



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: Village of Wellington		
B.	Permit Name: Palm Beach County MS4		
C.	Permit Number: FLS000018-004		
D.	Annual Report Year: <input type="checkbox"/> Year 1 <input checked="" type="checkbox"/> Year 2 <input 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 / 2017 through 9 / 2018		
F.	Name of the Responsible Authority: Thomas J. Lundeen, P.E.		
	Title: Village Engineer		
	Mailing Address: 12300 Forest Hill Boulevard		
	City: Wellington	Zip Code: 33414	County: Palm Beach
	Telephone Number: 561-753-2454		Fax Number: 561-791-4045
	E-mail Address: tlundeen@wellingtonfl.gov		
G.	Name of the Designated Stormwater Management Program Contact (if different from Section I.F above):		
	Title:		
	Department:		
	Mailing Address:		
	City:	Zip Code:	County:
	Telephone Number:		Fax Number:
	E-mail Address:		

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

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

SECTION III. PART V.B. ASSESSMENT PROGRAM

<p>A.</p>	<p>Provide a brief statement as to the status of water quality monitoring plan implementation. Status may include sampling frequency changes, monitoring location changes, or sampling waiver conditions. <i>DEP Note: If permittee participates in a collaborative monitoring plan, permittee may refer to a joint response as defined by the interlocal agreement.</i></p> <p>Name and date of the approved plan: Status: Wellington Assessment Program was submitted on May 11, 2017 and approved by DEP on July 7, 2017.</p>
<p>B.</p>	<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>Monitoring results indicated that for the last 12 years Wellington has been meeting its total phosphorous goal of 50 ppb. Last year Total Phosphorous averaged 38.8 ppb. Best Management Practices documented removal of 92.5 metric tons of phosphorous during this reporting period.</p>
<p>C.</p>	<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>A copy of the 2018 Surface Water Quality Report is attached.</p>

SECTION IV. FISCAL ANALYSIS

<p>A.</p>	<p>Total expenditures for the NPDES stormwater management program for the current reporting year: \$4,324,889</p>
<p>B.</p>	<p>Total budget for the NPDES stormwater management program for the subsequent reporting year: \$7,210,606</p>
<p>C.</p>	<p>Did the current reporting year resources decrease from the previous year? Y <input type="checkbox"/> / N <input checked="" type="checkbox"/></p> <p>If program resources decreased, provide a discussion of the impacts on the implementation of the SWMP.</p> <p>Projects are in progress and funds are carried forward to the subsequent year.</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
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Any additional information required to be submitted in this current annual reporting year in accordance with Part III.A of your permit that is not otherwise included in Section VII below.	Part III.A	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	An explanation of why the minimum inspection frequency in Table II.A.1.a. was not met, if applicable.	Part II.A.1	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	A list of the flood control projects that did not include stormwater treatment and an explanation for each of why it did not (if applicable).	Part III.A.4	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	A monitoring data summary as directed in Section III.C above and in accordance with Rule 62-624.600(2)(c), F.A.C.	Part V.B.3	2018 Surface Water Quality Report
<input type="checkbox"/>	<input checked="" type="checkbox"/>	YEAR 1 ONLY: An inventory of all known major outfalls and a map depicting the location of the major outfalls (hard copy or CD-ROM) in accordance with Rule 62-624.600(2)(a), F.A.C.	Part III.A.1	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	YEAR 2: A summary review of codes and regulations to reduce the stormwater impact from development.	Part III.A.2	2017-2018 Code and Land Development Regulations
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Year 3 ONLY: The estimates of pollutant loadings and event mean concentrations for each major outfall or each major watershed in accordance with Rule 62-624.600(2)(b), F.A.C.	Part V.A	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	YEAR 3: Summary of TMDL Monitoring Results (if applicable).	Part VIII.B.2	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	YEAR 3: Bacteria Pollution Control Plan (if applicable).	Part VIII.B.3	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	YEAR 4: A follow-up report on plan implementation of changes to codes and regulations to reduce the stormwater impact from development.	Part III.A.2	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	YEAR 4: A report on any amendments to the applicable legal authority (if applicable).	Part III.A.7.a	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	YEAR 4: Permit re-application information in accordance with Rule 62-624.420(2), F.A.C. <ul style="list-style-type: none"> • 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	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	YEAR 4: TMDL Supplemental SWMP (if applicable).	Part VIII.B.3	

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

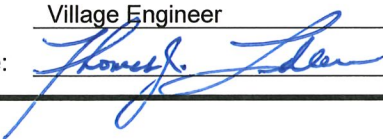
SECTION VI. CERTIFICATION STATEMENT AND SIGNATURE

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

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

Name of Responsible Authority (type or print): Thomas Lundeen

Title: Village Engineer

Signature:  Date: 12/12/2018

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			
Exfiltration trench / French drains (lf)		1776	5	100	164	100	Exfiltration Insp Form, Trash Cart Report Log (Maint.)	VOW Surface Water Mgmt./SWM & Roads Divisions	We have 3 exfiltration areas inspected generally 72 hrs after a significant rainfall-approx. 2-3 times annually & every three years, per SOP
Grass treatment swales (miles)		36.92	188.91	100	4.31	12	Swale Insp. & Maint. Log (4.31 miles) and Swale Inspection Form (5x36.92 miles)		Swale Retrofit Program is ongoing & they continue to be inspected by driving thru the Village and observing if they are retaining water, generally 72 hrs. after a significant

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Permit Citation/ SWMP Element	Permit Requirement/Quantifiable SWMP Activity					Number of Activities Performed		Documentation / Record	Entity Performing the Activity	Comments
										rainfall. A total of 100% of swales have been inspected
	Dry detention systems	17	85	100	342	100	Dry Detention Insp Form, Mowing Summary	VOW Surface Water Mgmt	Inspection by Terry Narrow/Hank Odell (SWM)	
	Wet detention systems	6	54	100	132	100	Maint.=Aquatic Weed Applications (27+33+18), Mowing Summary (42+12) , Insp.=Mowing Insp. (24)and Wet Det. Inspection Form (5 each)	Surface Water Mgmt.	Sect 24 , Village Park (3), Lake Wellington, Lake Greenview	
	Canal Sediment Sumps	7	7	100	0	100	Work Orders	Surface Water Maint.	SWM Work orders – Terry Narrow, Sumps were inspected and found to have minimal material.	
	Pump stations	8	457	100	124	100	PS Attendance Logs, PS Gen. Check, 6 Mth. Inspections, Maint. Work Reqs., MSO Inspections & Release Detection & Insp. Checklist	Surface Water Mgmt. /Rick Hoffman	Pump stations are inspected and maintained on a regular basis and documented throughout the year.	
	Major outfalls	5	206	100	61	100	MSO Annual Insp. Work requests, PS Attendance	Surface Water Mgmt. /Rick Hoffman	MSO are inspected and maintained on a regular basis and	

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Permit Citation/ SWMP Element	Permit Requirement/Quantifiable SWMP Activity					Number of Activities Performed		Documentation / Record	Entity Performing the Activity	Comments			
	Weirs or other control structures									Logs, CS Debris Check, works requests, PS Generator Check work requests, PS Maint. work requests Release Detection & Insp. Checklist		documented throughout the year	
						5	117	100	88	100	6 th Mth CS Insp. & CS Debris Chks & Maint. Work Requests	Surface Water Mgmt. /Rick Hoffman	Control Structures are inspected at minimum on a semi-annual basis.
	pipes / culverts (miles)					35.41	35.41	100	43	100	Major Canal Crossing/Culver t & NH Infrastructure Storm Drainage Insp. & Maint. Logs	Surface Water Mgmt.	
	Canals					91.4	91.4	100	140.28	100	Aquatic Veg Treatment Application Log (Maint. 137.1 miles), Canal Slope Log (Maint. 3.07 miles), Aquatic Weed Harvester Maint. Log (.11 miles)	Surface Water	Terry Narrow 100% of the canals have been inspected.
	Inlets / catch basins / grates					2,173	68,726	100	15,595	100	Storm Drain Inspection & Maint. Records/Log	Roads	Inspections & Maintenance includes, but not limited to: 2 full time employees continually

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Permit Citation/ SWMP Element	Permit Requirement/Quantifiable SWMP Activity				Number of Activities Performed		Documentation / Record	Entity Performing the Activity	Comments
									travel VOW roads picking up and removing trash, which includes a visual inspection & removing any and all trash, debris and/or obstructions from inlets/catch basins/grates along their routes. This number decreased due to increased street sweeper frequency and decrease in weather events.
	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.				<input type="checkbox"/>				All Met

SECTION VII. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE					
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Permit Citation/ SWMP Element	Permit Requirement/Quantifiable SWMP Activity	Number of Activities Performed	Documentation / Record	Entity Performing the Activity	Comments
Part III.A.1 Summary	Provide an evaluation of the Stormwater Management Program according to Part VI.B.2 of the permit.				
	Strengths: : Inspections continue to help with the identification of a potential issue/problem that may contribute to an impending failure of the structure. Maintenance of the system contributes to the reduction of pollutant loadings being discharged into the water				
	Limitations: None				
	SWMP revisions implemented to address limitations: N/A				
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	63	NPDES Permitting Engineering Permit Cognos Reports & New Development and Significant Redevelopment Significant Redevelopment	Engineering	
	Number of significant development projects approved	61	NPDES Permitting Engineering Permit Cognos Reports & New Development and Significant Redevelopment Significant Redevelopment	Engineering	
	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	<input checked="" type="checkbox"/>	2017-2018 Code and Land Development Regulation	Mock•Roos	Attached
Year 4 ONLY: Attach the follow-up report on plan implementation	<input type="checkbox"/>				
Part III.A.2 Summary	Provide an evaluation of the Stormwater Management Program according to Part VI.B.2 of the permit.				
	Strengths: In order to manage and protect our water resources, we require that redevelopment projects coordinate their projects with the surrounding regulatory entities (i.e., South Florida Water Management District, Army Corps of Engineers, Lake Worth Drainage District, Florida Department of Transportation) thus allowing				

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	us to upgrade stormwater systems. Limitations: None SWMP revisions implemented to address limitations: N/A				
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	607	Trash Report Log/Weekly Reports, Street Sweeping Log/Weekly Reports	Roads	445= Trash Report 162 = Street Sweeping
	PERMITTEE Litter Control: Estimated amount of area maintained (miles)	179.78	Street Sweeping & Trash Cart Maps	Roads	Street Sweeping Route Total: (weekly and bi-weekly route for a total of 78.40 lane miles per each completed route), Trash Cart Route Total : (weekly and bi-weekly route for a total of 101.38 lane miles per each completed route)
	PERMITTEE Litter Control: Estimated amount of litter collected (cy)	2585.66	Trash Report Log/Reports, Street Sweeping Log/Weekly Reports	Roads	970.66= Trash Report 1,615= Street Sweeping
	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	1	Site Report	Morgan Cintron-	2018

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Permit Citation/ SWMP Element	Permit Requirement/Quantifiable SWMP Activity	Number of Activities Performed	Documentation / Record	Entity Performing the Activity	Comments
	Trash Pick-up Events: Estimated amount of litter collected (bags)		Form	Comm. Services Sr. Program Coord.	International Coastal Cleanup- neighborhood cleanup
		50	Site Report Form	Morgan Cintron- Comm. Services Sr. Program Coord.	2018 International Coastal Cleanup- neighborhood cleanup
	Adopt-A-Road: Total miles cleaned	35.5	Adopt-A-Road Spreadsheet	Roads	Rose Wallace- PW Administration
	Adopt-A-Road: Estimated amount of litter collected (bags)	141	Adopt-A-Road Spreadsheet	Roads	Rose Wallace- PW Administration
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	162	Street Sweeping Log/Weekly Reports	Roads/PW	
	Total miles swept	6942	Per Street Sweeping Log/Weekly Reports	Roads/PW	
	Estimated quantity of sweeping material collected (cy)	1615	Street Sweeping Log/Weekly Reports	Roads/PW	
	Total phosphorous loadings removed (pounds)	1,337	Street Sweeping Log/Weekly Reports	Roads/PW	DEP Spreadsheet Tool
	Total nitrogen loadings removed (pounds)	2,085	Street Sweeping Log/Weekly Reports	Roads/PW	DEP Spreadsheet Tool

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Permit Citation/ SWMP Element	Permit Requirement/Quantifiable SWMP Activity	Number of Activities Performed	Documentation / Record	Entity Performing the Activity	Comments
	Estimated quantity of Equestrian Waste collected (cy yards)	244,436	Equestrian Haulers Quarterly Reports/ Equestrian Waste Removal Spreadsheet	Planning & Zoning	Mike Odell/Ryan Harding
	Total phosphorous loadings removed (pounds)	198,602	Equestrian Haulers Quarterly Reports/ Equestrian Waste Removal Spreadsheet	Mike Odell/Ryan Harding Planning & Zoning	FDACS BMP Manual
	Total nitrogen loadings removed (pounds)	635,533	Equestrian Haulers Quarterly Reports/ Equestrian Waste Removal	Mike Odell/Ryan Harding Planning & Zoning	FDACS BMP Manual
	Estimated quantity of BMP Material collected (cy yards)	3099.33	Catch Basins (970.66 cy), Major Culvert Insp & Maint Log (316 cy), Canal Redredging Log (1,506.67. cy), Performance Measures Spreadsheet for Pump Station Trash racks debris removal (180 cy), Weed Harvester Maint. Log (126 cy)	SWM	Terry Narrow, Hank Odell, Rick Hoffman (Surface Water Mgmt.)
	Total phosphorous loadings removed (pounds)	2,963	"	SWM	DEP Spreadsheet Tool

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Permit Citation/ SWMP Element	Permit Requirement/Quantifiable SWMP Activity	Number of Activities Performed	Documentation / Record	Entity Performing the Activity	Comments
	Total nitrogen loadings removed (pounds)	4,825	“	SWM	DEP Spreadsheet Tool
	Report the equipment yards and maintenances shops that support road maintenance activities, and the number of inspections conducted for each facility.				
	Name of Facility	Number of Inspections			
	Public Works Fleet Maintenance	12	Municipal Maint. Yard Inspection Form	Fleet & Equip Maint	Jay Miller/Superint endent/Fleet Maint.
Part III.A.3 Summary	Provide an evaluation of the Stormwater Management Program according to Part VI.B.2 of the permit.				
	Strengths: The Litter Control Program (street sweeping and roadside trash pick up) continues to help with the reduction of pollutants being discharged. The Swale Retrofit Program also continues to help with the reduction of pollutants being discharged and reduces ponding water on roadways.				
	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	2	Major Canal Culvert/Crossi ng Spreadsheet	Surface Water Mgmt.	Terry Narrow/Bill Conerly
	Flood control projects completed that did <u>not</u> include stormwater treatment	0		Surface Water Mgmt.	Terry Narrow/Bill Conerly
	Stormwater retrofit projects planned/under construction	0		Surface Water Mgmt.	Terry Narrow/Bill Conerly
	Stormwater retrofit projects completed	0		Surface Water Mgmt.	Terry Narrow/Bill Conerly
If there were projects that did not include stormwater treatment, provide as an attachment a list of the projects and an explanation for each of why it did not.	<input type="checkbox"/>				
Part III.A.4	Provide an evaluation of the Stormwater Management Program according to Part VI.B.2 of the permit.				

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Permit Citation/ SWMP Element	Permit Requirement/Quantifiable SWMP Activity	Number of Activities Performed	Documentation / Record	Entity Performing the Activity	Comments																				
Summary	<p>Strengths: Wellington continues with their inspection, cleaning, and repairing of pipes/major culverts to identify any major issues that may impede water flow.</p> <p>Limitations: None</p> <p>SWMP revisions implemented to address limitations: No deficiencies were noted.</p>																								
Part III.A.5	Municipal Waste Treatment, Storage, and Disposal Facilities Not Covered by an NPDES Stormwater Permit																								
	<p>Report the applicable facilities and the number of the inspections conducted for each facility.</p> <table border="1" data-bbox="275 500 2053 618"> <thead> <tr> <th data-bbox="275 505 1213 553">Name of Facility</th> <th data-bbox="1220 505 1444 553">Number of Inspections</th> <th data-bbox="1451 505 1654 553"></th> <th data-bbox="1661 505 1864 553"></th> <th data-bbox="1871 505 2053 553"></th> </tr> </thead> <tbody> <tr> <td data-bbox="275 558 1213 587">N/A - Wellington does not have any facilities.</td> <td data-bbox="1220 558 1444 587"></td> <td data-bbox="1451 558 1654 587"></td> <td data-bbox="1661 558 1864 587"></td> <td data-bbox="1871 558 2053 587"></td> </tr> <tr> <td data-bbox="275 592 1213 618">N/A</td> <td data-bbox="1220 592 1444 618"></td> <td data-bbox="1451 592 1654 618"></td> <td data-bbox="1661 592 1864 618"></td> <td data-bbox="1871 592 2053 618"></td> </tr> </tbody> </table>					Name of Facility	Number of Inspections				N/A - Wellington does not have any facilities.					N/A									
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Part III.A.5 Summary	<p>Provide an evaluation of the Stormwater Management Program according to Part VI.B.2 of the permit.</p> <p>Strengths: N/A</p> <p>Limitations: N/A</p> <p>SWMP revisions implemented to address limitations: N/A</p>																								
Part III.A.6	Pesticides, Herbicides, and Fertilizer Application																								
	<p>Report the number of permittee personnel applicators and contracted commercial applicators of pesticides and herbicides who are FDACS certified / licensed.</p> <p>Report the number of permittee personnel who have been trained through the Green Industry BMP Program and the number of contracted commercial applicators of fertilizer who are FDACS certified / licensed.</p> <table border="1" data-bbox="275 911 2053 1312"> <tbody> <tr> <td data-bbox="275 915 1213 980">PERSONNEL: FDACS public applicators of pesticides/herbicides</td> <td data-bbox="1220 915 1444 980">6</td> <td data-bbox="1451 915 1654 980">Copy of Licenses</td> <td data-bbox="1661 915 1864 980">Public Works</td> <td data-bbox="1871 915 2053 980"></td> </tr> <tr> <td data-bbox="275 985 1213 1050">CONTRACTORS: FDACS commercial applicators of pesticides/ herbicides</td> <td data-bbox="1220 985 1444 1050">4</td> <td data-bbox="1451 985 1654 1050">Copy of Licenses</td> <td data-bbox="1661 985 1864 1050">Public Works</td> <td data-bbox="1871 985 2053 1050"></td> </tr> <tr> <td data-bbox="275 1055 1213 1169">PERSONNEL: Green Industry BMP Program training completed</td> <td data-bbox="1220 1055 1444 1169">31</td> <td data-bbox="1451 1055 1654 1169">Trained-multiple years- GI Website Certification Listing</td> <td data-bbox="1661 1055 1864 1169">Public Works</td> <td data-bbox="1871 1055 2053 1169"></td> </tr> <tr> <td data-bbox="275 1174 1213 1312">CONTRACTORS: FDACS certified / licensed applicators of fertilizer</td> <td data-bbox="1220 1174 1444 1312">11</td> <td data-bbox="1451 1174 1654 1312">Trained-multiple years- GI Website Certification Listing</td> <td data-bbox="1661 1174 1864 1312">Public Works</td> <td data-bbox="1871 1174 2053 1312"></td> </tr> </tbody> </table>					PERSONNEL: FDACS public applicators of pesticides/herbicides	6	Copy of Licenses	Public Works		CONTRACTORS: FDACS commercial applicators of pesticides/ herbicides	4	Copy of Licenses	Public Works		PERSONNEL: Green Industry BMP Program training completed	31	Trained-multiple years- GI Website Certification Listing	Public Works		CONTRACTORS: FDACS certified / licensed applicators of fertilizer	11	Trained-multiple years- GI Website Certification Listing	Public Works	
PERSONNEL: FDACS public applicators of pesticides/herbicides	6	Copy of Licenses	Public Works																						
CONTRACTORS: FDACS commercial applicators of pesticides/ herbicides	4	Copy of Licenses	Public Works																						
PERSONNEL: Green Industry BMP Program training completed	31	Trained-multiple years- GI Website Certification Listing	Public Works																						
CONTRACTORS: FDACS certified / licensed applicators of fertilizer	11	Trained-multiple years- GI Website Certification Listing	Public Works																						
	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	<input checked="" type="checkbox"/>																							
	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																								

SECTION VII. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE

A.	B.	C.	D.	E.	F.															
Permit Citation/ SWMP Element	Permit Requirement/Quantifiable SWMP Activity	Number of Activities Performed	Documentation / Record	Entity Performing the Activity	Comments															
	<p style="text-align: center;">Public displays (e.g., kiosks, storyboards, posters, etc.)</p> <p style="text-align: center;">Radio or television Public Service Announcements (PSAs)</p> <p style="text-align: center;">Number of visitors to stormwater-related pages</p>	<p style="text-align: center;">2</p> <p style="text-align: center;">5824</p> <p style="text-align: center;">1596</p>	<p style="text-align: center;">BMP Posters</p> <p style="text-align: center;">TV Spots</p> <p style="text-align: center;">Website/page hits</p>	<p style="text-align: center;">Public Works</p> <p style="text-align: center;">Media Division/IT</p> <p style="text-align: center;">Web & Social Media/IT</p>	<p>Stormwater and Me: Pesticides, Herbicide & Fertilizer Use and Save The Swales</p> <p>Displayed: PW Admin Front Desk and Break/Meeting Room</p> <p>David Feliciano 2-PSAs: Storm Water 1 and Storm Water 2</p> <p>Communications Dept.</p>															
<p>Part III.A.6 Summary</p>	<p>Provide an evaluation of the Stormwater Management Program according to Part VI.B.2 of the permit.</p> <p>Strengths: Continue to ensure all personnel have proper training in the appropriate application and continue to outreach activities and public education.</p> <p>Limitations: None</p> <p>SWMP revisions implemented to address limitations: N/A</p>																			
<p>Part III.A.7.a</p>	<p>Illicit Discharges and Improper Disposal — Inspections, Ordinances, and Enforcement Measures</p>																			
	<p>Report amendments in Year 4.</p> <p style="text-align: center;">Year 4 ONLY: Attach a report on amendments to applicable legal authority <input type="checkbox"/></p>																			
<p>Part III.A.7.c</p>	<p>Illicit Discharges and Improper Disposal — Investigation of Suspected Illicit Discharges and/or Improper Disposal</p>																			
	<p>Report on the proactive inspection program, including the number of inspections conducted by the permittee, the number of illicit activities found, and the number and type of enforcement actions taken.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;"></th> <th style="width: 10%;"></th> <th style="width: 15%;"></th> <th style="width: 15%;"></th> <th style="width: 10%;"></th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Proactive inspections for suspected illicit discharges</td> <td style="text-align: center;">266</td> <td style="text-align: center;">Proactive Illicit Discharge/Illegal Connection Insp. Form (31), BMP Annual Livestock Waste Storage Structure Insp (235).</td> <td style="text-align: center;">Wellington Utilities & Code Enforcement</td> <td style="text-align: center;">Darin Lajoie, Cindy Drake/GIS</td> </tr> <tr> <td style="text-align: center;">Illicit discharges found during a proactive inspection</td> <td style="text-align: center;">0</td> <td></td> <td style="text-align: center;">Wellington Utilities & Code</td> <td style="text-align: center;">Darin Lajoie, Cindy</td> </tr> </tbody> </table>										Proactive inspections for suspected illicit discharges	266	Proactive Illicit Discharge/Illegal Connection Insp. Form (31), BMP Annual Livestock Waste Storage Structure Insp (235).	Wellington Utilities & Code Enforcement	Darin Lajoie, Cindy Drake/GIS	Illicit discharges found during a proactive inspection	0		Wellington Utilities & Code	Darin Lajoie, Cindy
Proactive inspections for suspected illicit discharges	266	Proactive Illicit Discharge/Illegal Connection Insp. Form (31), BMP Annual Livestock Waste Storage Structure Insp (235).	Wellington Utilities & Code Enforcement	Darin Lajoie, Cindy Drake/GIS																
Illicit discharges found during a proactive inspection	0		Wellington Utilities & Code	Darin Lajoie, Cindy																

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
	NOV/WL/citation/fines issued for illicit discharges found during proactive inspection	0		Enforcement Wellington Utilities & Code Enforcement	Drake/GIS Darin Lajoie, Cindy Drake/GIS
	Report on the reactive investigation program as it relates to responding to reports of suspected illicit discharges, including the number of reports received, the number of investigations conducted, the number of illicit activities found, and the number and type of enforcement actions taken.				
	Reports of suspected illicit discharges received	5	Sungard Naviline Case History Report	Code Enforcement, Cindy Drake	
	Reactive investigations of reports of suspected illicit discharges etc.	5	Sungard Naviline Case History Report	Code Enforcement, Cindy Drake	
	Illicit discharges etc. found during reactive investigation	4	Sungard Naviline Case History Report	Code Enforcement, Cindy Drake	All 4 cases worked to compliance and no fee or fines were issued.
	NOV/WL/citation/fines issued for illicit discharges etc. found during reactive investigation	0		Code Enforcement, Cindy Drake	All 4 cases worked to compliance and no fee or fines were 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.				
	Personnel trained	499	PW Safety Mtg Agenda & Sign In Sheet and Training Acknowledgem ent forms	Public Works	Various Dates, personnel trained on the following: Video=IDDE-A Grate Concern- Illicit Discharge Detection & Elimination (78), Video= Rain Check – Stormwater Pollution Prevention for MS4s (76), Video=Spills

SECTION VII. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE

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Permit Citation/ SWMP Element	Permit Requirement/Quantifiable SWMP Activity	Number of Activities Performed	Documentation / Record	Entity Performing the Activity	Comments
					and Skills-Non Emergency HazMat Spill Response (89), SPCC Controlling Oil (85), Video= Ground Control- Stormwater Pollution Prevention for Construction Sites (88), Video= Storm Watch: Municipal Stormwater Pollution Prevention (83)
	Contractors trained	17	Distributed Flyer: Stormwater and Me! Reporting Illegal Dumping and Illicit Discharges to 17 contractors (meeting sign in sheet and spreadsheet)	Public Works and Planning & Zoning	
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	2	Reporting Form (2)	Public Works	Bill Conerly
	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	499	PW Safety Mtg Agenda & Sign In Sheet and Training	Public Works	Various Dates, personnel trained on the following:

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
			Acknowledgement forms		Video=IDDE-A Grate Concern-Illicit Discharge Detection & Elimination (78), Video= Rain Check – Stormwater Pollution Prevention for MS4s (76), Video=Spills and Skills-Non Emergency HazMat Spill Response (89), SPCC Controlling Oil (85), Video= Ground Control- Stormwater Pollution Prevention for Construction Sites (88), Video= Storm Watch: Municipal Stormwater Pollution Prevention (83)
	Contractors trained	17	Distributed Flyer: Stormwater and Me! Reporting Illegal Dumping and Illicit Discharges to 17 contractors (meeting sign in sheet and	Public Works and Planning & Zoning	

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
			spreadsheet)		
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).				
	<p align="center">Public Education and Outreach Program</p> <p align="center">Brochures/Flyers/Fact sheets distributed</p>	4,427	<p>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.</p> <p>Stormwater and Me: Reporting Illegal Dumping and Illicit Discharges and Pesticide, Herbicide & Fertilizer Use</p>	Public Works	<p>Available at PW Admin Front Desk & Village Hall Kiosk: Stormwater and Me: Reporting Illegal Dumping and Illicit Discharges (22), Each year the Village of Wellington participates in a seedling give-a-way to local school children as part of their Arbor Day activities, which includes a packet of various tree related information and this year we included two brochures (Stormwater and Me: Reporting Illegal Dumping</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
	<p>Public displays (e.g., kiosks, storyboards, posters, etc.)</p> <p>Radio or television Public Service Announcements (PSAs)</p> <p>Number of visitors to stormwater-related pages</p>	<p></p> <p>2</p> <p>5824</p> <p>1596</p>	<p></p> <p>BMP Posters</p> <p>TV Spots</p> <p>Website/page hits</p>	<p></p> <p>Public Works</p> <p>Media Division/IT</p> <p>Web & Social Media/IT</p>	<p>and Illicit Discharges and Pesticide, Herbicide & Fertilizer Use) in the packet of information that went home with each child receiving a tree seedling(4,355) , Arbor Day Event- 4/21/18 25 Stormwater and Me: Reporting Illegal Dumping and 25 Illicit Discharges and Pesticide, Herbicide & Fertilizer Use were distributed to attendees that stopped by the VOW & Tree Board tent.</p> <p>Displayed: PW Admin Front Desk and Break/Meeting Room</p> <p>David Feliciano 2-PSAs:Storm Water 1 and Storm Water 2</p> <p>Communications Dept.</p>
<p>Part III.A.7.f</p>	<p>Illicit Discharges and Improper Disposal — Oils, Toxics, and Household Hazardous Waste Control</p>				
	<p>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</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
	<p>amount of waste collected / recycled / properly disposed, and the number of Web site visits (if applicable).</p> <p>Public Education and Outreach Program</p> <p>Brochures/Flyers/Fact sheets distributed</p>	<p>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.</p> <p>4,427</p>			<p>Available at PW Admin Front Desk & Village Hall Kiosk: Stormwater and Me: Reporting Illegal Dumping and Illicit Discharges (22), Each year the Village of Wellington participates in a seedling give-a-way to local school children as part of their Arbor Day activities, which includes a packet of various tree related information and this year we included two brochures (Stormwater and Me: Reporting Illegal Dumping and Illicit Discharges and Pesticide, Herbicide & Fertilizer Use)</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
	<p>Public displays (e.g., kiosks, storyboards, posters, etc.)</p> <p>Radio or television Public Service Announcements (PSAs)</p> <p>Number of visitors to stormwater-related pages</p>	<p></p> <p>2</p> <p>5824</p> <p>1596</p>	<p></p> <p>BMP Posters</p> <p>TV Spots</p> <p>Website/page hits</p>	<p></p> <p>Public Works</p> <p>Media Division/IT</p> <p>Web & Social Media/IT</p>	<p>in the packet of information that went home with each child receiving a tree seedling(4,355) , Arbor Day Event- 4/21/18 25 Stormwater and Me: Reporting Illegal Dumping and 25 Illicit Discharges and Pesticide, Herbicide & Fertilizer Use were distributed to attendees that stopped by the VOW & Tree Board tent.</p> <p>Displayed: PW Admin Front Desk and Break/Meeting Room</p> <p>David Feliciano 2-PSAs:Storm Water 1 and Storm Water 2</p> <p>Communications Dept.</p>
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.				
	<p>Owner of the sanitary sewer system</p> <p>Activity to reduce/eliminate SSOs and I&I: (description)</p>	<p>Village of Wellington Utilities Department</p> <p>0</p> <p>Utilities Dept.</p> <p>Ellen Hill/Corey Robinson</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
	Activity to reduce/eliminate SSOs and I&I: (description)			Installed 400 Rainguards	Installed 400 Rain Guards inside of manholes preventing (inflow) rain water from entering into the collection system	Utilities Dept.	Ellen Hill/Corey Robinson
	SSO incidents discovered			4	Fl. Health Dept. Wastewater Spillage Report	Utilities Dept.	Ellen Hill/Corey Robinson
	SSO incidents resolved			4	Fl. Health Dept. Wastewater Spillage Report	Utilities Dept.	Ellen Hill/Corey Robinson
	Inflow / infiltration incidents discovered			0		Utilities Dept.	Ellen Hill/Corey Robinson
	Inflow / infiltration incidents resolved			0		Utilities Dept.	Ellen Hill/Corey Robinson
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: Continued training and education (videos, distribution of brochures/flyers, PSAs & website page(s) info) to ensure detection of any pollutants that might be discharged into the drainage system.						
	Limitations: Being able to identify the responsible party(ies) continues to be difficult when random dumping is found. Sanitary Sewer Overflow reporting is already required of the operator of the sanitary sewer system by FDEP; this seems to be a duplication of reporting efforts.						
	SWMP Revisions implemented to address limitations: Improvements needed by FDEP to on tracking overflow reports.						
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.						
	Type of Facility	Number of Facilities	Number of Inspections	Enforcement Actions			
	Operating municipal landfills	0			Inventory of Solid Waste Sites		
	Hazardous waste treatment, storage, disposal and recovery	10	10	0	EPA	Bill Conerly,	Inspections

SECTION VII. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE

A.	B.		C.		D.	E.	F.
Permit Citation/ SWMP Element	Permit Requirement/Quantifiable SWMP Activity		Number of Activities Performed		Documentation / Record	Entity Performing the Activity	Comments
	(HWTSDR) facilities				Spreadsheet (ESRI)	Public Works SWM	conducted by Bill Conerly with no evidence of an infractions
	EPCRA Title III, Section 313 facilities (TRI)	00			EPA spreadsheet (ESRI)		
	Facilities determined as high risk by the permittee	0			Researched Property Use Type via PBC Property Appraisers Database	Public Works	Bill Conerly/SMT
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					N/A
Part III.A.8 Summary	Provide an evaluation of the Stormwater Management Program according to Part VI.B.2 of the permit.						
	Strengths: Inspections continue to assist in detecting any pollutants that may be discharging into the drainage system.						
	Limitations: None						
	SWMP revisions implemented to address limitations: N/A						
Part III.A.9.a	Construction Site Runoff — Site Planning and Non-Structural and Structural Best Management Practices						
	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	2			NPDES Inspection & Maintenance Report 2017- 2018	Engineering	
	PERMITTEE SITES: Construction site plans approved	2			NPDES Inspection & Maintenance Report 2017- 2018	Engineering	
	PRIVATE SITES: Construction site plans reviewed	222			NPDES Engineering Permit Cognos Report 9/30/2018	Engineering	
	PRIVATE SITES: Construction site plans approved	154			NPDES Engineering	Engineering	

SECTION VII. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE

A.	B.	C.	D.	E.	F.
Permit Citation/ SWMP Element	Permit Requirement/Quantifiable SWMP Activity	Number of Activities Performed	Documentation / Record	Entity Performing the Activity	Comments
			Permit Cognos Report 9/30/2018		
	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	104	NPDES Inspection & Maintenance Report 2017- 2018	Engineering	
	Confirmed ERP coverage	15	NPDES Inspection & Maintenance Report 2017- 2018	Engineering	
	Notified of CGP stormwater permit requirements	104	NPDES Inspection & Maintenance Report 2017- 2018	Engineering	
	Confirmed CGP coverage	15	NPDES Inspection & Maintenance Report 2017- 2018	Engineering	
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	5	NPDES Inspection & Maintenance Report 2017- 2018	Engineering	
	PERMITTEE SITES: Pre-, During, and Post inspections of active construction sites for E&S and waste control BMPs	160	NPDES Inspection & Maintenance Report 2017- 2018; Jim Kelley's Inspection Calendar	Engineering	

SECTION VII. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE

A.	B.	C.	D.	E.	F.
Permit Citation/ SWMP Element	Permit Requirement/Quantifiable SWMP Activity	Number of Activities Performed	Documentation / Record	Entity Performing the Activity	Comments
	<p>PERMITTEE SITES: Percentage of active construction sites inspected</p> <p>PRIVATE SITES: Active construction sites</p> <p>PRIVATE SITES: Pre-, During, and Post inspections of active construction sites for E&S and waste control BMPs</p> <p>PRIVATE SITES: Percentage of active construction sites inspected</p> <p>Enforcement Action</p>	<p>100</p> <p>102</p> <p>1160</p> <p>100</p> <p>59</p>	<p>NPDES Inspection & Maintenance Report 2017-2018</p> <p>NPDES Inspection & Maintenance Report 2017-2018; Jim Kelley's Inspection Calendar</p> <p>NPDES Inspection & Maintenance Report 2017-2018; Jim Kelley's Inspection Calendar</p> <p>NPDES Inspection & Maintenance Report 2017-2018</p> <p>Jim Kelley's emails, NPDES Violations, Warning, Citations, Stop Work & Fines</p>	<p>Engineering</p> <p>Engineering</p> <p>Engineering</p> <p>Engineering</p> <p>Engineering</p>	
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	4	1	Copy of certificates & Annual Excal Video Ground Control-	Engineering
					Jason Hanchuk, Patrick Barthelemy Jim Kelley, and

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
				Stormwater Pollution Prevention for Construction, Municipal Stormwater Pollution Prevention & SPCC Controlling Oil		Jonathan Reinsvold
	Permittee construction site plan reviewers		1	Copy of certificates & Annual Excal Video Ground Control- Stormwater Pollution Prevention for Construction, Municipal Stormwater Pollution Prevention & SPCC Controlling Oil	Engineering	Jason Hanchuk, Patrick Barthelemy and Jim Kelley (5/16/2013), and Jonathan Reinsvold (5/24/17)
	Permittee construction site operators		1	Village Eng, JK, PB, JH, JRR, DL, Richard Gallant (Utilities)	Engineering & Utilities	
Part III.A.9 Summary	Provide an evaluation of the Stormwater Management Program according to Part VI.B.2 of the permit.					
	Strengths: We continue to monitor and enforce the NPDES requirements for all private and public sites.					
	Limitations: Since FDEP has limited inspectors for multiple counties, their assistance in special circumstances is hard to obtain.					
	SWMP revisions implemented to address limitations: FDEP still needs to add more personnel					

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.
		None
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)
		None

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
	WBID No. –N/A			<input type="checkbox"/> / <input type="checkbox"/>		1		(Year 3 AR)	(Year 4 AR; N/A) if BPCP)
				<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		(Year 3 AR)	(Year 4 AR; N/A if BPCP)					
C.	Provide a brief statement as to the status of TMDL implementation according to Part VIII.B of the permit (e.g. status of monitoring to validate WLA): No discharges to a TMDL WBID at this time.								

Village of Wellington/Acme Improvement District 2018 Surface Water Quality Report

FY 2017-2018

Prepared By

MOCK • ROOS

CONSULTING ENGINEERS

PA# B8706.00



W THE VILLAGE OF
ELLINGTON

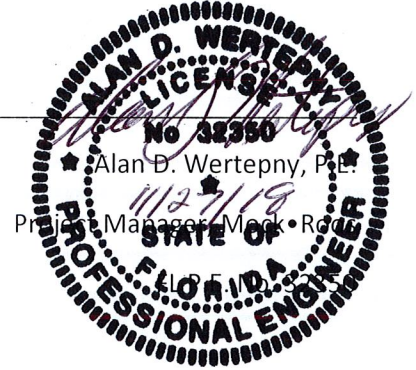
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Report Certification

Engineer's Certification

I hereby certify, as a Professional Engineer in the State of Florida, that this 2018 Surface Water Quality/NPDES Assessment Report for the Village of Wellington was assembled under by direct responsible charge based on information received and coordinated with the Village of Wellington. This certification is provided in accordance with Florida Board of Professional Engineers Rule of Certification under Chapter 61G15-23.003.



Mock•Roos

5720 Corporate Way

West Palm Beach, FL 33407

Florida C.A. No. 48

(Reproductions are not valid unless signed, dated,
and embossed with an Engineer's Seal)

Executive Summary

This annual report serves to comply with the annual reporting requirements (1) of the South Florida Water Management District (SFWMD) Permit No. 50-00548-S (Application No. 070330-35, Condition No. 13 and Application No. 090901-13) and, (2) the Florida Department of Environmental Protection (FDEP) Municipal Separate Storm Sewer System Permit No. FLS000018-004 Section III Assessment Program.

Wellington/Acme Improvement District continues to make strides to improve surface water quality discharged to the regional surface water system (C-51 Canal) by implementing stormwater management programs to meet the target, Total Phosphorus (TP) level of 50 parts per billion (ppb). A summary of the water quality sampling results for the past twelve (12) years, including this past year, are presented in the table below. All sampling and analyses conducted for the eleventh-year reporting period are in compliance with the requirements of the permit and approved sampling and testing standards and procedures. In 2018 Wellington managed and removed 198,600 pounds of phosphorus from the equestrian operations and 6,713 pounds from other Best Management Practices for a total of about 92.5 metric tons.

Total Phosphorus Data
Average Annual Geometric Mean
2007 through 2018 Reporting Period

2018 (ppb)	2017 (ppb)	2016 (ppb)	2015 (ppb)	2014 (ppb)	2013 (ppb)	2012 (ppb)	2011 (ppb)	2010 (ppb)	2009 (ppb)	2008 (ppb)	2007 (ppb)
38.8	38.8	42.5	41.5	42.3	42	28.6	29.6	45.1	45.2	28	38.5

As shown in the table, TP levels for the twelve-year reporting period remain well below the 50-ppb target level, demonstrating that Wellington stormwater management programs are effective.

Activities over the past twelve years that have contributed to achieving the TP target level include:

- Continued implementation and enforcement of Best Management Practices and Ordinances
- Ongoing maintenance of the stormwater management system (canal dredging, canal sump cleaning, mechanical weed harvesting, pump station trash rack debris removal, street sweeping, and equestrian waste management and disposal)
- Continued implementation and enforcement of stormwater permit criteria for land development
- Continued monitoring and maintenance of the vegetation in the Wellington Environmental Preserve

Section 1 – Introduction

Pursuant to the SFWMD Permit, Wellington/AID continues to take significant strides to reduce (TP) levels and improve the quality of surface water discharged to the regional surface water system. This annual report provides the results for the storm water quality testing over the past year, as well as, the actions taken by Wellington/AID to maintain and improve surface water quality.

Section 2 – Surface Water Sampling Program - Phosphorus

Wellington collected and tested approximately 754 surface water samples for TP from 29 sampling sites (shown on Exhibit A) from October 2017 through September 2018. As prescribed, Wellington collected samples after October – September each storm event and/or bi-weekly at each location. The sampling locations include the five (5) locations where the Wellington/AID system discharges to the regional water system (C-51 Canal). All samples were collected and tested in accordance with accepted standards and protocols. Wellington personnel collected all samples. TP laboratory testing was conducted by Pace Environmental, Inc. of Ormond Beach, Florida, a private, independent laboratory.

A summary of the annual geometric mean of TP levels for the five discharge locations for the eleven years of data is provided in the table below:

Composite Annual Average Geometric Mean Total Phosphorus Values

2007 through 2018 Reporting Period

2018 (ppb)	2017 (ppb)	2016 (ppb)	2015 (ppb)	2014 (ppb)	2013 (ppb)	2012 (ppb)	2011 (ppb)	2010 (ppb)	2009 (ppb)	2008 (ppb)	2007 (ppb)
38.8	38.8	42.5	41.5	42.3	42	28.6	29.6	45.1	45.2	28	38.5

As shown in the table, the average annual geometric mean for TP levels for the eleven-year reporting period is consistently below the 50-ppb target level.

The individual test results for each of the five C-51 discharge locations for October 1, 2017 – September 30, 2018, are provided in Exhibit B. The spreadsheet provided is color coded. Clear cells contain TP values less than 50 ppb. Blue cells contain values between 51-150 ppb. Red cells contain values over 150 ppb. The use of annual geometric mean values to represent annual data sets is consistent with the FDEP Impaired Water Rule and applicable numeric nutrient criteria.

Exhibit C provides a summary of the data for all the sampling locations that are a part of Wellington’s surface water quality sampling program for October 1, 2017 – September 30, 2018. As shown in Exhibit C, the highest annual geometric mean levels are in Basin B at Sites 44. Land uses adjacent to these sites include equestrian, parks, utilities, and residential land uses. Per State Statutes, Best Management Practices (BMPs) for equestrian fall under the authority of the Florida Department of Agricultural and Consumer Services (FDACS).

Section 3 – Best Management Practices and Infrastructure Maintenance

Wellington has adopted and implemented a variety of BMPs geared toward reducing TP – either by source control or by operational and maintenance activities. Key practices and revisions are described below.

Fertilizer Control

As part of Wellington’s BMP Ordinance (No 2012-12), the Village adopted standards to enhance BMP’s for fertilizer storage and application.

Key provisions of this Ordinance include:

- All fertilizers shall be stored in a dry storage area protected from rainfall and ponding.
- Fertilizers containing an excess of two percent phosphate/phosphorus per guaranteed analysis label shall not be applied to turf grass, pastures, paddocks, or be used in nurseries unless justified by a soil test.
- Fertilizers in excess of two percent phosphate/phosphorus shall not be applied within ten feet of the edge of water or within ten feet of a drainage facility.
- Liquid fertilizers in excess of two percent phosphate/phosphorus shall not be applied through an irrigation system within ten feet of the edge of water or drainage facility.
- Fertilizers must be applied in accordance with the published application rates and frequencies. No additional application of fertilizers is permissible unless soil tests determine a deficiency.
- Fertilizers and grass clippings shall be removed from impervious surfaces and prevented from entering the surface water system.
- Commercial fertilizer applicators must possess required certifications and licenses and must register with Wellington.

Licensed Village Code Compliance Officers are responsible for making inspections of fertilizer storage areas to ensure compliance with the provisions of this section of the Code of Ordinances. Wellington also has developed a public education campaign to educate residents on the proper types, storage, amounts and application of fertilizers. The Village will continue to enforce the provisions of the ordinance.

Livestock Waste Storage and Disposal

The Village Code of Ordinance Section 30-153 provides standards for the storage and disposal of livestock waste.

Provisions in the Ordinance include:

- Each livestock facility must have an approved waste storage area.
- Livestock waste storage areas are required to have an impermeable floor with sidewalls on three sides.
- The size of the storage area must be proportioned to the number of livestock served by the storage area.
- Approved roll-off or dumpster containers must be placed on a concrete or asphalt pad with a lip around it to contain seepage.
- All livestock waste storage areas must be covered.
- Waste storage areas must be located at least five (5) feet away from any roof overhang, fifty (50) feet from any public drainage conveyance or drainage inlet, at least one hundred (100) feet from any waterbody and at least one hundred (100) feet from a potable water supply well.
- All livestock waste must be hauled to an approved disposal site and haulers must be registered.
- Haulers are required to submit annual reports on the amount of material removed.

Equestrian waste haulers reported 244,436 cubic yards (79,441 tons) of collected manure and bedding material properly disposed of for the reporting period. Based on the FDACS BMP manual for equine operations, the average phosphorus concentration is 2.5 pounds per ton of manure containing bedding material. Therefore, the amount of phosphorus removed by this program is estimated at 198,600 pounds.

Mechanical Weed Removal

The Village uses and maintains a weed harvester as part of its overall maintenance program to keep Village waterways functional for stormwater conveyance, as well as appearance. The weed harvester is able to cut five and a half (5 ½) feet below the water's surface. Material is removed from the water and transferred to a dump truck where it is disposed of at the Public Works Storage site in vegetation containers for periodic removal by a contracted waste management service. The need for operation of the weed harvester is determined by visual inspection of the waterways. During the 2017-2018 reporting period, 126 cubic yards of material were removed.

Using the Florida Stormwater Association Nutrient Removal Assessment Tool, this equates to 104 pounds of phosphorus removed.

Canal Dredging and Sump Cleaning

Canal dredging and canal sump cleaning at 7 sites is carried out for the purpose of removing bottom sediments and reusing them to stabilize the canal right-of-way. Proactive maintenance of the Village's canal system is necessary to keep the waterways clean and functional for stormwater conveyance, with the added benefit of enhancing the visual appearance. Therefore, the Village of Wellington Public Works Department performs canal dredging maintenance work throughout the Village waterways. Annual and periodic inspections determine what canals, if any, have sediment buildup. Once these canals are identified, the depth of the canal is measured and, if determined to be insufficient, are placed on the schedule to be dredged.

In the reporting period October 2017 – September 2018 Wellington's canal dredging program and canal sump cleaning removed 1,507 and 582 cubic yards of material from the waterways, respectively. Based on Florida Stormwater Association Nutrient Removal Assessment Tool, this equates to 46 lbs. of phosphorus removal. Based on Pace Analytical Laboratory analysis of the April 2018 samples, 112 lbs. of phosphorus was removed from the canal sumps, total amount of phosphorus removed is 158 lbs.

Pump Station Trash Rack Debris Removal

Trash racks are located at Pump Stations #3, 4, 6, 7, 8, and 9 and are part of the maintenance activities used to remove trash and debris from the Village's waterways. These racks are programmed to automatically turn on and run whenever pumps are discharging water. The racks place the debris to the side of the canal to be pick up manually and transported to the Public Works Storage site in vegetation containers for periodic removal by a contracted waste management company.

In this reporting period, Wellington's pump station trash racks removed 180 cubic yards of material. Using the Florida Stormwater Association Nutrient Removal Assessment Tool, this equates to 172 pounds of phosphorus removed.

Street Sweeping

Wellington maintains a Street Sweeping Program that collects and removes debris (paper, leaves, vegetation, metals, waste products, sediments, etc.) from streets and roadways within the Village. This program has two primary benefits – flood prevention and improved stormwater quality. Debris can cause blockages in the stormwater facilities resulting in localized flooding during rainfall events. If left in place, vegetation and other materials can break down to release nutrients into the waterways. Collection and removal of this debris prevents these materials from reaching and degrading Wellington's surface waters. Sweeping is performed daily following a pre-determined route from Monday through Thursday. Street sweeping frequency varies by specific roadway and may be weekly, bi-weekly, or monthly. During the reporting period, 6,942 miles of roadway were swept, and 1,615 cubic yards of material were removed. Using the Florida Stormwater Association Nutrient Removal Assessment Tool, this equates to 1,337 pounds of phosphorus removed.

Catch Basin Cleaning

Wellington has an inventory of 2,173 catch basins. In the 2017-2018 reporting period, these catch basins were inspected approximately twice a month, for accumulation of trash, debris, vegetation, sediment and general condition. Any material discovered in these catch basins was collected and placed in bags for disposal.

During the reporting period, Wellington's catch basin cleaning program removed 970.66 cubic yards of material. Using the Florida Stormwater Association Nutrient Removal Assessment Tool, this equates to 92.8 pounds of phosphorus.

Culvert Cleaning

In 2017, Wellington's inventory of culverts totaled 35.4 miles. Wellington has a goal to inspect at least 10% of these culverts annually. During the reporting period, 3.9 miles were inspected, and Wellington's culvert cleaning program removed 11.7 cubic yards of material. Using the Florida Stormwater Association Nutrient Removal Assessment Tool, this equates to 11 pounds of phosphorus removed.

Litter Control

Wellington conducts three litter control programs. Wellington roadway staff weekly collects roadway trash/litter along its 1,722 miles of roadway. Wellington Public Works personnel has an Adopt-A-Road Program covering 33.3 miles. Wellington also participates in a neighborhood annual Keep Palm Beach County Beautiful/America Clean Event. Total amount of material collected in the 2017 – 2018 reporting period was 2585.66 cubic yards which equates to 2,140 pounds of phosphorus removed.

Annual Phosphorus Load Reduction

Wellington's 2017-2018 BMP program removed an estimated total of 92.5 metric tons of phosphorus from the stormwater management system (equestrian waste, street sweeping, mechanical weed removal, canal dredging, canal sump cleaning, pump station trash rack debris removal, catch basin cleaning, culvert cleaning and litter control) prior to discharging into the C-51 Canal.

Section 4 – Other Programs

Land Development Permit

In the 2017-2018 reporting period, Wellington received 224 proposed site plan applications and approved 156 plans. The review and approval included both temporary and permanent stormwater treatment practices. Project applicants were advised that coverage may be required under the FDEP National Pollutant Discharge Elimination System (NPDES) Construction Generic Permit (CGP) and/or a SFWMD Environmental Resource Permit (ERP). During the reporting period, 104 projects were notified of needing CGP coverage and ERP coverage. Wellington's engineering personnel confirmed that 15 projects required and obtained CGP and ERP coverage. During construction of both Wellington-owned and private sites, Wellington engineering staff performed construction site inspections which included

observation of proper stormwater, erosion and sedimentation control BMPs. During the reporting period, 107 active construction projects were inspected and a total of 1,320 inspections were carried out. Wellington issued 59 Notices of Violation.

Wellington Environmental Preserve

Wellington's Environmental Preserve (Section 24) is located in Section 24, Township 44 South, Range 40 East, Palm Beach County Florida (west of water quality monitoring Sites 9-In and S24-Out). Section 24 includes 251.5 acres of wetlands and a 364.4-acre impoundment. The primary purpose of the impoundment is for stormwater storage and attenuation (flood protection). Additional benefits include passive recreation and stormwater water quality improvement. Wellington staff inspects and maintains this facility including the control of invasive exotic vegetation and monitoring the growth of the natural vegetation and planting. During the reporting period, the invasive exotic coverage was approximately 4%, the marsh coverage was 85%, and the overall tree/scrub coverage is 40% on the upland areas. Review of Exhibit C indicates that the annual geometric mean for total phosphorus in water leaving the impoundment was reduced by 32.5%

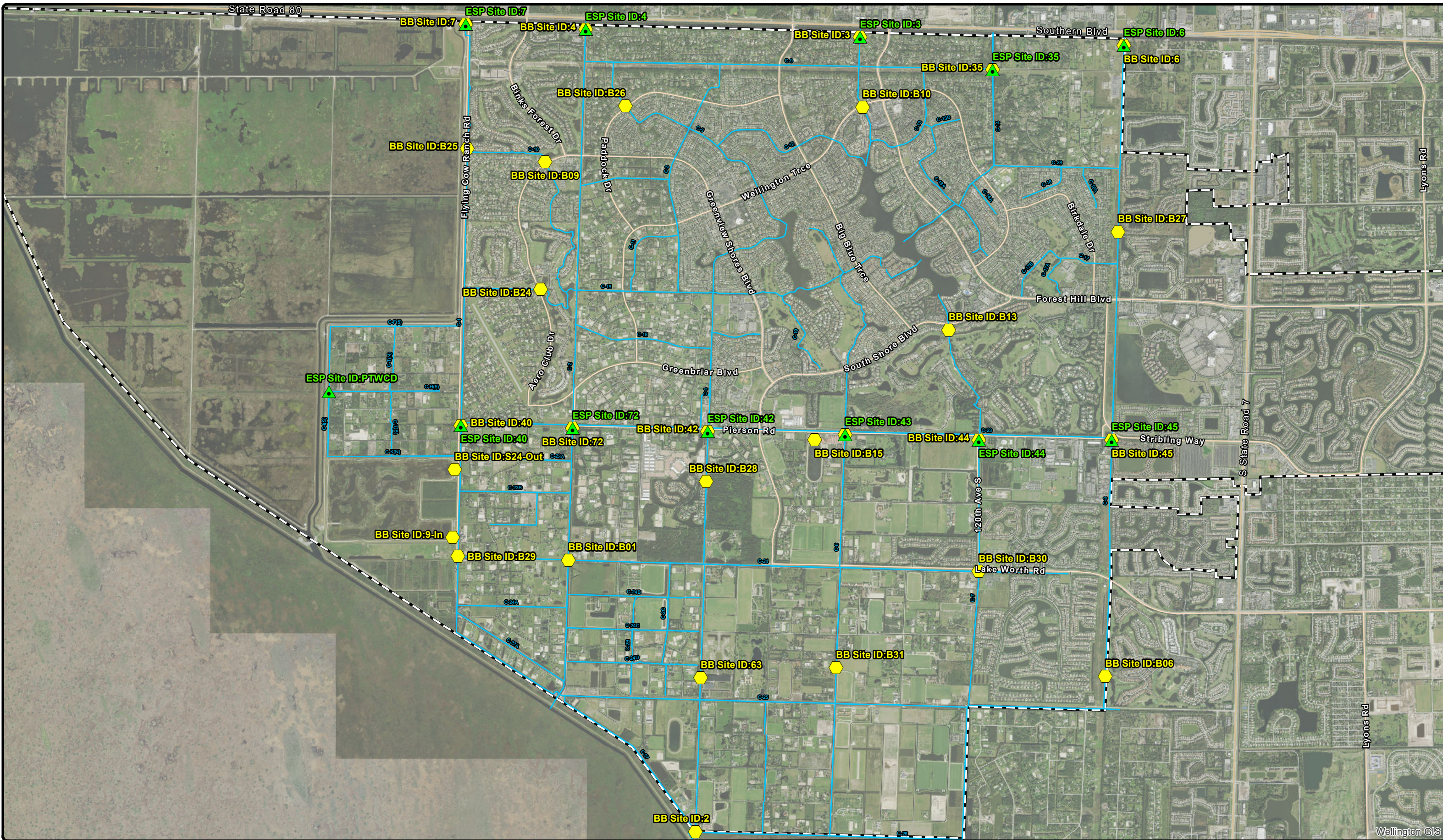
Florida Department of Agricultural and Consumer Services (FDACS)

In June 2016, FDACS sent a letter to Wellington indicating that Wellington's BMPs for equine operations and nurseries were in a jurisdictional conflict with Florida Statutes and the FDACS BMP program. A bona fide farm operation on land classified as agricultural is regulated through implemented BMPs adopted either by FDACS or the SFWMD. Since SFWMD had not adopted Wellington's BMPs as their own, the FDACS BMPs were applicable. In response, Wellington initiated discussions with FDACS to develop a cooperative program. On May 9, 2017, Wellington Village Council approved resolution No. 2017-16 which authorized the Mayor to execute Memorandum of Agreement No. 24182 between Wellington and FDACS regarding enrollment and implementation of FDACS Equine Best Management Practices. This agreement addresses BMP enrollment in FDACS program, BMP enrollment training, technical assistance, implementation assurance visits of enrolled equine BMP and landowners, and follow-up by FDACS of any BMP implementation deficiency noted by Wellington staff. Currently, Wellington is working with FDACS on enrollment and education of the FDACS BMPs as they relate to water quality. To date, Wellington has notified roughly 15 equestrian farm owners of the FDACS BMP program. The Village has offered to assist the landowners in preparing the Nutrient Management Plan in accordance with the FDACS Notice of Intent (NOI) requirements. As of this reporting, the contacted landowners have not availed themselves to the FDACS BMP program.

Palm Beach County Waste Pilot Program

Historically, recycling waste such as horse manure into reusable product is considered an industrial activity which is not allowed in agricultural areas. However, as a result of discussions with the Wellington Commissioners and meetings with Palm Beach County staff on February 25, 2017, the County Commission adopted an amendment to the Unified Land Development Code to allow a Pilot Project for an equestrian waste recycling facility, limited to the Special Agriculture future land use in the Glades Tier, in order to allow this use closer to the equestrian hub in Wellington, Loxahatchee Groves, and the surrounding Palm Beach County Western Communities.

In March 2017, a recycling company submitted a request for Palm Beach County Zoning approval for an equine waste recycle facility to be located in the Glades, about halfway between Belle Glade and Wellington, inside the Everglades Agricultural Area. The proposed site would be self-contained and comply with all BMPs for equestrian waste. Initially, the County Commission was supportive; however, food safety concerns raised by adjacent vegetable farming operations resulted in the recycling company withdrawing the application. On November 30, 2017, the Palm Beach County Commission adopted an Ordinance (ORD 2017-42) to amend the Unified Land Development Code (Ordinance 2003-067), and enacting a one year moratorium on zoning approvals for equestrian waste management facilities, or any composting facility that includes equestrian waste, animal waste or biosolids, within the Glades Tier of unincorporated Palm Beach County, excluding accessory uses to a bona-fide agricultural operation. As of this reporting, Palm Beach County Planning and Zoning is re-writing the zoning approval process for equestrian waste management facilities, or any composting facility that includes equestrian waste, animal waste or bio-solids, to allowed within industrial zoned lands of Palm Beach County. This re-write, will in essence, limit the processing of livestock waste to the industrial lands located along the I-95 or Turnpike corridors.



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000000 WORK ORDER #	SHEET NO.	1
	DATE	12/27/2017
	DRAWN	Christian Nakotey
	SCALE	1 in = 1 mile
	REQUESTED	Susan Trzepacz
FILENAME	ExhibitsMap	



**Surface Water Sample Sites
Exhibit A
Village of Wellington**

- ▲ Everglades Stormwater Program (ESP) Sites
- ⬡ Basin B Bi-Weekly Sites

- Canals
- Municipal Boundary



Wellington GIS

EXHIBIT B
Sampling Event TP Values for Wellington Discharge Locations

	Pump Station 3	Pump Station 4	Structure 35	Pump Station 6	Pump Station 7
10/4/2017	32	31	48	65	31
10/18/2017	87	98	75	75	82
11/1/2017	88	120	85	54	110
11/15/2017	49	28	52	38	33
11/29/2017	30	29	16	13	50
12/13/2017	38	33	35	51	31
12/27/2017	25	64	22	42	34
1/10/2018	44	48	75	68	48
1/24/2018	42	47	20	30	45
2/7/2018	35	27	57	62	32
2/28/2018	62	34	64	98	
3/14/2018	44	46	130	19	26
3/28/2018	46	38	13	13	38
4/11/2018	29	31	31	47	33
4/25/2018	32	72	64	30	75
5/9/2018	57	38	15	16	41
5/23/2018	170	180	99	99	160
6/6/2018	88	97	99	30	43
6/20/2018	64	83	47	26	50
7/5/2018	56	79	75	66	81
7/18/2018	49	55	48	34	47
8/1/2018	55	56	41	36	39
8/15/2018	32	39	21	340	52
8/29/2018	45	39	60	41	47
9/12/2018	12	36	27	39	16
9/26/2018	28	31	30	30	27
Annual Geometric Mean	45.1	49.5	43.4	42.3	44.7

Target TP Goal for the Annual Geometric Mean is 50 ppb

All Sites Average of Geometric Mean = 38.8

	≤ 50 ppb
	>50 ppb, ≤ 150 ppb
	>150 ppb

EXHIBIT C
Sampling Event TP Values for all Wellington Sampling Locations
October 2017 - September 2018

	PS2	PS3	PS4	PS6	PS7	35	40	42	43	44	45	63	72	B1	B6	B9	B10	B13	B15	B24	B25	B26	B27	B28	B29	B30	B31	9-IN	S24-Out
10/4/2017	110	32	31	65	31	48	40	62	110	180	45	66	46	38	31	32	38	67	44	29	20	28	67	90	26	83	36	43	39
10/18/2017	80	87	98	75	82	75	64	96	120	190	74	120	80	88	57	73	73	140	67	65	55	72	130	96	56	71	70	77	35
11/1/2017	88	88	120	54	110	85	100	160	260	160	38	120	150	120	94	50	64	87	65	87	6	52	85	90	99	98	98	120	4.1
11/15/2017	56	49	28	38	33	52	54	66	61	55	51	92	58	54	59	60	52	36	38	52	53	58	60	55	56	56	72	48	63
11/29/2017	54	30	29	13	50	16	67	41	45	16	40	55	15	39	41	67	43	57	57	62	42	36	44	46	64	14	35	72	49
12/13/2017	49	38	33	51	31	35	30	55	58	130	140	56	44	43	27	37	31	56	38	31	31	36	76	50	24	28	29	40	33
12/27/2017	70	25	64	42	34	22	32	41	44	33	70	90	78	40	72	44	34	50	49	52	32	39	52	45	34	25	31	26	34
1/10/2018	64	44	48	68	48	75	47	52	37	29	36	61	44	34	43	62	60	69	60	64	36	66	59	38	40	54	35	44	16
1/24/2018	56	42	47	30	45	20	34	29	44	250	34	46	19	26	31	31	24	41	54	38	63	22	45	49	20	23	32	19	22
2/7/2018	63	35	27	62	32	57	33	71	200	480	74	54	61	56	38	44	54	68	46	58	30	56	59	86	32	31	40	33	30
2/28/2018	63	62	34	98	64	31	84	68	220	69	53	48	44	64	68	66	47	32	34	46	56	58	61	50	56	36	36	43	43
3/14/2018	40	44	46	19	26	130	28	21	40	46	140	23	19	21	28	21	41	19	23	120	31	140	140	37	32	45	31	30	35
3/28/2018	26	46	38	13	38	13	33	47	54	190	52	24	50	47	33	56	52	65	55	58	38	65	56	47	44	36	46	51	31
4/11/2018	30	29	31	47	33	31	32	44	98	140	69	34	31	42	33	41	30	30	27	52	41	51	25	42	28	30	25	36	29
4/25/2018	82	32	72	30	75	64	180	92	130	130	120	74	77	72	44	130	83	130	110	120	170	140	40	100	130	49	190	120	190
5/9/2018	29	57	38	16	41	15	41	30	30	44	44	41	39	42	41	48	46	44	44	42	36	40	44	43	42	42	38	56	31
5/23/2018	510	170	180	99	160	99	160	330	100	66	67	350	220	220	160	170	99	190	72	170	160	160	100	97	40	38	91	18	13
6/6/2018	110	88	97	30	43	99	32	140	46	160	49	140	62	57	97	37	86	50	95	12	140	38	40	52	38	43	32	41	15
6/20/2018	51	64	83	26	50	47	59	100	180	380	52	81	64	62	57	58	63	68	55	26	19	24	37	71	66	46	120	38	20
7/5/2018	44	56	79	66	81	75	76	56	76	63	81	73	71	56	62	83	79	61	44	80	73	80	71	73	54	66	71	70	7
7/18/2018	67	49	55	34	47	48	46	62	66	58	61	68	60	58	59	46	37	62	62	38	51	36	50	57	37	34	33	40	15
8/1/2018	41	55	56	36	39	41	45	48	53	56	51	59	38	55	53	81	55	74	52	67	64	70	90	49	59	36	64	44	22
8/15/2018	32	32	39	340	52	21	35	100	44	42	44	43	43	44	43	100	27	68	53	120	40	34	33	45	52	43	62	30	30
8/29/2018	34	45	39	41	47	60	21	80	42	36	34	44	38	38	39	36	38	40	39	43	42	52	41	67	19	29	51	31	16
9/12/2018	30	12	36	39	16	27	19	41	19	29	32	28	33	39	50	60	59	48	51	42	20	23	48	27	23	41	44	19	42
9/26/2018	43	28	31	30	27	30	34	47	47	72	53	52	49	46	36	26	26	26	51	26	26	28	26	43	37	89	41	38	160
Annual Geometric Mean	56.8	45.1	49.5	42.3	44.7	43.4	44.5	63.5	65.4	87.2	57.0	61.7	49.8	50.2	48.6	53.4	48.6	57.4	50.3	52.2	41.5	49.6	55.2	56.4	41.5	42.3	48.6	41.6	28.1

≤ 50 ppb
 >50 ppb, <150 ppb
 >150 ppb

2018 -2019

NPDES Permit Year 2



Code and Land Development Regulation Review

Prepared By:

MOCK • ROOS

CONSULTING ENGINEERS

David Cowan Jr., P.E.

PA# B8707.00

2018 -2019

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Introduction

The Village of Wellington's (The Village) current Website, Land Development Regulations (LDR), Code of Ordinances (Codes), Engineering Standards Manual (ESM), and Permit Criteria and Best Management Practice Manual (BMP Manual) were reviewed. The goal of the review was to identify both Code items that encouraged development utilizing low impact design (LID), implement green infrastructure (GI) and promote sustainability with respect to water quality and quantity management. These goals satisfy the requirements of the Municipal Separate Stormwater Systems (MS4) Permitting Manual in the section on Stormwater Management Program No. 2-Areas of New Development and Significant Redevelopment. This program emphasizes four items:1) A reduction in impervious area, 2) Reductions in flow and volume of stormwater discharge, 3) Increased natural hydrology, and 4) Adoption of the Florida Yards and Neighborhoods Program in Landscaping. This report lists the current techniques aimed at reducing the stormwater impacts, recommends techniques or language for possible future incorporation into the regulations, and outlines a plan for implementation. Throughout this report, recommendations and some commentary are presented in **bold** to assist in making distinction between language from the reviewed material and the report language. Some information was copied from the applicable document to demonstrate how the stormwater quality and quantity management objective listed above are being met.

List of Regulations Reviewed

- Village of Wellington's web pages based on the key word search "Stormwater", "Drainage", "Stormwater Management", "Flood Protection", and "Low Impact Development"
- Village of Wellington's Land Development Regulations
- Village of Wellington's Code of Ordinance
- Village of Wellington's Engineering Standards Manual on their website
- Village of Wellington's Permit Criteria and Best Management Practice Manual

The review of the above items resulted in a finding that the Village's regulations do a good job in the maintenance of pervious areas within the Village, resulting in reduced discharges while allowing for development. Hydrologic features such as the Village's many canals, lakes and wetlands allow for aquifer recharge and natural hydrologic cycles. This being true there is always some way to improve, as such minor recommendations are provided throughout this report

Website Review

To evaluate how useful, the current website is as a tool for the public and design professionals multiple water resources related terms were searched. The results on the first page in general were evaluated for their true relevance to water resources and effectiveness in reducing runoff, increasing natural hydrology, or promoting low impact design. Below are the results of the search, several notable item about the search are as follow: 1) The most repeated documents (three times each) across all of the searches are the Flooding Pamphlet titled “Flood Information - Important Information”, the pamphlet titled “Horse Sense”, a link to the Ordinance 2012-12 “Stormwater Quality Management”, and Pamphlet on Swales, and links to the Village’s “DRAINAGE SYSTEM MAINTENANCE” webpage. The pamphlet provides information about drainage system maintenance, flood risk reduction through natural areas, flood safety measures, and flood insurance, while the website has countless water management related links and explanation for the need for flood management. The Pamphlets on Swales and horse BMPs provide the most critical information presented at general consumption level, while the Ordinances provides some of the most important legal authority with respect to the goals of the permit. Other reoccurring results include the link to the Department of Environmental Protect NPDES construction stormwater pollution prevention plan form, and Ordinance 2010-14 that addresses Subdivisions, Platting, and Required Improvements.

The current Search Engine Optimization (SEO) for the website provided a reasonable amount of relevant information on the topics the that NPDES MS4 permit addresses. The village may want to add some additional content on BMPs, Low Impact Development and Design with metadata associated to demote some of the less relevant results and promote the goals of the permit.

A search of “Stormwater” in the website search engine

Resulted in about 265 results (0.13 seconds)

Sort by: Relevance Top Ten

1. Florida's NPDES Stormwater Program | Wellington, FL
<https://www.wellingtonfl.gov/.../florida-s-npdes-stormwater-program>
Just a link to DEP
2. construction stormwater pollution prevention plan template
<https://www.wellingtonfl.gov/home/showdocument?id=17685>
Just a link to DEP
3. Best Management Practices Water Quality Challenge Good Horse ...
www.wellingtonfl.gov/home/showdocument?id=3798
This document contains useful information. The Village may consider updating this document.

This is also the fourth website when searching “Stormwater Management”

4. Stormwater PS's 4 & 8 VFD'sElectrical DwgsSta 4S14080E1 E-1
www.wellingtonfl.gov/home/showdocument?id=1270

A drawing of a Stormwater Pump Station Electrical upgrade.

5. SWALE? - Wellington
<https://www.wellingtonfl.gov/home/showdocument?id=4739>
Swales are one of the most commonly used stormwater practices. For many years they have been used along rural highways and residential streets to convey ...
This is a simple and informative flyer that provides good SWM information.

This is also the second website when searching "Storm Water Management"

6. phosphorus will benefit the ecology of the Everglades ... - Wellington
www.wellingtonfl.gov/home/showdocument?id=3790
A link to the current STORMWATER QUALITY MANAGEMENT ORDINANCE 2012-12. This is good information to provide but is heavy and technical, a more public friendly document with a secondary link to the ordinance would be more effective. A better direct connection to the page that brings you to Muni-codes would be more effective.

This is also the fifth website when searching "Storm Water Management"

This is also the seventh website when searching "Flood Protection"

7. Untitled - Wellington
www.wellingtonfl.gov/home/showdocument?id=15918
A link to the current ARTICLE 8. SUBDIVISION, PLATTING, AND REQUIRED IMPROVEMENTS ORDINANCE 2010-14. This is good information to provide but is heavy and technical, a more public friendly document with a secondary link to the ordinance would be more effective.

This is also the first website when searching "Stormwater Management"

8. Budget Amendments FY2017 - Wellington
<https://www.wellingtonfl.gov/home/showdocument?id=9739>
The benefits of funding for stormwater are obvious, this link as a high ranking stormwater search is not that useful to the public with respect to the stormwater regulation.
9. Surface Water Maintenance Program - Wellington
<https://www.wellingtonfl.gov/home/showdocument?id=4403>
This document provides a good explanation and information about canal maintenance programs between 2014 and 2018, it is outdated now. It could be updated and reissued to show the next few years of work or made into a more general rolling year program.

10. South Florida Water Management District | Wellington, FL
<https://www.wellingtonfl.gov/.../south-florida-water-management-district>
Just a link to SFWMD

From the next 10 Relevant items

11. Drainage System Maintenance | Wellington, FL
<https://www.wellingtonfl.gov/living/.../drainage-system-maintenance>
The above link is also the Number one item when searching "drainage"
The above link is also the Number two item when searching "Flood protection"

17. Wellington Water Projects
www.wellingtonfl.gov/home/showdocument?id=8

This is an outdated but good presentation on many of the proposed and planned water management projects in the Village.

20. SWALE? - Wellington

<https://www.wellingtonfl.gov/home/showdocument?id=3330>

See item 4 above for comments, this is the same pdf in a different print layout.

All other links in the first 20 results don't offer particularly stormwater management informative information.

One of the most useful links that is not readily available when searching stormwater is

<https://www.wellingtonfl.gov/government/departments/planning-zoning/planning-zoning/land-development-code-of-ordinances>

A search of "Drainage" in the website search engine

Resulted in about 633 results (0.35 seconds)

Sort by: Relevance Top Ten

1. Drainage System Maintenance | Wellington, FL
<https://www.wellingtonfl.gov/living/.../drainage-system-maintenance>
See above other occurrences
2. PAVING, GRADING AND DRAINAGE CONSTRUCTION ...
<https://www.wellingtonfl.gov/home/showdocument?id=17647>
This is an only a checklist pdf for construction projects
3. final cost estimate for paving, grading, and drainage improvements
<https://www.wellingtonfl.gov/home/showdocument?id=16907>
This is a pdf form for the engineer's opinion of cost
4. Public Works Annual Drainage Infrastructure Inspection, Cleaning ...
www.wellingtonfl.gov/Home/ShowDocument?id=1050
This is a unit pricing for a drainage maintenance contract
5. Canal/Drainage & ROW Bridle Trail Road ROW & Bridle Trail ...
www.wellingtonfl.gov/home/showdocument?id=64
This is a pdf map of ROW for drainage features and bridle path interactions
6. IMPORTANT
<https://www.wellingtonfl.gov/Home/ShowDocument?id=3688>
See below for other occurrences
7. Engineering Forms | Wellington, FL
<https://www.wellingtonfl.gov/government/.../engineering-forms>
A link to a website with a lot of good links such as ordinances, engineering standards, generic SWPPP forms and the like.
8. Solicitations | Wellington, FL
<https://www.wellingtonfl.gov/Home/Components/RFP/.../790?...>
Link to Demandstar

9. IMPORTANT
<https://www.wellingtonfl.gov/home/showdocument?id=18163>
See below for other occurrences

10. The Acme Improvement District is a dependent special district ...
www.wellingtonfl.gov/home/showdocument?id=18
A link to a presentation about The Village of Wellington's governance

A search of "Stormwater Management" in the website search engine

Resulted in about 286 results (0.18 seconds)

Sort by: Relevance Top Ten

1. Untitled - Wellington
www.wellingtonfl.gov/home/showdocument?id=15918
See above other occurrences, Ordinance 2010-14

2. SWALE? - Wellington
<https://www.wellingtonfl.gov/home/showdocument?id=4739>
See above other occurrences

3. South Florida Water Management District | Wellington, FL
<https://www.wellingtonfl.gov/.../south-florida-water-management-district>
Just a link to SFWMD

4. Best Management Practices Water Quality Challenge Good Horse ...
www.wellingtonfl.gov/home/showdocument?id=3798
See above other occurrences, horse sense flyer

5. phosphorus will benefit the ecology of the Everglades ... - Wellington
www.wellingtonfl.gov/home/showdocument?id=3790
See above other occurrences, Ordinance 2012-12

6. The BMP Process
<https://www.wellingtonfl.gov/home/showdocument?id=3796>
This is an updated version of the horse sense flyer with good information and bmp references.

7. Legislative Action Agenda Florida League of Cities
<https://www.wellingtonfl.gov/Home/ShowDocument?id=10>
This link is to a League of Cities agenda

8. Cover Letter2.pub - Wellington
<https://www.wellingtonfl.gov/home/showdocument?id=5349>
RFQ response to a Professional Consulting Service contract

9. construction stormwater pollution prevention plan template
<https://www.wellingtonfl.gov/home/showdocument?id=17685>
Link to NPDES Generic Permit for Stormwater Discharge from Large and Small Construction Activities

10. Tab 6 Evidence of Insurance.pub - Wellington
<https://www.wellingtonfl.gov/home/showdocument?id=2948>
RFQ response to a Professional Consulting Service contract

A search of "Flood Protection" in the website search engine

Resulted in about 292 results (0.16 seconds)

Sort by: Relevance Top Ten

1. Floodplain Management/Flood Maps | Wellington, FL
<https://www.wellingtonfl.gov/living/floodplain-management-flood-maps>
This page has links to FEMA, Flood maps and water management items
2. Drainage System Maintenance | Wellington, FL
<https://www.wellingtonfl.gov/.../floodplain...flood.../drainage-system-maintenance>
See above other occurrences
3. IMPORTANT
<https://www.wellingtonfl.gov/Home/ShowDocument?id=3688>
This is a good document that appears to be current and provides a lot of information on what to do before, during and after flooding.
4. Flood Insurance Information | Wellington, FL
<https://www.wellingtonfl.gov/.../floodplain...flood.../flood-insurance-information>
This is a Wellington website focused on flood insurance topics
5. Biggert Waters Flood Insurance Reform Act of 2012
<https://www.wellingtonfl.gov/home/showdocument?id=3312>
This is a FEMA PDF focused on flood insurance topics
6. MODEL FPM ord & code amdmts
<https://www.wellingtonfl.gov/home/showdocument?id=16038>
This is a link to a PDF titled VILLAGE OF WELLINGTON FLOOD DAMAGE PREVENTION: ORDINANCE NO. 2017-14 which repeals and then updates Chapter 18 of the Village's building regulations.
7. phosphorus will benefit the ecology of the Everglades Protection ...
www.wellingtonfl.gov/home/showdocument?id=3790
See above other occurrences
8. 2018 Legislative Issues
<https://www.wellingtonfl.gov/home/showdocument?id=16158>
This is a Palm Beach County Document laying out PBC's 2018 legislative agenda environmental & natural resources priorities
9. florida building code
<https://www.wellingtonfl.gov/home/showdocument?id=8159>
This is a technical document laying out amendments to the Florida Building Code made by Wellington, dated 2014. Specifically, SECTION 1609.1, WIND LOADS & MAPS.
10. Untitled
www.wellingtonfl.gov/home/showdocument?id=12923
A notice about tree removal in the drainage ROW between Big Blue Trace and Forest Hill Blvd.

A search of “Low Impact Development” in the website search engine

Resulted in about 219 results (0.29 seconds)

Sort by: Relevance Top Ten

3. Forms/Applications | Wellington, FL
<https://www.wellingtonfl.gov/doing-business/building-forms>
This is an interactive permit request form

6. Guide to Permitting | Wellington, FL
<https://www.wellingtonfl.gov/government/.../guide-to-permitting>
A link to a guide to permitting

Review of Wellingtons Comprehensive Plan

In 1972, the Palm Beach County Land Use Plan (now termed Comprehensive Plan) was passed and become effective from December 6, 1972 through August 1, 1980. In 1980 Comprehensive Plan was passed and remained effective from August 1, 1980 to August 31, 1989. The 1989 Comprehensive Plan became effective August 31, 1989. In 1995 Wellington incorporated and adopted Palm Beach County’s Comprehensive Plan. The Village’s comprehensive plan has since been updated pursuant to Florida Statutes. The comprehensive plan is the basis of the Land Development Regulations and Code of Ordinance and it is stated within those documents their purpose is to adopt and to implement the Comprehensive Plan. That they are to be consistent with the Comprehensive Plan, in part, due to the land uses, densities, or intensities, capacity of size, timing, and other aspects of development permitted, further the objectives, policies, land uses, and densities and intensities in the Comprehensive Plan, and meet all other criteria enumerated in the Comprehensive Plan. More information on the Comprehensive Plan can be found at:

<https://www.wellingtonfl.gov/government/departments/planning-zoning/planning-zoning/comprehensive-plan>.

Review of the Conservation Element of the Comprehensive Plan revealed the following policies such as and Objective 1.2, Water Resources Policies 1.2.2, adopted wetland regulations and the concept of “no net loss of wetlands” and with preservation of the natural functions of wetlands., 1.2.4, permit requirements shall continue to be enforced for all land development including: minimum road crown elevations, parking lot design, first floor requirements and water quality and quantity requirements., 1.2.8, review development proposals to ensure that water storage capacity is provided through mechanisms such as stormwater retention areas, 1.2.10, encourage innovative planning tools such as conservation easements, cluster development, and using the development review/permitting, 1.2.11, continue to review development proposals to ensure that pre-treatment for stormwater runoff is accomplished through use of grassy swales, wetlands filtration, exfiltration trenches, or other means consistent with the Best Management Practices of the South Florida Water Management District., 1.2.13, In

conjunction with the South Florida Water Management District, Wellington has adopted and shall continue to enforce “Best Management Practices” to minimize the negative impacts of animal wastes, stormwater discharge, and land development within the Basin B area on water quality., and 1.2.16, Turbidity control measures such as turbidity curtains and other methods approved by Wellington shall be required to be used during any excavation within or along Wellington’s canal and lake system. As well as; Objective 1.6 Wellington shall monitor future technological development in order to ensure Wellington remains informed of energy conservation and alternative energy technologies and is able to benefit from the maximum available incentives, rebates or grants. By implementing policies such as 1.6.1, In compliance with Florida Statute Section 163.3177, municipal buildings constructed shall, at a minimum, be LEED certified or other green building rating systems, including Green Globes and the Florida Green Building Coalition standards., 1.6.2 Wellington shall explore development of incentives for the private construction of structures built to LEED certified or other green building rating systems, including Green Globes and the Florida Green Building Coalition standards.

No additional recommendations are being made at this time.

Unified Land Development Regulation Review

The Unified Land Development Regulations (LDR’s) for the Village of Wellington (The Village) is divide in to Articles that are then divided in to chapters. The Articles of the LDR are as follow:

- Article 1 - GENERAL PROVISIONS
- Article 2 - INTERPRETATION OF THE CODE
- Article 3 - DEFINITIONS
- Article 4 – DECISION MAKING, ADMINISTRATIVE AND ENFORCEMENT BODIES
- Article 5 - DEVELOPMENT REVIEW PROCEDURES
- Article 6 - ZONING DISTRICTS
- Article 7 - SITE DEVELOPMENT STANDARDS
- Article 8 - SUBDIVISION, PLATTING, AND REQUIRED IMPROVEMENTS
- Article 9 - ENVIRONMENTAL STANDARDS
- Article 10 - IMPACT FEES
- Article 11 - ADEQUATE PUBLIC FACILITY STANDARDS
- Article 12 - DEVELOPMENT AGREEMENTS
- Article 13 - THIS ARTICLE HAS INTENTIONALLY NOT BEEN USED
- Article 14 - ENFORCEMENT PROCEEDINGS AND PENALTIES
- Article 15 - VEHICULAR TRAFFIC PERFORMANCE STANDARDS
- Article 16 - HEALTH DEPARTMENT REGULATIONS
- Article 17 - PARK AND RECREATION STANDARDS

The division of the chapters are as follows Article 1 Ch. 1 - 12, Article 2, Article 3 Ch. 1 - 3, Article 4, Article 5 Ch. 1 - 3, Article 6 Ch. 1 - 13, Article 7 Ch. 1 - 8 and 13 - 15, Article 8 Ch. 1 - 14, Article 9 Ch. 3, Article 10, Article 11 Ch. 1 - 6, Article 12, Article 13, Article 14 Ch. 1 - 4, Article 15 Ch. 1 - 5, Article 16 Ch. 1 - 3, Article 17 Ch. When printed

from the current location on the hosted by MuniCode

(https://library.municode.com/fl/wellington/codes/unified_land_development_code?nodeId=14703)

the resulting PDF file is 1085 pages. This document was reviewed in entirety with special attention placed on sections of the LDR that pertained the before mentioned goals of the permit. A summary of the review follows with recommendations throughout.

Article 1 - GENERAL PROVISIONS

These chapter provide numerous occurrences where the request for a “Development Order” would be required. This requirement for a development order provides the opportunity for The Village to regulate activities within the MS4 boundary and cause development that is in line with the goals of the permit. Establishing the need for Development Order is defined as follows: “any order granting, denying, or granting with conditions an application for development permit as defined in§ 163 .3164(7), Florida Statutes. Development order, final means a development order for Site Plan/Final Subdivision Plan, or a building permit. Development order, preliminary means a development order for an amendment to the Future Land Use Map, a planned development, a conditional use, a special use, a variance, a flood prevention permit, an environmentally sensitive lands permit, or wetlands permit, a wellfield protection permit, or a rezoning”.

The Article also establishes that the Village Engineer shall have the authority to make all interpretations of Article 7 Ch.7 known as Section 7.7, Driveways and Access; Article 15, Traffic Performance Standards; and Art. 8, Subdivision. In addition, it establishes that the Director of Planning and Zoning shall have the authority to make all interpretations of Natural Resource Protection Regulations, Sec. 7.6, Excavation, and Art. 9, Environmental Standards, and all other provisions of this Code and the Future Land Use Map. Lastly, it establishes the Village Attorney shall have the authority to make all interpretations of Article 7, Sec.7.15, Maintenance and Use Documents. It is also notable that provisions are made that if a staff member makes some prior determinations that is in contradiction to the documents, past determination do not govern this document, allowing for corrective interpretations to be applied in alignment with the LDR.

Article 3 - DEFINITIONS

Article 3 does not directly discuss stormwater regulations, but does provide the necessary definitions for the discussion in other Articles. Chapter 2 of Article 3 provides definitions where Chapter 3 of Article 3 lists abbreviations and acronyms.

Article 6 - ZONING DISTRICTS

The Village of Wellington recognizes certain districts established by the LDR to ensure that each land use is compatible with surrounding uses, served by adequate public facilities, and sensitive to natural and coastal

resources. Each district has its own purpose and has permitted uses, conditional uses, special uses and other regulations that control the use of land in each district. All development within each district shall be consistent with subsection of this article.

Within this Article certain subsection have particular notability, specifically those that follow.

Article 6 Chapter 4 Section 6.4.4 known as Supplementary Use Standards. There are 120 Specific uses defined with in this section. The following uses have the most potential to effect the water quality in The Village.

Use No. 67 – Livestock Raising, has a minimum lot size for livestock raising of five (5) acres, providing for the land on which this activity occurs has some potential capacity to assimilate the effects of the activity through natural process.

Use No. 104 – Commercial Stabling, this use activity is exactly related to ordinance 89-2 that govern. In addition, this section defines minimum acreages, setbacks, frontage, and districts where this use is allowed.

Use No. 105 – provides the same definitions as Use No. 104, only for private stables.

Article 6 Chapter 5 Section 6.5.12 known as Flexible Property Development Regulations for Density Bonus Program Development provide flexibility from traditional property development regulations in order to provide greater opportunity for cost effective development for housing approved in conjunction with density bonus programs.

Article 6 Chapter 5 Section 6.5.18 and Section 6.5.19 known as Minimum Landscape and Buffer Requirements and Development and Design Standards provide standards for landscaping, impervious surfaces driveway area, bodies of water and retention areas.

These sections allow for flexible development regulations and set design criteria. The Village may want to add an item to this section to promote more green infrastructure and development using a program such as ENVISION as developed by American Society of Civil Engineers (ASCE), LEED for Neighborhood Development, or other Sustainable Infrastructure rating system. Recommendations like this encourage all of the permit goals. They also promote energy and water resource efficiency.

Article 6 Chapter 6 Section 6.6.1 known as Accessory uses and structures provides for structures to be added to a developed property provided it is incidental and subordinate to such principal uses. This being said the addition of an accessory structure may have a significant effect on the stormwater quality and quantity discharged.

Article 6 Chapter 8 Planned Development District Regulations, the stated purposes of this section are in summary minimize adverse impacts of development, preserve natural resources, promote multimodal transportation, promote efficient use of land through harmonious uses of shared facilities, provide for adequate drainage, and

reduce of flood damage. Many of the ideas within this section aid in supporting the goals of the permit. This section outlines eight district types as follows:

Sec. 6.8.1. - General.

Sec. 6.8.2. - PUD, Residential Planned Unit Development District.

Sec. 6.8.3. - MUPD, Multiple Use Planned Development District.

Sec. 6.8.4. - Flexible Use Zoning Employment Center (FZEC).

Sec. 6.8.5. - Medical Center Planned Development (MCPD).

Sec. 6.8.6. - Medical Arts Planned Development Zoning District (MAPD).

Sec. 6.8.7. - Mixed Use Planned Development District (MXPDP).

Secs. 6.8.8—6.8.13. - Reserved.

Sec. 6.8.14. - Residential Renaissance Overlay Zoning District (RROZD).

Much of the verbiage within these sections is similar in nature from section to section. Within section 6.8.4, 6.8.5, 6.8.6, 6.8.14 references to low impact development are made by including requirements that can be seen below for including design techniques in the LEED rating systems.

Section 6.8.4

M.

Environmental Design. The use of sustainable building techniques shall be incorporated in a development within the FZEC zoning district. The design shall conserve energy, minimize water usage, recycle wastes and promote environmental sustainability within the Village.

Section 6.8.5 & 6.8.6

Notes:

1.

Environmental Design. The use of sustainable building and site design techniques shall be incorporated in a MCPD development, as feasible or required by the Planning and Zoning Director. The design shall conserve energy, minimize water usage, recycle wastes and promote environmental sustainability within the Village.

Section 6.8.14

3. Leadership in Energy and Environmental Design (LEED).

a.

Additional residential density may be allowed for projects approved as a "Leadership in Energy and Environmental Design—Neighborhood Development" (LEED-ND).

The Village may consider adding an item to this section to promote more green infrastructure and development using a program such as ENVISION as developed by American Society of Civil Engineers (ASCE, or other Sustainable rating system. Recommendations like this encourage all of the permit goals.

Article 6 Chapter 10 - Equestrian Overlay Zoning District (EOZD), this section requires that development orders shall apply within the Equestrian Preservation Areas subject to review by the Planning, Zoning and Adjustment Board, and Equestrian Preserve Committee.

Article 7 - ZONING DISTRICTS

Article 7 Chapter 2 - Off-Street Parking and Loading, also requires review and approval by Village Engineer of a drainage design before a permit may be issued for any construction and design of parking area in conformance with the Village's Parking area design and construction standards

Article 7 Chapter 3 - Landscaping and Buffering, provides detailed goals and requirements for landscape design in the Village. As landscape design and construction can have a large impact on the surrounding environment many of the goals of the permit are echoed therein. Some but not all of these are as follows.

Sec. 7.3 .1.- Purpose and Intent.

B. Environmental quality. To improve environmental quality by maintaining permeable land areas essential to surface water management and aquifer recharge; reducing and reversing air, noise, heat, and chemical pollution through the biological filtering capacities of trees and other vegetation; promoting energy conservation through the creation of shade; reducing heat gain in or on buildings or paved areas through the filtering capacity of trees and other vegetation; reducing the temperature of the microclimate through the process of evapotranspiration; and encouraging the limited use of fresh water resources through the use of native and drought resistant plants;

C. Water conservation. To promote water conservation by encouraging xeriscaping in appropriate areas, such as medians, and utilization of native and drought tolerant landscape material; encouraging the utilization of water conserving irrigation practices; requiring adherence to sound landscape installation standards and maintenance procedures that promote water conservation; ecological placement of landscape material; and utilization of natural areas and vegetation.

D. Preservation of native plants and vegetation. To encourage the preservation and planting of native vegetation and plants;

H. Removal of prohibited plant species. To encourage the initial eradication and control the ongoing removal of prohibited plant species which have become nuisances because of their tendency to disrupt or destroy native ecosystems; and

I. Improved design. To encourage innovative and cost-effective approaches to the design, installation and maintenance of landscaping, particularly those that promote energy, water conservation and incorporate areas of native vegetation.

Sec. 7.3.2.- Landscape Design Principles and Concepts.

D. Use of Native and Drought Resistant Plants. Wherever feasible and environmentally beneficial, landscape designs should feature native and/or related plant species, especially in areas adjacent to existing native vegetation, to take advantage of the unique natural character and diversity of the region, and the adaptability of native plants to local environmental conditions. Where feasible, the re-establishment of native habitats should be incorporated into the landscape design. In the same manner, landscape designs are encouraged to utilize drought tolerant plant materials to the maximum extent feasible. The use of drought tolerant plants should enrich the existing landscape character, conserve water and energy, and provide as pleasant and varied a visual appearance as plants that require more water. Further, trees and shrubs shall be planted in the energy conservation zone where feasible, in order to reduce energy consumption by shading buildings and shall be used to reduce heat island effects by shading paved surfaces.

E. Natural Landscape. Landscape designs should incorporate and complement existing natural landscapes and existing specimen trees and native vegetation (including canopy, understory, and ground cover). Particular care should be given to preserve intact natural ecosystems. Where previous landscaping has dramatically altered natural landscapes, new designs should seek to re-establish natural landscape patterns and plantings.

H. Energy Conservation and Sustainable Design. Attention should be given to location landscape elements in a manner that provides energy conservation benefits. Shade trees planted in the energy conservation zone, for example, can provide daytime shading for buildings, reducing energy needed for interior air conditioning. Landscape design should also consider natural drainage features and the use of pervious surfaces and areas to minimize runoff.

M. Landscape in Easements. Landscaping may be permitted in easements only with the written permission of all easement holders.

2. Detention/retention areas, swales, drainage easements, and lake maintenance easements.

Detention/retention areas, swales, drainage easements, and lake maintenance easements may be located in or overlap required landscape buffers, but the overlap area shall not be counted in determining compliance with landscape requirements.

It can be seen that these requirements aid in the management of water resources in the Village. The permit goals of 1) A reduction in impervious area, 2) Reductions in flow and volume of stormwater discharge, 3)

Increased natural hydrology, and 4) Adoption of the Florida Yards and Neighborhoods Program in Landscaping, these are the constant threads through this section of the LDR.

Sec. 7.3.11.- Upland buffers/Littoral Planting.

Lake areas (retention ponds) in excess of one (1) acre in area shall be planted to create a habitat that provides the optimal environment for aquatic and other species. Lakes provided for new construction or major modifications of existing projects shall be planted as follows:

A. Littoral plantings. To occupy a minimum of fifty (50) percent of lake perimeter with littoral plantings

B. Littoral shelf. To consist of a minimum of ten (10) square feet of littoral shelf per linear foot of lake.

C. Trees. To consist of a minimum of one (1) native tree per fifty (50) feet of linear lake frontage.

D. Vegetation. All vegetation installed contiguous, at a minimum 3:1 bank slope, one hundred (100) percent appropriate native vegetation, installed with proper spacing for full coverage of littoral shelf areas.

All littoral and upland plantings established consistent with these standards shall be maintained in accordance with a management plan approved by the Village at the time of site plan approval or permitting. The management plan shall include: i) a map showing the limits of the water bodies covered by the plan; ii) the chemicals being applied to the water bodies, including the amounts of each chemical and application schedule; iii) the specific aquatic vegetation being addressed including, but not limited to, water hyacinths, chara, cattails, broadleafweeds, hydrilla, algae, coon-tail, milfoil, southern naiad, torpedo grass, alligatorweed, duckweed, ditchbank grasses and other waterborne weeds; and iv) the name and address of the aquatic vegetation control contractor along with the copies of appropriate licensees and insurances.

These requirements provide obvious assistances in the maintenance of water quality though the natural effects of littoral plants uptake of nutrients.

CHAPTER 4. -PRESERVATION OF CRITICAL RESOURCES

Purpose. The purpose of this section is to implement the policies of the Future Land Use and Conservation Elements in the Village of Wellington Comprehensive Plan by establishing an administrative review process to prevent the unnecessary removal or destruction of existing native upland vegetation and jurisdictional wetlands.

This section provides the authority to protect the native land that provide natural attenuation of runoff, needed for increased natural hydrology.

CHAPTER 6.- EXCAVATION, regulates the practices of site development and land excavation practices to prevent negative immediate and long-term environmental and economic impacts on the Village's natural resources and ensure that mining and excavation activities do not adversely impact the health, safety, and welfare of the citizens. It establishes a regulatory framework of clear, reasonable, effective, and enforceable standards and requirements for the regulation of excavation, mining, and related activities.

Lastly in Article 7 Chapter 8 - MISCELLANEOUS STANDARDS two subsections 7.8.1.H and 7.8.1.K address Performance Standards. Subsection H states;

Toxic or noxious matter. No use shall for any period of time, discharge across the boundaries of a lot on which it is located, toxic or noxious matter in such concentrations as to be detrimental to or endanger the public health, safety, comfort, or general welfare, or cause injury or damage to persons, land, or the use of land, or render unclean the waters of the state to the extent of being harmful to the public health, or to animal or aquatic life, or to the use of such waters for domestic water supply, industrial purposes, recreation, or other legitimate and necessary uses.

While subsection K addresses drainage;

Drainage. For all development in all districts, drainage shall be designed, constructed and maintained in accordance with the drainage and stormwater management standards of Article 8, Subdivisions, Platting, and Required Improvements.

These requirements provide obvious assistances in the maintenance of water quality though regulatory authority and language.

Article 8- SUBDIVISION, PLATTING, AND REQUIRED IMPROVEMENTS

CHAPTER 1. - GENERAL PROVISIONS

Sec. 8.1.1. -Authority.

Sec. 8.1.3. -Purpose and intent.

G. Stormwater management. Regulate the subdivision and associated development of lands subject to seasonal and periodic flooding and provide for adequate stormwater management to minimize adverse impacts of development on water resources while ensuring acceptable levels of protection from inundation for residents and improvements.

The above statement makes evident in not a peripheral way a major purpose of Article 8 is to regulate stormwater in the Village. Below you will find selected excerpts of this article that demonstrate the connections between this Article and the goals of the permit outlined in the introduction of this report.

CHAPTER 5. - PREVIOUSLY APPROVED OR PLATTED SUBDIVISIONS

Sec. 8.5.6.B. - Positive drainage. Positive drainage shall be established or its existence proven, meeting all requirements for connection to a point of legal positive outfall.

CHAPTER 16. -CONSTRUCTION PLANS AND SUPPLEMENTAL ENGINEERING INFORMATION

Sec. 8.16.5.- Final stormwater management plan...shall include... detailed design of all secondary and tertiary stormwater management facilities, including, as a minimum, the following design data and information...pre-development and post-development drainage basin maps showing... site characteristics affecting runoff such as ground cover, soil profile, wet season mean high water table elevations and recurring high water elevations in receiving watercourses or water bodies, individual catchment area characteristics used for design, including area, times-of-concentration, runoff factors, and quantitative and breakdown of pervious/impervious areas

D. - Design documents shall include Positive outfall. Evidence of existing access to legal positive outfall(s); Calculations. Complete hydrologic and hydraulic calculations for design of storm sewers, retention/detention areas, and discharge structures.

Sec. 8.18.2.- Dredge, fill and construction in waters of the State.

B. - Easements or rights-of-way. Where land within a proposed subdivision abuts existing or proposed waters of the State, there shall be provided a floodway or floodplain easement or a drainage right-of-way conforming substantially with the lines of such watercourse or water body and of such further width or construction or both as will be adequate for the purpose.

C. - Permits. Where proposed dredging or filling affects waters of the State or sovereign land, said activities shall be approved by the governing agency having jurisdiction in such matters. Prior to the construction of any seawall, bulkhead, dock or pier, a construction permit shall be obtained from the Village Building Department in addition to all required permits or expressed exemption from permitting for construction in waters of the State.

The section above provides for explicit protection of the Waters of the State during Dredging, Fill and Construction activities.

CHAPTER 24.- STORMWATER MANAGEMENT

Sec. 8.24. 1. -Minimum required improvement

The following shall be the minimum required improvement for all developments to implement the level of service under the Drainage and Capital Improvements Elements of the Comprehensive Plan: Tertiary Systems, Secondary Systems, Conveyance, Continued Conveyance, and Available Facilities.

Sec. 8.24.2. -General criteria.

Secondary and tertiary stormwater facilities for each subdivision shall be designed and constructed so as to provide the following: Flood Prevention, stormwater runoff rates at established legal limits, conveyance to a legal positive outfall, continued conveyance of pre-development stormwater runoff and surface waters that flow into or through the development site from adjacent lands, necessary maintenance of groundwater levels, promote percolation, recharge, and reuse of stormwater.

Sec. 8.24.3. -Hydrologic design data...submitted by the developer's engineer for an individual case, hydraulic and hydrologic data used in design of stormwater management facilities shall be based on, Rainfall intensity-duration-frequency curves, Rainfall hyetographs, Runoff characteristics, Tailwater elevation, **and similar design information.**

Sec. 8.24.5. -Tertiary stormwater system design and performance shall consist of all drainage features and facilities such as storm sewerage, swales, gutters, culverts, ditches, erosion protection, and site grading necessary for the immediate drainage and rapid removal of stormwater from building sites, streets, and areas of other land uses subject to damage or disruption by inundation in accordance with acceptable levels of service as established by the Comprehensive Plan. **Topics covered in this section, include but are not limited to,** lot and building site drainage, minimum finished floor elevation, site grading, drainage easements, detention or retention facility, minor street drainage, roadside swales, inlet protection, curb and gutter design, parking tract and parking area drainage, storm sewer design.

Throughout Article 8 Chapter 24 is can be seen how the chapter provides the Village with the needed language to manage the stormwater within in its MS4. The following section lays out in much more detail requirements for the detention and retention of stormwater in the Village.

Sec. 8.24.6. - Secondary stormwater system design and performance.

The secondary system, including all facilities and appurtenant structures for detention, retention, discharge, and conveyance to legal positive outfall, shall be designed and constructed to provide the degree of treatment and control of all stormwater runoff discharged from a development site necessary to meet the requirements of the agency having jurisdiction over receiving waters at each point of legal positive outfall.

A. Additional requirements. In addition to requirements expressly stated herein:

1. Secondary facilities for development subject to permitting by individual or general permit from South Florida Water Management District pursuant to Chapters 40E-4, 40E-40, or 40E-41, F.A.C., shall meet all requirements for issuance of the applicable permit; and

2. Secondary facilities for each residential, commercial, and industrial development exempt from South Florida Water Management District permitting pursuant to Chapter 40E-4, F.A.C., except an individual residential lot containing not more than two (2) dwelling units, shall be designed and constructed on site, or otherwise be provided through authorized connection to off-site secondary facilities, so as to limit the discharge rate at the point of legal positive outfall to not more than the peak runoff rate produced by the site under pre-development conditions for both the three-year, one-hour and the twenty-five-year, seventy-two-hour rainfall events, and either:

a. Detain the greater of the first one (1) inch of runoff or the total runoff from the three-year, one-hour rainfall event; or

b. Retain the initial portion of runoff in an amount equal to one-half (1/2) of that required to be detained.

B. Stormwater runoff. No discharge of stormwater runoff resulting from rainfall up to and including the twenty-five-year, seventy-two-hour event shall take place from a development site except by means of one (1) or more approved discharge structures, other than those existing inflows from off-site for which separate, approved means of conveyance through the site have been provided.

C. Conveyance of discharge. Facilities for conveyance of discharge to each point of legal positive outfall shall be designed and constructed with adequate capacity to accommodate the combined flow from the applicable discharge structure(s) and all inflows from other contributory areas resulting from the twenty-five-year, seventy-two-hour rainfall event without overflow to adjacent lands.

This section also addresses the design and construction of bulkheads designed for storage of stormwater, continuous berms, open impoundments, exposed side slopes, piped inlets. Additionally, the section specifically states;

stormwater runoff from pavement, roofs, and unpaved areas of compacted soil surfaces with no significant vegetative cover shall be directed over grassed, pervious soil surfaces as diffused flow prior to entering wet detention/retention facilities or dry detention facilities in order to promote infiltration, particulate deposition, nutrient removal, and interception of debris or other undesirable materials which may overload, pass through, cause nuisance conditions in, or increase maintenance needs of said facilities.

Sec. 8.24.8. -Certificate of compliance for lots.

When the finished lot grading required by Secs. 8.24.5.A. and 8.24.5.D is to be completed in conjunction with building construction, prior to issuance of the Certificate of Occupancy the developer shall submit to the Building Director a Certificate of Compliance from a Florida registered professional surveyor, engineer, or landscape architect. Such statement shall be in a form approved by the Building Department and shall state that lot grading

was done in accordance with either the approved grading plan for the subdivision or, in the absence of such plan, in accordance with the applicable requirements of Secs. 8.24.5.A. and 8.24.5.D.

Sec. 8.24.9.- Adoption of Permit Criteria and Best Management Practices Manual for Works in Wellington.

Land Development projects and associated increases in the previous coverage alter the hydrologic response of local water sheds and increase stormwater runoff from developed sites. Within Wellington, three Chapter 298 drainage districts operate and have water management systems that are implemented by stormwater runoff. In order to provide for proper coordination with the districts and insure that all necessary information is obtained for the proper issuance of land development permits, permits to connect, place structures in or across or make use of lands and facilities of Wellington or any of the drainage districts servicing the lands and residents of Wellington a "Permit Criteria and Best Management Practices Manual for Works in Wellington" shall be adopted or amended by Resolution of the Council and administered by the Growth Management Department and Engineer. (Ord. No. 2010-14, § 1, 6-8-2010)

The preceding language in the LDR provides a sufficient amount of regulatory authority to the Village to protect its MS4, while allowing for reasonable development within its boundaries. Many of the statements are clear and concise with respect to promoting stormwater protection. The current language only encourages the goals listed within the permit.

Article 11- ADEQUATE PUBLIC FACILITY STANDARDS

CHAPTER 1. - GENERAL

Sec. 11.1.1. - Purpose and intent.

The purpose and intent of this article is to ensure that adequate potable water, sanitary sewer, solid waste, stormwater management, park, road, public school facilities, mass transit public facilities and fire-rescue are available to accommodate development concurrent with the impact of development on such public facilities, consistent with the LOS standards for those public facilities adopted in the Village's Comprehensive Plan. This objective is accomplished by (1) establishing a management and monitoring system to evaluate and coordinate the timing and provision of the necessary public facilities to service development, and (2) by establishing a regulatory program that ensures that each public facility is available to serve development concurrent with the impacts of development on public facilities.

Sec. 11.2.9. - LOS for Drainage Facilities.

LOS for Drainage Facilities means that a legal right to drain exists to convey stormwater discharged from each development site to a point of legal positive outfall.

F. Standards for review of application for Adequate Public Facilities Determination. The following standards shall be used in deciding whether to issue or deny an Adequate Public Facilities Determination. Before issuance of an Adequate Public Facilities Determination, the application shall fulfill the standards for each public facility component (potable water, sanitary sewer, solid waste, drainage, parks and recreation, roads, mass transit, and fire rescue facilities).

4. Drainage facilities. The drainage component shall be approved if the proposed development has a legal right to convey drainage to a point of legal positive outfall.

The above language provides of the control of runoff through the review and determination process if there is Adequate Public Facilities, measured with respect to stormwater by the presents of a positive legal outfall.

Article 16- HEALTH DEPARTMENT REGULATIONS

CHAPTER 1. - ON SITE DISPOSAL SYSTEMS - (ENVIRONMENTAL CONTROL RULE I)

Sec. 16.1.1.- Purpose and Intent.

The purpose and intent of this section is to establish minimum standards for on-site sewage disposal systems used for treatment and disposal of domestic sewage flows of five thousand (5,000) gallons per day and less.

Sec. 16.1.2. - Applicability. The regulations of this section shall apply throughout the total area of Palm Beach County. No on-site sewage disposal system shall be installed, modified, repaired or used without first obtaining a permit or required approval from the PBCPHU pursuant to this section. No municipality or political subdivision of the State, including Palm Beach County, shall issue a building or plumbing permit for any building requiring the use of an onsite sewage disposal system unless the owner or builder has received a permit for such system from the PBCPHU.

Sec. 16.1.3.- Adoption of Chapter 10D-6. F.A.C.

This section has a lot of the same verbiage as Chapter 10D-6. F.A.C. and Chapter: 64E-6 Chapter Title: Standards for Onsite Sewage Treatment and Disposal Systems which provides the guidance for the design and construction of Onsite Sewage Treatment Disposal Systems. Failing Onsite Sewage Treatment and Disposal Systems can cause significant impacts to the waters of an area. This section helps prevent this impact through requiring proper design and installation.

Code of Ordinances Review

Chapter 2 - ADMINISTRATION

ARTICLE IV. - CODE ENFORCEMENT

DIVISION 1. -GENERALLY

Sec. 2-191. - Intent of article.

It is the intent of this article to promote, protect, and improve the health, safety, and welfare of the citizens of the village by providing an equitable, expeditious, effective, and inexpensive method of enforcing the codes of the village.

DIVISION 2. - SUPPLEMENTAL CODE ENFORCEMENT PROCEDURES: ENFORCEMENT THROUGH CITATIONS

Sec. 2-226. - Authority.

This division is authorized and adopted pursuant to [F.S.] pt. II of CH. 162. The provisions of the section are additional and supplemental means of enforcing municipal codes and ordinances and may be used for the enforcement of any code or ordinance or for the enforcement of all codes and ordinances except as set forth herein above. Nothing contained in this section shall prohibit the village from enforcing its codes or ordinances by any other means. (Ord. No. 2001-03, § 1, 2-13-01; Ord. No. 2014-11, § 2, 5-13-14)

Sec. 2-230. - Violations and penalties.

This article sets up the authority for the Village to promote health, safety, and welfare throughout Wellington by enforcement action and citations. Many of these actions are for the protection of natural resources as such aid in meeting the goals of the permit. Some examples of these citation include Violation of Water Restriction (Class II, Penalty \$75.00), or Violation of Livestock Waste BMP's (Class IV, Penalty \$250.00)

Chapter 18 -BUILDINGS AND BUILDING REGULATIONS

ARTICLE II. -TECHNICAL CODES

Sec. 18-31. - Wellington's Building Codes.

(a) Authority. This chapter is promulgated pursuant to Chapter 553, Florida Statutes.

(b) Codes adopted by reference. The building official shall enforce the following, which are adopted by reference and as may be amended by this article.

104.10.1 (Reserved FBC) Flood hazard areas. The building official shall not grant modifications to any provision required in flood hazard areas as established by Section 1612.3 unless a determination has been made that:

1. A showing of good and sufficient cause that the unique characteristics of the size, configuration or topography of the site render the elevation standards of Section 1612 inappropriate.

2. A determination that failure to grant the variance would result in exceptional hardship by rendering the lot undevelopable.
3. A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, cause fraud on or victimization of the public, or conflict with existing laws or ordinances.
4. A determination that the variance is the minimum necessary to afford relief, considering the flood hazard.
5. Submission to the applicant of written notice specifying the difference between the design flood elevation and the elevation to which the building is to be built, stating that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced floor elevation, and stating that construction below the design flood elevation increases risks to life and property.

This section of the ordinance adopted the state's rule on flood hazards mitigation, while allowing for some flexibility to for the Village to make determinations if a modification could or should be allowed due to some sort of hardship. Reduced development in the flood hazard area prevents property damage and contamination from entering the waters, during high water events.

ARTICLE III. - FLOOD DAMAGE PREVENTION

Sec. 18-40. - These regulations shall be known as the Floodplain Management Ordinance of the Village of Wellington, hereinafter referred to as "this article." (Ord. No. 2017-14, § 2, 9-12-17)

The provisions of this article shall apply to all development that is wholly within or partially within any flood hazard area, including but not limited to the subdivision of land; filling, grading, and other site improvements and utility installations; construction, alteration, remodeling, enlargement, improvement, replacement, repair, relocation or demolition of buildings, structures, and facilities that are exempt from the Florida Building Code; placement, installation, or replacement of manufactured homes and manufactured buildings; installation or replacement of tanks; placement of recreational vehicles; installation of swimming pools; and any other development.

Sec. 18-42. - Intent.

The purposes of this article and the flood load and flood resistant construction requirements of the Florida Building Code are to establish minimum requirements to safeguard the public health, safety, and general welfare and to minimize public and private losses due to flooding through regulation of development in flood hazard areas to:

- (1) Minimize unnecessary disruption of commerce, access and public service during times of flooding;
- (2) Require the use of appropriate construction practices in order to prevent or minimize future flood damage;

- (3) Manage filling, grading, dredging, mining, paving, excavation, drilling operations, storage of equipment or materials, and other development which may increase flood damage or erosion potential;
- (4) Manage the alteration of flood hazard areas, watercourses, and shorelines to minimize the impact of development on the natural and beneficial functions of the floodplain;
- (5) Minimize damage to public and private facilities and utilities;
- (6) Help maintain a stable tax base by providing for the sound use and development of flood hazard areas;
- (7) Minimize the need for future expenditure of public funds for flood control projects and response to and recovery from flood events; and
- (8) Meet the requirements of the National Flood Insurance Program for community participation as set forth in the Title 44 Code of Federal Regulations, Section 59.22. (Ord. No. 2017-14, § 2, 9-12-17)

Again this section allows for limited construction within the Flood Hazard Area, but manages the adverse effects by requiring appropriate construction practices and meet requirements in the National Flood Insurance Program. Lastly the section outlines the powers of the flood plain manager and responsibilities thereof.

Chapter 30 -ENVIRONMENT

ARTICLE III. - STORMWATER SYSTEM

DIVISION 1. -GENERALLY

Sec. 30-71. - Title.

This article shall be known as the "Village of Wellington Initial Stormwater Control Ordinance," and may be so cited.

Sec. 30-72. - Purpose and intent.

The purpose of this article is to promote the health, safety and general welfare of the inhabitants of the village.

This article is intended to comply with federal and state law and regulations regarding water quality. (Ord. No. 97-24, Art. 1.0(1.1), 1-27-98)

Sec. 30-74. - Operation and maintenance responsibilities for stormwater systems.

Water management systems within the village shall be operated and maintained in a manner that will ensure that development and redevelopment adequately accommodate stormwater to meet all federal, state, and local requirements. The village establishes the following regulations relating to the operation and maintenance of stormwater management systems within the village:

(1) The village will be responsible for the construction, operation and maintenance of the primary water management system in the village (backbone), which consists of canals, pump stations and other stormwater management facilities described in drainage facility map.

(2) The village will be responsible for the secondary water management system as defined by village rights-of-way and village-owned properties.

(3) All other stormwater management facilities shall be operated and maintained by either the individual property owner or a duly constituted home owners or property owner's association having ownership or control of the property on which the facilities are located.

(4) Operation and maintenance responsibilities for stormwater management facilities on private property may be assumed by the village only pursuant to a written agreement between the parties and the execution of all necessary easements and/or rights of entry.

(5) The village will monitor all applications to modify the Surface Water Management Permit No. 50-00548-S (Master Permit for the Village of Wellington issued to Acme Improvement District) and will object to the issuance of any modification by South Florida Water Management District which is inconsistent with these regulations.

Sec. 30-84. - NPDES permits.

Any person who holds a National Pollutant Discharge Elimination System (NPDES) permit shall provide a copy of such permit to the director no later than the later of 60 calendar days after the effective date of this article or 60 calendar days after issuance. (Ord. No. 97-24, Art. 2.0(2.4), 1-27-98)

Division 3. -ILLICIT DISCHARGES

Sec. 30-91. - General prohibitions.

Except as set forth under section 30-93 of this article or as in accordance with a valid NPDES permit, any discharge to the stormwater system that is not composed entirely of stormwater is prohibited. (Ord. No. 97-24, Art. 3.0(3.1), 1-27-98)

Sec. 30-92. - Specific prohibitions.

Any discharge to the stormwater system containing any sewage, industrial waste or other waste materials, or containing any materials in violation of federal, state, county, municipal, or other laws, rules, regulations, orders or permits, is prohibited. (Ord. No. 97-24, Art. 3.0(3.2), 1-27-98)

ARTICLE IV. -WATER CONSERVATION

Sec. 30-141.- Applicability.

All provisions of this article shall be effective within the Village of Wellington and shall set restrictions, constraints, and prohibitions to enhance the village's water sources and provide a permanent water conservation measure. Nothing in this article shall be construed to relieve any person from compliance with any applicable regulations enacted by any agency of the State of Florida having jurisdiction over water resources in the village. (Ord. No. 99-08, § 1, 5-11-99)

ARTICLE V. - STORMWATER QUALITY MANAGEMENT

Sec. 30-151. - Purpose.

The purpose of these best management practices (BMPs) for livestock waste and fertilizer management is to comply with Policy 1.2.11 and 13 of the Conservation Element Wellington's Comprehensive Plan and to comply with the conditions of the Joint Cooperation Agreement between Wellington

and the South Florida Water Management District which requires Wellington to implement a compliance-based pollution prevention program designed to reduce nutrient discharges, specifically phosphorus, from its surface water system into the Everglades protection area. Wellington is

therefore, implementing a BMPs program designed to reduce, abate, and prevent, directly and indirectly, phosphorus discharges to the surface water system within Wellington. (Ord. No. 00-18, § 1, 9-26-00; Ord. No. 2012-12, § 2, 3-26-13)

Sec. 30-153. -Best management practices for livestock waste.

This chapter outlines some of the most relevant items to the MS4/NPDES program. Throughout the chapter there is detailed information about the construction, maintenance, and operation of the stormwater system, the NPDES program, management of Illicit Discharges to the MS4, and water conservation. Topics of water conservation as needed within the Village are addressed as well as stormwater quality and management. The chapter ends with incorporation of ordinance 2012-12 which outlines best management practices for livestock waste.

Chapter 50 - SPECIAL DISTRICTS

ARTICLE II. -ACME IMPROVEMENT DISTRICT

This section is mainly focused on the taxing authority of the and the creation there of.

Chapter 70 - WATERWAYS

Sec. 70-1.- Swimming, bathing, wading or immersing in public waters.

It shall be unlawful for any person to swim, bathe, wade, or immerse in any publicly owned water body, canal, or lake located within the village boundaries.

Sec. 70-2. - Operation of personal watercraft within village boundaries prohibited; exceptions.

The operation of any gasoline, diesel, or fuel-powered boats, vessels, jetskis, waverunners, or other personal watercraft is hereby expressly prohibited on or in any publicly owned water body, lake, or canal located within the village boundaries, except that the use of gasoline, diesel, or fuel-powered boats may be permitted as provided in section 70-3 hereof. This section shall not be construed to prohibit the use of self-propelled, nonmotorized personal watercraft such as canoes, paddle boats, or rowboats, nor those watercrafts propelled or powered by electric motors.

This section mostly addresses the use of water in the village explicitly waters crafts in the water bodies within Wellington boundaries.

Engineering Standards Manual Review

Initial search for this document using “Engineering Standards” resulted the page that has a link to the document being third on the search results. The fact that manual was in the list of many links under forms was not intuitive. Considering the vast amount of great guidance this document hold making it more readily searchable may be a worthwhile investment.

Section 1 - INTRODUCTION

Within Section 1.4 the manual indicates the purpose being to “provide design and construction standards for the purpose of providing the citizens of Wellington with high quality, low maintenance, public facilities, and private development.

Applicable development types are outlines in Section 1.5

- (1). All subdivisions shall be designed and constructed in accordance with these standards whether they are intended to be publicly or privately maintained.
- (2). All planned unit development; commercial, multi-family, and industrial developments shall be designed and constructed in accordance with these standards with exceptions only as noted it this text, or agreed to by plan approval.
- (3). All streets, and the related facilities, that are created by dedication shall be designed and constructed in accordance with these standards whether they are intended to be publicly or privately maintained.

(4). All projects constructed by and/or constructed for the Village shall be designed and constructed in accordance with these standards.

Section 2 - SUBDIVISION STANDARDS

Section 2 Subdivision Standards, outline requirement for a Final Stormwater Plan, such as pre-development and post-development site characteristics, such as; topography, times-of concentration, ground cover, soil profile, wet season mean high water table elevations and recurring high water elevations in receiving watercourses or water bodies, runoff factors and quantitative breakdown of pervious/impervious areas, hydrologic and hydraulic calculations for design of storm sewers, retention/detention area and discharge structures evidence of existing access to legal positive outfall, detailed water and sewer plans designed in accordance with the Wellington Standards Manual and any other requirements established by the Wellington Utility Department. These detailed requirements do a lot towards regulating the effects of development on the stormwater in the Village.

Section 2.5 addresses clearing, earthwork and grading it states that a “developer shall be required to clear all rights-of-way and to make all grades for streets, parking tracts, lots, and other areas proposed to be developed, compatible with on-site tertiary drainage patterns established by the approved drainage design.” Placing the on-site tertiary drainage on the developer allows the Village to review and require effective stormwater management practices as a prerequisite to development of undisturbed areas. Additionally, the section requires, remove and replace unsuitable materials as determined pursuant to the code.

The village may want to consider adding a section reference here to section 3.2 Pollution, Siltation, And Erosion Control Measures to ensure that it is a known requirement to this activity.

Section 2.6 Stormwater Management, this section of the contains a lot of technical guidance to the person preparing drainage design and calculations for land development. Sub-section 2.6.1 and 2.6.1 make lots of references to the Land Development Regulations. Within 2.6.5 (A) by reference there is a requirement to meet the Wellington Stormwater Ordinance 2010-14 or the more stringent SFWMD permit process.

The village may want to consider adding a reference the NPDES joint permit requirement as well.

Section 3 - GENERAL REQUIREMENTS FOR CONTRACTORS

The general requirements to contractors included but are not limited to temporary facilities and control, water control, and pollution, siltation, and erosion control. The sub-sections of the general requirements contain a lot of technical guidance to the person preparing Stormwater Pollution Prevention Plan (SWPPP) and provide good direction to be in compliance with the requirements of the NPDES permit.

Section 4 - STREETS

The purpose of this division is to specify the minimum design requirements, materials, and construction standards for street construction. Street construction includes design, clearing, grading, stabilizing, constructing base and surface coarse, resurfacing, sidewalks, seeding, and mulching. The section then goes into greater detail on topics including the need for grading to be uniformed and not adversely affect adjacent properties, and seeding, and mulching such as acceptable environments for installation and rates of fertilization.

Section 5 - STORMWATER MANAGEMENT

The general requirements of this guideline is to specify the minimum information and design requirements, materials, and construction standards for Stormwater Management Facilities. The standards and requirements in this guideline are intended to supplement Village of Wellingtons Ordinances, Best Management Practices Manual for Works in Wellington and this manual. In the event of conflict, the stricter of the provisions shall prevail.

Below are specific excerpts from this section that demonstrate the documents support of the permit goals.

5.2 APPLICABILITY

All projects to be built in the Village of Wellington that alter the existing land use by the addition of impervious surfaces (i.e. pavement, buildings, sidewalks, etc.) in excess of that which now exists, will be required to comply with the requirements of this guideline and Village of Wellingtons Ordinances unless the project meets one of the following exceptions:

- (1) Singular lot for single family unit less than 0.25 acres.
- (2) Singular lot for duplex family unit less than 0.25 acres.
- (3) Modifications to an existing single family unit that is less than 0.25 acres.
- (4) Lots, parcels, units, etc., which are part of a larger tract, which has an approved and constructed drainage system in conformity with the Village of Wellingtons Best Management Practices Manual.

Item (4) should be considered to be revised to be more clear. It is potentially open to interpretation what is the larger tract and what form of conformity to BMP meets the item.

5.4.2 Retention/Detention Facility

Retention/detention facilities shall be designed under the following criteria:

1. Design storm shall be for a 25-year, 72-hour storm.
2. Runoff hydrographs shall be determined by one of the following methods:
 - (a) SCS Unit Hydrograph Method

(b) Santa Barbara Urban Hydrograph Method

3. Minimum Treatment Volume:

(a) Pursuant to Ordinances, projects shall adhere to the SFWMD requirements for treatment volume (and additional volume for Basin B) as follows

i. Basin A: Runoff from the first one (1) inch of rainfall multiplied by the entire site area or two and one half (2.5) inches multiplied by the percent imperviousness of the site multiplied by the total site area (minus buildings and lake surfaces), whichever is greater.

ii. Basin B: Runoff from the first one and one half (1.5) inches of rainfall multiplied by the entire site area or three and three quarters (3.75) inches multiplied by the percent imperviousness of the site multiplied by the total site area (minus) buildings and lake surfaces), whichever is greater.

This is the major governing water quality item here in Wellington

5.5.4 Detention Facility Outfall Design

(1) Pollution Abatement -All structures shall be designed to prevent floating oil and debris from discharging.

(2) Structures Utilized -All structures shall be of a permanent nature and be constructed in accordance with FDOT standards. Shop drawings will be submitted and approved by the Engineer prior to any installation of any drainage structures.

(3) Freeboard -Freeboard is the vertical distance between the elevation of the design high water and the top of the bank. All structures shall be designed to provide six (6) inches of freeboard on sites less than three (3) acres and one (1) foot on sites three (3) acres or larger.

This provision provided more treatment, and prevention failure.

5.6 LAKE EXCAVATION

5.6.1 General Criteria and Procedures.

An excavated lake shall be designed and maintained to meet minimum criteria for surface water as set forth under Chapter 62-302, F.A.C., Wellington Land Development Regulations and the following:

By direct reference to the SURFACE WATER QUALITY STANDARDS the Village provides a robust requirement.

Section 5.1 General through 5.6.2 Specific Criteria and Procedures. Provide detailed and conscious direction for the design stormwater systems in Wellington and protection for the BMPs and programs that are in place.

Section 6 - DRAINAGE SYSTEM MATERIAL AND CONSTRUCTION

This section provided necessary information on the construction of the drainage facilities.

Section 7 - ENGINEERING PERMITTING PROCESS

7.1 GENERAL

7.1.1 ACTIVITIES REQUIRING ENGINEERING PERMITS

- 1) Private development and re-development project that require filling/excavation, paving, grading or drainage improvements as part of the development plan.
- 2) Public development and re-development project that require filling/excavation, paving, grading or drainage improvements as part of the development plan.
- 3) Connection to public right-of-way and/or public drainage facilities.
- 4) Any project that requires removal, replacement, or maintenance of pavement markings, striping, signage and pavement rehabilitation.
- 5) Culvert, irrigation connections to an Acme Improvement District canal.
- 6) All utility work within Acme Improvement District & Village of Wellington right-of-way.

7.2 PERMIT TYPES

7.2.1 LAND DEVELOPMENT

Applicable to all new development and re-development of sites, with the exception of Single-family homes in a previously approved subdivision that are less than 0.25 acres in area and rural equestrian lots with less than 20 percent lot fill, except for alterations to drainage features. Minor modifications to a drainage system can utilize an engineering permit, at the Village Engineers discretion.

7.2.2 FILL/EXCAVATION

Applicable to sites requiring the filling or excavation of earth (including lakes, swales, berms and general site grading) with no additional buildings (or other erect structures) or drainage features (including inlets, culverts and control structures).

7.2.3 ENGINEERING

Applicable when connecting to Village of Wellington right-of-way (driveway, drainage), performing curb work, ADA, and other general site work to an existing facility. Not applicable to connecting to an ACME Improvement District Facility, a public works permit is required for connection to a ACME Improvement District Facility.

This section provided definitive statements that many of the activities that could have impacts on the water quality during Land Development require engineering permits and thus may be regulated.

Permit Criteria and Best Management Practices Review

I. INTRODUCTION

4. GENERAL CONDITIONS FOR PERMIT ISSUANCE

- To maintain any works or structures in a good and safe condition.
- To hold and save the V.O.W. and its successors harmless from any and all damages, claims or liabilities that may arise by reason of the construction, operation, maintenance or use of the work or structure involved in the permit.
- To allow inspection at any time by the VOW of any works or structure authorized for construction with this permit.
- To make any changes and repairs required by the VOW to insure the safe operation of the VOW water management facilities during storm events.
- To prevent the discharge of debris and/or aquatic weeds into the VOW works via the permitted facility.
- To maintain the water quality of all waters discharging into the VOW works.
- A target level for Phosphorus (P) in waters discharged from a site is 50 parts per billion (ppb).
- The Permittee will be responsible for maintaining the area between the structure and the edge of an adjacent lake, canal or roadway.
- The Permittee shall comply with the rules, regulations and standards of respective homeowner's association guidelines (if applicable) for the uniform protection of the landowners throughout the VOW.
- The permit may be revoked by the VOW giving notice in writing to the Permittee at any time because of failure of the Permittee to comply with the conditions of the permit.

These general conditions of the ordinance provide good regulatory authority to manage stormwater, especially with the 50 ppb criteria. This ordinance alone provides some of the most robust water quality requirement in detail, to meet the goals of the permit.

Conclusion

The Village of Wellington's current Website, Comprehensive Plan Conservation Elements, Land Development Regulations, Code of Ordinances, Engineering Standards Manual Review and Permit Criteria and Best Management Practices exceed the goals of the permit by encouraging development utilizing best management practices that promoting sustainability with respect to water quality. Recommendations within this report only further exceed the goals. The items to be discussed internally by City staff include:

- Website Review
The current Search Engine Optimization (SEO) for the website provided a reasonable amount of relevant information on the topics that NPDES MS4 permit addresses. The village may want to add some additional content on BMPs, Low Impact Development and Design with metadata associated to demote some of the less relevant results and promote the goals of the permit.
- LDR - Section 6.5.18
These sections allow for flexible development regulations and set design criteria. The Village may want to add an item to this section to promote more green infrastructure and development using a program such as ENVISION as developed by American Society of Civil Engineers (ASCE), LEED for Neighborhood Development, or other Sustainable Infrastructure rating system. Recommendations like this encourage all of the permit goals. They also promote energy and water resource efficiency.
- LDR - Section 6.8.14
The Village may consider adding an item to this section to promote more green infrastructure and development using a program such as ENVISION as developed by American Society of Civil Engineers (ASCE), or other Sustainable rating system. Recommendations like this encourage all of the permit goals.
- Engineering Standards - Section 2.5
The village may want to consider adding a section reference here to section 3.2 Pollution, Siltation, And Erosion Control Measures to ensure that it is a known requirement to this activity.
- Engineering Standards - Section 2.6
The village may want to consider adding a reference the NPDES joint permit requirement as well.
- Engineering Standards - Section 5.2
Item (4) should be considered to be revised to be more clear. It is potentially open to interpretation what is the larger tract and what form of conformity to BMP meets the item.

No other actions are recommended at this time.