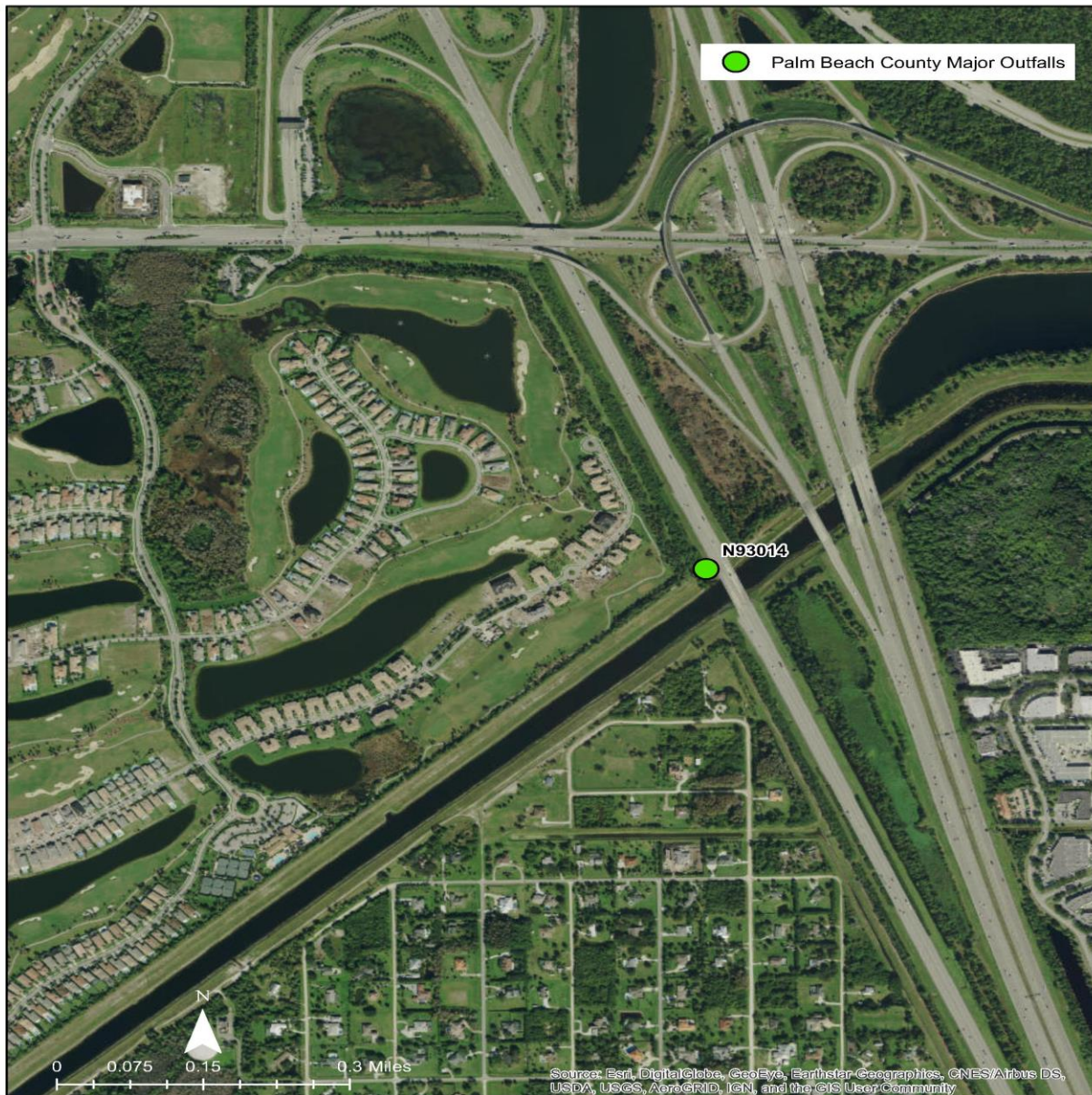


Figure 3.

NPDES Major Outfall N93014 Discharge to C-18 Canal

The outfall N93014 discharging to the C-18 is a ditch canal/swale and is located 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.

C-51 Basin:

PBC H2O Sampling Stations 37B, 38B & S155

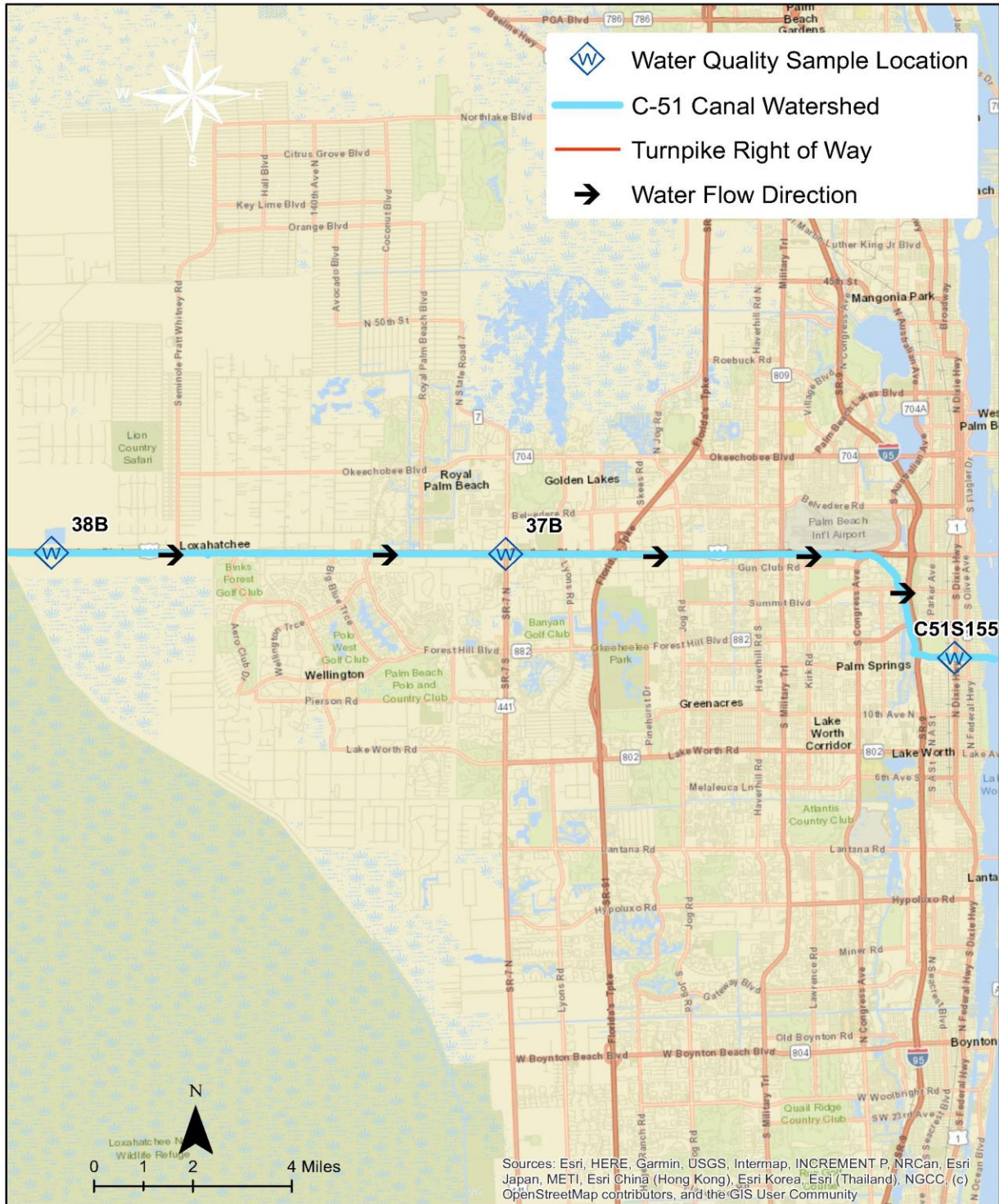


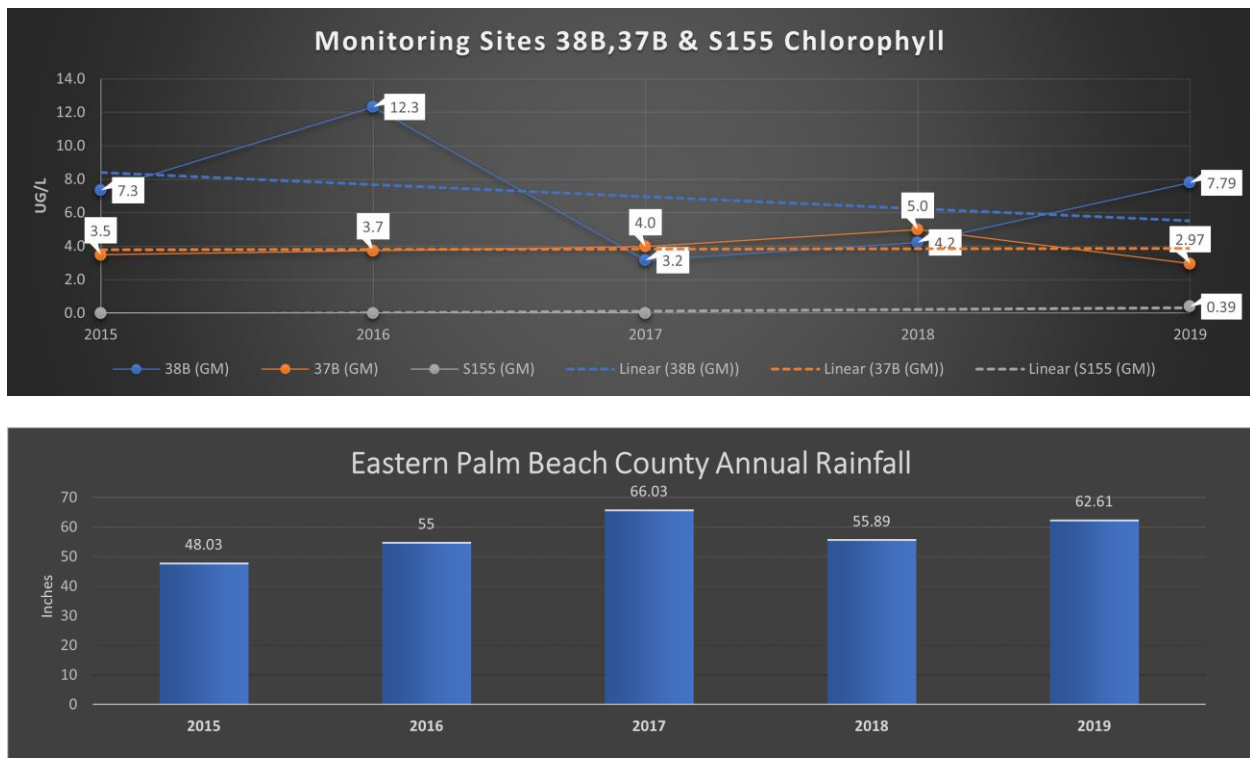
Figure 4.

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



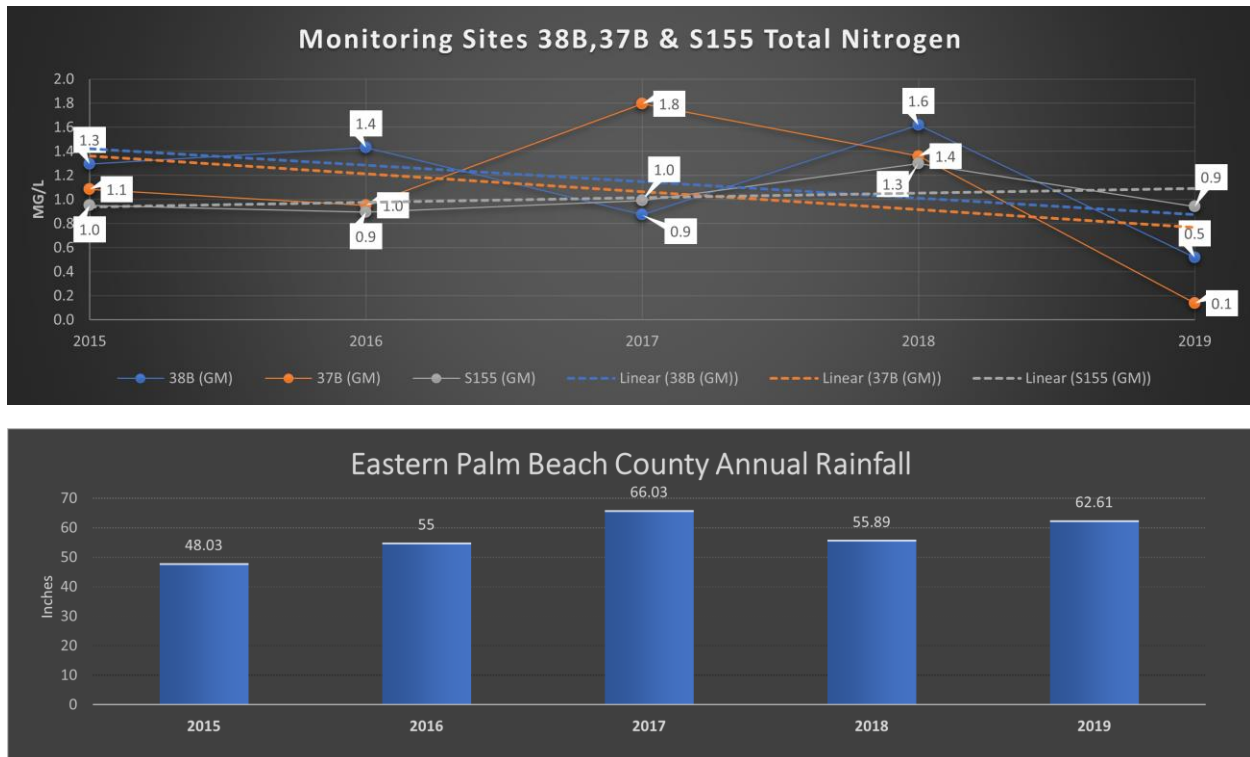
Evaluation:

Monitoring Station 38B is the most western or upstream site from FTE. Monitoring data at this site has chlorophyll-a values ranging from 1.7 μ /L to 69.7 μ /L with a geometric mean of 6.23 μ /L over the 5-year monitoring period. Monitoring station 37B is approximately located in the center of Palm Beach County and has lower urban congestion compared to the eastern portions of the county. Here the chlorophyll-a levels are lower than at station 38B, with values ranging

from 1.1 µ/L to 16.1 µ/L and a geometric mean of 3.78 µ/L over the 5-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 urbanized area with the largest population. Water quality monitoring data for chlorophyll-a at station S155 has data from 2013 to 2014 and again in 2019. With the data available, chlorophyll-a levels appears to be very low ranging from 0.024 µ/L to 6.4 µ/L and a geometric mean of 0.06 µ/L. This would suggest that even with heavy population density the chlorophyll-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. Only monitoring station 38B, upstream of FTE influence, had values above 20 µg/L for chlorophyll-a.

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



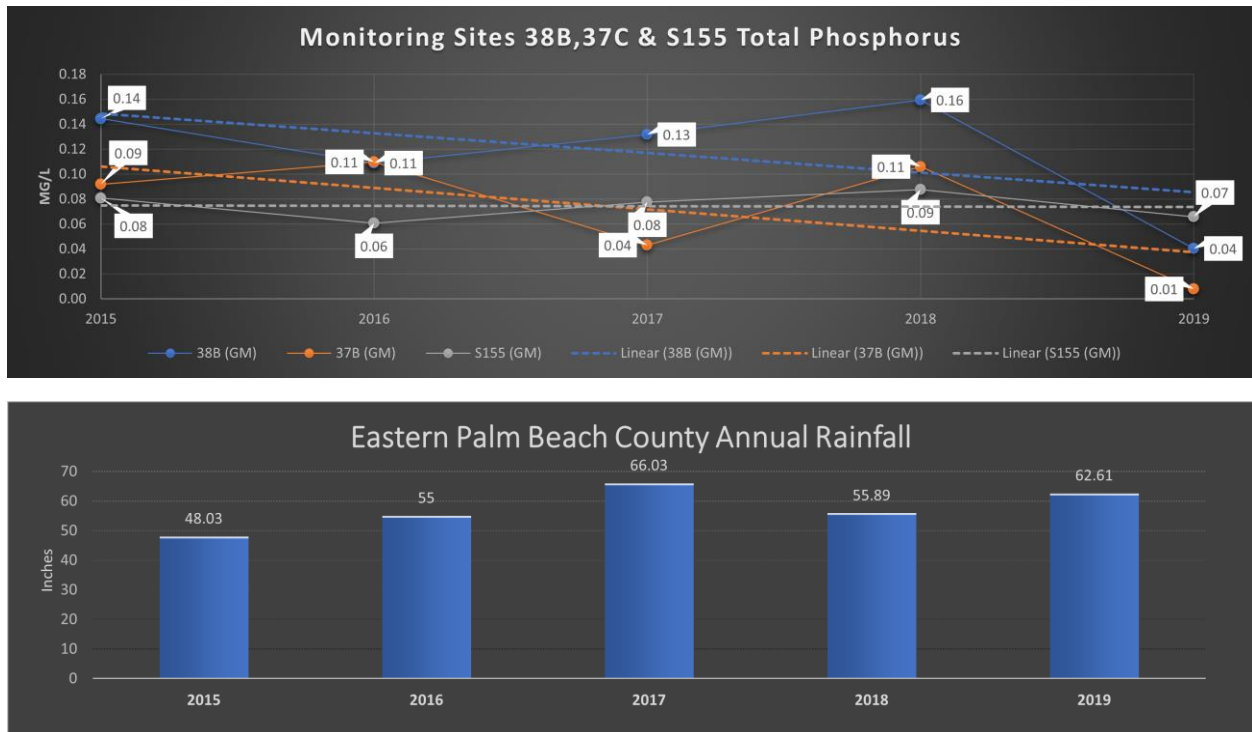
Evaluation:

Monitoring stations 38B and 37B show decreasing trends of TN from 2015 to 2019. Monitoring station S155 shows a slight increasing trend of TN. Station 38B, upstream of FTE, had TN monitoring values ranging from 0.06 mg/L to 2.13 mg/L and a geometric mean of 1.06 mg/L over the 5-year monitoring period. Monitoring station 37B, still upstream of FTE and in the center of Palm Beach County, has TN values ranging from .06 mg/L to 2.5 mg/L with a

geometric mean of 0.81 mg/L. Monitoring station S155, east or downstream of FTE, had monitoring values ranging from 0.56 mg/L to 1.85 mg/L and a geometric mean of 1.01 mg/L.

All three monitoring stations showed lower TN geometric means in 2019 than 2018. Monitoring station S155, the furthest downstream, had a slightly higher geometric mean in 2019. This could be due to the station being in a highly populated area, an increase in annual rainfall and fertilizer usage for both homeowners and landscape professionals.

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



Evaluation:

Monitoring station 38B and 37B showed a decreasing trend of TP from 2015 to 2019, while monitoring station S155 showed a neutral trend. Monitoring station 38B, to the west or upstream of FTE, has TP values ranging from 0.0033 mg/L to 0.891 mg/L and a geometric mean of 0.11 mg/L over the 5-year monitoring period. Monitoring station 37B has TP values ranging from 0.0014 mg/L to 0.182 mg/L and a geometric mean of 0.05 mg/L over the 5-year monitoring period. Lastly, S155 has TP values ranging from 0.031 mg/L to 0.48 mg/L and a geometric mean of 0.07 mg/L over the 5-year monitoring period.

NPDES Major Outfall N93012 - Discharge to C-51 Canal

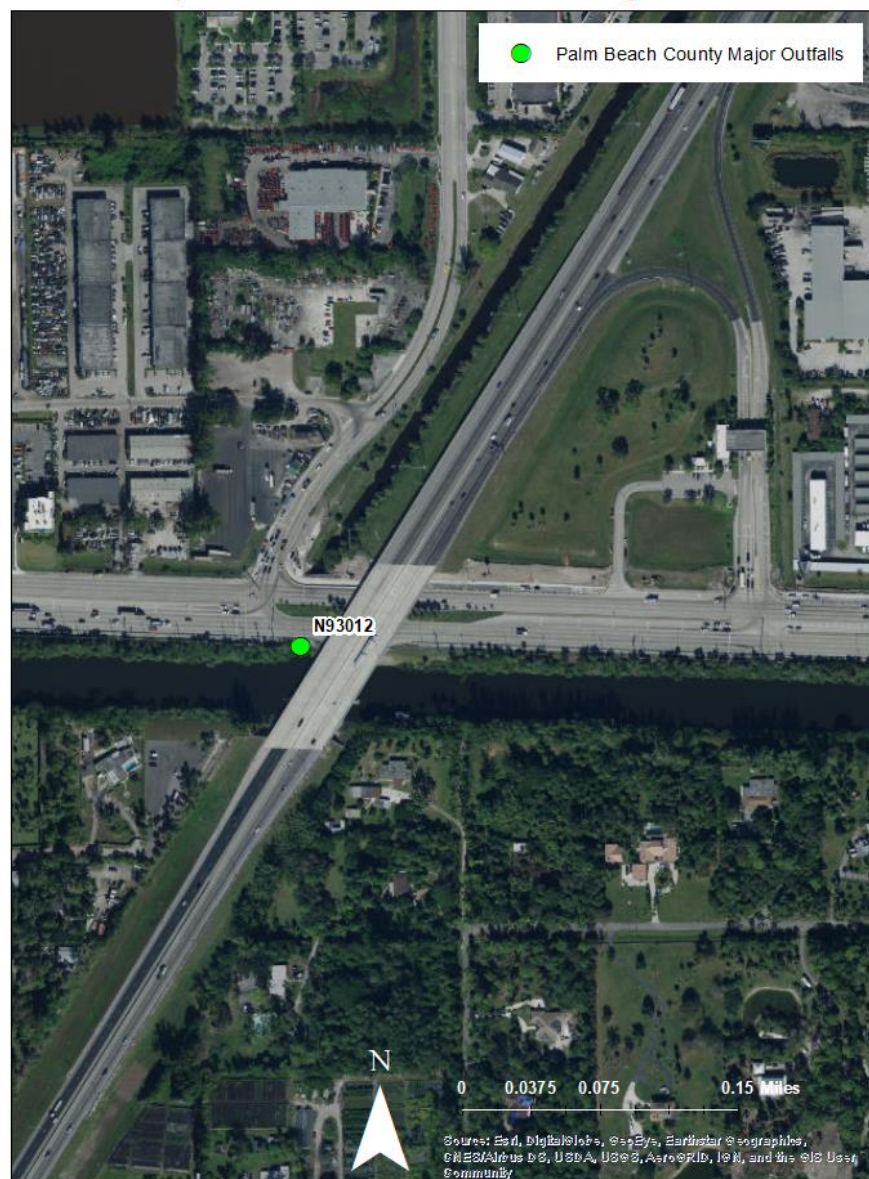


Figure 5.

NPDES Major Outfall N93012 Discharge to C-51 Canal

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, and mowed by FTE. Catch basins and stormwater pipes are cleaned and maintained through routine maintenance activities.

C-16 Basin:

PBC H2O Sampling Stations 27A & 27B

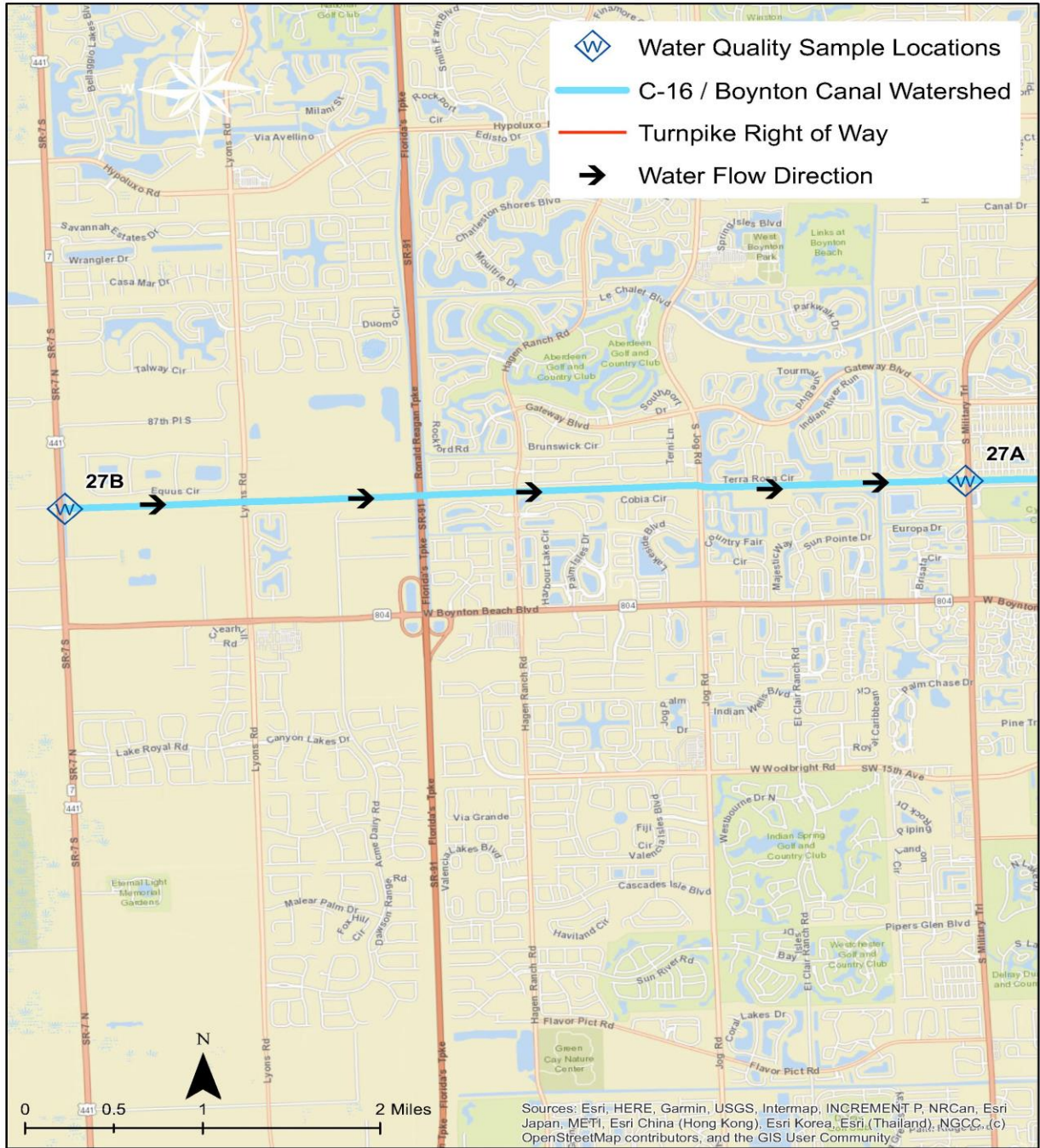
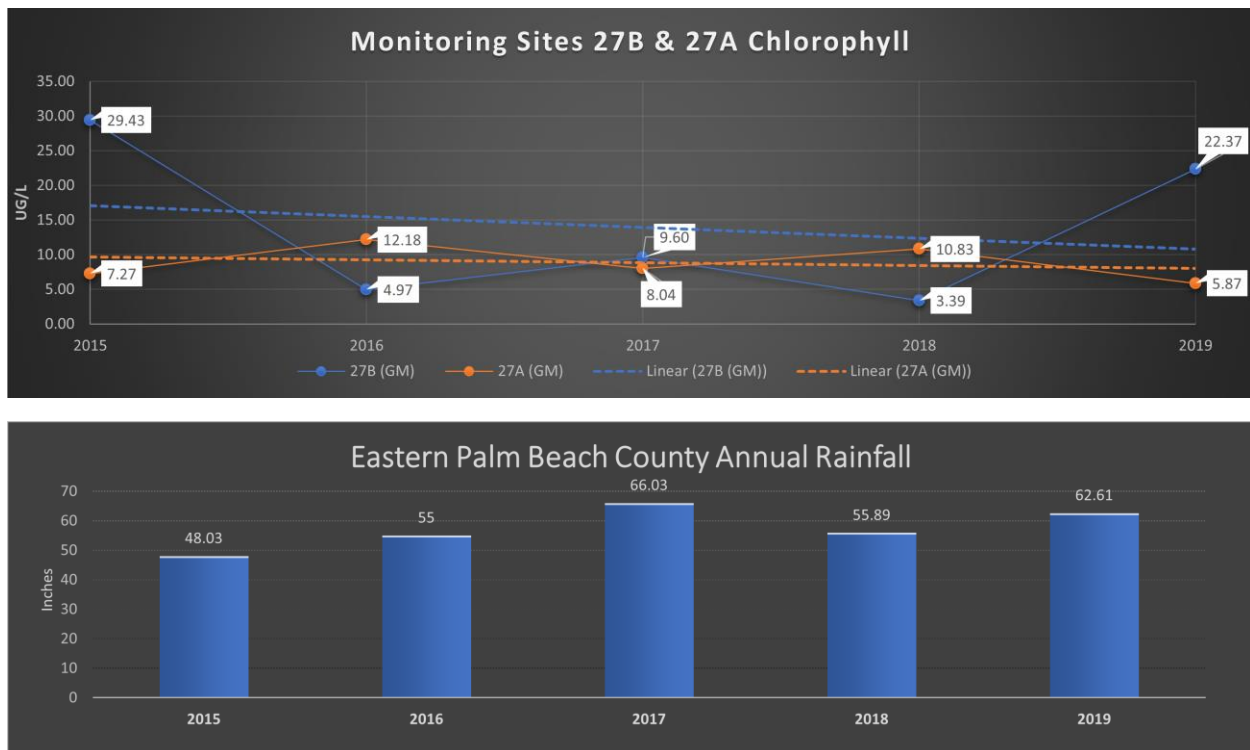


Figure 6.

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 Weaver 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

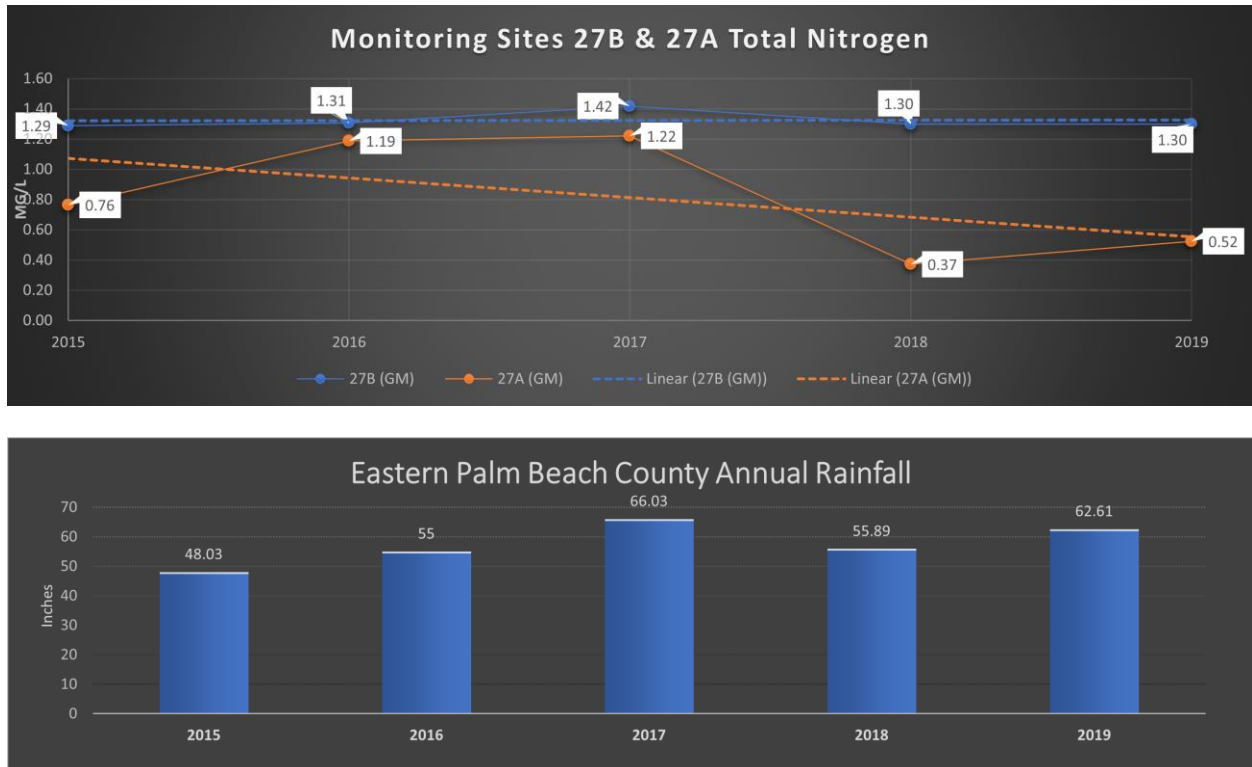


Evaluation:

Monitoring station 27B, west or upstream of FTE, shows a decreasing trend in chlorophyll-a with values ranging from 0.5 µ/L to 61.4 µ/L and a geometric mean of 10.12 µ/L over the 5-year monitoring period. Monitoring station 27A, east or downstream of FTE, also has a slight decreasing chlorophyll-a trend with values ranging from 1.2 µ/L to 24.4 µ/L with a geometric mean of 8.53 µ/L over the 5-year monitoring period. Monitoring station 27B has 8 chlorophyll-a sample values over 20 µg/L and monitoring station 27A has only 1 chlorophyll-a sample value over 20 µg/L. Aerials show a horse track, a golf course and many private communities with

lakes/ponds that are located throughout the area. These areas could be contributing to elevated chlorophyll-a levels through activities such as fertilizer application and landscaping.

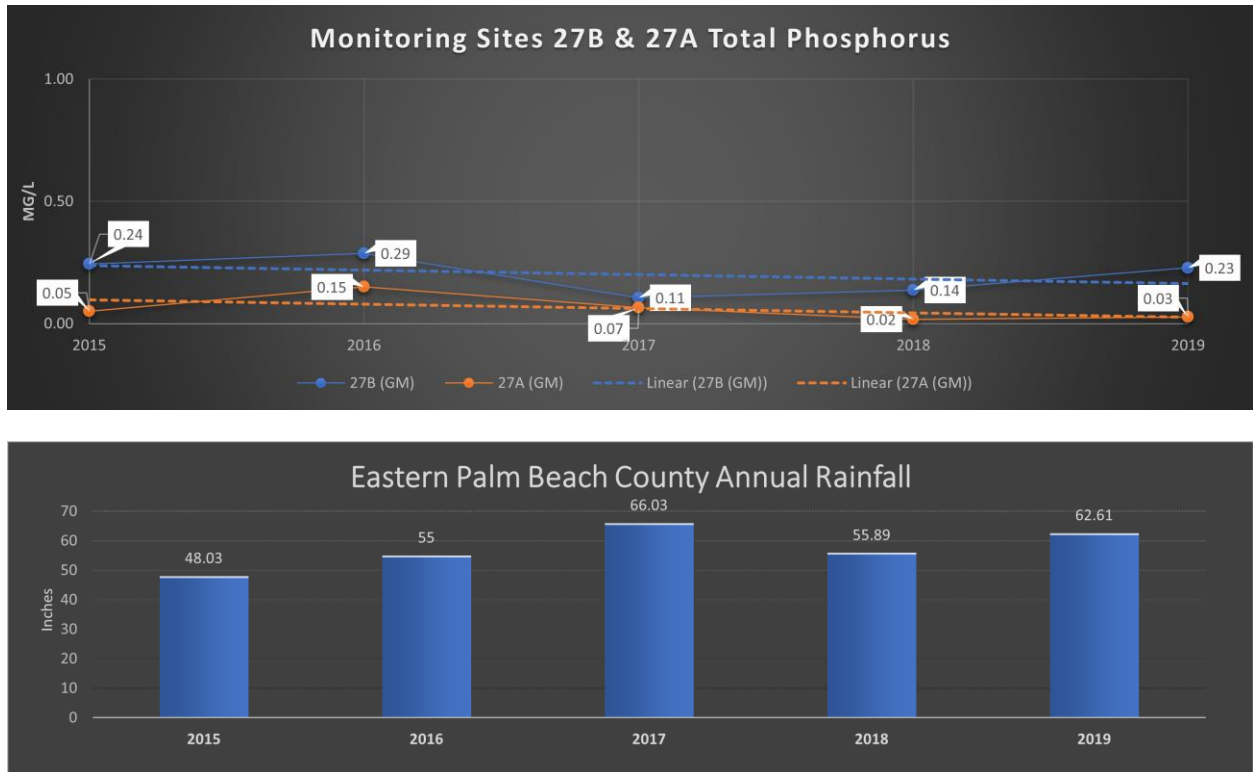
Graph 8. C-16 Basin Monitoring stations 27B & 27A Total Nitrogen



Evaluation:

Monitoring station 27B has a neutral TN trend, west or upstream of FTE, with TN values ranging from 0.9 mg/L to 2.11 mg/L and a geometric mean of 1.32 mg/L over the 5-year monitoring period. Monitoring station 27A, east or downstream of FTE, shows a decreasing TN trend with values ranging from 0.02 mg/L to 2.34 mg/L and a geometric mean of 0.74 mg/L over the 5-year monitoring period. Monitoring station 27A, downstream of FTE, has lower levels of TN from 2015 to 2019 than monitoring station 27B.

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



Evaluation:

Both monitoring stations show a slightly decreasing trend in TP levels. Station 27B, west or upstream of FTE, has the highest TP values, ranging from 0.031 mg/L to 0.74 mg/L and a geometric mean of 0.19 mg/L over the 5-year monitoring period. Monitoring station 27A, east or downstream of FTE, has TP values ranging from 0.0014 mg/L to 0.28 mg/L and a geometric mean of 0.05 mg/L.

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

C-15 Basin:

PBC H2O Sampling Stations 31E & 31C

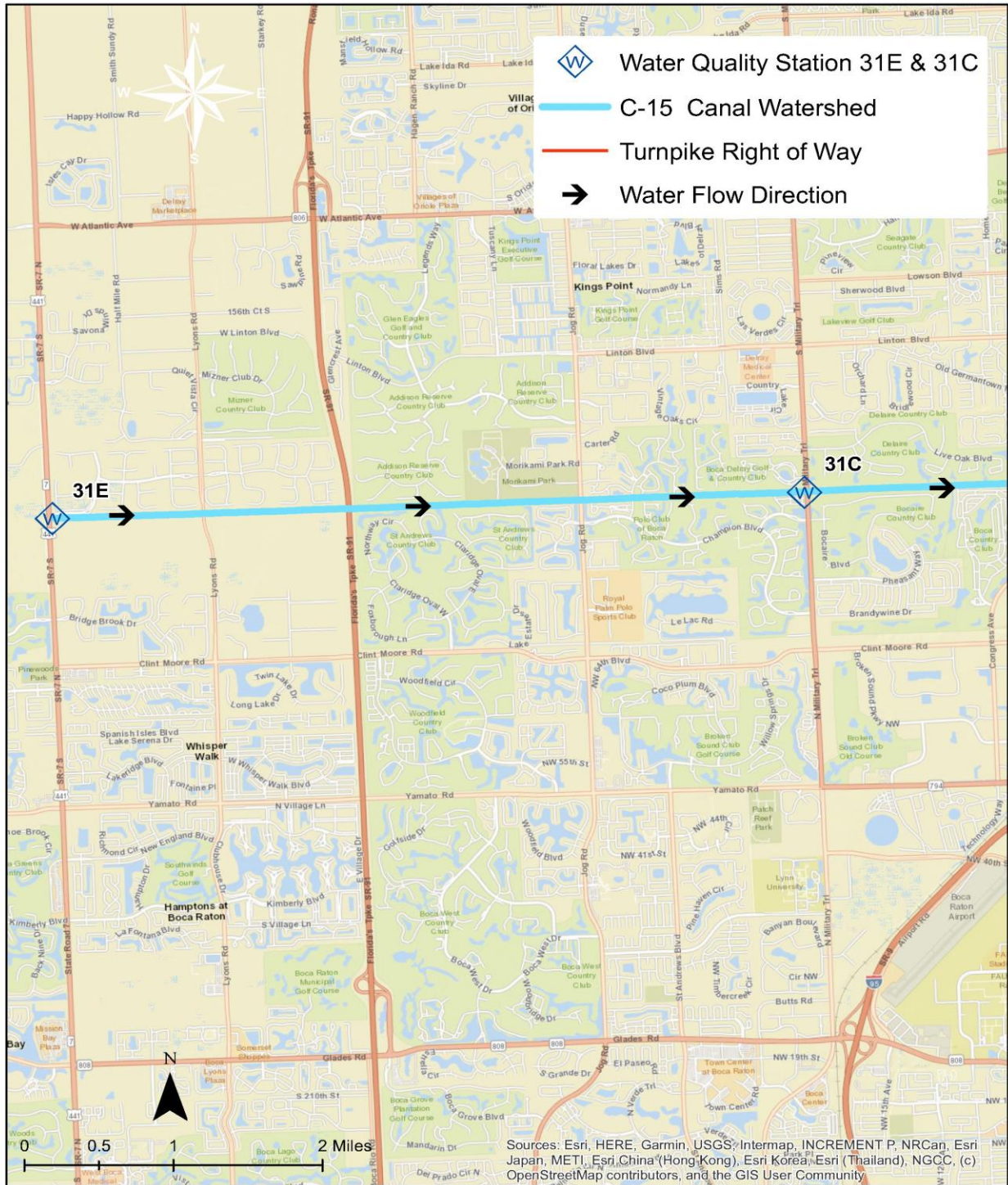
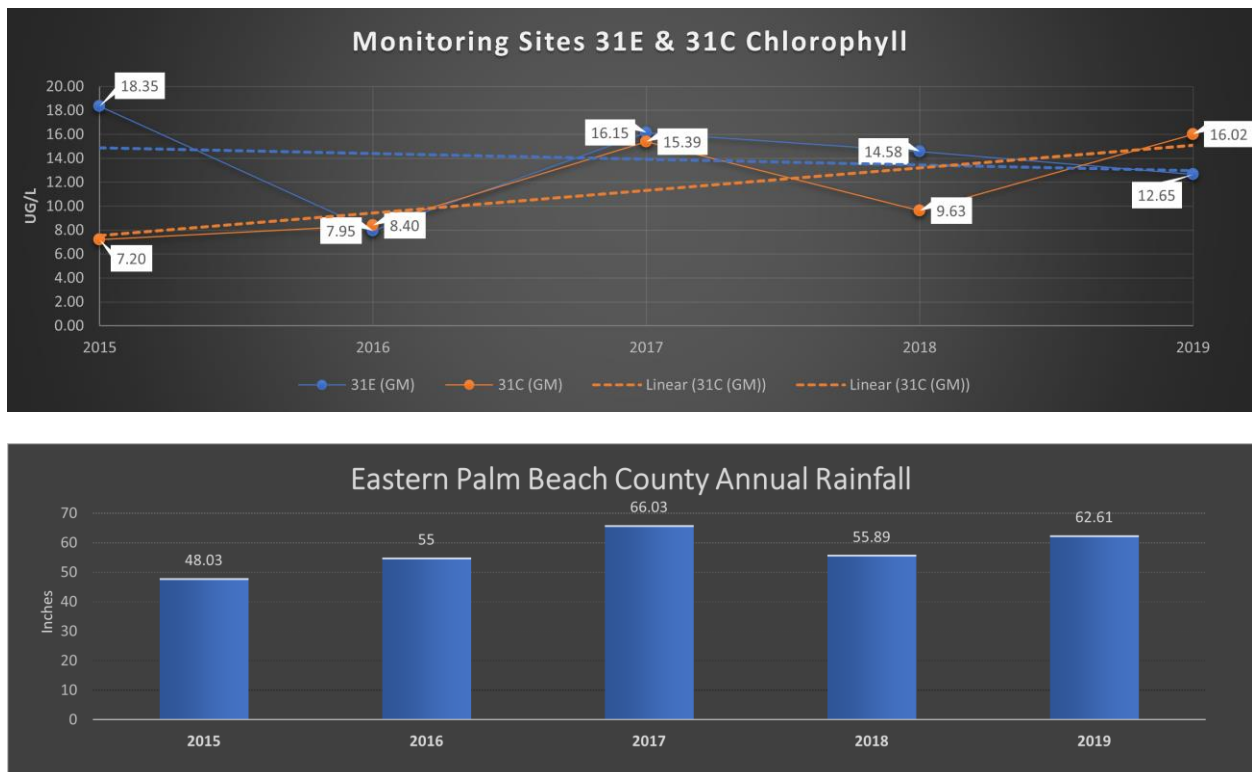


Figure 7.

C-15 Basin:

The C-15 Basin is defined generally as the area south of Boynton Beach Boulevard to Yamato Road and west of I-95 to State Road 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

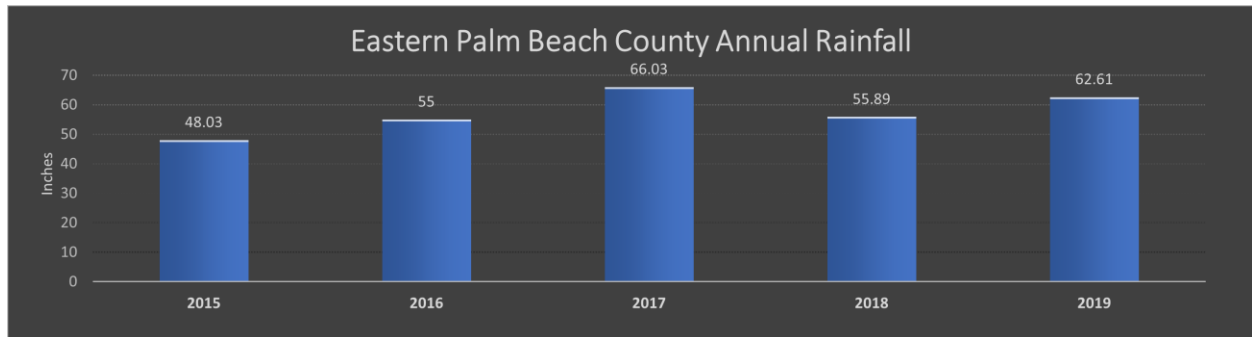
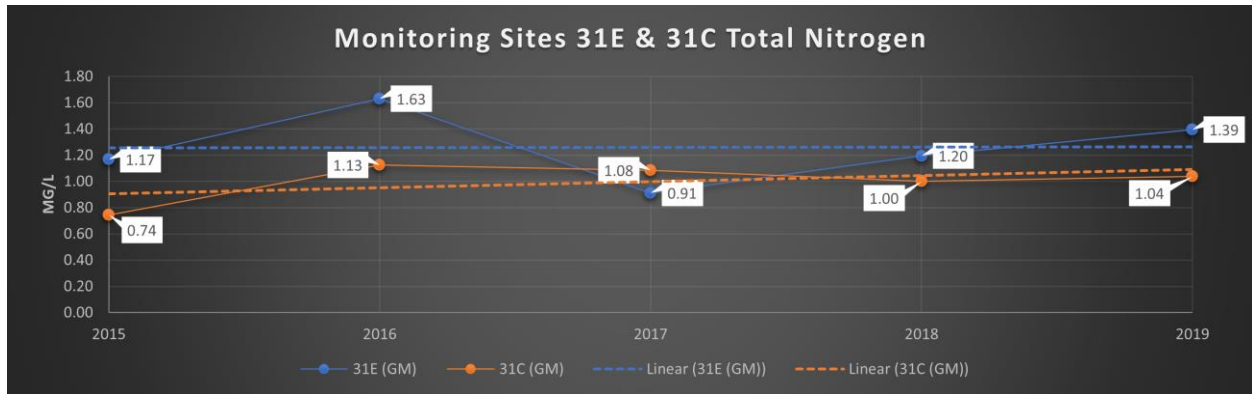


Evaluation:

Monitoring station 31E, west or upstream of FTE, has an overall decreasing chlorophyll-a trend with variability during the evaluation period. Monitoring station 31E chlorophyll-a values ranged from 1.6 μL to 60.5 μL and a geometric mean of 13.42 μL over the 5-year monitoring period. Monitoring station 31E had 11 of 24 chlorophyll-a sample values above 20 μL . Monitoring station 31C, east or downstream of FTE, has an increasing chlorophyll-a trend with values ranging from 1.1 μL to 58 μL and a geometric mean of 10.75 μL over the 5-year monitoring period. Monitoring station 31C had 7 of 23 sample values above 20 μL . Station 31C is in the

suburban area of Palm Beach County and could be impacting the chlorophyll-a values by fertilizer and landscaping.

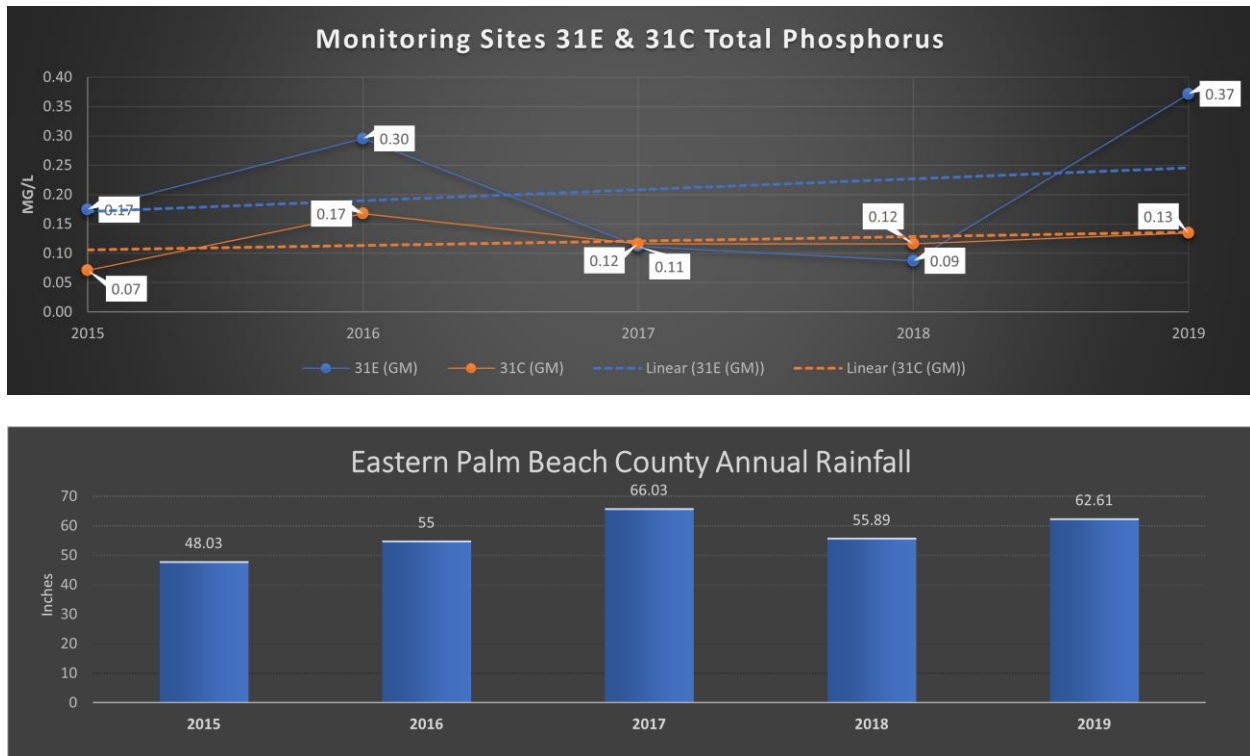
Graph 11. C-15 Basin Monitoring stations 31E & 31C Total Nitrogen



Evaluation:

Monitoring stations 31E shows a neutral trend in TN. Monitoring station 31E, west or upstream of FTE, had TN values ranging from 0.39 mg/L to 2.47 mg/L with a geometric mean of 1.24 mg/L over the 5-year monitoring period. Monitoring station 31C, east or downstream of FTE, shows a slight increasing trend in TN. Monitoring station 31C has TN values ranging from 0.6 mg/L to 2.19 mg/L with a geometric mean of 0.99 mg/L. Chlorophyll-a trends are not consistent with TN trends. Station 31E, upstream of FTE, had higher TN values compared to downstream in the more urbanized area.

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



Evaluation:

Monitoring station 31E, west or upstream of FTE, had TP values ranging from 0.014 mg/L to 0.61 mg/L and a geometric mean of 0.18 mg/L. Monitoring station 31E has an increasing trend during the 5-year monitoring period. Monitoring station 31C, east or downstream of FTE, had TP values ranging from 0.04 mg/L to 0.21 mg/L and a geometric mean of 0.12 mg/L. Monitoring station 31C has a slight increasing trend, but has consistently lower TP levels than the upstream monitoring station 31E.

FTE has no major outfall on the C-15 Canal.

Pollutant Loading Estimates

One of the requirements of the permit is for average annual pollutant loading estimates to be made during year three of each permit cycle. Event mean concentration (EMC) estimates are to be provided for six parameters. The six parameters identified by the FDEP are five-day biochemical oxygen demand (BOD5), total copper (Cu), total nitrogen (as N) (TN), total phosphorus (TP), total suspended solids (TSS), and total zinc (Zn), all in the units of (mg/L). Pollutant loading models can be used as a tool to compare the effects of varying contributing area conditions over a time interval. The permit allows and the group modeled pollutant loading on watershed basis.

During year three, a pollution loading model was developed as a joint activity by the Palm Beach County MS4 group.

FTE's MS4 is within seven watersheds: C-15, C-16, C-17, C-18, C-51, Intracoastal Waterway North (ICWWN) and Loxahatchee (Lox). Figure 8 graphically depicts these watersheds.

Summary tables below provide the estimated loading from FTE MS4 for each basin for both 2013 and 2018. The corresponding tables for each basin can be found in the joint pollutant loading report.

Cycle 3 Pollutant Loading

Watersheds	BOD (lb/yr)	TSS (lb/yr)	TP (lb/yr)	TN (lb/yr)	CU (lb/yr)	ZN (lb/yr)	Area (ac.)
C-15	9,961	44,518	516	3,744	50	139	331.67
C-16	10,663	38,806	555	4,293	37	104	397.17
C-17	9,070	40,438	440	3,257	45	139	286.31
C-18	10,559	48,617	619	4,550	55	126	448.91
C-51	13,190	44,252	537	4,453	54	207	437.88
ICCWN	1,369	2,330	43	449	4	19	52.23
Lox.	7,341	32,013	365	2,722	36	102	267.99
Totals	62,153	250,974	3,075	23,468	281	836	2,222.46

Cycle 4 Pollutant Loading

Watersheds	BOD (lb/yr)	TSS (lb/yr)	TP (lb/yr)	TN (lb/yr)	CU (lb/yr)	ZN (lb/yr)	Area (ac.)
C-15	9,952	44,477	516	3,742	50	139	331.67
C-16	10,663	38,806	555	4,293	37	104	397.17
C-17	8,599	39,875	434	3,167	44	130	286.31
C-18	10,483	48,382	616	4,525	55	125	448.91
C-51	13,109	44,096	535	4,436	54	206	437.88
ICCWN	1,334	2,280	42	443	4	19	52.23
Lox.	7,341	32,013	365	2,772	36	102	267.99
Totals	61,481	249,929	3,063	23,378	280	825	2,222.16

Total and Percent Reduction of Load Summary

Basin	BOD (lb/yr)	TSS (lb/yr)	TP (lb/yr)	TN (lb/yr)	CU (lb/yr)	ZN (lb/yr)
Cycle 3 Totals	62,153	250,974	3,075	23,468	281	836
Cycle 4 Totals	61,481	249,929	3,063	23,378	280	825
Public education 4%	2,459	9,997	122	935	11	33
Street Sweeping	0	0	196	360	0	0
Total Load reductions	2,459	9,997	318	1,295	11	33
Adjusted total Loading cycle 4	59,022	239,932	2,745	22,083	269	792
Percent Reductions	4	4	10.3	5.5	4	4

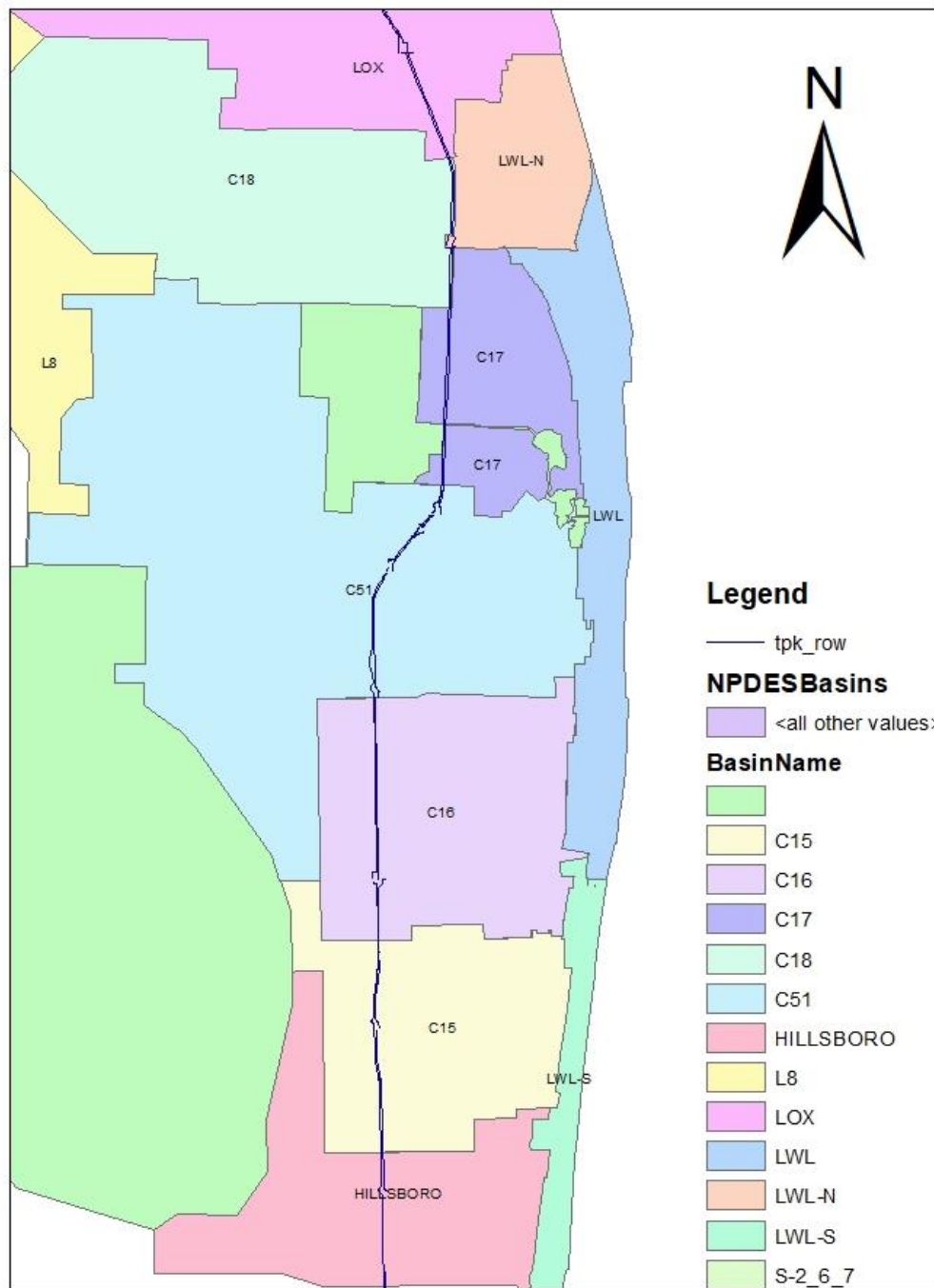


Figure 8.

Summary:

- The C-18 basin chlorophyll-a value both upstream and downstream sites showed a decreasing trend. TN at both sites had a slight increase. TP upstream site had an increase and downstream site had a neutral trend. Cycle 4 Year 3 EMC for C-18 watershed had a slight decrease in all parameters BODs, TSS, TP CU, ZN, and TN.
- The C-51 basin chlorophyll-a upstream site showed a decrease trend from 2015 to present while the downstream site showed a slight increase. For TN the two sites 38B and 37B showed a decreasing trend, while the most downstream site, S155, shows an increasing trend. The TP for the two sites 38B and 37B showed a decreasing trend, while the most downstream site shows a neutral trend. EMC for C-51 watershed had a slight decrease in all parameters BODs, TSS, TP CU, ZN, and TN.
- The C-16 basin chlorophyll-a upstream and downstream site both have decreasing trends. TN at the upstream site had very little change. Downstream increased slightly in 2019, but overall shows a decreasing trend over the 5-year monitoring period. TP at both sites showed slight decreases. EMC for C-16 watershed had a slight decrease in all parameters BODs, TSS, TP CU, ZN, and TN.
- The C-15 basin chlorophyll-a upstream site showed a decreasing trend, and the downstream site showed an increasing trend. The upstream site had a TN trend with little or no change and the downstream monitoring site trend increased slightly. TP at the upstream and downstream sites both had slight increasing trends.
- Chlorophyll-a overall decreased in all four of the upstream basins and decreased in 2 of the downstream basins. TN decreased or had no change in two upstream and two downstream basins. TN increased in two upstream and two downstream basins. TP trends increased in two basins upstream and one downstream. TP trends decreased in two basins upstream and two basins downstream.
- Pollutant Loading- in comparing Cycle 3 and Cycle 4 pollutant loading, FTE has reduced pollutant loading estimates into the watersheds for Cycle 4. This was before education and street sweeping reductions/ credits were added lowering load estimates even more. Street sweeping reduced load by 6.4 % TP and 1.5 % TN and likely reduced other parameters too. However, I am not able to calculate them. Revisions to the Stormwater Management Program (SWMP) are not needed at this time.
- The only suggested revision to the Assessment Plan is to update the Monitoring Station table and map with the revised monitoring station names. No other revisions are suggested at this time.

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 basin trends, values coming from the western sites or upstream had higher chlorophyll-a, total nitrogen, and total phosphorus values than those at the eastern or downstream sites.

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.

References:

Municipal Separate Storm Sewer System National Pollutant Discharge Elimination System Joint Annual Report Cycle 4 Year 4 Northern Palm Beach Improvement District

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

SFWMD, Historical Monthly Rainfall for Eastern Palm Beach

<https://www.sfwmd.gov/weather-radar/rainfall-historical/monthly>



FLORIDA DEPARTMENT OF Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Noah Valenstein
Secretary

Sent via ePost

June 5, 2019

Debbie Meyer, Ph.D., P.E.
FDOT Florida's Turnpike Enterprise
P.O. Box 9828
Fort Lauderdale, FL 33310

Subject: Palm Beach County Municipal Separate Storm Sewer System (MS4)
NPDES Permit No. FLS000018-004
FDOT Florida's Turnpike Enterprise
Approval of Revised Assessment Program

Thank you for your April 11, 2019 submittal of the Revised Assessment Program as required by Part V.B.1. of your MS4 permit. The Turnpikes Assessment Program meets the permit requirements and is approved.

The Assessment Program approved for implementation within the MS4 permit's Cycle 4 is enclosed with this approval. Should any modifications to this program be required the permittee must submit the proposed changes for DEP approval prior to implementation.

If you have questions on the Assessment Program, please contact me at (850) 245-7561, Michelle.Bull@floridadep.gov. If you have MS4 questions or need any assistance, please contact Steve Cioccia at (850) 245-8568 or Stephen.Cioccia@floridadep.gov.

Sincerely,

A handwritten signature in blue ink that reads "Michelle Bull".

Michelle Bull
NPDES Stormwater Program

Enclosure: FDOT Florida's Turnpike Enterprise Cycle 4 Revised Assessment Program

Cc: Troy Craig, FDOT Florida's Turnpike Enterprise
Alan Wertepny, Mock-Roos
Borja Crane-Amores, NPDES Stormwater Program



Florida Department of Transportation

RICK SCOTT
GOVERNOR

Florida's Turnpike Enterprise
P.O. Box 9828, Fort Lauderdale, FL 33310
954-975-4855

RACHEL D. CONE
INTERIM SECRETARY

MS4 Permit No. FLS000018-004

Part V. – Monitoring Requirements; Sub-part A. – Assessment Program

Assessment Program Objective

The purpose of this assessment program 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 loadings from its Municipal Separate Storm Sewer System (MS4) to receiving water bodies.

Assessment Program Approach

Florida's Turnpike Enterprise will be using 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 year 3. This approach will allow 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 water quality 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



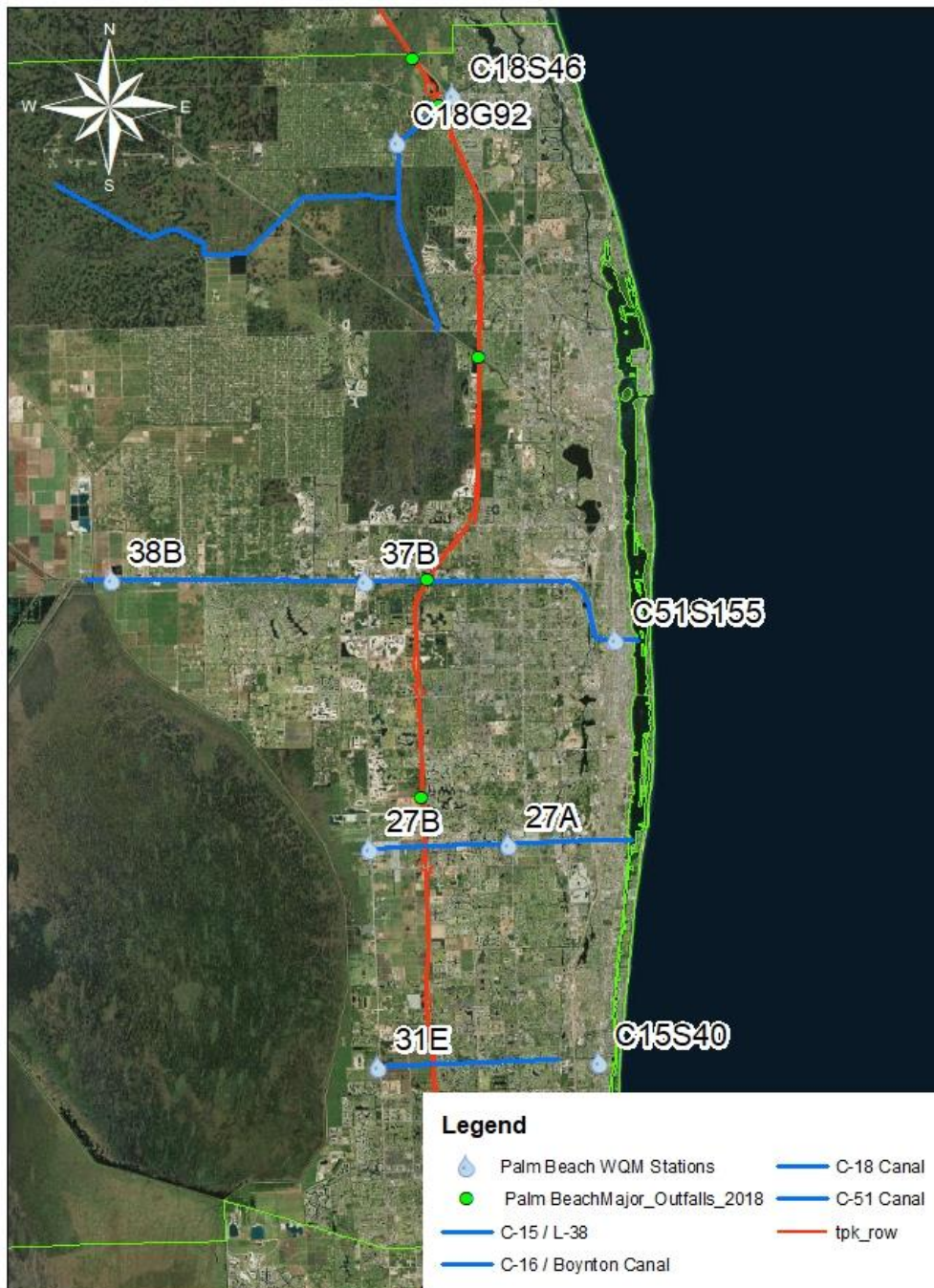
Florida Department of Transportation

Florida's Turnpike Enterprise
P.O. Box 9828, Fort Lauderdale, FL 33310
954-975-4855

RICK SCOTT
GOVERNOR

RACHEL D. CONE
INTERIM SECRETARY

PBC Water Quality Monitoring Stations





Florida Department of Transportation

RICK SCOTT
GOVERNOR

Florida's Turnpike Enterprise
P.O. Box 9828, Fort Lauderdale, FL 33310
954-975-4855

RACHEL D. CONE
INTERIM SECRETARY

Pollutant Loading Estimate Plan

The Palm Beach County MS4 permittee will provide each co-permittee with pollutant loading estimates that reflect their respective MS4 areas, the group effort will provide the loading estimates “by MS4,” in addition to “by watershed”. Prior to Year 3, the (FTE) will participate in this effort by reviewing its MS4 contributing areas to each receiving water, and will provide updated information on the area extents and the land uses located therein. In addition, any water quality best management practices (BMPs) that are in place within the MS4 area, will be identified, along with their geospatial extent.

In accordance with the MS4 Permit, pollutant load estimates for the following parameters must be developed once during each permit cycle: Biochemical Oxygen Demand (BOD5), Copper (Cu), Total Nitrogen (TN), Total Phosphorus (TP), Total Suspended Solids (TSS), Zinc (Zn).

The EMC values to be used in the Cycle 4 pollutant loading estimates will be the same as those used in Cycle 3. This will provide consistency in comparing data to previous estimates.

The EMC values used in the Cycle 3 pollutant loading estimates were taken from the 2012 City of Lake Worth Stormwater Master Plan completed by CDM Smith, because the values were determined to be representative of all of the Palm Beach County MS4s. CDM Smith chose EMC values appropriate for each land use category, from sources including NPDES data, Harvey Harper’s studies, and NURP studies.

Event Mean Concentrations (mg/l)

Land Use	% DCIA	BODs	Cu	TN	TP	TSS	Zn
Highway Major	75	5.2	0.025	1.1	0.2	46	0.116

To determine a practical estimate of the current pollutant loading, the FTE will use the land use based pollutant loading estimates provided by the permittee as the starting point from which pollutant load reductions will be subtracted. The pollutant load reductions will be estimated based on the BMPs that have been put in place within the MS4 contributing areas. In this way, when future estimates are completed, and potentially additional reduction measures or BMPs are put in place, the estimated pollutant loading will reflect the reductions.



Florida Department of Transportation

**RICK SCOTT
GOVERNOR**

Florida's Turnpike Enterprise
P.O. Box 9828, Fort Lauderdale, FL 33310
954-975-4855

**RACHEL D. CONE
INTERIM SECRETARY**

Evaluation and Response Plan

Once the Assessment Program is approved by FDEP, FTE will use ambient water quality data from prior joint annual reports to compare trends and make evaluations to the effectiveness of FTE's SWMP. Water quality monitoring results will be available annually, and the most recent year's data will be compared to that of the year or years before. A summary of the water quality monitoring data, with respect to our MS4 will be developed and included in Assessment Program Annual Report.

In addition, the pollutant loading estimates developed during Year 3 of the permit cycle will be reviewed, and if possible, compared with previous permit cycles, with respect to our MS4. A discussion of the comparison will be included in the Assessment Program Annual Report.

The report shall include receiving water trending reports/graphs for various parameters, as presented in the Joint Annual Report, and a discussion will be included in FTE's annual Assessment Report.

Based on the data from the water quality monitoring and the pollutant loading estimates, an effort will be made to determine if one portion of the MS4 should be targeted for additional loading reduction efforts, or additional pollutant control measures. The first annual report on the Assessment Program will be concurrent with the Year 3 Annual Report Form (March 2020).