



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/. 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: Town of Glen Ridge		
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 checked="" type="checkbox"/> Year 3 <input type="checkbox"/> Year 4 <input type="checkbox"/> Year 5 <input type="checkbox"/> Other, specify Year:		
E.	Reporting Time Period (month/year): 10/1/18 through 9/30/19		
F.	Name of the Responsible Authority: John J. Deal		
	Title: Manager		
	Mailing Address: 1501 Glen Road		
	City: Glen Ridge	Zip Code: 33406	County: Palm Beach
	Telephone Number: (561) 697- 8868		Fax Number: (561) 697-1755
E-mail Address: glenridgetownof@bellsouth.net			
G.	Name of the Designated Stormwater Management Program Contact (if different from Section I.F above): John J. Deal		
	Title: Manager		
	Department: Administration		
	Mailing Address: 1501 Glen Road		
	City: Glen Ridge	Zip Code: 33406	County: Palm Beach
	Telephone Number: (561) 697-8868		Fax Number: (561) 697-1755
E-mail Address: glenridgetownof@bellsouth.net			

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

A.	Number of outfalls ADDED to the outfall inventory in the current reporting year (insert "0" if none): 0 (Does this number include non-major outfalls? <input type="checkbox"/> Yes <input type="checkbox"/> No Not Applicable)
B.	Number of outfalls REMOVED from the outfall inventory in the current reporting year (insert "0" if none): 0 (Does this number include non-major outfalls? <input type="checkbox"/> Yes <input type="checkbox"/> No 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 (N/A)

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>Refer to the Cycle 4, Year 3 Joint Annual Report for water quality monitoring information. Attached is the 'Town of Glen Ridge Water Quality Monitoring Assessment Report'</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 3 Joint Annual Report for a summary of the Group's water quality monitoring results and the Group's pollutant loading analysis for the reporting period.</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>See response for Section III.B. above</p>

SECTION IV. FISCAL ANALYSIS

A.	Total expenditures for the NPDES stormwater management program for the current reporting year: \$ 23,879
B.	Total budget for the NPDES stormwater management program for the subsequent reporting year: \$ 29,850
C.	<p>Did the current reporting year resources decrease from the previous year? Y / N X</p> <p>If program resources decreased, provide a discussion of the impacts on the implementation of the SWMP: N/A</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):

<u>Attached</u>	<u>N/A</u>	Required Attachments	Permit Citation	Attachment Number/Title
	X	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	
	X	An explanation of why the minimum inspection frequency in Table II.A.1.a. was not met, if applicable.	Part II.A.1	
	X	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	
X		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	Refer to the Cycle 4, Year 3 Joint Annual Report and Attachment 1 - 'Town of Glen Ridge Water Quality Monitoring Assessment Report'
	X	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	
	X	YEAR 2: A summary review of codes and regulations to reduce the stormwater impact from development.	Part III.A.2	
X		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	Refer to the Cycle 4, Year 3 Joint Annual Report and Attachment1 - 'Town of Glen Ridge Water Quality Assessment Report
	X	YEAR 3: Summary of TMDL Monitoring Results (if applicable).	Part VIII.B.2	
	X	YEAR 3: Bacteria Pollution Control Plan (if applicable).	Part VIII.B.3	
	X	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	
	X	YEAR 4: A report on any amendments to the applicable legal authority (if applicable).	Part III.A.7.a	
	X	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	
	X	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 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):

<u>Attached</u>	<u>N/A</u>	Required Attachments	Permit Citation	Attachment Number/Title
	X	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	
	X	An explanation of why the minimum inspection frequency in Table II.A.1.a. was not met, if applicable.	Part II.A.1	
	X	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	
X		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	Refer to the Cycle 4, Year 3 Joint Annual Report and Attachment 1 - "Town of Glen Ridge Water Quality Monitoring Assessment Report"
	X	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	
	X	YEAR 2: A summary review of codes and regulations to reduce the stormwater impact from development.	Part III.A.2	
X		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	Refer to the Cycle 4, Year 3 Joint Annual Report and Attachment 1 - "Town of Glen Ridge Water Quality Assessment Report"
	X	YEAR 3: Summary of TMDL Monitoring Results (if applicable).	Part VIII.B.2	
	X	YEAR 3: Bacteria Pollution Control Plan (if applicable).	Part VIII.B.3	
	X	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	
	X	YEAR 4: A report on any amendments to the applicable legal authority (if applicable).	Part III.A.7.a	
	X	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	
	X	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.)

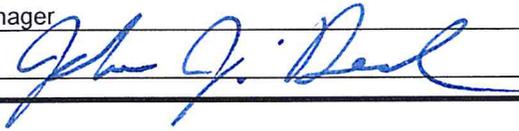
SECTION VI. CERTIFICATION STATEMENT AND SIGNATURE

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): John J. Deal

Title: Manager

Signature: 

Date: 12/15/19

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								
	<p>Report the current known inventory.</p> <p>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.</p> <p><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></p>								
	Type of Structure	Number of Structures	Number of Inspections	Percent Inspected	Number of Maintenance Activities	Percent Maintained			
	Wet detention systems	1	2	100	0	100	Wet Detention System-Structural Control Inspection Form	Jack Horniman, Town Planning Consultant	FY 18/19 Log
	Conveyance swales (miles)	8	16	100	0	100	Conveyance (Ditch and Canal) System-Structural Control Inspection Form	Town Planning Consultant	FY 18/19 Log
	Major outfalls	1	2	100	0	100	Major Stormwater Outfall #1-Structural Control Inspection Form	Town Planning Consultant	FY 18/19 Log
	Weirs or other control structures	1	2	100	0	100	Control Structure #1 Inspection Form	Town Planning Consultant	FY 18/19 Log
	Pipes / culverts	2	4	100	0	100	Pipes/Culverts-Structural Control Inspection Form	Town Planning Consultant	FY 18/19 Log
	Inlets / catch basins / grates	4	8	100	0	100	Inlet/Catch Basin/Grates-	Town Planning Consultant	FY 18/19 Log

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
								Structural Control Inspection Form		
	<p>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.</p>	<p>See above</p>				<p>All documentation listed above</p>	<p>Town Planning Consultant</p>	<p>All minimum inspections met or exceeded</p>		

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	Provide an evaluation of the Stormwater Management Program according to Part VI.B.2 of the permit.				
	Strengths: Structural controls in good operating condition				
	Limitations: None				
	SWMP revisions implemented to address limitations: None needed				
Part III.A.2	Areas of New Development and Significant Redevelopment				
	Report the number of significant development projects, including new and redevelopment, reviewed and approved by the permittee for post-development stormwater considerations.				
	Number of significant development projects reviewed	0			No new significant development during permit year
	Number of significant development projects approved	0			Not Applicable (N/A)
	Provide in the Year 2 Annual Report the summary report of the review activity. Provide in the Year 4 Annual Report the follow-up report on plan implementation.				
	Year 2 ONLY: Attach the summary report of the review activity	0			N/A
	Year 4 ONLY: Attach the follow-up report on plan implementation	0			N/A
Part III.A.2 Summary	Provide an evaluation of the Stormwater Management Program according to Part VI.B.2 of the permit.				
	Strengths: Glen Ridge is primarily a low density residential community that is nearly built-out; only two (2) non-residential developed sites in Town (1 commercial property and 1 charter school) which are both on private systems and not part of the MS4				
	Limitations: None identified				
	SWMP revisions implemented to address limitations: None				
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: If the permittee does not contract activities, delete CONTRACTOR activities.</i>				
	PERMITTEE Litter Control: Frequency of litter collection	Monthly/12	Safety Inspection Log	Individual Property Owners/ Residents	Property owners/ residents responsible for litter and trash removal in swale; FY 18/19 Log
PERMITTEE Litter Control: Estimated amount of area maintained (miles)	5	Town Map	John Deal, Town		

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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>PERMITTEE Litter Control: Estimated amount of litter collected (bags)</p>	2	Safety Inspection Log	<p>Manager Town Manager</p>	
<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			No program needed; all local streets
<p>Trash Pick-up Events: Estimated amount of litter collected (cy)</p>		0			N/A
<p>Adopt-A-Road: Total miles cleaned</p>		0			No adopt a road program
<p>Adopt-A-Road: Estimated amount of litter collected (cy)</p>		0			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>		0			No street sweeping; there are no curb and gutters in Town; roadway system is entirely served by roadway conveyance swales
<p>Total miles swept</p>		0			N/A
<p>Estimated quantity of sweeping material collected (cy / tons)</p>		0			N/A
<p>Total phosphorous loadings removed (pounds)</p>		0			N/A
<p>Total nitrogen loadings removed (pounds)</p>		0			N/a
<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>		<p>Number of Inspections</p>			
<p>N/A</p>		0			No municipal facilities; the Town street

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Permit Citation/ SWMP Element	Permit Requirement/Quantifiable SWMP Activity	Number of Activities Performed	Documentation / Record	Entity Performing the Activity	Comments
					system is entirely served by grass swales; there are no curb and gutters.
Part III.A.3 Summary	Provide an evaluation of the Stormwater Management Program according to Part VI.B.2 of the permit.				
	Strengths: Roadways consist of local streets; litter control performed by individual property owners/residents requiring no contracted services; Town size (100 acres) and small population create minimal issues.				
	Limitations: None				
	SWMP revisions implemented to address limitations: None				
Part III.A.4	Flood Control Projects				
	Report the total number of flood control projects that were constructed by the permittee during the reporting period and the number of those projects that did NOT include stormwater treatment. The permittee shall provide a list of the projects where stormwater treatment was not included with an explanation for each of why it was not.				
	Report on any stormwater retrofit planning activities and the associated implementation of retrofitting projects to reduce stormwater pollutant loads from existing drainage systems that do not have treatment BMPs.				
	Flood control projects completed during the reporting period	0			No flood control projects during permit year.
	Flood control projects completed that did <u>not</u> include stormwater treatment	0			N/A
	Stormwater retrofit projects planned/under construction	0			None planned
	Stormwater retrofit projects completed	0			N/A
	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.	N/A			
Part III.A.4 Summary	Provide an evaluation of the Stormwater Management Program according to Part VI.B.2 of the permit.				
	Strengths: Flood control projects are addressed when identified; no flood projects during the permit year				
	Limitations: N/A				
	SWMP revisions implemented to address limitations: 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.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			
	N/A	0			No municipal TSD facilities
Part III.A.5 Summary	Provide an evaluation of the Stormwater Management Program according to Part VI.B.2 of the permit.				
	Strengths: There are no Waste TSD facilities in Town				
	Limitations: N/A				
	SWMP revisions implemented to address limitations: N/A				
Part III.A.6	Pesticides, Herbicides, and Fertilizer Application				
	Report the number of permittee personnel applicators and contracted commercial applicators of pesticides and herbicides who are FDACS certified / licensed.				
	Report the number of permittee personnel who have been trained through the Green Industry BMP Program and the number of contracted commercial applicators of fertilizer who are FDACS certified / licensed.				
	PERSONNEL: FDACS public applicators of pesticides/herbicides	0			Services contracted out.
	CONTRACTORS: FDACS commercial applicators of pesticides/ herbicides	2	State Licenses	Greenworks ; Larry Ertel	FY 18/19 Log
	PERSONNEL: Green Industry BMP Program training completed	0			Services contracted out
	CONTRACTORS: FDACS certified / licensed applicators of fertilizer	2	State Licenses	Greenworks; Larry Ertel	FY 18/19 Log
	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	N/A			
	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	25	Brochures/ Flyers	Palm Beach County (PBC) Stormwater Systems Group;	FY 18/19 Log

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Permit Citation/ SWMP Element	Permit Requirement/Quantifiable SWMP Activity	Number of Activities Performed	Documentation / Record	Entity Performing the Activity	Comments
	Public displays (e.g. kiosks, storyboards, posters, ets.)			PBC Solid Waste Authority (PBCSWA); Florida Department of Environmental Protection (FDEP); Town Manager	
		1	Display Table in Town Hall	Town Manager	
Part III.A.6 Summary	Provide an evaluation of the Stormwater Management Program according to Part VI.B.2 of the permit.				
	Strengths: Good public information system is being implemented				
	Limitations: None identified				
	SWMP revisions implemented to address limitations: None				
Part III.A.7.a	Illicit Discharges and Improper Disposal — Inspections, Ordinances, and Enforcement Measures				
	Report amendments in Year 4.				
	Year 4 ONLY: Attach a report on amendments to applicable legal authority	N/A			
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	52	Monthly Safety Inspection Log	Town Manager	Weekly inspections performed by Town; FY

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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 align="center">Illicit discharges found during a proactive inspection NOV/WL/citation/fines issued for illicit discharges found during proactive inspection</p>	0			18/19 Log None found
		0			None issued
	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.				
	<p align="center">Reports of suspected illicit discharges received</p>	0			No reports received
	<p align="center">Reactive investigations of reports of suspected illicit discharges etc.</p>	0			No investigations
	<p align="center">Illicit discharges etc. found during reactive investigation</p>	0			None found
	<p align="center">NOV/WL/citation/fines issued for illicit discharges etc. found during reactive investigation</p>	0			None issued
	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.				
	<p align="center">Personnel trained</p>	1	Illicit Discharge Detention Elimination (IDDE) video; Spills and Skills video; and, Ground Control video	Town Planning Consultant	
	<p align="center">Contractors trained</p>	0			No contractors used for these purposes
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.				
	<p align="center">Hazardous and non-hazardous material spills responded to</p>				
	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.				
	<p align="center">Personnel trained</p>	0	PBC Fire Incident Report	PBC Fire Rescue Department	No hazardous during the permit year
	<p align="center">Contractors trained</p>	0			No contractors used for these purposes
Part III.A.7.e	Illicit Discharges and Improper Disposal — Public Reporting				
	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				

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Permit Citation/ SWMP Element	Permit Requirement/Quantifiable SWMP Activity	Number of Activities Performed	Documentation / Record	Entity Performing the Activity	Comments
	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	25	Brochures/ Flyers	PBC Stormwater Systems Group; PBCSWA; FDEP; Town Manager	FY 18/19 Log
	Public displays (e.g. kiosks, storyboards, posters, etc.)	1	Display Table in Town Hall	Town Manager	
Part III.A.7.f	Illicit Discharges and Improper Disposal — Oils, Toxics, and Household Hazardous Waste Control				
	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).				
	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	25	Brochures/Flyer s	PBC Stormwater Systems Group; PBCSWA; FDEP; Town Manager	FY 18/19
	Public displays (e.g. kiosks, storyboards, posters, etc.)	1	Display Table in Town Hall	Town Manager	

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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
	Type of Facility	Number of Facilities	Number of Inspections	Enforcement Actions			
	Operating municipal landfills	0					No municipal Landfills in Town
	Hazardous waste treatment, storage, disposal and recovery (HWTSDR) facilities	0					No HWTSDR facilities
	EPCRA Title III, Section 313 facilities (TRI)	0					No EPCRA facilities
	Facilities determined as high risk by the permittee	0					No high risk facilities
Part III.A.8.b	Industrial and High-Risk Runoff — Monitoring for High Risk Industries						
	Report the number of high risk facilities sampled.						
	High risk facilities sampled		0				No high-risk facilities
Part III.A.8 Summary	Provide an evaluation of the Stormwater Management Program according to Part VI.B.2 of the permit.						
	Strengths: No municipal landfills, HWTSDR EPCRA or high risk facilities in Town facilities;						
	Limitations: None						
	SWMP revisions implemented to address limitations: None						
Part III.A.9.a	Construction Site Runoff — Site Planning and Non-Structural and Structural Best Management Practices						
	Report the number of permittee and private pre-construction site plans reviewed for stormwater, erosion, and sedimentation controls, and the number approved.						
	PERMITTEE SITES: Construction site plans reviewed		0				No new permittee construction site plans reviewed during permit year
	PERMITTEE SITES: Construction site plans approved		0				N/A
	PRIVATE SITES: Construction site plans reviewed		0				No private site construction site plans reviewed during permit

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
	PRIVATE SITES: Construction site plans approved	0			year N/A
	Report the number of development permit applicants notified of the ERP and CGP, and the number of applicants who confirmed ERP and CGP coverage.				
	Notified of ERP stormwater permit requirements	0			No new permittee development or redevelopment during permit year; therefore, no ERP permits required
	Confirmed ERP coverage	0			N/A
	Notified of CGP stormwater permit requirements	0			N/A
	Confirmed CGP coverage	0			N/A
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.				
	PERMITTEE SITES: Active construction sites	0			No new permittee site construction during the permit year
	PERMITTEE SITES: Pre-, During, and Post inspections of active construction sites for E&S and waste control BMPs	0			N/A
	PERMITTEE SITES: Percentage of active construction sites inspected	0			N/A
	PRIVATE SITES: Active construction sites	0			No new private site development during permit year
	PRIVATE SITES: Pre-, During, and Post inspections of active construction sites for E&S and waste control BMPs	2	Inspection Log	Town Manager	FY 18/19 Log
	PRIVATE SITES: Percentage of active construction sites inspected	100	Inspection Log	Town Manager	FY 18/19 Log
	Enforcement Action	0			None required
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).				

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
		DEP Certification	Annual Training			
	Permittee construction site inspectors	1	1	Ground Control video	Town Planning Consultant	
	Permittee construction site plan reviewers		1	Ground Control video	Town Planning Consultant	No new site plan reviewer's training during permit year
	Permittee construction site operators		0			Contracted out
Part III.A.9 Summary	Provide an evaluation of the Stormwater Management Program according to Part VI.B.2 of the permit.					
	Strengths: No new construction during permit year					
	Limitations: N/A					
	SWMP revisions implemented to address limitations: N/A					

SECTION VIII. CHANGES TO THE STORMWATER MANAGEMENT PROGRAM (SWMP) ACTIVITIES (Not Applicable in Year 4)		
A.	Permit Citation/ SWMP Element	Proposed Changes to the Stormwater Management Program Activities Established as Specific Requirements Under Part III.A of the Permit (Including the Rationale for the Change) — REQUIRES DEP APPROVAL PRIOR TO CHANGE IF PROPOSING TO REPLACE OR DELETE AN ACTIVITY.
	N/A	N/A
B.	Permit Citation/ SWMP Element	Changes to the Stormwater Management Program Activities NOT Established as Specific Requirements Under Part III.A of the Permit (Including the Rationale for the Change)
	N/A	N/A

SECTION IX. TMDL Status Report

A.	YEAR 1 Provide a table summarizing the status of the TMDL process. Include a list of prioritized TMDLs and their monitoring and implementation schedule; and include the Identification number of the outfall prioritized for TMDL monitoring.								
	WBID Number	Segment/ Waterbody/ Basin	Pollutant of Concern	TMDL DEP / EPA	Percent Reduction (WLA)	Priority Rank	Priority Outfall	Monitoring Summary / BPCP Due Date	Supplemental SWMP Due Date
	N/A			<input type="checkbox"/> / <input type="checkbox"/>					
				<input type="checkbox"/> / <input type="checkbox"/>					
B.	YEAR 3 and annually thereafter, provide a summary of the estimated load reductions that have occurred for the pollutant(s) of concern being discharged from the MS4 to the TMDL water body during the reporting period and cumulatively since the date the Supplemental SWMP was implemented. Year 3: Submit a Monitoring data summary or BPCP (if applicable). Year 4: Submit a Supplemental SWMP (if applicable).								
	WBID Number	Pollutant of Concern	Monitoring Summary / BPCP Submitted	Supplemental SWMP Submitted	Projected load reductions OR Actual load reductions to date				
	N/A								
C.	Provide a brief statement as to the status of TMDL implementation according to Part VIII.B of the permit (e.g. status of monitoring to validate WLA): N/A								

Town of Glen Ridge
(NPDES Stormwater Permitting Program)

'Water Quality Monitoring Assessment Report'
(submitted as Attachment 1 to the Town of Glen Ridge, Florida
Cycle 4, Year 3, Annual NPDES Report)

Prepared by JLH Associates
November, 2019

'Water Quality Monitoring Report'

Purpose

The purpose of the 'Water Quality Monitoring Assessment Report' is to provide information for the Town of Glen Ridge to determine the overall effectiveness of its stormwater management program in reducing stormwater pollutant loadings from its Municipal Separate Sewer System (MS4) to receiving 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 analyzed and Glen Ridge's Lake's contribution, if any, to those impairments will be assessed.
- 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. **Water Quality Trend Analysis** – Using the water quality monitoring results trends can be identified and evaluated.
- D. **Pollutant Loading Estimates/Results** - Pollutant loadings and results are reported.
- E. **Conclusions** - Final conclusions are made regarding 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. The Town of Glen Ridge is in Group 3. The latest (Cycle 3) assessment occurred in 2017. Based on the FDEP verified assessment listing, Cloud Lake is in Water Body Identification (WBID 3245F) of the Lake Worth Lagoon. Based on this assessment, there is no identified impairments for this WBID. As such, there are no projected TMDLs for this WBID.

Water Quality Monitoring Program

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

Based on the location of outfall of the Glen Ridge MS4, two (2) monitoring stations have been established. Station 37B is a Palm Beach County Environmental Resource Monitoring Site and Station C51S155 is a South Florida Water Management Monitoring Site. The following Table identifies these monitoring stations along with relevant information about the locations. More specifically, Station 37B is located upstream approximately eight (8) miles west of Glen Ridge at the intersection of SR7 and Southern Boulevard (SR80). Station C51S155 is located east of Dixie Highway at the discharge point into Lake Worth (Intracoastal Waterway) approximately two (2) miles south and east of the Town of Glen Ridge. See Figure 1 location Map

Table 1			
MS4 Monitoring Stations			
Monitoring Station Number	Location Description	Northing/ Easting	Receiving Water Body
37B	C-51 Basin	853637.29/ 916592.84	Lake Worth Lagoon
C51S155	C-51 Basin	841132.85/ 964349.43	Lake Worth Lagoon

The primary concern that FDEP has regarding the stormwater permitting program is related to nutrients and what impacts are created by nutrients into the stormwater system. The Town of Glen Ridge has evaluated nutrient monitoring results at the above two locations; the same locations used by the Town of Cloud Lake. The Town of Glen Ridge and Town of Cloud Lake systems are interconnected by Gem Lake which lies partly in Glen Ridge and partly in Cloud Lake which feeds into Cloud Lake's detention lake for eventual discharge. The 10-year trend referenced in the Palm Beach County MS4 Cycle 4, Year 2 Joint Report is used for evaluating the nutrient levels. Specifically, Total Nitrogen (TN), Total Phosphorus (TP) and Chlorophyll-A (a surrogate for nutrient enrichment) are analyzed and evaluated below. Data for monitoring stations in the C-51 watershed are examined.

At this time the State does not have any numeric nutrient criteria established for the C51 Canal (South Florida Region) for TN or TP. Chlorophyll-A has criteria of less than or equal to 20 ug/l.

Based on information provided in the PBC Cycle 4 Year 2 Joint Annual Report, water quality monitoring results for the last 10 years (2009-2018) is provided in Tables 2, 3, 4, respectively for TN, TP and Chlorophyll-A. Review of the results indicate a general reduction in values from west (Station 37B) to east (Station C51S155). Reported Chlorophyll-A values are well below the standard of 20 ug/l, indicating that the C-51 Canal is not nutrient impaired and Glen Ridge, an eastern contributor, is not adversely affecting nutrient levels.

Table 2 Annual Geometric Mean Total Nitrogen Concentration (mg/l) C-51 Watershed		
Year	Station 37B	Station C51S155
2009	No Record	1.18
2010	1.60	1.25
2011	1.26	0.88
2012	0.76	0.95
2013	1.26	1.96
2014	1.16	0.73
2015	1.09	0.97
2016	1.02	1.14
2017	0.80	0.79
2017	1.65	1.34

Source: Extracted from Table 5-8, p. 111 of the Cycle 4, Year 2, PBC Joint Annual Report.

Table 3 Annual Geometric Mean Total Phosphorus Concentration (mg/l) C-51 Watershed		
Year	Station 37B	Station C51S155
2009	No Record	No Record
2010	0.11	0.07
2011	0.06	0.04
2012	0.04	0.03
2013	0.08	0.06
2014	0.14	0.06
2015	0.08	0.08
2016	0.09	0.06
2017	0.05	0.06
2018	0.11	0.09

Source: Extracted from Table 5-9, P. 115 of the Cycle 4, Year2 PBC Joint Annual Report.

Table 4 Annual Geometric Mean Chlorophyll-A Concentration (ug/l) C-51 Watershed		
Year	Station 37B	Station C51S155
2009	No Record	No Record
2010	8.25	No Record
2011	4.84	No Record
2012	4.21	No Record
2013	4.36	No Record
2014	2.79	0.03
2015	2.06	No Record
2016	3.93	No Record
2017	3.98	No Record
2018	4.99	No Record

Source: Extracted from Table 5-10, p. 119 of the Cycle 4, Year 2 PBC Joint Annual Report.

Water Quality Trends

To evaluate nutrient trends, the water quality data for the last 10 years are extracted from graphs provided on the Palm Beach County NPDES web site; specifically, for Total Nitrogen (TN), Total Phosphorus (TP) and Chlorophyll-a. These nutrients are analyzed for Stations C51S155 (west of the Town) and 37B (east of Town) to indicate trends from west to east as the eventual discharge point is approached. Each figure contains the separate plots for Stations 37B and C51S155.

Review of the annual geometric trend graphs indicate a general declining trend for two (2) of the three (3) water quality monitoring parameters. Even though TP shows an increasing trend for the last 10 years, the long term 20-year trend shows a declining trend (reference the MS4 website www.pbco-npdes.org) Group/Joint Activities - WQ Monitoring - C-51 Trend, C51S155, Phosphorus Total. Typically, the nutrient concentrations are lower from west to east. Any numeric nutrient impairment is based on Chlorophyll-a values exceeding 20 ug/l. The data graphs indicate the Chlorophyll-a values are well below the State criteria. In regard to TN, a steady declining trend is indicated.

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 Town of Glen Ridge lies in the C-51 watershed/WIBD 3245F. All stormwater runoff from the Glen Ridge MS4 system discharges into the combined Town of Glen Ridge and Town of Cloud Lake on-site lake detention system prior to discharging into the West Palm Beach Stub Canal. All six (6) parameters are analyzed and graphed in the Cycle 4, Year 3 'Summary of Average Annual Pollutant Loading Model Activities' report (2019) for all of the watersheds including the C-51 Watershed (See Figures 3-8, pgs. 20-23) prepared by Mock-Roos for the co-permittees reference. All parameters indicate decreases between the Cycle 3, Year 3 and Cycle 4, Year 3 reporting period within the C-51 watershed.

Pollutant loadings for the Glen Ridge MS4 are also reported in the 'Summary of Average Annual Pollutant Loading Model Activities' report cited above. Pollutant loadings for all six (6)

parameters are reported for year 2013 (Table 18, p. 31 of the report) and 2018 (Table 19, p. 32 of the report) and, specifically, for the Glen Ridge MS4 below in Table 5.

Glen Ridge has in place stormwater management programs that reduces the nutrient loading into the C-51 watershed/WBID 3245F. These programs include maintenance of conveyance swales, detention lake, public education (brochures and flyers for public distribution, MS4 group activities and an adopted Fertilizer Ordinance). The public education component alone allows a further 6% reduction in pollutant loadings reported in Table 5 below:

Table 5
Pollutant Loadings (lbs./year)
-Town of Glen Ridge -
C-51 Watershed

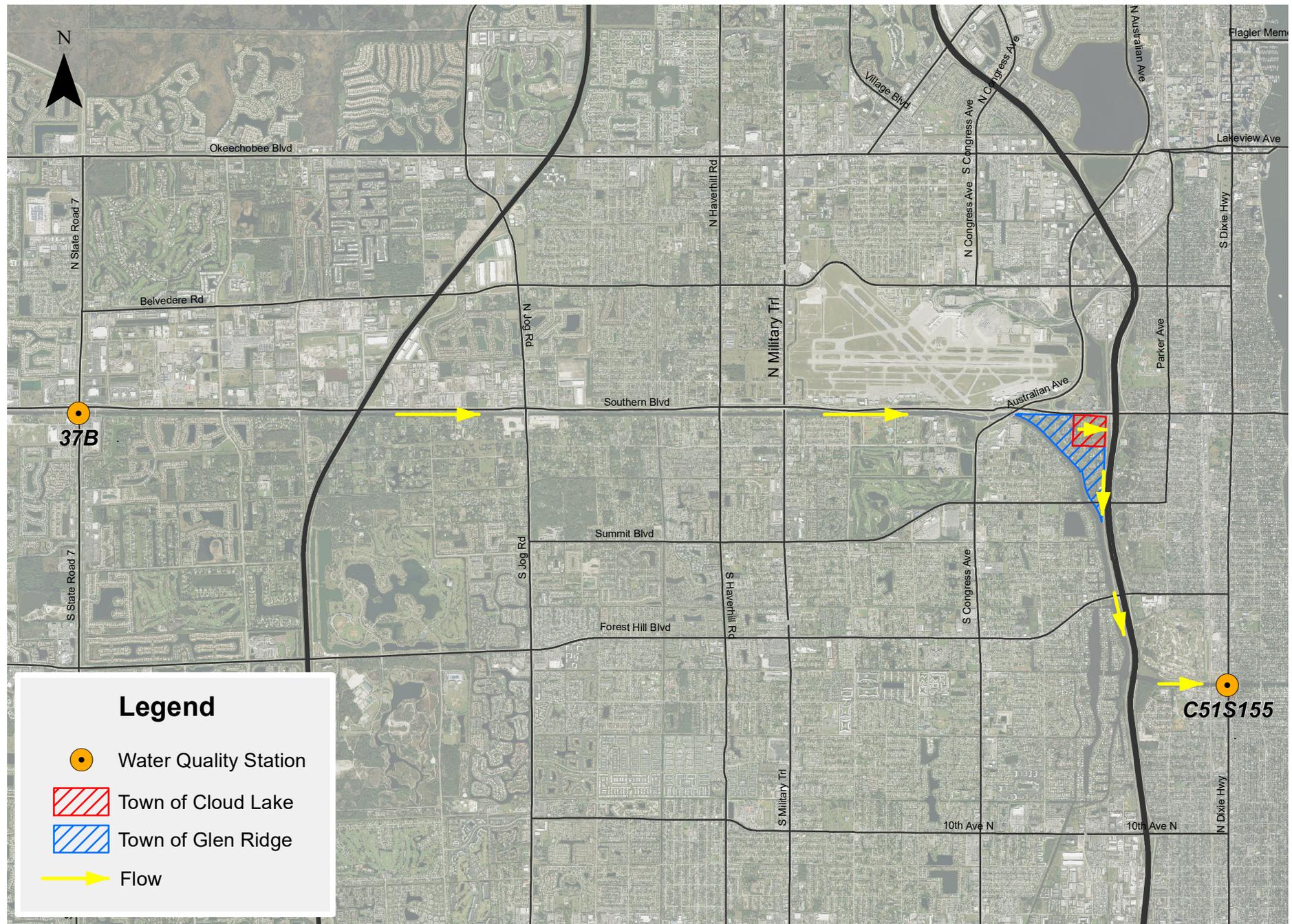
<u>Parameter</u>	<u>BODs</u>	<u>TSS</u>	<u>TP</u>	<u>CU</u>	<u>ZN</u>	<u>TN</u>
2013 Loads	2654	9497	156	6	25	2836
2018 Loads	2051	2817	107	4	18	2642
Other Reduction - Public Education (6% - rounded)	<u>123</u>	<u>169</u>	<u>6</u>	<u>0</u>	<u>1</u>	<u>159</u>
Total Amount	1928	2648	99	4	17	2483
Percent (%) Reduction	<u>27.4%</u>	<u>72.1%</u>	<u>36.5%</u>	<u>33.3%</u>	<u>32%</u>	<u>12.4%</u>

Sources: Tables 18 (p. 31) and 19 (p. 32) of the 'Summary of Average Annual Pollutant Loading Model Activities' report (2019) prepared by Mock-Roos.

Reductions in pollutant loadings in the Glen Ridge MS4 between 2013 and 2018 are extremely significant for all six) parameters.

Conclusions

The Town of Glen Ridge stormwater management programs are extremely 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.



Location Map for Water Quality Monitoring Sites

Figure 1

Figure 2
Annual Geometric Mean Total Nitrogen Concentration (mg/l)
C-51 Stations

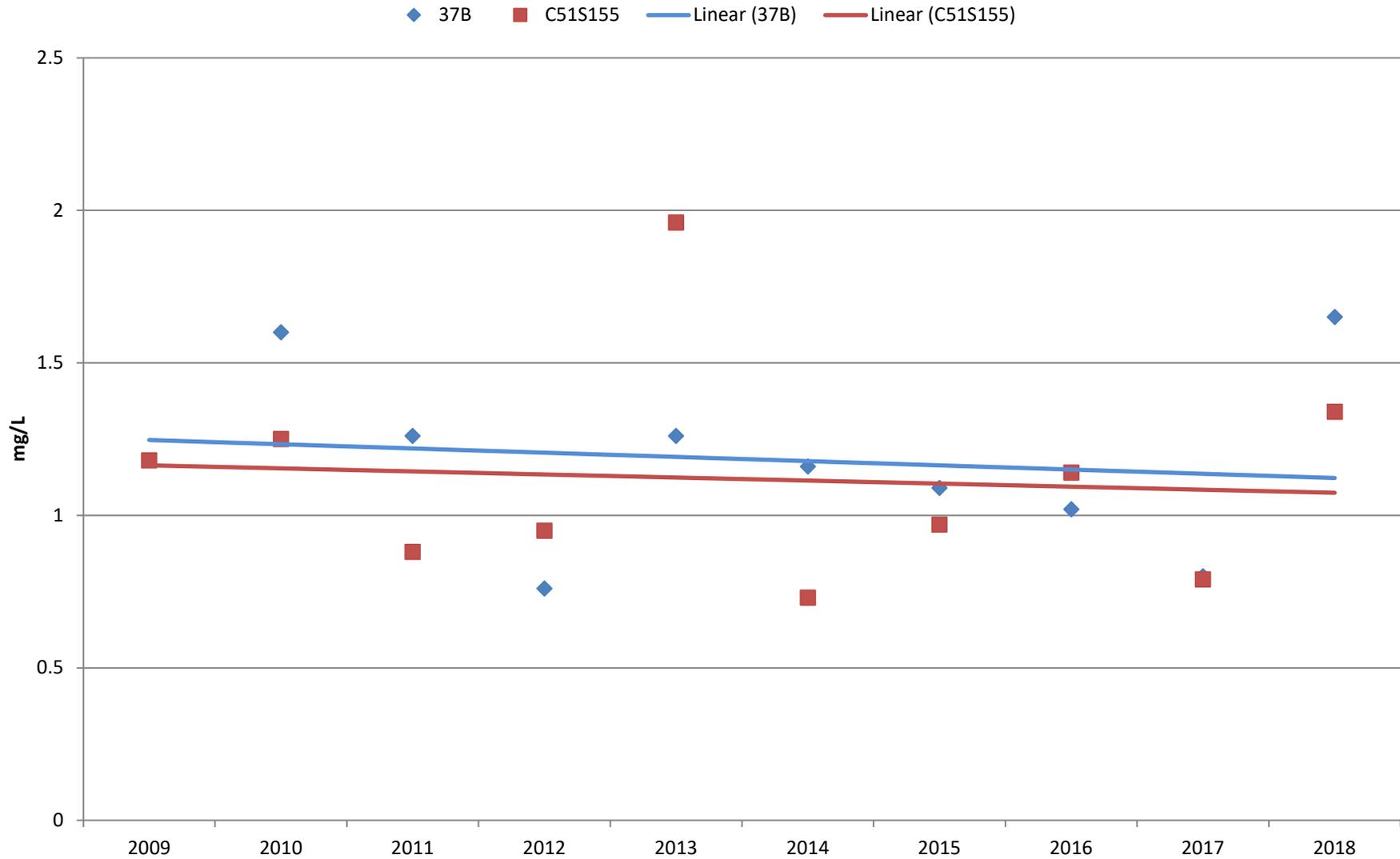


Figure 3
Annual Geometric Mean Total Phosphorous Concentration (mg/l)
C-51 Stations

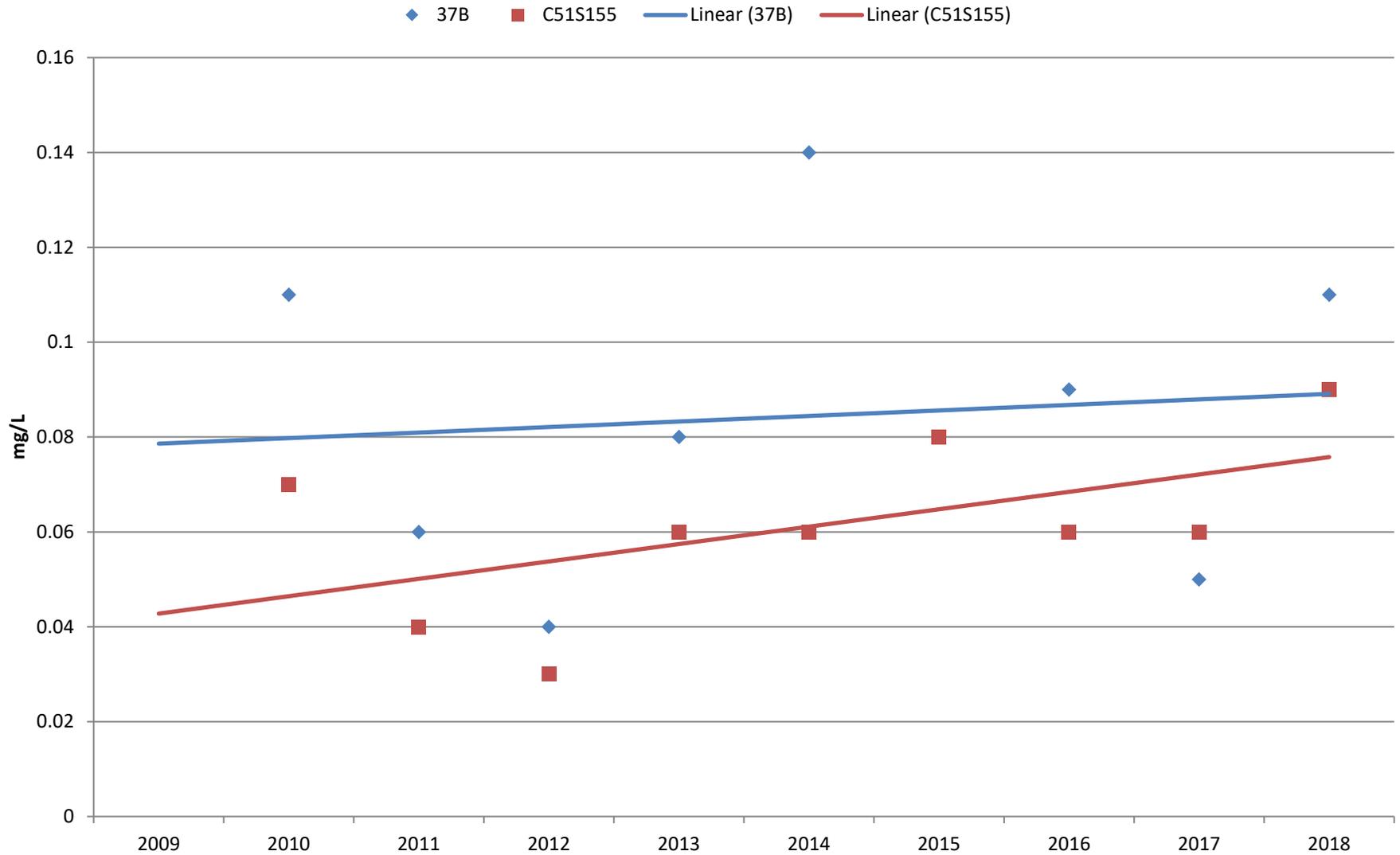


Figure 4
Annual Geometric Mean Total Chlorophyll-a (ug/l)
C-51 Stations

