



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

Permittee Name: Village of Royal Palm Beach

Permit Name: Palm Beach County MS4

Permit Number: FLS000018-004

Annual Report Year: ☐ Year 1 ☐ Year 2 ☒ Year 3 ☐ Year 4 ☐ Year 5 ☐ Other, specify Year:

Reporting Time Period (month/year): 10 / 2018 through 09 / 2019

Name of the Responsible Authority: Paul L. Webster, P.E., C.S.M.

Title: Public Works Director

Mailing Address: 10996 Okeechobee Boulevard

City: Royal Palm Beach

Zip Code: 33411

County: Palm Beach

Telephone Number: 561-790-5122

Fax Number: 561-791-7075

E-mail Address: pwebster@royalpalmbeach.com

Name of the Designated Stormwater Management Program Contact (if different from Section I.F above):
Same as 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)

Number of outfalls ADDED to the outfall inventory in the current reporting year (insert "0" if none): 0
(Does this number include non-major outfalls? ☐ Yes ☐ No ☒ Not Applicable)

Number of outfalls REMOVED from the outfall inventory in the current reporting year (insert "0" if none): 0
(Does this number include non-major outfalls? ☐ Yes ☐ No ☒ Not Applicable)

Is the change in the total number of outfalls due to lands annexed or vacated? ☐ Yes ☐ No ☒ Not Applicable

SECTION III. PART V.B. ASSESSMENT PROGRAM

Provide a brief statement as to the status of water quality monitoring plan implementation. Status may include sampling frequency changes, monitoring location changes, or sampling waiver conditions.

DEP Note: If permittee participates in a collaborative monitoring plan, permittee may refer to a joint response as defined by the interlocal agreement.

Name and date of the approved plan:

Current approval of the Group Monitoring Plan is September 8, 2016 (with issuance of the Cycle 4 permit.)
Our individual assessment program was approved on April 9, 2019

Status:

The Group Monitoring Report is included in the Cycle 4 Joint Annual Report.
Royal Palm Beach Assessment Report for Year 3 is attached.

Provide a brief discussion of the monitoring and loading results to date which includes a summary of the water quality monitoring data and / or stormwater pollutant loading changes from the reporting year.

DEP Note: Results must be specific to the permittee's SWMP.

Our consultant, CDM Smith, has completed an assessment of the Village's SWMP entitled, Evaluation of Overall Effectiveness of the Stormwater Management Program. The summary report is attached. As outlined in this report the Village's SWMP is effective and the Village does not need to add additional programs and BMPs to improve the program.

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.

DEP Note: Analysis must be specific to the permittee's SWMP.

Refer to above response – Section B.

SECTION IV. FISCAL ANALYSIS

Total expenditures for the NPDES stormwater management program for the current reporting year: \$932,855

Total budget for the NPDES stormwater management program for the subsequent reporting year: \$1,848,263

Did the current reporting year resources decrease from the previous year? Y ☒ / N ☐

If program resources decreased, provide a discussion of the impacts on the implementation of the SWMP.

The changes in operating costs are due solely to fluctuations in the Capital Program.

C.

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

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

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

DO NOT SUBMIT ANY OTHER MATERIALS

(such as records and logs of activities, monitoring raw data, public outreach materials, etc.)

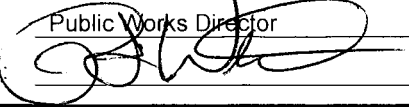
SECTION VI. CERTIFICATION STATEMENT AND SIGNATURE

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

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

Name of Responsible Authority (type or print): Paul L. Webster, P.E., C.S.M.

Title: Public Works Director

Signature:  Date: 3/19/2020

SECTION VII. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE

Permit Citation/ SWMP Element	Permit Requirement/Quantifiable SWMP Activity	Number of Activities Performed	Documentation n / Record	Entity Performing the Activity	Comments
Part III.A.1	Structural Controls and Stormwater Collection Systems Operation				
	Report the current known inventory. Report the number of inspection and maintenance activities conducted for each applicable type of structure included in Table II.A.1.a, and the percentage of the total inventory of each type of structure inspected and maintained. <i>Note: Delete structures that are not in your MS4's inventory. The permittee may choose its own unit of measurement for each structural control to be consistent with the unit of measurement in the documentation. Unit options include: miles, linear feet, acres, etc.</i>				
Type of Structure	Number of Structures	Number of Inspections	Percent Inspected	Number of Maintenance Activities	Percent Maintained
Dry retention systems Underdrain filter systems Exfiltration trench / French drains (lf) Grass treatment swales (miles) Dry detention systems	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
Wet detention systems	9	9	100%	12	100%
	24	24	100%	Maintenance schedule ded	100%
	0	0	0	0	0
	0	0	0	0	0
Detention with filtration systems Alum Injection systems Pollution control boxes pump stations Major outfalls	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	1	1	100%	No main tenan ce requi red	100%
				Major Stormwater Outfalls - Structural Control Inspection	
				Public Works	
				Public Works	
				Detention/Ret ention System - Structural Control Inspection	
				Detention/Ret ention System - Structural Control Inspection	
				Public Works	
				Public Works	
				Detention/Ret ention System - Structural Control Inspection	
				Detention/Ret ention System - Structural Control Inspection	
				Public Works	
				Public Works	
				Major Stormwater Outfalls - Structural Control Inspection	
				Public Works	

SECTION VII. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE

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	Weirs or other control structures	9	1	11.4%	0	0	GIS and DPW file: Stormwater Infrastructure Organized by Subdivision	No maintenance required.
	pipes / culverts (miles)	71.38	22.07	30.9%	0	0	GIS and DPW file: Stormwater Infrastructure Organized by Subdivision	No maintenance required.
	Canals (centerline miles)	14.80	1.69	11.4%	No maintenance required	11.4%	Canal Conveyance System - Structural Control Inspection	The Village has a future CIP scheduled for canal system dredging. The project will be a multi-year project.
	Inlets / catch basins / grates	1,543	343	22.2%	16	1.0%	GIS and DPW file: Stormwater Infrastructure Organized by Subdivision	Vegetation and minor debris removed from 12 catch basins. Vacuumed 5 cu yds of sediment from 4 catch basins. No repairs required.
	Ditches / conveyance swales (miles)	0	0	0	0	0		
	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.	N/A	☐					

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Permit Citation/ SWMP Element	Permit Requirement/Quantifiable SWMP Activity	Number of Activities Performed	Documentatio n / 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: The strength of the SWMP is the comprehensive approach and the significant inspections performed to identify issues in system. Limitations: None SWMP revisions implemented to address limitations: None				
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	1	Engineering Files	Engineering Dept.	
	Number of significant development projects approved	1	Engineering Files	Engineering Dept.	
	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 Year 4 ONLY: Attach the follow-up report on plan implementation	☐ ☐			
Part III.A.2 Summary	Provide an evaluation of the Stormwater Management Program according to Part VI.B.2 of the permit. Strengths: The strength of the program is the Villages coordinated approach to development review and approval. Limitations: None 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. Note: If the permittee does not contract activities, delete CONTRACTOR activities.				
	PERMITTEE Litter Control: Frequency of litter collection	Weekly/Annually	Manhours	Public Works	Roadways are collected weekly. At least 10% of canals are maintained annually. Includes canals. DPW collects litter on 21.75 roadway miles weekly. Public Works Trash Pickup Log
	PERMITTEE Litter Control: Estimated amount of area maintained (miles)	36.6	GIS	Engineering Dept	
	PERMITTEE Litter Control: Estimated amount of litter collected (cy)	2,540	Trash Pickup (New)	Public Works	

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Permit Citation/ SWMP Element	Permit Requirement/Quantifiable SWMP Activity	Number of Activities Performed	Documentatio n / Record	Entity Performing the Activity	Comments
	CONTRACTOR Litter Control: Frequency of litter collection	0			Not Contracted
	CONTRACTOR Litter Control: Estimated amount of area maintained (lf)	0			
	CONTRACTOR Litter Control: Estimated amount of litter collected (cy)	0			
	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".				
	Trash Pick-up Events: Total miles cleaned				
	Trash Pick-up Events: Estimated amount of litter collected (lbs)	3.5	GAC Site Report Form	Public Works	
	Adopt-A-Road: Total miles cleaned	75	GAC Site Report Form	Public Works	
	Adopt-A-Road: Estimated amount of litter collected (cy)	0			Village does not have an active Adopt-a- Road Program.
		0			Village does not have an active Adopt-a- Road Program.
	Report on the street sweeping program, including the frequency of the sweeping, total miles swept, an estimate of the quantity of sweepings collected, and the total nitrogen and total phosphorus loadings that were removed by the collection of sweepings. If no street sweeping program is implemented, provide the explanation of why not in column F.				
Frequency of street sweeping					
Total miles swept					
	Monthly/Annual	Street Sweeping Reports	Contractor		
	175.7	18_0830_Stre et_Sweeping_ Calcs.xlsx	Public Works/GIS		Curb miles. 63.9 miles swept monthly. Remaining 111.8 swept annually.
Estimated quantity of sweeping material collected (cy / tons)					
	254.0	Street Sweeping Reports	Contractor		
Total phosphorous loadings removed (pounds)					
	210.0	FY2019 Street Sweeping Nutrient Removal	Public Works		
Total nitrogen loadings removed (pounds)					
	328.0	FY2019 Street Sweeping Nutrient Removal	Public Works		

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Permit Citation/ SWMP Element	Permit Requirement/Quantifiable SWMP Activity	Number of Activities Performed	Documentation n / Record	Entity Performing the Activity	Comments
	Report the equipment yards and maintenances shops that support road maintenance activities, and the number of inspections conducted for each facility.				
	Name of Facility	Number of Inspections			
	Field Operations Center	1	High Risk Facility Checklist	Public Works	
	Parks Operations Center	1	High Risk Facility Checklist	Public Works	
	Provide an evaluation of the Stormwater Management Program according to Part VI.B.2 of the permit.				
Part III.A.3 Summary	Strengths: The Village has a limited number of facilities to inspect and maintain and has direct control over maintenance cost. 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			
	Flood control projects completed that did not include stormwater treatment	0			
	Stormwater retrofit projects planned/under construction	0			
	Stormwater retrofit projects completed	0			
	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.	☐			
	Provide an evaluation of the Stormwater Management Program according to Part VI.B.2 of the permit.				
Part III.A.4 Summary	Strengths: Village Engineering Department provides design and construction management of flood control projects. Limitations: None SWMP revisions implemented to address limitations: None				

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Permit Citation/ SWMP Element	Permit Requirement/Quantifiable SWMP Activity	Number of Activities Performed	Documentatio n / 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			
	None				
Part III.A.5 Summary	Provide an evaluation of the Stormwater Management Program according to Part VI.B.2 of the permit.				
	Strengths: No facilities to inspect.				
	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	4	Human Resources Training File	Florida Department of Agriculture & Consumer Services	Michael Cheatham, Paul Sawyer, Richard Wishart, Armando Puentes
	CONTRACTORS: FDACS commercial applicators of pesticides/ herbicides	3	Vendor Files	Florida Department of Agriculture & Consumer Services	Aquatic Maintenance Contractor
	PERSONNEL: Green Industry BMP Program training completed	7	HR Training Files	FL DEP	
	CONTRACTORS: FDACS certified / licensed applicators of fertilizer	0			Not Contracted Out
	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	☐			
	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			

SECTION VII. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE

Permit Citation/ SWMP Element	Permit Requirement/Quantifiable SWMP Activity	Number of Activities Performed	Documentatio n / Record	Entity Performing the Activity	Comments
		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	100	Brochures – VPRB Lobby	Public Works	
	Neighborhood presentations: Number conducted	0			
	Neighborhood presentations: Number of participants	0			
	Newspapers & newsletters: Number of articles/notices published	4	VRPB Newsletter	Village Clerk	
	Newsletters: Number of newsletters distributed	56,000	VRPB Newsletter	Village Clerk	
	Public displays (e.g., kiosks, storyboards, posters, etc.)	2	Posters-FOC Lobby	Public Works	
	Special events: Number conducted	1	Great American Cleanup	Public Works	
	Special events: Number of participants	42	GAC Site Form	Public Works	
	Number of visitors to stormwater-related pages	49	I.S. Department	I.S. Department	
Part III.A.6 Summary	Provide an evaluation of the Stormwater Management Program according to Part VI.B.2 of the permit.				
	Strengths: The public outreach program for the PBC Group is comprehensive.				
	Limitations: The Village continues to seek additional avenues to present the PBC Group programs to the public.				
	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	☐			
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	182	GIS- Stormwater Inspection Layer	Public Works	
	Illicit discharges found during a proactive inspection	0			
	NOV/WL/citation/fines issued for illicit discharges found during proactive inspection	0			
	Report on the reactive investigation program as it relates to responding to reports of suspected illicit discharges, including the number of reports received, the				

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Permit Citation/ SWMP Element	Permit Requirement/Quantifiable SWMP Activity	Number of Activities Performed	Documentatio n / Record	Entity Performing the Activity	Comments
	number of investigations conducted, the number of illicit activities found, and the number and type of enforcement actions taken.				
	Reports of suspected illicit discharges received	1	Illicit Discharge Report	Public Works	
	Reactive investigations of reports of suspected illicit discharges etc.	1	Illicit Discharge Report	Public Works	
	Illicit discharges etc. found during reactive investigation	1	Illicit Discharge Report	Public Works	
	NOV/WL/citation/fines issued for illicit discharges etc. found during reactive investigation	0	Illicit Discharge Report	Public Works	
	Report the type of training activities, and the number of permittee personnel and contractors trained (both in-house and outside training) within the reporting year.				
	Personnel trained	2	HR Training File	FL DEP	Johnathan Moorer, Germax Desinord
	Contractors trained	0			PBCFR provides hazardous response within VRPB
Part III.A.7.d	Illicit Discharges and Improper Disposal — Spill Prevention and Response				
	Report on the spill prevention and response activities, including the number of spills addressed.				
	Hazardous and non-hazardous material spills responded to	1	Illicit Discharge Report	Public Works	
	Report the type of training activities, and the number of permittee personnel and contractors trained (both in-house and outside training) within the reporting year.				
	Personnel trained	3	HR Training Files	FL DEP, Sigma Consulting	Michael Cheatham, Johnathan Moorer, Germax Desinord
	Contractors trained	0			PBCFR provides hazardous response within

SECTION VII. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE

Permit Citation/ SWMP Element	Permit Requirement/Quantifiable SWMP Activity	Number of Activities Performed	Documentatio n / Record	Entity Performing the Activity	Comments
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 materials distributed, and the number of Web site visits (if applicable).				VRPB
	Public Education and Outreach Program 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.) Special events: Number conducted Special events: Number of participants Number of visitors to stormwater-related pages	100 0 0 4 56,000 2 1 42 49	Brochures – VRPB Lobby VRPB Newsletter VRPB Newsletter FOC Lobby Great American Cleanup GAC Site Form I.S. Department	Public Works Village Clerk Village Clerk Public Works Public Works Public Works I.S. Department	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. 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.
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 Brochures/Flyers/Fact sheets distributed Neighborhood presentations: Number-conducted Neighborhood presentations: Number of participants Newspapers & newsletters: Number of articles/notices published	100 0 0 4	Brochures – VRPB Lobby VRPB Newsletter	Public Works Public Works	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. 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.

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Permit Citation/ SWMP Element	Permit Requirement/Quantifiable SWMP Activity	Number of Activities Performed	Documentatio n / Record	Entity Performing the Activity	Comments
	Newsletters: Number of newsletters distributed	56,000	VRPB Newsletter	Public Works	
	Public displays (e.g., kiosks, storyboards, posters, etc.)	2	FOC Lobby	Public Works	
	Special events: Number conducted	1			
	Special events: Number of participants	42	GAC Site Form	Public Works	
	Storm sewer inlets newly marked/replaced	0			
	Number of visitors to stormwater-related pages	49	I.S. Department	I.S. Department	
Part III.A.7.g	Illicit Discharges and Improper Disposal — Limitation of Sanitary Sewer Seepage				
	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	Palm Beach County Water Utilities			
	Activity to reduce/eliminate SSOs and I&I: (description)	0		No information to provide as PBCWU is non-responsive. VRPB is fulfilling its responsibility	PBCWU does not respond to inquiry.
	SSO incidents discovered	0		No information to provide as PBCWU is non-responsive. VRPB is fulfilling its responsibility	PBCWU does not respond to inquiry.
	SSO incidents resolved	0		No information to provide as PBCWU is non-responsive. VRPB is fulfilling its responsibility	PBCWU does not respond to inquiry.
	Inflow / infiltration incidents discovered	0		No information to provide as PBCWU is non-responsive. VRPB is fulfilling its responsibility	PBCWU does not respond to inquiry.
	Inflow / infiltration incidents resolved	0		No information to provide as PBCWU is non-responsive. VRPB is fulfilling its responsibility	PBCWU does not respond to inquiry.0

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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.				
	Strengths: PBCWU has a very proactive program to clean sanitary sewers.				
	Limitations: The Village does not control the documentation for any sanitary sewer overflows. DPW makes effort each year to get the documentation.				
	SWMP Revisions implemented to address limitations: none				
Part III.A.8.a	Industrial and High-Risk Runoff — Identification of Priorities and Procedures for Inspections				
	Report on the high-risk facilities inventory, including the type and total number of high risk facilities and the number of facilities newly added each year.				
	Report on the high-risk facilities inspection program, including the number of inspections conducted and the number and type of enforcement actions taken.				
Part III.A.8.b	Type of Facility				
	Operating municipal landfills	Number of Facilities	Number of Inspections	Enforcement Actions	
	Hazardous waste treatment, storage, disposal and recovery (HWTSDR) facilities	0	0		
	EPCRA Title III, Section 313 facilities (TRI)	0	0		
Part III.A.8	Facilities determined as high risk by the permittee				
	0				
	Industrial and High-Risk Runoff — Monitoring for High Risk Industries				
	Report the number of high risk facilities sampled.				
Part III.A.9.a	High risk facilities sampled				
	0				
	Provide an evaluation of the Stormwater Management Program according to Part VI.B.2 of the permit.				
	Strengths: No high risk facilities within the Village of Royal Palm Beach				
Part III.A.9.a	Limitations: None				
	SWMP revisions implemented to address limitations: N/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				
	3				
	PERMITTEE SITES: Construction site plans approved				
	3				

SECTION VII. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE

Permit Citation/ SWMP Element	Permit Requirement/Quantifiable SWMP Activity	Number of Activities Performed	Documentatio n / Record	Entity Performing the Activity	Comments
	PRIVATE SITES: Construction site plans reviewed		Proceed/Pre- Construction Requirements Letter – Engineering Dept.	Dept.	
		6	Notice to Proceed/Pre- Construction Requirements Letter – Engineering Dept.	Engineering Dept.	
		6	Notice to Proceed/Pre- Construction Requirements Letter – Engineering Dept.	Engineering Dept.	
	PRIVATE SITES: Construction site plans approved				
	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	6	Engineering Files	Engineering Dept.	
	Confirmed ERP coverage	0	Engineering Files	Engineering Dept.	
	Notified of CGP stormwater permit requirements	6	Engineering Files	Engineering Dept.	
	Confirmed CGP coverage	0	Engineering Files	Engineering Dept.	
	Construction Site Runoff — Inspection and Enforcement				
Part III.A.9.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.				
	PERMITTEE SITES: Active construction sites				
	PERMITTEE SITES: Pre-, During, and Post inspections of active construction sites for E&S and waste control BMPs	3	Engineering Files	Engineering Dept.	
	PERMITTEE SITES: Percentage of active construction sites inspected	199	Engineering Files	Engineering Dept.	
		100%	Engineering Files	Engineering Dept.	
	PRIVATE SITES: Active construction sites	6	Engineering	Engineering	

SECTION VII. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE						
Permit Citation/ SWMP Element	Permit Requirement/Quantifiable SWMP Activity	Number of Activities Performed	Documentatio n / Record	Entity Performing the Activity	Comments	
	PRIVATE SITES: Pre-, During, and Post inspections of active construction sites for E&S and waste control BMPs PRIVATE SITES: Percentage of active construction sites inspected Enforcement Action		Files	Dept.		
		1	Engineering Files	Engineering Dept.		
		100%	Engineering Files	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).					
		DEP Certification	Annual Training			
	Permittee construction site inspectors	3		Sign-In Sheet	PBC Steering Committee	March 20, 2019
	Permittee construction site plan reviewers			Sign-In Sheet	PBC Steering Committee	March 20, 2019
	Permittee construction site operators		0			
Part III.A.9 Summary	Provide an evaluation of the Stormwater Management Program according to Part VI.B.2 of the permit.					
	Strengths: The Village of Royal Palm Beach coordinates and requires all contractors to meet NPDES requirements.					
	Limitations: None					
	SWMP revisions implemented to address limitations: N/A					

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.					
N/A						
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						

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
			☐ / ☐		1		(Year 3 AR)	(Year 4 AR; N/A if BPCP)
			☐ / ☐					
			☐ / ☐					

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

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

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

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

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

SUMMARY REPORT

Evaluation of Overall Effectiveness of the Stormwater Management Program

Village of Royal Palm Beach
NPDES MS4 Permit No.
FLS000018 - 004



**CDM
Smith**

February 2020

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Section 1

Assessment Program

The Village of Royal Palm Beach (the Village) was issued its fourth-cycle, NPDES MS4 Permit No. FLS000018-004 effective on September 1, 2016 by the Florida Department of Environmental Protection (Department). Part V.B requires the Village to develop an Assessment Program that will be used to determine the overall effectiveness of the Village's Stormwater Management Program (SWMP). This document defines the Village's assessment program related to the description of the overall effectiveness of the SWMP based on previous monitoring data and trends in comparison to the Year 3 loading analysis required by Part V.B. of the permit.

This document demonstrates how the Village's assessment program will meet the following goals that are consistent with the Department's *Guidance for Preparing Stormwater Monitoring Plans as Required for Phase I Municipal Separate Storm Sewer System (MS4) Permits*:

- Identify potential water quality problem areas that may be related to stormwater runoff and that can be targeted for corrective action.
- Measure the effectiveness of stormwater pollution reduction measures (i.e., Best Management Practices [BMPs]) that have been or will be implemented.

Document pollutant loadings and/or trends in pollutant loadings for specific watersheds or outfalls.

Section 2

Evaluation for Overall Effectiveness of the SWMP

As per Part V.B.1 of the permit, the Village is required to assess the overall effectiveness of its SWMP using the information from the water quality monitoring program (Part V.B.1.a) and pollutant loading results (Part V.B.1.b). This section defines the Village's proposed evaluation of the overall effectiveness of its program as per the required elements under Part V.B.1.c.

The Village discharges stormwater into the C-51 watershed in Palm Beach County (see **Figure 2-1** from Mock Roos). Since the Village is a co-permittee covered by the MS4 permit, water quality data collection and loading analyses were completed cooperatively with the other co-permittees. The loading analyses were documented in a report entitled "*Summary of Average Annual Pollutant Loading Model Activities, Cycle 4/Year 3*" (Mock Roos, 2010). In the next few subsections, the method of comparison, the pertinent water quality data, and Village loading data will be discussed.

2.1 Evaluation of Effectiveness with Paired Loading and Water Quality Data

Using the paired loading estimates and water quality trends, the effectiveness of the SWMP will be assessed by the Village. There are four simple outcomes of the comparisons of the loading and water quality trends:

- The loading trend is decreasing, and the water quality trend is improving. The SWMP Plan will be assessed as being effective.

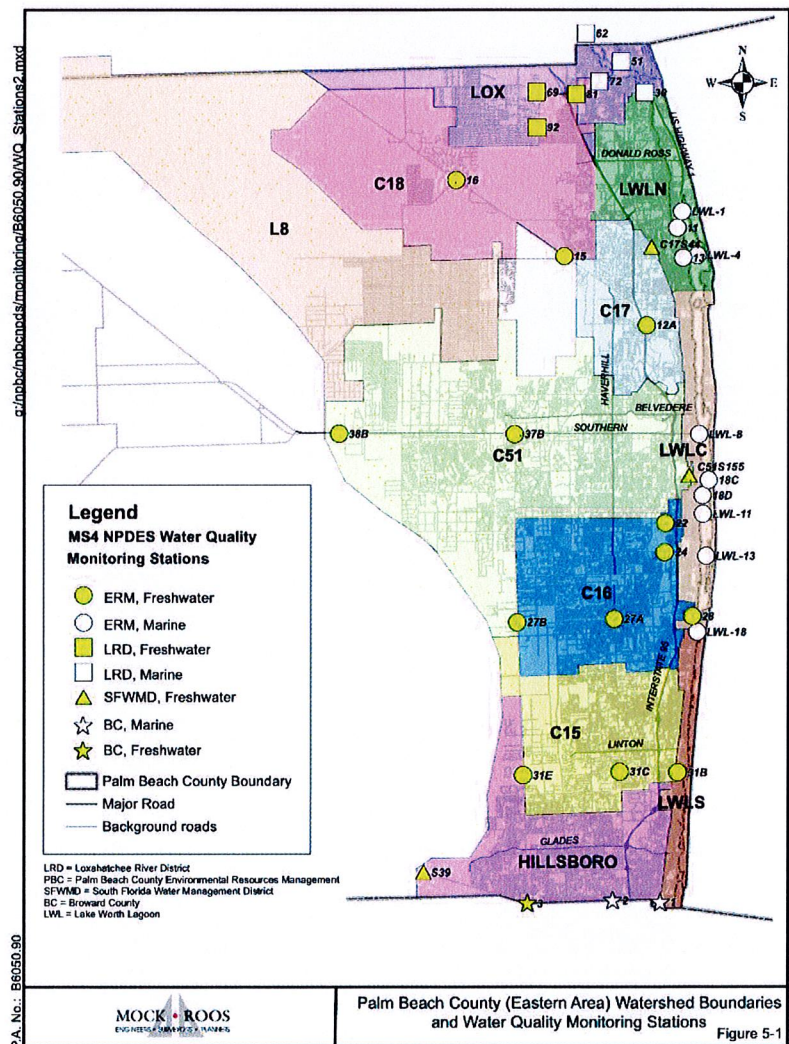


Figure 2-1 - Locations of MS4 Watersheds in Palm Beach County

- The loading trend is increasing, and the water quality trend is improving. This indicates that the loading and water quality are not correlated. Since the water quality trend is improving, no further evaluation is needed.
- The loading trend is decreasing, and the water quality trend is declining. This also indicates that the loading and water quality are not correlated. Since the water quality is declining, further investigation is warranted to determine the cause, noting that it is very likely that the cause is not the MS4.
- The loading trend is increasing, and the water quality trend is declining. In this case, the SWMP will be assessed as not effective and additional research is needed to determine causal relationships and, if needed, the SWMP Plan may need modification to improve effectiveness.

Table 2-1 summarizes the comparisons and required actions (if any) to further assess the effectiveness of the SWMP.

Table 2-1 Village of Royal Palm Beach SWMP Effectiveness Assessment

Relationship	Conclusion	Action Needed
1. Pollutant loading is decreasing, and water quality is improving over time	SWMP is effective	None
2. Pollutant loading is increasing but water quality is improving over time	No correlation between loading and water quality	None
3. Pollutant loading is decreasing and water quality is declining over time	No correlation between loading and water quality	Further investigation is needed; however, the cause is likely not the MS4
4. Pollutant loading is increasing and water quality is declining over time	SWMP may not be effective	Additional research is needed to determine causal relationships and, if needed, the SWMP Plan may need modification to improve effectiveness

2.2 Analysis of Available Water Quality Data

Water quality data, as required by the permit, has been collected at Stations 37B and 38B representing discharge from the Village. The location of the sites relative to the Village is shown in Figure 2-1. Parameters collected are listed in the insert; however, parameters pertinent to this analysis include Total Nitrogen (TN), Total Phosphorus (TP), and Chlorophyll a (Chla). Data are available since 1999 and the latest data were collected in 2018. For the purposes of this discussion, a trend that is slightly positive means that the slope of the regression is positive but very small, and a slightly negative trend means the slope of the regression is negative but very small. Based on the regression analysis of the data, the following conclusions can be made for both 37B and 38B:

- The long-term trend for Chla is slightly decreasing for 37B and slightly increasing for 38B (**Figure 2-2**). Of the 80 samples for Site 37B, the trendline slope is only slightly negative (less than -0.03 ug/l/year) and of the 83 samples for Site 38B, the trendline is only slightly positive (about 0.07 ug/l/year). Since the slopes are so small and the regression

significances are greater than 0.05, it must be said that there are no significant trends at these sites. Overall, for the C-51 watershed (Sites 37B, C51S155, and 38B), the overall trend for Chla is negative, showing an improvement with no annual geometric mean value exceeding 10 ug/l.

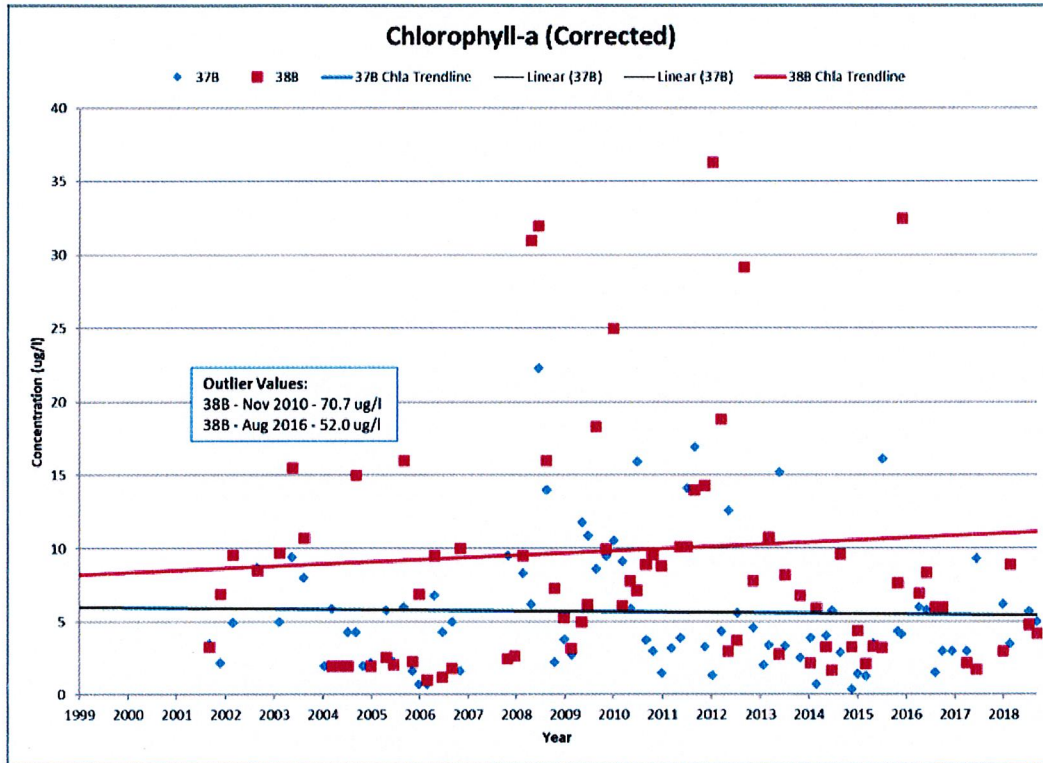


Figure 2-2 Corrected Chlorophyll a (ug/l)

- The long-term trend for TN is decreasing (**Figure 2-3**). Of the 82 samples for Site 37B, the trendline slope is very slightly negative (about -0.033 mg/l/year) and of the 82 samples for Site 38B, the trendline is also very slightly negative (less than -.06 mg/l/year). Overall, for the C-51 watershed (Sites 37B, C51S155, and 38B), the overall trend for TN is negative indicating an improvement.

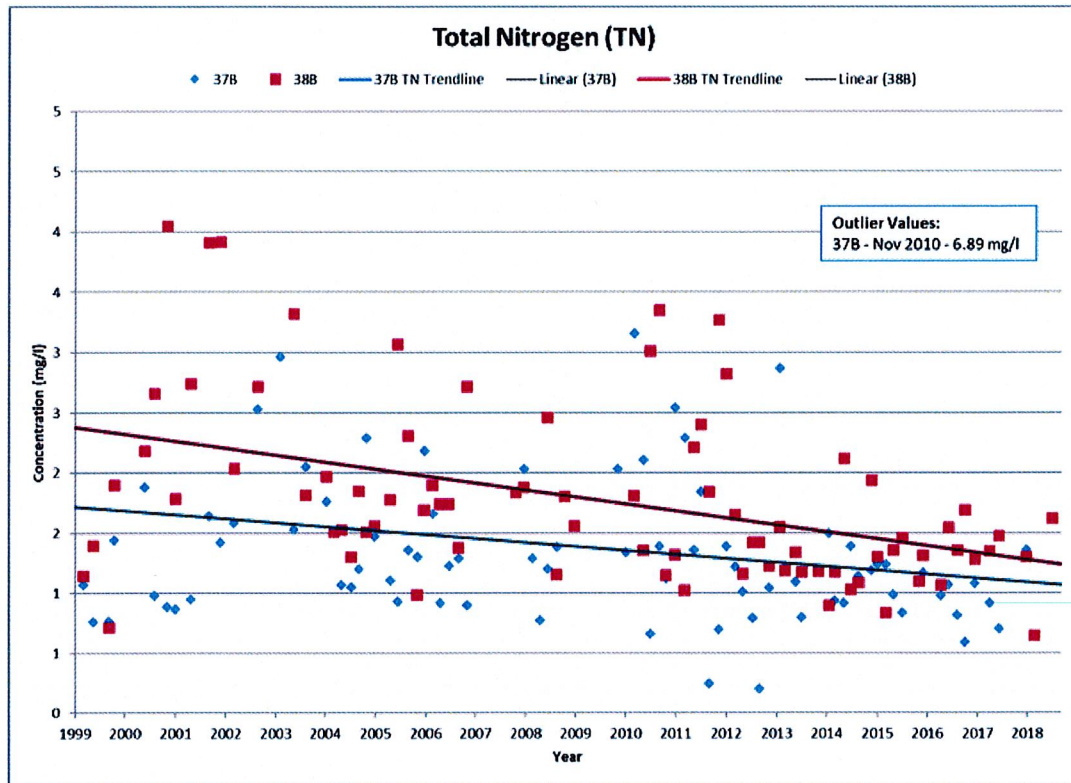


Figure 2-3 Total Nitrogen (mg/l)

- The long-term trend for TP is increasing (see **Figure 2-4**). Of the 80 samples for Site 37B, the trendline slope is very slightly positive (about 0.002 mg/l/year) and of the 84 samples for Site 38B, the trendline is also very slightly positive (about 0.003 mg/l/year). The P value for both trend lines is greater than 0.005, meaning that neither trend line expresses a significant statistical trend. Overall, for the C-51 watershed (Sites 37B, C51S155, and 38B), the overall trend for TP is positive showing a slight increase.

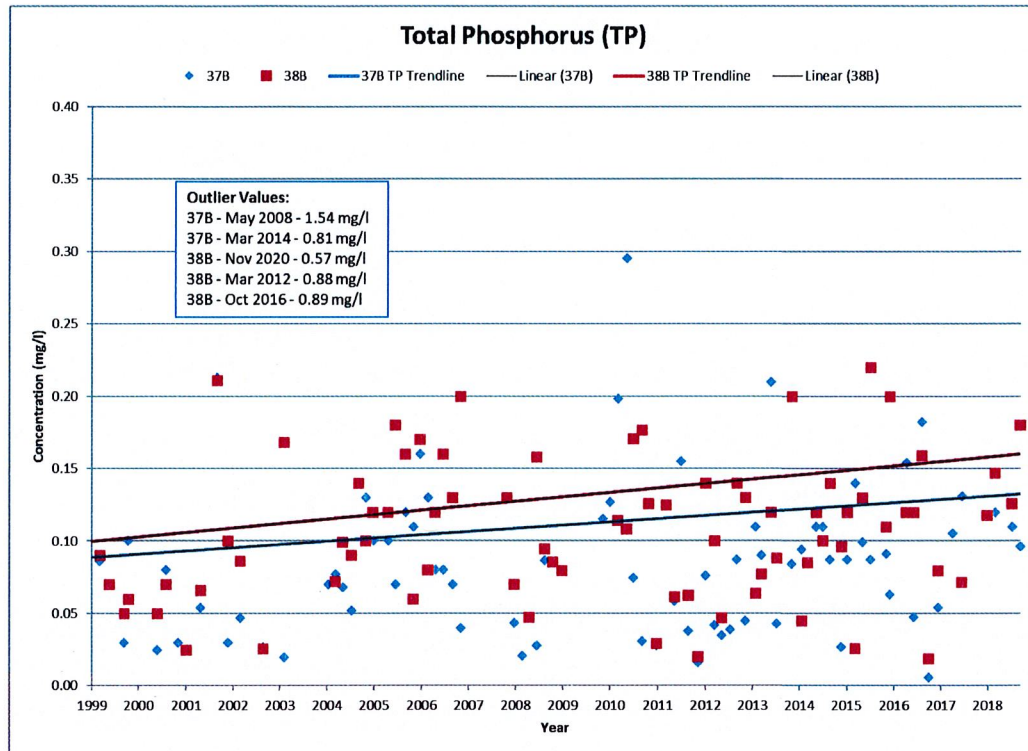


Figure 2-4 Total Phosphorus (mg/l)

Therefore, the major conclusion that can be made related to these data results is Chla (representing the response variable related to biological activity) is improving over time, independent of the TP increase. Nevertheless, TP is increasing so that the loading of TP from the MS4 sources needs to be further considered.

2.3 Available Pollutant Loading Data

The Pollutant Loading Analysis was recently completed in 2019. **Table 2-2** shows the results for the C-51 watershed, into which the Village discharges stormwater. The results for 2013 and 2018 are shown along with the loads from other MS4s summarized. It can be seen that for both TN and TP, there has been an overall watershed load reduction of 4.6% and 2.1%, respectively, from 2013 to 2018, while the load from the Village, representing only about 2 to 3% of the total, has essentially remained the same.

Table 2-2 – Summary of Watershed C-51 Loading

Royal Palm Beach MS4 Loading Report – 2019 Watershed C-51				
	2013 TN		2018 TN	
Source	Load (lb/yr)	% of Total	Load (lb/yr)	% of Total
Village of Royal Palm Beach	21,362	2.4%	21,360	2.5%
Other MS4s	867,492	97.6%	826,562	97.5%
Total	888,854	100.0%	847,922	100.0%
	Percent Decrease		-4.6%	
	2013 TP		2018 TP	
Source	Load (lb/yr)	% of Total	Load (lb/yr)	% of Total
Village of Royal Palm Beach	2,027	3.5%	2,027	3.6%
Other MS4s	56,069	96.5%	54,839	96.4%
Total	58,096	100.0%	56,866	100.0%
	Percent Decrease		-2.1%	

2.4 Assessment of Effectiveness

In comparison of the pollutant trends and the load changes from 2013 and 2018, the following conclusions can be made:

- Chla, representing the response biological variable, is decreasing, implying that the biological quality is improving. It should be noted that there are many other factors that affect biological health and Chla; nevertheless, Chla is improving.
- The long-term trends for TN concentration and TN load are both decreasing. The concentration at stations 37B and 38B have decreased over the 20 years of sampling. This implies that the TN concentrations and TN load are correlated. It should be noted however, that correlation does not automatically mean causation.
- The long-term trend for TP concentration is slightly increasing over the 20-year period. Nevertheless, the TP load from the MS4s is decreasing by slightly over 2% in the last 5 years. Therefore, it appears that the MS4 TP load is not correlated with the concentration increases.
- The trend line information shown for Stations 37B and 38B as well as those for the C-51 Watershed include the MS4 contributions from the Village but also more importantly, from 12 other MS4s and FDOT.
- Finally, the TN and TP loads from the Village into this watershed are immaterial, representing 3.6% and 2.5% of the 2018 loads, respectively. Even if BMPs could remove the Village loads entirely, no appreciable effects are expected to be measurable in the C-51 watershed.

Section 3

Summary of Assessment

As required by the MS4 permit, the long-term water quality data were assessed for trends and the pollutant loading from the Village was reviewed relative to increases or decreases. From this comparison, the following conclusions can be reached.

- Chla concentrations at Station 37B and 38B, representing the Village, are improving (meaning decreasing).
- TN concentrations at 37B and 38B and loading in the C-51 watershed are decreasing. Therefore, if the MS4 loading from the Village is affecting C-51, then the Village's SWMP is effective. The Village's load is so small compared to the other MS4s, it is unlikely the loading makes a difference at all.
- TP concentrations at 37B and 38B are very slightly increasing, while the overall C-51 loading is decreasing. This implies that there is no correlation between the MS4 loading and the concentration in C-51 and some other source or phenomenon (and not the load from the Village) is affecting the TP concentrations in C-51. Therefore, the Village's SWMP is effective, since it has no effect on the TP concentration in C-51.

As a result of these conclusions, the Village believes that the SWMP is effective and that additional programs and BMPs are not required to be implemented to improve the program.