



# 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 62-621.600, 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/](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**

<b>A.</b>	Permittee Name: City of Palm Beach Gardens		
<b>B.</b>	Permit Name: Palm Beach County MS4		
<b>C.</b>	Permit Number: FLS000018-004 (Cycle 4)		
<b>D.</b>	Annual Report Year: <input type="checkbox"/> Year 1 <input type="checkbox"/> Year 2 <input checked="" type="checkbox"/> Year 3 <input type="checkbox"/> Year 4 <input type="checkbox"/> Year 5 <input type="checkbox"/> Other, specify Year:		
<b>E.</b>	Reporting Time Period (month/year): October / 2018 through September / 2019		
<b>F.</b>	Name of the Responsible Authority: Mr. Todd Engle, P.E.		
	Title: City Engineer		
	Mailing Address: 10500 North Military Trail		
	City: Palm Beach Gardens	Zip Code: 33410	County: Palm Beach
	Telephone Number: 561-804-7012		Fax Number: 561-799-4211
	E-mail Address: tengle@pbgfl.com		
<b>G.</b>	Name of the Designated Stormwater Management Program Contact (if different from Section I.F above):		
	Title:		
	Department:		
	Mailing Address:		
	City:	Zip Code:	County:
	Telephone Number:		Fax Number:
	E-mail Address:		

**SECTION II. MS4 MAJOR OUTFALL INVENTORY (Not Applicable in Year 1)**

<b>A.</b>	Number of outfalls ADDED to the outfall inventory in the current reporting year (insert "0" if none): 1 (Does this number include non-major outfalls? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable) <b>District Park</b>
<b>B.</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 type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable)
<b>C.</b>	Is the change in the total number of outfalls due to lands annexed or vacated? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input 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:</p> <p><b>Current approval of the Group Monitoring Plan is September 8, 2016 (with issuance of the Cycle 4 permit). Individual Assessment Plan was approved on 3/25/19</b></p> <p>Status:</p> <p><b>The monitoring program is carried out by PBC permittees. See the PBC Joint Annual Report. The information relevant to the permittee's outfalls is addressed within the Annual Assessment Report for Palm Beach Gardens. See Attachment 1</b></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><b>See attached Annual Assessment Report for Palm Beach Gardens. See Attachment 1</b></p>
C.	<p>Attach a monitoring data summary as required by the permit. An analysis of the data discussing changes in water quality and/or stormwater pollutant loading from previous reporting years.  <i>DEP Note: Analysis must be specific to the permittee's SWMP.</i></p> <p><b>See attached Annual Assessment Report for Palm Beach Gardens. See Attachment 1</b></p>

**SECTION IV. FISCAL ANALYSIS**

A.	<p>Total expenditures for the NPDES stormwater management program for the current reporting year: <b>\$ 3,095,157.</b> for <b>2018/2019 actual budget</b></p>
B.	<p>Total budget for the NPDES stormwater management program for the subsequent reporting year: <b>\$ 3,514,947.</b> for <b>2019/2020 budget year 4</b></p>
C.	<p>Did the current reporting year resources decrease from the previous year? Y <input checked="" type="checkbox"/> / N <input type="checkbox"/></p> <p>If program resources decreased, provide a discussion of the impacts on the implementation of the SWMP.</p> <p><b>One-time capital expenditures such as repairs of non-major outfalls and slip lining /in situ repairs of the existing stormwater system occurred during year 2. In light of this, no negative impacts on the implementation of the SWMP due to the reduced yearly expenditures from year 2 to year 3.</b></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"/>	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 and PBG Assessment Report Attachment #1
<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 2: A summary review of codes and regulations to reduce the stormwater impact from development.	Part III.A.2	
<input checked="" type="checkbox"/>	<input 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	See Joint Annual Report and PBG Assessment Report Attachment #1.
<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 follow-up report on plan implementation of changes to codes and regulations to reduce the stormwater impact from development.	Part III.A.2	
<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 type="checkbox"/>	<input checked="" 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"> <li>The monitoring plan (with revisions, if applicable).</li> <li>If the total annual pollutant loadings have not decreased over the past two permit cycles, revisions to the SWMP, as appropriate.</li> </ul>	Part V.B.3 Part V.A.3	
<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): Todd Engle, P.E.

Title: City Engineer

Signature:  Date: 12/17/2019

**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	<b>Structural Controls and Stormwater Collection Systems Operation</b>				
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>					
<b>Type of Structure</b>	<b>Number of Structures</b>	<b>Number of Inspections</b>	<b>Percent Inspected</b>	<b>Number of Maintenance Activities</b>	<b>Percent Maintained</b>
Dry retention systems	10	10	100	41	100
Underdrain filter systems	0	0	0	0	0
Exfiltration trench / French drains (if)	0	0	0	0	0
Grass treatment swales (miles)	50	50	100	5	10
Dry detention systems	11	11	100	24	100
Wet detention systems	10	10	100	40	100
Detention with filtration systems	0	0	0	0	0
Alum Injection systems	0	0	0	0	0
Pollution control boxes	1	12	100	0	0
pump stations	0	0	0	0	0
Major outfalls	41	41	100	41	100



**SECTION VII. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE**

A.	B.	C.					D.	E.	F.	
Permit Citation/ SWMP Element	Permit Requirement/Quantifiable SWMP Activity	14	14	100	28	100	Documentation / Record	Entity Performing the Activity	Comments	
	Weirs or other control structures pipes / culverts (miles)	12	12	100	100	100	Public Service Logs	Public Services	Inspected once per year	
	Canals	7	7	100	7	100	Public Service Logs	Public Services	Inspected as needed and during inventory process	
	Inlets / catch basins / grates	1400	600	43	600	43	Public Service Logs	Public Services		
	Ditches / conveyance swales (miles)	1	1	100	1	100	Public Service Logs	Public Services	Inspected annually	
	If the minimum inspection frequencies set forth in Table II.A.1.a. 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.	☐								All requirements met

**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 Summary	<p>Provide an evaluation of the Stormwater Management Program according to Part VI.B.2 of the permit.</p> <p><b>Strengths:</b> The Streets/Stormwater Division has incorporated cleaning and video detection as part of the City's maintenance of stormwater infrastructure. The City cleaned and televised 8878 feet of the stormwater system, repaired 15 non-major outfalls, and removed 267 CY of sediment from the system. The Streets/Stormwater Division is very proactive and conducts monthly, quarterly, and annual inspections and maintenance of the City's MS4 system.</p> <p><b>Limitations:</b> None.</p> <p><b>SWMP revisions implemented to address limitations:</b> None.</p>											
Part III.A.2	<p><b>Areas of New Development and Significant Redevelopment</b></p> <p>Report the number of significant development projects, including new and redevelopment, reviewed and approved by the permittee for post-development stormwater considerations.</p>	<table border="1"> <tr> <td data-bbox="324 493 381 703">Number of significant development projects reviewed</td> <td data-bbox="324 703 381 777">13</td> <td data-bbox="324 777 381 850">Plans/ Reports</td> <td data-bbox="324 850 381 924">Engineering</td> </tr> <tr> <td data-bbox="324 777 381 850">Number of significant development projects approved</td> <td data-bbox="324 850 381 924">13</td> <td data-bbox="324 924 381 997">Plans/Reports</td> <td data-bbox="324 997 381 1071">Engineering</td> </tr> </table>	Number of significant development projects reviewed	13	Plans/ Reports	Engineering	Number of significant development projects approved	13	Plans/Reports	Engineering		
Number of significant development projects reviewed	13	Plans/ Reports	Engineering									
Number of significant development projects approved	13	Plans/Reports	Engineering									
Part III.A.2 Summary	<p><b>Year 2 ONLY:</b> Attach the summary report of the review activity</p> <p><b>Year 4 ONLY:</b> Attach the follow-up report on plan implementation</p>	<input type="checkbox"/>										
Part III.A.3	<p><b>Strengths:</b> Our City Program allows for significant review during the site plan approval and design process to enhance the storm water treatment for redevelopment within the City.</p> <p><b>Limitations:</b> None.</p> <p><b>SWMP revisions implemented to address limitations:</b> None.</p>											
Roadways												
<p>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.</p> <p><i>Note: If the permittee does not contract activities, delete CONTRACTOR activities.</i></p>	<p><b>PERMITTEE Litter Control: Frequency of litter collection</b></p>	2x monthly	Roadway Trash Collection Reports	Public Services	Litter is collected on an as needed basis/min of twice per month							
	<p><b>PERMITTEE Litter Control: Estimated amount of area maintained (lf)</b></p>	63 miles	Roadway Trash Collection Reports	Public Services	63 miles							
	<p><b>PERMITTEE Litter Control: Estimated amount of litter collected (gal)</b></p>	3300 gallons	Roadway Trash Collection Reports	Public Services	City Files							



**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
	<p><b>CONTRACTOR Litter Control: Frequency of litter collection</b></p>	2x daily	Per Citywide Contract	Public Services	
	<p><b>CONTRACTOR Litter Control: Estimated amount of area maintained (if)</b></p>	25 miles	Per Citywide Contract	Public Services	25 miles
	<p><b>CONTRACTOR Litter Control: Estimated amount of litter collected (gal)</b></p>	369 gallons	Per Citywide Contract	Public Services	Estimate 2.0 CY per mile
	<p><b>OPTIONAL:</b> 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><b>Keep PBC Beautiful Trash Pick-up events: Total miles cleaned</b></p>	See County Joint Annual Report	See County Joint Annual Report	See County Joint Annual Report	See County Joint Annual Report
	<p><b>Keep PBC Beautiful Trash Pick-up Events: Estimated amount of litter collected (cy)</b></p>	See County Joint Annual Report	See County Joint Annual Report	See County Joint Annual Report	See County Joint Annual Report
	<p><b>Adopt-A-Road: Total miles cleaned</b></p>	0	City's Adopt A Street Program	Public Services	Currently no participants
	<p><b>Adopt-A-Road: Estimated amount of litter collected (cy)</b></p>	0	City's Adopt A Street Program	Public Services	Currently no participants
	<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><b>Frequency of street sweeping</b></p>	Bi-weekly	Street Sweeping Log	Public Services	
	<p><b>Total miles swept</b></p>	2529	Street Sweeping Log	Public Services	360 non-curbed miles/ 2169 curbed miles swept
	<p><b>Estimated quantity of sweeping material collected (cy / tons)</b></p>	53.4	Street Sweeping Log	Public Services	
	<p><b>Total phosphorous loadings removed (pounds)</b></p>	87	Quantifying Nutrient Loads	Public Services	FSA Calculator
	<p><b>Total nitrogen loadings removed (pounds)</b></p>	139	Quantifying Nutrient Loads	Public Services	FSA Calculator
	<p>Report the equipment yards and maintenances shops that support road maintenance activities, and the number of inspections conducted for each facility.</p>				
	<p><b>Name of Facility</b></p>	<b>Number of Inspections</b>			
	<p><b>Public Works Facility</b></p>	12	Municipal maintenance	Public Works	Monthly inspections

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
			yard inspection checklist		
Part III.A.3 Summary	Provide an evaluation of the Stormwater Management Program according to Part VI.B.2 of the permit.  <b>Strengths: Street Sweeping, inspections, pipe cleaning, canal and lake maintenance, and pipe repair program are very effective and measurable activities within the Program.</b> <b>Limitations: None.</b> <b>SWMP revisions implemented to address limitations: None.</b>				
Part III.A.4	<b>Flood Control Projects</b>  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.				
	<b>Flood control projects completed during the reporting period</b>	<b>1 - ongoing</b>	Public Services	Public Services	Stormwater Infrastructure improvement program
	<b>Flood control projects completed that did <u>not</u> include stormwater treatment</b>	N/A	N/A	N/A	N/A
	<b>Stormwater retrofit projects planned/under construction</b>	1	Public Services	Public Services	Stormwater Infrastructure improvement program
	<b>Stormwater retrofit projects completed</b>	2	Engineering	Engineering	Dredge & canal bank stabilization & installation of stormwater infrastructure
	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	Provide an evaluation of the Stormwater Management Program according to Part VI.B.2 of the permit.  <b>Strengths: Allows the City to increase storm water quality for known problem areas.</b> <b>Limitations: Some areas within the City have standing water in the roadways after heavy rain events; however, standing water will dissipate within 2-48 hours depending on rainfall amounts, as the MS4 is designed to do.</b> <b>SWMP revisions implemented to address limitations: None.</b>				



**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.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			
	Public Works Fleet Facility	12	Municipal maintenance yard inspection checklist	Public Works	Oil & water separator and sediment chamber  Cleaned 2018
Part III.A.5 Summary	Provide an evaluation of the Stormwater Management Program according to Part VI.B.2 of the permit.  Strengths: City of Palm Beach Gardens has none. Limitations: None. SWMP revisions implemented to address limitations: None.				
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 public applicators of pesticides/herbicides	2	HR Personnel Files	Public Services	Licenses on file
	CONTRACTORS: FDACS commercial applicators of pesticides/ herbicides	2	Contractor Files	Public Services	Licenses on file
	PERSONNEL: Green Industry BMP Program training completed	0	HR Personnel Files	Public Services	
	CONTRACTORS: FDACS certified / licensed applicators of fertilizer	2	Contractor Files	Public Services	Licenses on file
	Provide a copy of the adopted ordinance with the Year 2 Annual Report. If this provision is not applicable because the permittee is not within the watershed of a nutrient-impaired water body, indicate that in Column F.				
	Year 2 ONLY: Attach copy of adopted Florida-friendly ordinance		Ordinance 20, 2011	City Engineer	See MS4 website
	Report on the public education and outreach activities that are performed or sponsored by the permittee within the permittee's jurisdiction to encourage citizens to reduce their use of pesticides, herbicides and fertilizers including the type and number of activities conducted, the type and number of materials distributed, and the number of Web site visits (if applicable).				
	Public Education and Outreach Program				The public outreach and education plan is carried out as a joint effort by the Palm Beach County Co-permittees. Please see the Palm Beach County Joint Annual Report for the public education and outreach information.
	Brochures/Flyers/Fact sheets distributed				
	Neighborhood presentations: Number conducted				
	Neighborhood presentations: Number of participants				



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
	<p>Newspapers &amp; newsletters: Number of articles/notices published</p> <p>Newsletters: Number of newsletters distributed</p> <p>Public displays (e.g., kiosks, storyboards, posters, etc.)</p> <p>Radio or television Public Service Announcements (PSAs)</p> <p>School presentations: Number of participants</p> <p>Seminars/Workshops: Number of participants</p> <p>Seminars/Workshops: Number of participants</p> <p>Special events: Number of participants</p> <p>Special events: Number of participants</p> <p>Number of visitors to stormwater-related pages</p>				
	Provide an evaluation of the Stormwater Management Program according to Part VI.B.2 of the permit.				
<b>Part III.A.6 Summary</b>	<p><b>Strengths:</b> Adopted Florida Friendly Ordinance 20, 2011.</p> <p><b>Limitations:</b> Enforcement during actual application of pesticide, herbicide, and fertilizer by residents.</p> <p><b>SWMP revisions implemented to address limitations:</b> Continuing Public Education and Outreach Program.</p>				
<b>Part III.A.7.a</b>	<p><b>Illicit Discharges and Improper Disposal — Inspections, Ordinances, and Enforcement Measures</b></p> <p>Report amendments in Year 4.</p>				
	Year 4 ONLY: Attach a report on amendments to applicable legal authority	<input type="checkbox"/>			
<b>Part III.A.7.c</b>	<p><b>Illicit Discharges and Improper Disposal — Investigation of Suspected Illicit Discharges and/or Improper Disposal</b></p> <p>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.</p>				
	Proactive inspections for suspected illicit discharges	17	Proactive Inspection Program Illicit Discharge Form	Engineering Department	See Attachment 2 Suspected Illicit Discharge Sites
	Illicit discharges found during a proactive inspection	0	Proactive Inspection Program Illicit Discharge Form	Engineering Department	
	NOV/WL/citation/fines issued for illicit discharges found during proactive inspection	0	Code Enforcement Process	Code Enforcement	
	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.				



**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
	Reports of suspected illicit discharges received	3	Code Enforcement Process	Code Enforcement	Loemanns & Car in Pond & Burger Bar
	Reactive investigations of reports of suspected illicit discharges etc.	3	Code Enforcement Process	Code Enforcement	
	Illicit discharges etc. found during reactive investigation	1	Code Enforcement Process	Code Enforcement	Burger Bar
	NOV/WL/citation/fines issued for illicit discharges etc. found during reactive investigation	1	Code Enforcement Process	Code Enforcement	Burger Bar
	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.	17	Sign In sheet	PBC NPDES	
	Personnel trained	See Joint PBC	See Joint PBC	See Joint PBC	See Joint PBC
	Contractors trained	See Joint PBC	See Joint PBC	See Joint PBC	See Joint PBC
<b>Part III.A.7.d</b>	<b>Illicit Discharges and Improper Disposal — Spill Prevention and Response</b>				
	Report on the spill prevention and response activities, including the number of spills addressed.	64	Fire Rescue	Fire Rescue	59 Hazardous
	Hazardous and non-hazardous material spills responded to	64	Fire Rescue	Fire Rescue	59 Hazardous
	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.	See Joint PBC	See Joint PBC	See Joint PBC	See Joint PBC
	Personnel trained	See Joint PBC	See Joint PBC	See Joint PBC	See Joint PBC
	Contractors trained	See Joint PBC	See Joint PBC	See Joint PBC	See Joint PBC
<b>Part III.A.7.e</b>	<b>Illicit Discharges and Improper Disposal — Public Reporting</b>				
	Report on the public education and outreach activities that are performed or sponsored by the permittee within the permittee's jurisdiction to encourage the public reporting of suspected illicit discharges and improper disposal of materials, including the type and number of activities conducted, the type and number of materials distributed, and the number of Web site visits (if applicable).				
	<b>Public Education and Outreach Program</b>				The public outreach and education plan is carried out as a joint effort by the Palm Beach County Co-permittees. Please see the Palm Beach County Joint Annual Report for the public education and outreach information.
	Brochures/Flyers/Fact sheets distributed				
	Neighborhood presentations: Number conducted				
	Neighborhood presentations: Number of participants				
	Newspapers & newsletters: Number of articles/notices published				
	Newsletters: Number of newsletters distributed				
	Public displays (e.g., kiosks, storyboards, posters, etc.)				
	Radio or television Public Service Announcements (PSAs)				
	School presentations: Number conducted				



**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
	School presentations: Number of participants Seminars/Workshops: Number conducted Seminars/Workshops: Number of participants Special events: Number conducted Special events: Number of participants Number of visitors to stormwater-related pages				
<b>Part III.A.7.f</b>	<b>Illicit Discharges and Improper Disposal — Oils, Toxics, and Household Hazardous Waste Control</b>  Report on the public education and outreach activities that are performed or sponsored by the permittee within the permittee's jurisdiction to encourage the proper use and disposal of oils, toxics, and household hazardous waste, including the type and number of activities conducted, the type and number of materials distributed, the amount of waste collected / recycled / properly disposed, and the number of Web site visits (if applicable).				
	<b>Public Education and Outreach Program</b>  The public outreach and education plan is carried out as a joint effort by the Palm Beach County Co-permittees. Please see the Palm Beach County Joint Annual Report for the public education and outreach information.  Brochures/Flyers/Fact sheets distributed Neighborhood presentations: Number conducted Neighborhood presentations: Number of participants Newspapers & newsletters: Number of articles/notices published Newsletters: Number of newsletters distributed Public displays (e.g., kiosks, storyboards, posters, etc.) Radio or television Public Service Announcements (PSAs) School presentations: Number conducted School presentations: Number of participants Seminars/Workshops: Number conducted Seminars/Workshops: Number of participants Special events: Number conducted Special events: Number of participants Storm sewer inlets newly marked/replaced Number of visitors to stormwater-related pages				
<b>Part III.A.7.g</b>	<b>Illicit Discharges and Improper Disposal — Limitation of Sanitary Sewer Seepage</b>  Report on the type and number of activities undertaken to reduce or eliminate SSOs and inflow/ infiltration, the number of SSOs or inflow / infiltration incidents found and the number resolved, and the name of the owner of the sanitary sewer system within the permittee's jurisdiction. Report only the SSOs and inflow / infiltration incidents into the MS4.				
	Owner of the sanitary sewer system  <b>Activity to reduce/eliminate SSOs and I&amp;I: Repair/lining of sanitary sewer system</b>  <b>Activity to reduce/eliminate SSOs and I&amp;I: Emergency Generator added</b>	0 LF lined  Added 2 new generators	Seacoast Utility Authority  Seacoast Utility Authority	Seacoast Utility Authority  Seacoast Utility Authority	Liner installed  Seacoast has 35 generators



**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
	SSO incidents discovered	0	Seacoast Utility Authority	Seacoast Utility Authority	to use if there is a power loss
	SSO incidents resolved	0	Seacoast Utility Authority	Seacoast Utility Authority	
	Inflow / infiltration incidents discovered	0	Seacoast Utility Authority	Seacoast Utility Authority	
	Inflow / infiltration incidents resolved	0	Seacoast Utility Authority	Seacoast Utility Authority	
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.2 of the permit. <b>Strengths:</b> Allows staff to evaluate if there is evidence of illicit discharge for high risk facilities. <b>Limitations:</b> City can only check for illicit discharges at the time of inspection. <b>SWMP Revisions implemented to address limitations:</b> Varying time of inspections.				
Part III.A.8.a	<b>Industrial and High-Risk Runoff — Identification of Priorities and Procedures for Inspections</b> 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 inspections conducted and the number and type of enforcement actions taken.				
	Type of Facility	Number of Facilities	Number of Inspections	Enforcement Actions	
	Operating municipal landfills	0			
	Hazardous waste treatment, storage, disposal and recovery (HWTSDR) facilities	0			
	EPCRA Title III, Section 313 facilities (TRI)	0			
	Facilities determined as high risk by the permittee	17	17		
Part III.A.8.b	<b>Industrial and High-Risk Runoff — Monitoring for High Risk Industries</b> Report the number of high risk facilities sampled.				
	High risk facilities sampled	0	N/A	N/A	

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.8 Summary	Provide an evaluation of the Stormwater Management Program according to Part VI.B.2 of the permit. <b>Strengths: No high-risk runoff areas in PBG.</b> <b>Limitations: N/A</b> <b>SWMP revisions implemented to address limitations: N/A</b>																																										
Part III.A.9.a	<b>Construction Site Runoff — Site Planning and Non-Structural and Structural Best Management Practices</b> Report the number of permittee and private pre-construction site plans reviewed for stormwater, erosion, and sedimentation controls, and the number approved.  <table border="1"> <tr> <td>PERMITTEE SITES: Construction site plans reviewed</td> <td>2</td> <td>Plans/Notes</td> <td>Engineering Dept.</td> <td>District Park/Golf</td> </tr> <tr> <td>PERMITTEE SITES: Construction site plans approved</td> <td>2</td> <td>Plans/Notes</td> <td>Engineering Dept.</td> <td>District Park/Golf</td> </tr> <tr> <td>PRIVATE SITES: Construction site plans reviewed</td> <td>11</td> <td>Plans/Notes</td> <td>Engineering Dept.</td> <td>Infrastructure</td> </tr> <tr> <td>PRIVATE SITES: Construction site plans approved</td> <td>11</td> <td>Plans/Notes</td> <td>Engineering Dept.</td> <td>Infrastructure</td> </tr> </table> Report the number of development permit applicants notified of the ERP and CGP, and the number of applicants who confirmed ERP and CGP coverage.  <table border="1"> <tr> <td>Notified of ERP stormwater permit requirements</td> <td>13</td> <td>Plans/Notes</td> <td>Engineering Dept.</td> <td></td> </tr> <tr> <td>Confirmed ERP coverage</td> <td>13</td> <td>Plans/Notes</td> <td>Engineering Dept.</td> <td></td> </tr> <tr> <td>Notified of CGP stormwater permit requirements</td> <td>13</td> <td>Plans/Notes</td> <td>Engineering Dept.</td> <td></td> </tr> <tr> <td>Confirmed CGP coverage</td> <td>13</td> <td>Plans/Notes</td> <td>Engineering Dept.</td> <td></td> </tr> </table>	PERMITTEE SITES: Construction site plans reviewed	2	Plans/Notes	Engineering Dept.	District Park/Golf	PERMITTEE SITES: Construction site plans approved	2	Plans/Notes	Engineering Dept.	District Park/Golf	PRIVATE SITES: Construction site plans reviewed	11	Plans/Notes	Engineering Dept.	Infrastructure	PRIVATE SITES: Construction site plans approved	11	Plans/Notes	Engineering Dept.	Infrastructure	Notified of ERP stormwater permit requirements	13	Plans/Notes	Engineering Dept.		Confirmed ERP coverage	13	Plans/Notes	Engineering Dept.		Notified of CGP stormwater permit requirements	13	Plans/Notes	Engineering Dept.		Confirmed CGP coverage	13	Plans/Notes	Engineering Dept.			
PERMITTEE SITES: Construction site plans reviewed	2	Plans/Notes	Engineering Dept.	District Park/Golf																																							
PERMITTEE SITES: Construction site plans approved	2	Plans/Notes	Engineering Dept.	District Park/Golf																																							
PRIVATE SITES: Construction site plans reviewed	11	Plans/Notes	Engineering Dept.	Infrastructure																																							
PRIVATE SITES: Construction site plans approved	11	Plans/Notes	Engineering Dept.	Infrastructure																																							
Notified of ERP stormwater permit requirements	13	Plans/Notes	Engineering Dept.																																								
Confirmed ERP coverage	13	Plans/Notes	Engineering Dept.																																								
Notified of CGP stormwater permit requirements	13	Plans/Notes	Engineering Dept.																																								
Confirmed CGP coverage	13	Plans/Notes	Engineering Dept.																																								
Part III.A.9.b	<b>Construction Site Runoff — Inspection and Enforcement</b> 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.  <table border="1"> <tr> <td>PERMITTEE SITES: Active construction sites</td> <td>2</td> <td>Engineering Records</td> <td>Engineering Dept.</td> <td>District Park/Golf</td> </tr> <tr> <td>PERMITTEE SITES: Pre-, During, and Post inspections of active construction sites for E&amp;S and waste control BMPs</td> <td>100</td> <td>Engineering Records</td> <td>Engineering Dept.</td> <td></td> </tr> <tr> <td>PERMITTEE SITES: Percentage of active construction sites inspected</td> <td>100%</td> <td>Engineering Records</td> <td>Engineering Dept.</td> <td></td> </tr> <tr> <td>PRIVATE SITES: Active construction sites</td> <td>11</td> <td>Engineering Records</td> <td>Engineering Dept.</td> <td></td> </tr> <tr> <td>PRIVATE SITES: Pre-, During, and Post inspections of active construction sites for E&amp;S and waste control BMPs</td> <td>200</td> <td>Engineering Records</td> <td>Engineering Dept.</td> <td>Site inspections</td> </tr> <tr> <td>PRIVATE SITES: Percentage of active construction sites inspected</td> <td>100%</td> <td>Engineering</td> <td>Engineering</td> <td></td> </tr> </table>	PERMITTEE SITES: Active construction sites	2	Engineering Records	Engineering Dept.	District Park/Golf	PERMITTEE SITES: Pre-, During, and Post inspections of active construction sites for E&S and waste control BMPs	100	Engineering Records	Engineering Dept.		PERMITTEE SITES: Percentage of active construction sites inspected	100%	Engineering Records	Engineering Dept.		PRIVATE SITES: Active construction sites	11	Engineering Records	Engineering Dept.		PRIVATE SITES: Pre-, During, and Post inspections of active construction sites for E&S and waste control BMPs	200	Engineering Records	Engineering Dept.	Site inspections	PRIVATE SITES: Percentage of active construction sites inspected	100%	Engineering	Engineering													
PERMITTEE SITES: Active construction sites	2	Engineering Records	Engineering Dept.	District Park/Golf																																							
PERMITTEE SITES: Pre-, During, and Post inspections of active construction sites for E&S and waste control BMPs	100	Engineering Records	Engineering Dept.																																								
PERMITTEE SITES: Percentage of active construction sites inspected	100%	Engineering Records	Engineering Dept.																																								
PRIVATE SITES: Active construction sites	11	Engineering Records	Engineering Dept.																																								
PRIVATE SITES: Pre-, During, and Post inspections of active construction sites for E&S and waste control BMPs	200	Engineering Records	Engineering Dept.	Site inspections																																							
PRIVATE SITES: Percentage of active construction sites inspected	100%	Engineering	Engineering																																								



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
	Enforcement Action	N/A	Records Engineering Records	Dept. Engineering Dept	
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).				
		Annual Training			
	Permittee construction site inspectors	3	Engineering Public Works Building	Engineering Public Works Building	
	Permittee construction site plan reviewers	1	Engineering Public Works Building	Engineering Public Works Building	
	Permittee construction site operators	11	Engineering Public Works Building	Engineering Public Works Building	Eng Pre-Con onsite meetings
	Provide an evaluation of the Stormwater Management Program according to Part VI.B.2 of the permit.				
Part III.A.9 Summary	<b>Strengths: City inspects construction runoff on every routine inspection of each individual construction site to ensure SWPPP and BMP's are followed.</b>				
	<b>Limitations: Cannot be at every site every time it rains.</b>				
	<b>SWMP revisions implemented to address limitations: Require contractors to conduct their own inspections after each rainfall event.</b>				

SECTION VIII. CHANGES TO THE STORMWATER MANAGEMENT PROGRAM (SWMP) ACTIVITIES (Not Applicable in Year 4)	
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.
A.	No change
B.	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) <i>The City regularly updates a full base map to allow for the most accurate and complete inventory for the inspection, maintenance, and record-keeping process, the City owned MS4. Additionally, the City cleaned 3,101 LF with 1217 CF of sediments removed.</i>

**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
N/A			<input type="checkbox"/> / <input type="checkbox"/>		1			
			<input type="checkbox"/> / <input type="checkbox"/>					
			<input type="checkbox"/> / <input type="checkbox"/>					

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
N/A				

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):

**No discharge to a TMDL WBID at the time of permit issuance.**



## Attachment #2

NPDES	Suspected Illicit Discharge Sites	Year 3	SITE
1. Sears Auto Cleaner	3101 PGA Blvd	Car Maintenance	
2. Prestige Cleaners	4525 PGA Blvd	Cleaners	
3. Cooper	4580 PGA Blvd	Restaurant	<b>CODE</b>
4. Mirabella	Sedona Way	Neighborhood pools	<b>CODE</b>
5. The Anspach Effort	4500 Riverside Dr.	Medical Facility	
6. Biomet	4555 Riverside Drive	Biomedical Facility	
7. Gardens Pool	8780 Burns Rd.	Supply Packing Area	
8. Gardens Pool Supply	3780 Burns Rd	Pool Chemicals	
9. City of PBG	3704 Burns Rd	Fueling Station	
10. Public Works PBG	3704 Burns Rd	Fleet Maintenance	<b>EPA</b>
11. SCP Pool Supply	10335 Ironwood	Pool Chemicals	<b>EPA</b>
12. Lighthouse Sunoco	9730 Highway A1A Alt	Gas Station & Car Wash	
13. Chevron PBG	4109 Northlake	Gas Station & Car Wash	
14. Mobil #12457	4201 Northlake Blvd	Gas Station	<b>EPA</b>
15. Shoppes at PGA west	5530 PGA Blvd	Retail Bldg	<b>CODE</b>
16. Chevron Oil Co #02409	9031 N. Military Trail	Gas Station	
17. Burger Bar	4500 Donald Ross Rd	Restaurant	<b>CODE</b>

CITY OF PALM BEACH GARDENS NPDES

PERMIT PROGRAM – CYCLE 4, YEAR 3

ATTACHMENT 1

City of Palm Beach Gardens, Florida

Annual NPDES Report



**City of Palm Beach Gardens**  
**MS4 Permit No. FLS000018-004**  
**CYCLE 4 – YEAR 3**  
**Water Quality Monitoring Assessment Report**

**Purpose**

The purpose of this Water Quality Monitoring Assessment Report is to provide information for the City of Palm Beach Gardens to determine the overall effectiveness of its stormwater management program in reducing stormwater nutrient pollutant loadings from its Municipal Separate Sewer System (MS4) to receiving water bodies.

The following items and concerns are examined as part of this water quality monitoring report:

- A. **Impaired Water Bodies** – The Florida Department of Environmental Protection (FDEP) assessment program for water body impairments will be reviewed for Palm Beach Gardens, if any are found, those impairments will be evaluated.
- B. **Water Quality Monitoring Program** – The water quality monitoring program is intended to identify local sources where urban stormwater is affecting surface water resources.
- C. **Pollutant Loading Estimates/Results** – Pollutant loadings and results are reported.
- D. **Conclusions** – Final conclusions are determined concerning water quality and nutrient loading impacts.

**Impaired Water Bodies**

The Florida Department of Environmental Protection (FDEP) has an ambient water quality and assessment program for water body impairments. The State is divided into five (5) working groups, with each group cycling through a 5-year assessment cycle. The 5-year cycle includes planning, water quality, monitoring, preliminary evaluation, public meetings, final evaluation, and Secretarial (State) adoption of the verified lists. Impairments for C-17 WBID 3242A include TN nutrients (Cycle 1) and Dissolved oxygen (Cycle 2). Currently, there are no TMDLs for water bodies in Palm Beach Gardens.

## **Water Quality Monitoring Program**

As a co-permittee, the City of Palm Beach Gardens uses the ambient water quality data provided by Palm Beach County MS4 Group.

Based on the location of the outfalls of our MS4, 1 monitoring station has been established. Station C17S44 is a South Florida Water Management District Monitoring site station adjacent to the S44 water control structure located in Palm Beach Gardens, Florida. The S44 water control structure is approximately a mile north of the intersection of Northlake Boulevard and Alternate A1A. A location map is provided in Figure 1. The following table identifies the monitoring station, along with relevant information about each location.

**MS4 Monitoring Station Table**

<b>Monitoring Station Number</b>	<b>Location Description</b>	<b>Latitude/ Longitude</b>	<b>Receiving Water Body</b>	<b>Verified Impaired?</b>	<b>Adopted TMDL?</b>
C17S44	Palm Beach Gardens	903830.19/ 955552.70	C17	Yes (Dissolved Oxygen and Nutrients (Chlorophyll-a))	No

The primary interest that FDEP has regarding the stormwater permitting program is related to nutrients and what impacts these loads create by the introduction of nutrients into the stormwater system. The City of Palm Beach Gardens has reviewed nutrient monitoring data results at the above location. C-17 Nutrient Trend graphs (C17S44 1990-2017) is provided on the Palm Beach county MS4 website ([www.pbco.npdes.org](http://www.pbco.npdes.org)) under Group/Joint Activities, WQ Monitoring. Nutrient trend graphics (refer to attached Figures 2, 3 and 4) for TN, TP and Chlorophyll show a decreasing trend.



## **Pollutant Loading Estimates/Results**

The municipal separate storm sewer system (MS4) National Pollutant Discharge Elimination System (NPDES) Cycle 4 permit, issued September 8, 2016, requires in PART V. - Monitoring Requirements that average annual pollutant loading, and event mean concentration (EMC) estimates be provided for six (6) parameters. The six (6) parameters identified are: 1) five-day biochemical oxygen demand (BODs); 2) total copper (Cu); 3) Total nitrogen (TN); 4) total phosphorus (TP); 5) total suspended solids (TSS); and, 6) total zinc (Zn), all in the unit of mg/l . It is assumed by the FDEP that pollutant loading generated within a watershed flows through MS4 outfalls and directly affects the receiving bodies. An option is provided in the permit to provide the average annual pollutant loading estimates based on major outfalls watersheds Since the pollutant loading estimates for permit Cycles 1 through 3 were provided on a watershed basis, it was agreed with the FDEP that the Cycle 4 loading estimates would also be provided on a watershed basis. In addition to meeting the requirements of the permit, modeling the average annual pollutant loading generated by a watershed or a MS4's watershed can assist in planning for future improvements in stormwater quality treatment, regulations or stormwater management.

The City of Palm Beach Gardens is contiguous to the following watersheds: *C-17, C-18, ICCWN, and the Lake Worth Lagoon*. All stormwater runoff from the Palm Beach Gardens MS4 system discharges into the combined watershed system. All six (6) parameters are analyzed in the Cycle 4, Year 3 'Summary of Average Annual Pollutant Loading Model Activities' report (2019) as prepared by Mock-Roos for the co-permittees reference for the contiguous watersheds to Palm Beach Gardens. All parameters indicate decreases between the Cycle 3, Year 3 and Cycle 4, Year 3 reporting period within all four (4) watersheds.

**Pollutant Loadings (lbs/year) –  
City of Palm Beach Gardens**

<b>Parameter</b>	<b>BODS</b>	<b>TSS</b>	<b>TP</b>	<b>CU</b>	<b>ZN</b>	<b>TN</b>
2013 Loads to C-17	32,623	144,133	1,452	87	378	13,512
2013 Loads to C-18	2,339	8,114	124	6	21	969
2013 Loads to ICCWN	1,832	4,070	95	5	17	871
2013 Loads to LW Lagoon	3,807	9,410	164	11	36	1,505
<b>2013 Total Loading</b>	<b>40,601</b>	<b>165,727</b>	<b>1,835</b>	<b>109</b>	<b>452</b>	<b>16,857</b>
2018 Loads to C-17	29,683	121,974	1,349	58	268	12,865
2018 Loads to C-18	2,340	8,115	124	6	21	969
2018 Loads to ICCWN	1,778	4,061	94	5	17	860
2018 Loads to LW Lagoon	3,696	7,595	160	8	27	1,504
<b>2018 Total Loading</b>	<b>37,497</b>	<b>141,745</b>	<b>1,727</b>	<b>77</b>	<b>333</b>	<b>16,198</b>
<b>Public Education (6%)</b>	<b>2,250</b>	<b>8,505</b>	<b>108</b>	<b>5</b>	<b>20</b>	<b>972</b>
<b>Street Sweeping</b>	<b>0</b>	<b>0</b>	<b>437</b>	<b>0</b>	<b>0</b>	<b>681</b>
<b>Total Loading</b>	<b>35,247</b>	<b>133,240</b>	<b>1,182</b>	<b>72</b>	<b>313</b>	<b>14,545</b>
<b>Percent Reduction</b>	<b>13%</b>	<b>20%</b>	<b>36%</b>	<b>34%</b>	<b>31%</b>	<b>14%</b>

Sources: Table 16 (p. 29), Table 17 (p. 30), Table 23 (p. 36), Table 26 (p. 39) and Table 27 (p. 40) of the 'Summary of Average Annual Pollutant Loading Model Activities' report (2019) prepared by Mock-Roos.

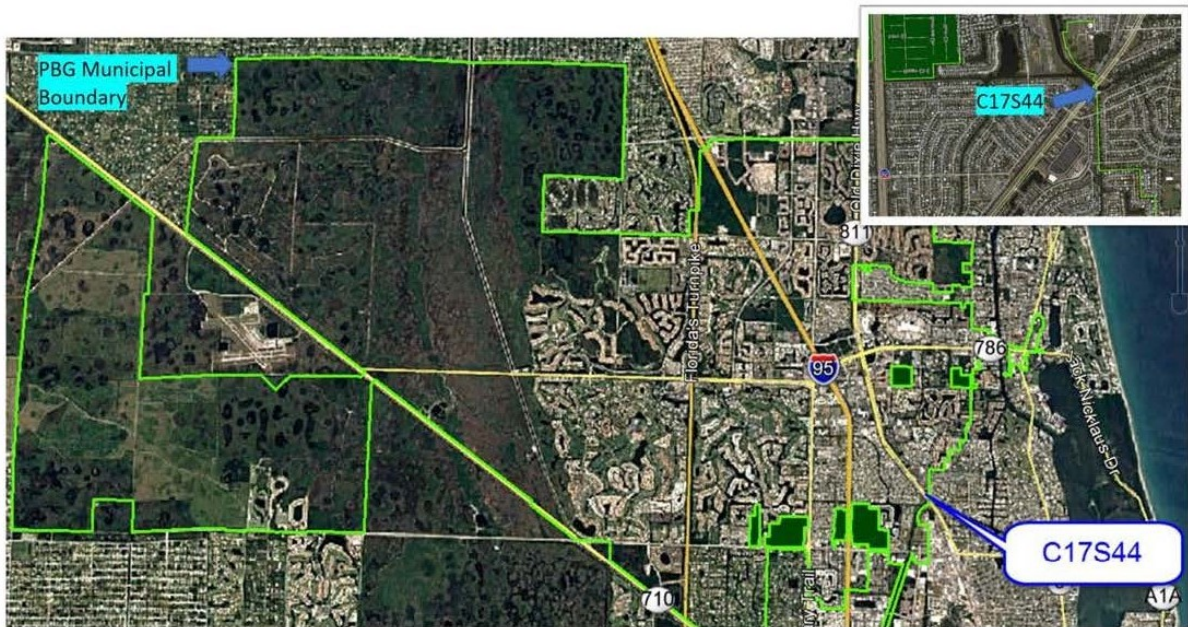
Pollutant loadings estimates for all six (6) parameters in the Palm Beach Gardens MS4 indicate a significant reduction between 2013 and 2018.

**Conclusions**

The City of Palm Beach Gardens stormwater management programs are effective in reducing nutrient loadings. This is supported by the water quality monitoring program (both FDEP and the MS4 group information) and pollutant loading information. At this time there is no need to develop further stormwater management programs.



Figure 1



LOCATION MAP OF C17S44 MONITORING LOCATION

Figure 2

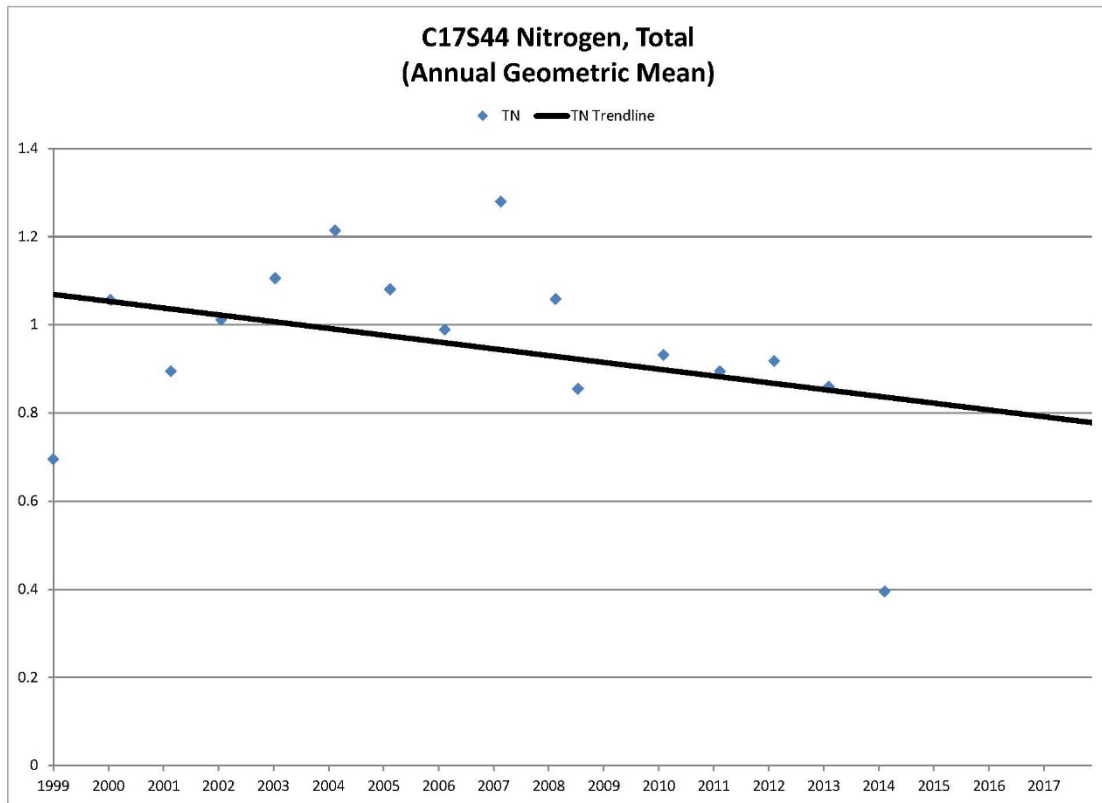
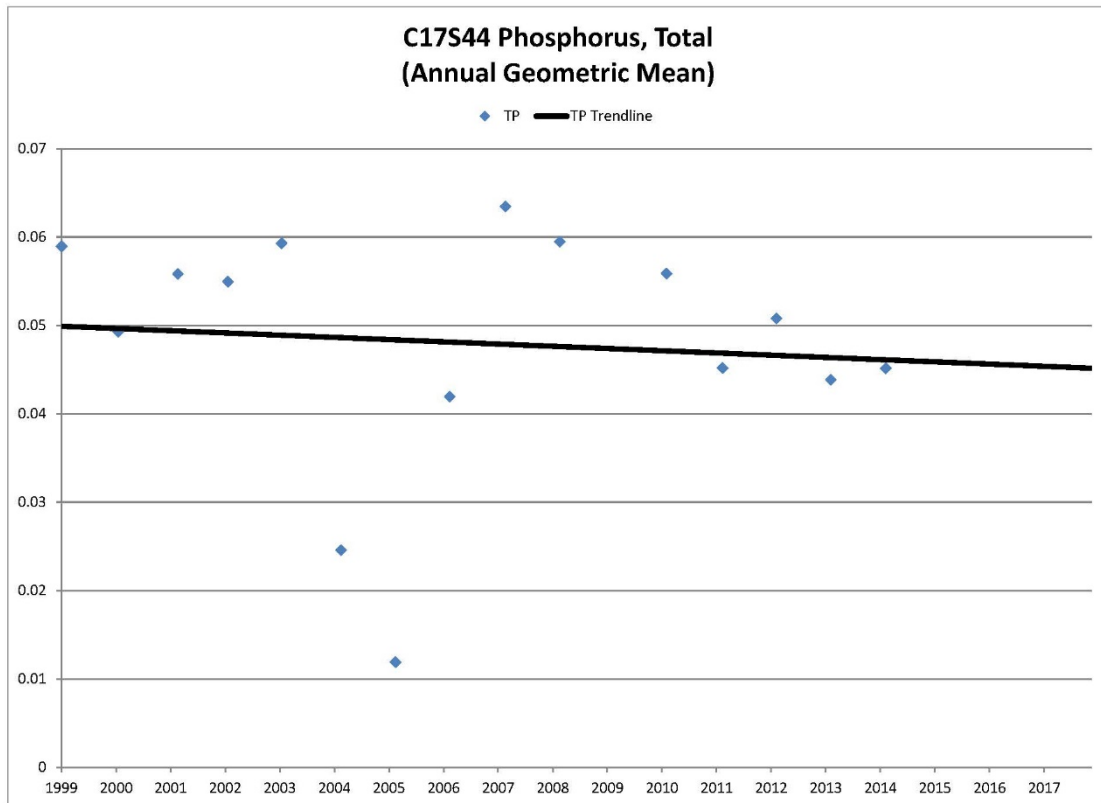




Figure 3



**Figure 4**

