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 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 2500
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

SECTION I. BACKGROUND INFORMATION

A.	Permittee Name: Town of Juno Beach		
B.	Permit Name: Palm Beach County Municipal Separate Storm Sewer System		
C.	Permit Number: FLS000018-003 (Cycle 3)		
D.	Annual Report Year: ☐ Year 1 ☒ Year 2 ☐ Year 3 ☐ Year 4 ☐ Year 5 ☐ Other, specify Year:		
E.	Reporting Time Period (month/year): October / 2011 through September / 2012		
F.	Name of the Responsible Authority: Joseph F. LoBello		
	Title: Town Manager		
	Mailing Address: 340 Ocean Drive		
	City: Juno Beach	Zip Code: 33408	County: Palm Beach
	Telephone Number: 561-626-1122	Fax Number: 561-775-0812	
	E-mail Address: jlobello@juno-beach.fl.us		
G.	Name of the Designated Stormwater Management Program Contact (if different from Section I.F above): Anthony R. Meriano		
	Title: Public Works Director		
	Department: Public Works		
	Mailing Address: 340 Ocean Drive		
	City: Juno Beach	Zip Code: 33408	County: Palm Beach
	Telephone Number: 561-626-1122	Fax Number: 561-775-0812	
	E-mail Address: ameriano@ juno-beach.fl.us		

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

A.	Number of outfalls ADDED to the outfall inventory in the current reporting year (insert "0" if none): (Does this number include non-major outfalls? ☐ Yes ☐ No ☒ 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? ☐ Yes ☐ No ☒ Not Applicable)
C.	Is the change in the total number of outfalls due to lands annexed or vacated? ☐ Yes ☐ No ☒ Not Applicable

SECTION III. MONITORING PROGRAM

A.	Provide a brief statement as to the status of monitoring plan implementation: This monitoring plan is carried our as a joint effort by the Palm Beach County Co-permittees. Please see the Palm Beach County Joint Annual Report for the monitoring information.
B.	Provide a brief discussion of the monitoring results to date: This monitoring plan is carried our as a joint effort by the Palm Beach County Co-permittees. Please see the Palm Beach County Joint Annual Report for the monitoring information.
C.	Attach a monitoring data summary, as required by the permit.

SECTION IV. FISCAL ANALYSIS

A.	Total expenditures for the NPDES stormwater management program for the current reporting year: $35,878
B.	Total budget for the NPDES stormwater management program for the subsequent reporting year: $50,351 (included one-time budget appropriation for replacement of the Pelican Lake Outfall Pipe)

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

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

Attached	N/A	
☐	☒	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.
☒	☐	A monitoring data summary as directed in Section III.C above and in accordance with Rule 62-624.600(2)(c), F.A.C.
☐	☒	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.
☐	☒	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.
☐	☒	Year 4 ONLY: Permit re-application information in accordance with Rule 62-624.420(2), F.A.C.

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): Joseph F. LoBello

Title: Town Manager

Signature: _____ Date: 2/26/2013

SECTION VII. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE

A. Permit Citation/ SWMP Element	B. Permit Requirement/Quantifiable SWMP Activity	C. Number of Activities Performed	D. Documentation / Record	E. Entity Performing the Activity	F. Comments
Part III.A.1	**Structural Controls and Stormwater Collection Systems Operation**				

Maintain an up-to-date inventory of the structural controls and roadway stormwater collection structures operated by the permittee, including, at a minimum, all of the types of control structures listed in Table II.A.1.a of the permit. Report the current known inventory.

Report the number of inspection and maintenance activities conducted for each 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. 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.

Type of Structure	Number of Activities Performed					Documentation / Record	Entity Performing the Activity	Comments
	Total Number of Structures	Number of Inspections	Percentage Inspected	Number of Maintenance Activities	Percentage Maintained			
Exfiltration trench / French drains (linear feet)	1000	2	100	4	100	Inspection Form	D.P.W.	2x Annual
Grass treatment swales (miles)	2000	14	100	0	100	Inspection Form	D.P.W.	3x Month
Wet detention systems	1	4	100	2	100	Inspection Form	D.P.W.	4x Annual
Major stormwater outfalls	1	4	100	0	100	Inspection Form	D.P.W.	4x Annual
Weirs or other control structures	1	4	100	0	100	Inspection Form	D.P.W.	4x Annual
MS4 pipes / culverts	1.2	4	50	1	25	Inspection Form	D.P.W.	Every 2 Years
Inlets / catch basins / grates	128	256	50	128	50	Inspection Form	D.P.W.	2x Annual
ATTACH explanation if any of the minimum inspection frequencies in Table II.A.1.a were not met								
Year 1 ONLY: Attach a map of all known major outfalls as per Rule 62-624.600(2)(a), F.A.C.								See attached

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Part III.A.2	**Areas of New Development and Significant Redevelopment**				
	Report the number of new development and significant redevelopment projects reviewed by the permittee for post-development stormwater considerations.				
	Number of new development / significant redevelopment projects reviewed	0			
	Provide in the Year 2 Annual Report the summary report of the review of local codes activity. Provide in the Year 4 Annual Report the follow-up report on plan implementation of modifying codes to allow low impact design BMPs.				
	Year 2 ONLY: Attach the summary report of the review activity				
	Year 4 ONLY: Attach the follow-up report on plan implementation				
Part III.A.3	**Roadways**				
	Annually review (and revise, as needed) and implement the permittee's written procedures for the litter control program(s) for public streets, roads, and highways, including rights-of-way, employed within the permittee's jurisdictional area and properly dispose of collected material. Implement the program on a monthly, or on an as needed, basis. 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.				
	PERMITTEE Litter Control Program: Frequency of litter collection	2x Annual	Sign In Sheet	Volunteer/D.P.W.	
	PERMITTEE Litter Control Program: Estimated amount of area maintained (linear feet)	2000	Route Sheets	Volunteer/D.P.W.	
	PERMITTEE Litter Control Program: Estimated amount of litter collected (cubic yards)	12	Weight Slips	Solid Waste Authority	
	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.				
	Keep PBC Beautiful Trash Pick-up Events: Total miles cleaned	2.0	Sign In Sheet	Volunteers	D.P.W Assist
	Keep PBC Beautiful Trash Pick-up Events: Estimated amount of litter collected (cubic yards)	4.0	Weigh In Sheets	Volunteers	D.P.W Assist
	Adopt-A-Road Program: Total miles cleaned	-	-	-	None in Place
	Adopt-A-Road Program: Estimated amount of litter collected (cubic yards)	-	-	-	-
	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 (TN) and total phosphorus (TP) loadings that were removed by the collection of sweepings. If no street sweeping program is implemented, provide the explanation of why not in the Year 1 Annual Report.				
	Frequency of street sweeping	4x Annual	Invoice	Hurricane Serv.	Report Form
	Total miles swept (per year)	16.0	Invoice	Hurricane Serv.	Report Form
	Estimated quantity of sweeping material collected (cubic yards)	20.0	Invoice	Hurricane Serv.	Report Form
	Total nitrogen loadings removed (pounds)	25.84	Worksheet	D.P.W.	Report Form
	Total phosphorus loadings removed (pounds)	16.57	Worksheet	D.P.W.	Report Form
	Year 1 ONLY: If have curbs and gutters, attach explanation of why no street sweeping program and the alternate BMPs used or planned				

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	Annually review (and revise, as needed) and implement the permittee's written standard practices to reduce the pollutants in stormwater runoff from areas associated with road repair and maintenance, and from permittee-owned or operated equipment yards and maintenance shops that support road maintenance activities. Report the number of applicable facilities and the number of inspections conducted for each facility.				
		Number of Inspections			
	Name of facility #1: D.P.W Maintenance Facility	2	Inspection Form	D.P.W Staff	2x Annual
	Name of facility #2:				
	Name of facility #3:				
	Name of facility #4:				
Part III.A.4	**Flood Control Projects**				
	Report the total number of flood control projects that were constructed by the permittee during the reporting period and the number of those projects that did NOT include stormwater treatment. The permittee shall provide a list of the projects where stormwater treatment was not included with an explanation for each of why it was not. Report on any stormwater retrofit planning activities and the associated implementation of retrofitting projects to reduce stormwater pollutant loads from existing drainage systems that do not have treatment BMPs.				
	Flood control projects completed during the reporting period	0	N/A	-	-
	Flood control projects completed during the reporting period that did <u>not</u> include stormwater treatment	0	N/A	-	-
	ATTACH a list of the flood control projects that did <u>not</u> include stormwater treatment and an explanation for each of why it was not				
	Stormwater retrofit projects planned	0	N/A	-	-
	Stormwater retrofit projects under construction during the reporting period	0	N/A	-	-
	Stormwater retrofit projects completed during the reporting period	0	N/A	-	-
Part III.A.5	**Municipal Waste Treatment, Storage, and Disposal Facilities Not Covered by an NPDES Stormwater Permit**				
	Annually review (and revise, as needed) and implement the permittee's written procedures for inspections and the implementation of measures to control discharges from the following facilities that are not otherwise covered by an NPDES stormwater permit: • Operating municipal landfills; • Municipal waste transfer stations; • Municipal waste fleet maintenance facilities; and • Any other municipal waste treatment, waste storage, and waste disposal facilities. Report the number of applicable facilities and the number of the inspections conducted for each facility.				
		Number of Inspections			
	Name of facility #1: No Waste Transfer Stations	0			
	Name of facility #2: No Muni Landfills	0			
	Name of facility #3: No Waste Fleet Facilities	0			
	Name of facility #4: No Waste Treatment, Storage, Disposal	0			

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Part III.A.6	**Pesticides, Herbicides, and Fertilizer Application**				
	Continue to require proper certification and licensing by the Florida Department of Agriculture and Consumer Services (FDACS) for all applicators contracted to apply pesticides, herbicides, or fertilizers on permittee-owned property, as well as any permittee personnel employed in the application of these products. Report the number of permittee personnel applicators and contracted commercial applicators of pesticides and herbicides who are FDACS certified / licensed. Report the number of permittee personnel and contractors who have been trained through the Green Industry BMP Program, and the number of contracted commercial applicators of fertilizer who are FDACS certified / licensed.				
	PERSONNEL: Florida Department of Agriculture and Consumer Services (FDACS) certified applicators of pesticides and herbicides	Monthly	FDACS License	FDACS	3 D.P.W Staff
	CONTRACTORS: FDACS certified / licensed applicators of pesticides and herbicides	Monthly	FDACS License	FDACS	Terminex Staff
	CONTRACTORS: FDACS certified / licensed applicators of fertilizer	Annual	FDACS License	FDACS	Sunshine Land Design
	PERSONNEL: Green Industry BMP Program training completed	Annual	FDACS License	FDACS	One
	CONTRACTORS: Green Industry BMP Program training completed	Annual	FDACS License	FDACS	One
	Pursuant to SB 2080 (2009), all local governments are encouraged to adopt a Florida-friendly Landscaping Ordinance similar to the one set forth in the document "Florida-friendly Guidance Models for Ordinances, Covenants and Restrictions." If the broader Florida-friendly ordinance described above is not adopted, then all local governments within the watershed of a nutrient-impaired water body shall adopt the Department's Model Ordinance for Florida-Friendly Fertilizer Use on Urban Landscapes pursuant to SB 494 (2009) or an ordinance that includes all of the requirements set forth in the Model Ordinance. The ordinance shall be adopted within 24 months of the date of permit issuance. Provide a copy of the adopted ordinance with the subsequent Year 1 or Year 2 Annual Report.				
	Year 1 or Year 2 ONLY: Attach copy of adopted Florida-friendly ordinance		n/a	n/a	
	During Year 1 of the permit, develop and implement a written public education and outreach program plan to encourage citizens to reduce their use of pesticides, herbicides, and fertilizers. 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, the percentage of the population reached by the activities in total, and the number of Web site visits (if applicable). Activities performed under the Florida Yards and Neighborhoods (FYN) program should only be reported if the permittee is contributing funding towards the FYN staff and program within its jurisdiction. **FYN PROGRAM FUNDING: Permittee Provides Funding? ☐ Yes ☒ No Amount of Funding = $**				
	Public education and outreach program	The public outreach and education plan is carried out as a joint effort by the Palm Beach County Co-permittees. Please see the Palm Beach County Joint Annual Report for the public education and outreach information.			
	~~During Year 1 of the permit, develop and implement a written plan for the training of all permittee personnel applicators and contracted applicators to emphasize the stormwater implications of pesticide, herbicide and fertilizer application. Follow-up training shall be provided annually. Training to obtain or maintain an FDACS certificate and/or license does not satisfy this requirement. Report the number of permittee personnel applicators and contracted applicators who~~				

SECTION VII. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE

A. Permit Citation/ SWMP Element	B. Permit Requirement/Quantifiable SWMP Activity	C. Number of Activities Performed	D. Documentation / Record	E. Entity Performing the Activity	F. Comments
	~~participated in training on the stormwater implications of pesticide, herbicide and fertilizer application (both in-house and outside training).~~				
Part III.A.7.a	**Illicit Discharges and Improper Disposal — Inspections, Ordinances, and Enforcement Measures**				
	Where applicable, strengthen the legal authority to conduct inspections, conduct monitoring, control illicit discharges, illicit connections, illegal dumping and spills into the MS4 and to require compliance with conditions in ordinances, permits, contracts, and orders. Report amendments, as needed.				
	ATTACH a report on any amendments to the applicable legal authority		n/a		
Part III.A.7.c	**Illicit Discharges and Improper Disposal — Investigation of Suspected Illicit Discharges and/or Improper Disposal**				
	During Year 1 of the permit, develop and implement a written proactive inspection program plan for identifying and eliminating sources of illicit discharges, illicit connections, or dumping to the MS4. Report on the proactive inspection program, including the number of inspections conducted, the number of illicit activities found, and the number and type of enforcement actions taken.				
	Proactive inspections for suspected illicit discharges / connections / dumping	12	Code Inspection Reports	Code Inspection D.P.W.	Monthly Inspections
	Illicit discharges / connections / dumping found during a proactive inspection	2	Code Inspection Reports	Code Inspection D.P.W.	Monthly Inspections
	Notices of Violation (NOVs) / warning letters / citations issued for illicit discharges / connections / dumping found during a proactive inspection	2	Code Inspection Reports	Code Inspection D.P.W.	Monthly Inspections
	Fines issued for illicit discharges / connections / dumping found during a proactive inspection	0	N/A	N/A	Monthly Inspections
	Year 1 ONLY: Attach the written proactive inspection program plan				
	Annually review (and revise, as needed) and implement the permittee's written procedures to conduct reactive investigations to identify and eliminate the source(s) of illicit discharges, illicit connections or improper disposal to the MS4, based on reports received from permittee personnel, contractors, citizens, or other entities regarding suspected illicit activity. 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 connections / discharges / dumping received	0	Code Inspection Reports	Code Inspection D.P.W.	Visual Inspection
	Reactive investigations of reports of suspected illicit discharges/ connections / dumping	0	Code Inspection Reports	Code Inspection D.P.W.	Visual Inspection
	Illicit discharges / connections / dumping found during a reactive investigation	0	Code Inspection Reports	Code Inspection D.P.W.	No Violation Found
	Notices of Violation (NOVs) / warning letters / citations issued for illicit discharges / connections / dumping found during a reactive investigation	0	Code Inspection Reports	Code Inspection D.P.W.	No Violation Found
	Fines issued for illicit discharges / connections / dumping found during a reactive investigation	0	Code Inspection Reports	Code Inspection D.P.W.	No Violation Found
	During Year 1 of the permit, develop and implement a written plan for the training of all appropriate permittee personnel (including field crews, fleet maintenance staff, and inspectors) and contractors to identify and report conditions in the stormwater facilities that may indicate the presence of illicit discharges / connections / dumping to the MS4. Follow-up training shall be provided annually. Report the number and type of training activities, and the number of permittee personnel and contractors trained (both in-house and outside training).				

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		Initial Training	Refresher Training				
	Personnel trained	6	0		Sign In Sheet	In-house	
	Contractors trained	1	0		Sign in Sheet	In-house	
Part III.A.7.d	**Illicit Discharges and Improper Disposal — Spill Prevention and Response**						
	Annually review (and revise, as needed) and implement the permittee's written spill-prevention/spill-response plan and procedures to prevent, contain, and respond to spills that discharge into the MS4. Report on the spill prevention and response activities, including the number of spills addressed.						
	Hazardous and non-hazardous material spills responded to			0			
	During Year 1 of the permit, develop and implement a written plan for the training of all appropriate permittee personnel (including field crews, firefighters, fleet maintenance staff and inspectors) and contractors on proper spill prevention, containment, and response techniques and procedures. Follow-up training shall be provided annually. Report the number and type of training activities, and the number of permittee personnel and contractors trained (both in-house and outside training).						
		Initial Training	Refresher Training				
	Personnel trained	5	Annual		Sign In Sheet	In House	
	Contractors trained	1	Annual		-	-	
Part III.A.7.e	**Illicit Discharges and Improper Disposal — Public Reporting**						
	During Year 1 of the permit, develop and implement a written public education and outreach program plan to promote, publicize, and facilitate public reporting of the presence of illicit discharges and improper disposal of materials into the MS4. 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, the percentage of the population reached by the activities in total, and the number of Web site visits (if applicable).						
	Public education and outreach program			The public outreach and education plan is carried out as a joint effort by the Palm Beach County Co-permittees. Please see the Palm Beach County Joint Annual Report for the public education and outreach information.			
	Estimated percentage of the population reached by the activities in total			90	Mailing List	Town Clerk	
	Brochures/Flyers/Fact sheets distributed			6000	Mailing List	Town Clerk	
	Neighborhood presentations: Number conducted			2	H.O.A. Meeting	D.P.W.	Town Center
	Neighborhood presentations: Number of participants			30	H.O.A. Meeting	D.P.W.	Town Center
	Newspapers & newsletters: Number of articles/notices published			2	Mailing List	Town Clerk	News Letter
	Newsletters: Number of newsletters distributed			6000	Mailing List	Town Clerk	2x Annual
	Public displays (e.g., kiosks, storyboards, posters, etc.)			1	Pamphlets	Town Clerk	At Town Center

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	Seminars/Workshops: Number conducted	1	Sign In Sheet	D.P.W.	In House
	Seminars/Workshops: Number of participants	5	Sign In Sheet	D.P.W.	In House
	Web Site: Number of visitors to the stormwater-related pages	1407	Web Report	Town Clerk	-
Part III.A.7.f	**Illicit Discharges and Improper Disposal — Oils, Toxics, and Household Hazardous Waste Control**				
	During Year 1 of the permit, develop and implement a written public education and outreach program plan to encourage the proper use and disposal of used motor **vehicle fluids, leftover hazardous household products, and lead acid batteries. Report on the public education and outreach activities that are performed or sponsored** by the permittee within the permittee's jurisdiction to encourage the proper use and disposal of oils, toxics, and household hazardous waste, including the type and number of activities conducted, the type and number of materials distributed, the amount of waste collected / recycled / properly disposed, the percentage of the population reached by the activities in total, and the number of Web site visits (if applicable).				
	Public education and outreach program	The public outreach and education plan is carried out as a joint effort by the Palm Beach County Co-permittees. Please see the Palm Beach County Joint Annual Report for the public education and outreach information.			
	Estimated percentage of the population reached by the activities in total	90	Mailing List	Town Clerk	-
	Brochures/Flyers/Fact sheets distributed	6000	Mailing List	Town Clerk	-
	Neighborhood presentations: Number conducted	2	H.O.A. Meeting	D.P.W.	Town Center
	Neighborhood presentations: Number of participants	30	H.O.A. Meeting	D.P.W.	Town Center
	Newspapers & newsletters: Number of articles/notices published	2	Mailing List	Town Clerk	Newsletter
	Newsletters: Number of newsletters distributed	6000	Mailing List	Town Clerk	2x Annual
	Public displays (e.g., kiosks, storyboards, posters, etc.)	1	Pamphlets	Town Clerk	Town Center
	Seminars/Workshops: Number conducted	1	Sign In Sheet	D.P.W.	In House
	Seminars/Workshops: Number of participants	5	Sign In Sheet	D.P.W.	In House
	Web Site: Number of visitors to the stormwater-related pages	1407	Web Report	Town Clerk	-
Part III.A.7.g	**Illicit Discharges and Improper Disposal — Limitation of Sanitary Sewer Seepage**				
	Annually review (and revise, as needed) and implement the permittee's written procedures to reduce or eliminate sanitary wastewater contamination into the MS4, including discharges to the MS4 from sanitary sewer overflows (SSOs) and from inflow / infiltration from collection / transmission systems and/or septic tank systems. Advise the appropriate utility owner of a violation if constituents common to wastewater contamination are discovered in the MS4. 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.				
	Activity to reduce/eliminate SSOs and inflow / infiltration: Repair / lining of sanitary sewer system	0	-	-	No Activities this reporting period
	Activity to reduce/eliminate SSOs and inflow / infiltration: Septic systems removed	0	-	-	No Activities this reporting period
	Activity to reduce/eliminate SSOs and inflow / infiltration: Emergency generator added	0	-	-	n/a
	SSO incidents discovered	2	DEP Spill Report	LRD	-
	SSO incidents resolved	2	DEP Spill Report	LRD	-

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	Inflow / infiltration incidents discovered	0	-	-	None Discovered
	Inflow / infiltration incidents resolved	0	-	-	n/a
	Name of owner of the sanitary sewer system	Loxahatchee River District			
Part III.A.8.a	**Industrial and High-Risk Runoff — Identification of Priorities and Procedures for Inspections**				
	Continue to maintain an up-to-date inventory of all existing high risk facilities discharging into the permittee's MS4. The inventory shall identify the outfall and surface water body into which each high risk facility discharges. For the purposes of this permit, high risk facilities include: • Operating municipal landfills; • Hazardous waste treatment, storage, disposal and recovery facilities; • Facilities that are subject to EPCRA Title III, Section 313 (also known as the Toxics Release Inventory (TRI) maintained by the U.S. EPA); and • Any other industrial or commercial discharge that the permittee determines is contributing a substantial pollutant loading to the permittee's MS4. This could include facilities identified through the proactive inspection program as per Part III.A.7.c of the permit. 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.					

	Number of Facilities	Number of Inspections	For violations discovered during a high risk inspection: Fines issued	For violations discovered during a high risk inspection: Notices of Violation (NOVs) / warning letters / citations issued			
Total high risk facilities	1				2	Inspection Form	2x Annual
New high risk facilities added to the inventory during the current reporting period	0				No New High Risk Facilities Added	-	-
Operating municipal landfills	0	-			No Landfills in Town	-	-
Hazardous waste treatment, storage, disposal and recovery (HWTSDR) facilities	0	-			No Haz. Waste Treat., Storage, Disposal	-	-
EPCRA Title III, Section 313 facilities (that are not landfills or HWTSDR facilities)	0	-			No EPCRA Title III	-	-
Facilities determined as high risk by the permittee through the proactive inspections as per Part III.A.7.c	0						None
Other facilities determined as high risk by the permittee (that are not facilities identified through the proactive inspections)	0						None

Part III.A.8.b	**Industrial and High-Risk Runoff — Monitoring for High Risk Industries**
	Sampling of the discharge to the stormwater system may be required on an as-needed basis in the event that inspections of high-risk facilities disclose suspected illicit discharges to the MS4. New high-risk industrial facilities as defined in 40 CFR 122.26(d)(2)(iv)(C) must be evaluated to determine if the new discharge is contributing a substantial pollutant load to the MS4. The evaluation may include site-specific monitoring. Report the number of high risk facilities sampled.

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A. Permit Citation/ SWMP Element	B. Permit Requirement/Quantifiable SWMP Activity	C. Number of Activities Performed	D. Documentation / Record	E. Entity Performing the Activity	F. Comments
	High risk facilities sampled	0			N/A
Part III.A.9.a	**Construction Site Runoff — Site Planning and Non-Structural and Structural Best Management Practices**				
	Continue to implement the local codes or land development regulations and the written pre-construction site plan review procedures that require the use and maintenance of appropriate structural and non-structural erosion and sedimentation controls during construction to reduce the discharge of pollutants to the MS4. Report the number of permittee and private pre-construction site plans reviewed for stormwater, erosion, and sedimentation controls, and the number approved.				
	PERMITTEE SITES: Construction site plans reviewed	0			Nothing planned
	PERMITTEE SITES: Construction site plans approved	0			"
	PRIVATE SITES: Construction site plans reviewed	7			
	PRIVATE SITES: Construction site plans approved	4			
	Annually review (and revise, as needed) and implement the permittee's written procedures to notify all new development / redevelopment permit applicants of the need to obtain all required stormwater permits. Report the number of new development/redevelopment permit applicants notified of the ERP and CGP, and the number of applicants who confirmed ERP and CGP coverage.				
	Notified of ERP stormwater permit requirements	0			N/A (<1 Ac.)
	Confirmed ERP coverage	0			N/A (<1 Ac.)
	Notified of CGP stormwater permit requirements	0			N/A (<1 Ac.)
	Confirmed CGP coverage	0			N/A (<1 Ac.)
Part III.A.9.b	**Construction Site Runoff — Inspection and Enforcement**				
	As an attachment to the Year 1 Annual Report, the permittee shall submit a written plan that details the standard operating procedures for implementation of the **stormwater, erosion and sedimentation inspection program for construction sites discharging stormwater to the MS4. The permittee shall implement the plan for** inspecting construction sites immediately upon written approval by the Department. Prior to Department approval, the permittee shall continue to perform inspections in accordance with its previously developed construction site inspection procedures. Report on the inspection program for privately-operated and permittee-operated construction sites, including the number of active construction sites during the reporting year, the number of inspections of active construction sites, the percentage of active construction sites inspected, and the number and type of enforcement actions / referrals taken.				
	PERMITTEE SITES: Active construction sites	0			
	PERMITTEE SITES: Inspections of active construction sites for proper stormwater, erosion and sedimentation BMPs	0			
	PERMITTEE SITES: Percentage of active construction sites inspected	0			
	PRIVATE SITES: Active construction sites	3			
	PRIVATE SITES: Inspections of active construction sites for proper stormwater, erosion and sedimentation BMPs	3	Inspection Report	Consultant	
	PRIVATE SITES: Percentage of active construction sites inspected	100			
	Notices of Violation (NOVs) / warning letters / citations issued	0			
	Stop Work Orders issued	0			
	Fines issued	0			

SECTION VII. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE

A. Permit Citation/ SWMP Element	B. Permit Requirement/Quantifiable SWMP Activity	C. Number of Activities Performed	D. Documentation / Record	E. Entity Performing the Activity	F. Comments
	Year 1 ONLY: Attach the written construction site inspection program plan				
Part III.A.9.c	**Construction Site Runoff — Site Operator Training**				
	During Year 1 of the permit, develop and implement a written plan for stormwater training / outreach for construction site plan reviewers, site inspectors and site operators. Provide training for permittee personnel (employed by or under contract with the permittee) and private persons involved in the site plan review, inspection or construction of stormwater management, erosion, and sedimentation controls. All inspectors of construction sites shall be certified through the Florida Stormwater, Erosion, and Sedimentation Control Inspector Training program, or an equivalent program approved by the Department. Follow-up training shall be provided annually. Report the number and type of training activities, the number of inspectors, site plan reviewers and site operators trained (both in-house and outside training), and the number of private persons trained by the permittee.				

	Certification Training	Initial Training (non-certification)	Refresher Training				
Permittee construction site inspectors	7	0	1		EPA Certification	PBC Joint Class	
Permittee construction site plan reviewers	7	0	1		EPA Certification	PBC Joint Class	
Permittee construction site operators	0	0	0				
Private persons	0	0					

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.**
		No Changes to SWMP
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)**
		No Changes to SWMP

CHECKLIST A: ATTACHMENTS TO BE SUBMITTED WITH THE ANNUAL REPORTS

Below is a list of items required by the permit that may need to be attached to the annual report. Please check the appropriate box to indicate whether the item is attached or is not applicable for the current reporting period. Please provide the number and the title of the attachments in the blanks provided.

Attached	N/A	Rule / Permit Citation	Required Attachment	Attachment Number	Attachment Title
☐	☒	Part II.F	**EACH ANNUAL REPORT:** If program resources have decreased from the previous year, a discussion of the impacts on the implementation of the SWMP.		
☐	☒	Part III.A.1	**EACH ANNUAL REPORT:** An explanation of why the minimum inspection frequency in Table II.A.1.a was not met, if applicable.		
☐	☒	Part III.A.4	**EACH ANNUAL REPORT:** 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.7.a	**EACH ANNUAL REPORT:** A report on amendments / changes to the legal authority to control illicit discharges, connections, dumping, and spills, if applicable.		
☐	☒	Part V.B.9	**EACH ANNUAL REPORT:** Reporting and assessment of monitoring results. **[Also addressed in Section III of the Annual Report Form]**		
☒	☐	Part VI.B.2	**EACH ANNUAL REPORT:** An evaluation of the effectiveness of the SWMP in reducing pollutant loads discharged from the MS4 that, at a minimum, must include responses to the questions listed in the permit.	1	SWMP Effectiveness
☐	☒	Part VIII.B.3.e	**EACH ANNUAL REPORT:** A status report on the implementation of the requirements in this section of the permit and on the estimated load reductions that have occurred for the pollutant(s) of concern.		
☐	☒	Part VIII.B.4.f	**EACH ANNUAL REPORT after approval of the BPCP:** The status of the implementation of the Bacterial Pollution Control Plan (BPCP).		
☐	☒	Rule 62-624.600(2)(a), F.A.C.	**YEAR 1:** An inventory of all known major outfalls and a map depicting the location of the major outfalls (hard copy or CD-ROM).		
☐	☒	Part III.A.3	**YEAR 1:** If have curbs and gutters but no street sweeping program, an explanation of why no street sweeping program and the alternate BMPs used or planned.		
☐	☒	Part III.A.6	**YEAR 1 or YEAR 2:** A copy of the adopted Florida-friendly Ordinance, if applicable.		
☐	☒	Part III.A.7.c	**YEAR 1:** A proactive illicit discharge / connection / dumping inspection program plan.		
☐	☒	Part III.A.9.b	**YEAR 1:** A construction site inspection program plan. **[For approval by DEP]**		
☒	☐	Part II.A	**YEAR 2:** Stormwater Management Program (SWMP)	2	
☒	☐	Part III.A.2	**YEAR 2:** A summary report of a review of codes and regulations to reduce the stormwater impact from new development / redevelopment.	3	Land Development Code Review
☐	☒	Part V.A.2	**YEAR 3:** Estimates of annual pollutant loadings and EMCs, and a table comparing the current calculated loadings with those from the previous two Year 3 ARs.		
☐	☒	Part III.A.2	**YEAR 4:** A follow-up report on plan implementation of changes to codes and regulations to reduce the stormwater impact from new development / redevelopment.		
☐	☒	Part V.A.3	**YEAR 4:** 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	**YEAR 4:** The monitoring plan (with revisions, if applicable).		
☐	☒	Part VII.C	**YEAR 4:** An application to renew the permit.		
☐	☒	Part VIII.B.3.d	**YEAR 4:** A TMDL Implementation Plan / Supplemental SWMP.		

CHECKLIST B: THE REQUIRED ANNUAL REVIEWS OF WRITTEN STANDARD OPERATING PROCEDURES (SOPs) & PLANS

The permit requires annual review, and revision if needed, of written Standard Operating Procedures (SOPs) and plans (e.g., public education and outreach, training, inspections). Please indicate your review status below. **If you have made revisions that need DEP approval, you must complete Section VIII.A of the annual report.**

Did not complete review of existing SOP / Plan	Developed new written SOP / Plan	Reviewed & no revision needed to existing SOP / Plan	Reviewed & revised existing SOP / Plan	Permit Citation	Description of Required SOPs / Plans
☐	☐	☒	☐	Part III.A.1	SOP and/or schedule of inspections and maintenance activities of the structural controls and roadway stormwater collection system.
☐	☐	☒	☐	Part III.A.2	SOP for development project review and permitting procedures and/or local codes and regulations for new development / areas of significant development.
☐	☐	☒	☐	Part III.A.3	SOP for the litter control program.
☐	☐	☒	☐	Part III.A.3	SOP for the street sweeping program.
☐	☐	☒	☐	Part III.A.3	SOP for inspections of equipment yards and maintenance shops that support road maintenance activities.
☐	☐	☒	☐	Part III.A.5	SOP for inspections of waste treatment, storage, and disposal facilities not covered by an NPDES stormwater permit.
☐	☐	☒	☐	Part III.A.6	Plan for public education and outreach on reducing the use of pesticides, herbicides and fertilizer.
N/A	N/A	N/A	N/A	Part III.A.6	~~Plan for pesticide, herbicide and fertilizer application training~~ *DEP Note: A plan is not necessary since the FDACS certification / licensing program adequately fulfills the permit requirement.*
☐	☐	☒	☐	Part III.A.6	SOP for reducing the use of pesticides, herbicides and fertilizer, and for the proper application, storage and mixing of these products.
☐	☐	☒	☐	**Part III.A.7.c**	**Plan for proactive illicit discharge / connections / dumping inspections.***
☐	☐	☒	☐	Part III.A.7.c	SOP for reactive illicit discharge / connections / dumping investigations.
☐	☐	☒	☐	Part III.A.7.c	Plan for illicit discharge training.
☐	☐	☒	☐	Part III.A.7.d	SOP for spill prevention and response efforts.
☐	☐	☒	☐	Part III.A.7.d	Plan for spill prevention and response training.
☐	☐	☒	☐	Part III.A.7.e	Plan for public education and outreach on how to identify and report the illicit discharges and improper disposal to the MS4.
☐	☐	☒	☐	Part III.A.7.f	Plan for public education and outreach on the proper use and disposal of oils, toxics and household hazardous waste.
☐	☐	☒	☐	Part III.A.7.g	SOP to reduce / eliminate sanitary wastewater contamination of the MS4.
☐	☐	☒	☐	Part III.A.8	SOP for inspections of high risk industrial facilities.
☐	☐	☒	☐	Part III.A.9.a	SOP for construction site plan review for stormwater, erosion and sedimentation controls, and ERP and CGP coverage.
☐	☐	☒	☐	**Part III.A.9.b**	**Plan for inspections of construction sites.***
☐	☐	☒	☐	Part III.A.9.c	Plan for stormwater, erosion and sedimentation BMPs training.

*** Revisions to these plans require DEP approval – please complete Section VIII.A of the annual report.**

REMINDER LIST OF THE TMDL / BMAP REPORTS TO BE SUBMITTED SEPARATELY FROM AN ANNUAL REPORT		
Rule / Permit Citation	**Report Title**	**Due Date**
Part VIII.B.3.a	**6 MONTHS from effective date of permit:** TMDL Prioritization Report.	9/2/11
Part VIII.B.3.b	**12 MONTHS from effective date of permit:** TMDL Monitoring and Assessment Plan.	3/2/12
Part VIII.B.3.c	**6 MONTHS from receiving analyses from the lab:** TMDL Monitoring Report.	TBD
Part VIII.B.4	**30 MONTHS from effective date of permit:** A Bacterial Pollution Control Plan (BPCP).	9/2/13

END OF REVISED TAILORED MS4 AR FORM
CYCLE 3 PERMIT

FLORIDA DEPARTMENT OF HEALTH

Charlie Crist
Governor

Ana M. Viamonte Ros, M.D., M.P.H.
State Surgeon General

WASTEWATER SPILLAGE REPORT

PALM BEACH COUNTY HEALTH DEPARTMENT

PHONE #561-837-5935/837-5900 Fax#561-837-5293

CONTACT: Dave Hebert, Antoine Devonshire, or Darrel Graziani

Offhours, weekends, holidays-561-582-5666(dispatcher A.G.Holley)

Utility: Loxahatchee River District_____Contact person: Adrian Sanchez_____
Phone #: 561-262-3464_____
Date and time of Incident: 11-07-11 8:20 AM_____
Description of Incident: Sewage on ground from 16" force main_____

_____

Cause of Incident: A truck or piece of construction equipment drove over a valve box.

Location of Incident (directions) 14401 US Hwy 1; LS 100
Estimated amount of spillage: 1000 to 3000 gals _____
(Attach a separate sheet explaining how you arrived at this amount)
Estimated affected area: 250 Sq yards._____
Corrective Action: isolated section of force main that was damaged and made repair.

_____

Bodies of water effected: _____Sampling Required
STORM DRAINS effected: _____
Signs/Notification Action: _____
Clean Up: _yes_____
Disinfected With: 40 lbs. of lime_____
Back to Normal: _yes_____**Date:** 11-07-11_____**Time:** 1:00 PM_____
Comments: Spill was reported at 8:20 AM and spill was stopped by 9:30 AM.

_____

_____

The Health Department and Department of Environmental Protection (DEP # (561) 681-6600, Fax 681-6760) must be notified for any amount of spillage and this report faxed. Spills greater than 1,000 gallons or any discharge to surface waters must also be called to the State Warning Point at **1-800-320-0519**

10/2009

WASTEWATER SPILLAGE REPORT

PALM BEACH COUNTY HEALTH DEPARTMENT

PHONE #561-837-5935/837-5900(Ext. 6) Fax#561-837-5293

CONTACT: David Hebert or Darrel Graziani

Offhours, weekends, holidays-561-471-2502(Medical VIP Answering Service)

Utility: Loxahatchee River District_____Contact person: Adrian Sanchez_____
Phone #: 561-262-3464_____
Date and time of Incident: Sept 5, 2012 3:45 PM_____
Description of Incident: Sewer spill _____

_____

Cause of Incident: A two inch poly pipe was nicked possibly by a lawnmower_____.

Location of Incident (directions) Northeast corner of US1 and Olympus Dr in Juno in Palm Beach County
Estimated amount of spillage: two hundred gallons_____
(Attach a separate sheet explaining how you arrived at this amount if needed)
Estimated affected area: 130 sq yards_____
Corrective Action: Force main was isolated until damaged poly line could be repaired.___

Bodies of water effected: NONE Sampling Required
STORM DRAINS effected: NONE
Signs/Notification Action: _____
Clean Up: A vac truck was used to pick up all standing water then area was flushed with clean water from vac truck. Lime was spread for disinfectant._____
Disinfected With: _Lime_____
Back to Normal: _Yes_____**Date:** 09-05-12_____**Time:** 5:00 PM_____
Comments: Poly pipe was used by contractor, Johnson Davis, to test force main they installed. Johnson Davis was on site until damaged poly pipe was isolated and they made plans to repair. Dave Hebert was informed about spill by phone 09-06-12.

The Health Department and Department of Environmental Protection (DEP # (561) 681-6600, Fax 681-6760) must be notified for any amount of spillage and this report faxed. Spills greater than 1,000 gallons or any discharge to surface waters must also be called to the State Warning Point at **1-800-320-0519**

July 2012

Attachment 1
Town of Juno Beach SWMP Effectiveness

Year 2012 Report

1. Have stormwater pollutant loadings discharged from the MS4 decreased? Why or why not?

   Pollutant loadings appear to be reducing due to system maintenance.

2. Which components of the SWMP are working well and are effective in reducing stormwater pollutant loadings? Why are they effective?

   Pelican Lake appears to be the most effective component due to its relative size.

3. Which components of the SWMP are not working well and need to be revised to make them more effective in reducing stormwater pollutant loadings?

   All components appear to be functioning as intended.

4. Which components of the SWMP do not contribute to reducing stormwater pollutant loads and could be revised or eliminated, and why?

   All components contribute to the system.

5. Is the monitoring program providing data that can be used to assess the effectiveness of the SWMP in reducing stormwater pollutant loadings, assess the effectiveness of specific BMPs, and determine where stormwater retrofitting projects should be prioritized for implementation?

   Yes.

Town of Juno Beach
Stormwater Management Plan (SWMP)
2013

Table of Contents

Section 1

Narrative

Town of Juno Beach
Stormwater Management Plan

Background

The Town of Juno Beach is located in the northeastern part of Palm Beach County, Florida. The majority of the Town of Juno Beach's surface water management system was constructed in the 1960's. Significant residential and commercial development occurred in the Town during the 1980's and 1990's. Many of the newer developments have stormwater management systems that were designed and permitted to meet South Florida Water Management District (SFWMD) criteria. However, many of the older neighborhoods were not constructed with a master stormwater management system designed for detention of stormwater runoff.

Purpose of the Plan

The purpose of this stormwater plan is to identify and prioritize stormwater management projects for the Town, and to provide the Town with a planning tool for use in budgeting stormwater management projects. The conclusions and recommendations contained in this report are based on various sources of information including: existing permit information, Geographic Information System (GIS) data from the Town and other sources, the Public Works Director and recent survey information where available.

Guiding Principles

A very important understanding in any stormwater management document prepared in South Florida is the definition of expected levels of service. Water surface elevations in relation to the road crown elevation and finished floor elevation generally define levels of service for stormwater management systems in Florida. Based on SFWMD, Palm Beach County and Town criteria, levels of service are typically discussed in terms of a 3-year storm, 5-year storm, 10-year storm, 25-year storm and 100 year storms. For clarification, these storms are not actually storms that only occur once in 100 years, once in 25 years or once in 10 years, but rather they are storms with an intensity that can be expected to occur with a regular frequency.

Many of the Town's neighborhoods have grassed swales in front of the homes. These swales typically serve as temporary storage areas as well as conveyance facilities where residents should expect to find water during a 10-year storm event. It is anticipated that this standing water should recede quickly after a storm event, usually within 12 to 24 hours, depending on the timing of back-to-back rainfall events. A 10-year storm event would be as much as 8 to 9 Inches of rainfall in a 24-hour period (SFWMD 1990, 4).

As the intensity of rainfall increase, additional runoff must be stored within the system. Generally, a 25-year storm event will drop approximately 10 to 12 inches of rainfall in a 24-hour period. For this type of storm event, residents can expect water in the roadways, sometimes even at or above the crown of the road. This is what can be considered a "nuisance" high water situation.

Larger storm events up to the 100-year event will occur from time to time. A 100-year event can drop as much as 12 to 13 inches of rainfall on the area within a 24-hour period. It is the intent of the regulations of both the Town and SFWMD that during a 100-year 3-day rainfall event that water level should not reach finished floor elevations. Specifically, it means that there should not be water in houses or businesses. There may be water in the garage, the pool may be overflowing, the backyard may be flooded, certainly the front yards and swales will be full, and in some areas roads are going to be impassable. As long as the building floors are dry, the water management system is performing effectively and correctly. The hope, intent and expectation for the 100-year level of service established within the Town are that stormwater levels do not exceed the finished floor elevations of homes and businesses.

REGIONAL CHARACTERISTICS

Climate

The subtropical climate of South Florida varies minimally in temperature across the Town with the average temperature being approximately 75 degrees. South Florida has a seven month dry season from November until May, and a five-month wet season from June through October. The average annual rainfall for this area is approximately 62 inches; however, actual rainfall varies widely from year to year and from location to location. Approximately 70 percent of this rainfall occurs during the wet season months through the occurrence of daily showers, squalls and tropical storms.

South Florida has a high rate of evapotranspiration (ET) which is greatest during the summer wet season when there is a greater occurrence of surface evaporation and vegetative transpiration. The average ET rate for this area is approximately 40 inches per year. The annual ET from year to year fluctuates less than rainfall; however, the spatial variations in ET are significant for different land cover types. The higher ET rates tend to occur over 'natural" and "open space" areas.

Land Use

The Town's current land area is 2.1 square miles. The Town's population is 4,379 (2010 census) permanent residents, increasing to approximately 7,500 during the "season" between November and April. The population is projected to reach 4,971 by 2015 according to the Town's Comprehensive Plan.

The land uses within the Town vary from predominantly residential, both lows and high density, to commercial, institutional, open space and recreational uses. The Juno Hills Scrub site, 148 acres north of Donald Ross Road and west of U.S. Hwy 1 and 42 acres east of U.S. Hwy 1 and the 341 acres south of Donald Ross and east of Ellison Wilson Road have been designated as Environmentally Sensitive Lands. These undisturbed natural areas of Juno Beach, act as a natural storage area for flood waters which reduce the possibility of flooding nearby residences and help to recharge our groundwater aquifer and prevent saltwater intrusion.

Soils

The soils located within the Town are typical of the South Florida coastal region. The soils in Town are primarily classified as Pomello, Sanibel, St. Lucie, Palm Beach, and Durbin.

Topography

The Town is located on the coastal ridge and ranges in elevation from 0 feet National Geodetic Vertical Datum 1929 (NGVD) to 40 feet NGVD. The west half of the Town typically drains to the Intracoastal Waterway.

Hydrology

The local geological and soil characteristics, the natural topography, and urban development on the land surface, all influence the hydrology within the Town. In most areas due to the highly permeable soils and topography, standing water is not a problem. However, in areas of flat topography, limited drainage facilities and during an abundance of rainfall, standing water may occur.

Water Quality

NPDES Program

In urban areas sources of contaminants can include sewer leaks and discharges of nutrients and bacteria, stormwater runoff containing heavy metals, oil and grease, bacteria, pesticides and chemical spills from industrial applications. In an attempt to improve water quality of storm water discharges, the Town is participating in the federally mandated National Pollutant Discharge Elimination System (NPDES) storm water program, which was established to minimize the discharge of pollutants from urban areas to surface water bodies. The Town is one of 39 co-permittees in the Palm Beach county Municipal Separate Storm Sewer System (MS4) Permit (No. FLS000018). The Environmental Protection Agency (EPA) issued the permit in 1997 for five-year duration. The EPA then delegated authority to the FDEP to administer the NPDES stormwater program in the state in October 2000. In November 2002, the FDEP issued the Second Term MS4 Permit, which remains in effect at this time.

The NPDES permit requires the Town to inspect and perform maintenance of all control structures annually and to inspect all Town catch basins and inlets (128) on a regular basis. In addition, the Town inspects 470 LF of exfiltration trench and 145 miles of swales/ditches. Street sweeping of approximately 16 miles of roadways is conducted annually in order to reduce sediments entering the stormwater system. The Town's NPDES program also includes Maintenance Yard inspections, Trash Pick-up Events, Illicit Discharge Inspections, Public Education, Construction Inspections and notification to applicants of NPDES permitting requirements.

A water quality monitoring program was implemented by the Palm Beach County MS4 Co-permittees pursuant to the NPDES Permit requirements. The monitoring is part of a cooperative program between FDEP, SFWMD, Palm Beach County Environmental Resources Management (ERM), and the permitted municipalities. The monitoring supports assessment of the effectiveness of the municipal surface water management programs and assists the FDEP in analyzing impairments for the development and adoption of Total Maximum Daily Loads (TMDLs) for waters verified as impaired.

Total Maximum Daily Loads

A Total Maximum Daily Load or TMDL, is the maximum daily amount of a given pollutant that a water body can absorb without exceeding the water quality standard for that pollutant. Section 303 (d) of the Federal Clean Water Act and the Florida Watershed Restoration Act require that TMDL's be established for all waters that are defined as "impaired".

NPDES Joint Program and Activities

The Town is an active participant in the Joint Program Activities offered by the Palm Beach County NPDES MS4 Steering Committee. Town staff has received training for illicit discharge, spills and sediment and erosion controls. The public education program is handled through the PBC MS4 Steering Committee. Cost sharing of the Joint Activities and funding is provided by and documented in the internal local agreement with the Northern Palm Beach County Improvement District. Components of the required MS4 Stormwater Management Program include:

Ordinance No. 166, Adopting Provisions Relating to the use of the Stormwater System, May 25, 1993

NPDES Third Term Permit Interlocal Agreement between Northern Palm Beach County Improvement District and the Town of Juno Beach.

Outfall Maps of MS4 Storm Drainage System for Juno Beach

Pipes/Culverts and Manhole/Inlet – Structural Control Inspection. Standard Operational/Maintenance/Documentation Protocol and Inspection forms for Structural Controls

Proactive Inspection Program

Proactive Illicit Discharge/Illegal Connection Inspection Form

Existing Stormwater Management Facilities

Definition of Primary, Secondary, and Tertiary Systems

Drainage systems within our geographic region are typically divided into three hydraulic classifications. The "primary" system consists of regional canals regulated by the SFWMD. These are large capacity canals and structures that convey water to the Lake Worth Lagoon (Intracoastal Waterway). In addition the "primary "system includes other canals operated and maintained by municipalities and water control districts that discharge to the SFWMD Canals. The "secondary" systems are the surface water management systems, including lakes, dry detention areas, storm sewers, inlets, and control structures serving developments neighborhoods, commercial properties and road rights-of-way.

The "tertiary" system includes the swales and other "gutter" systems that act as the collector of runoff and conveys it to the secondary system and ultimately the primary system. The Town is primarily responsible for the operation and maintenance of tertiary systems, in addition to the one secondary system consisting of Pelican Lake and its associated drainage facilities.

Water Control Structure(s)

Control structures serve to detain water to provide water quality treatment and to reduce peak discharges to reduce the potential for downstream flooding impacts. A control structure offers three services:

- Hold water back, allowing a small release through a bleeder.
- Holds water to an approved elevation for aesthetics and water conservation.
- Keep brackish water from tainting our freshwater by preventing salt water intrusion.

The Town of Juno Beach is responsible for the operation and maintenance of the Pelican Lake water control structure.

Exfiltration Trench

Exfiltration trench is typically used to provide water quality treatment and consists of perforated pipe laid in a rock trench that is enclosed in filter fabric. SFWMD criteria requires that the minimum pipe diameter be 12", the minimum trench width be 3 feet, and that inlets connected to an exfiltration trench system have maintenance sumps to collect sediments.

Due to the high permeability of the sandy soils in Juno Beach, exfiltration trench has been utilized in several locations for not only water quality purposes, but also for the temporary storage and percolation of larger volumes of runoff. In these cases, the exfiltration trench serves as the "retention" mechanism, rather than constructing a surface storage area such as a dry retention area.

Town of Juno Beach Basin Descriptions

The Town has been historically divided into three "drainage" basins designated as North Town, Central Town and South Town, although these are more geographic designations rather than drainage basin divides.

The North Town area is located from the northern Town limits south to Donald Ross Road. The Town does not operate or maintain any stormwater facilities in the North Town basin. Several developments have been permitted by the SFWMD in the North Town basin. ALL of the projects were permitted to have total on-site retention either using exfiltration trench or dry retention.

The Central Town basin consists of the area south of Donald Ross Road and north of Seminole Golf Club, and includes the Town Center and other areas around Celestial Way which drain to Pelican Lake and the New Palm Beach Heights subdivision. Also included in this basin are several inlets and sections of exfiltration trench which are owned, operated and maintained by Palm Beach County which serve Ocean Drive.

The South Town basin is located south of Pelican Lake and extends south to the southerly Town limits. The South Town Basin includes the FP&L site and several SFWMD permitted developments. All the developments/projects are permitted to discharge ultimately into the Intercoastal Waterway. The Town owns, operates and maintains the storm sewer system serving Universe Boulevard. The South Town Basin also includes the Seminole Golf Club which pre-dates SFWMD permitting for surface water management systems. SFWMD files indicate the Seminole Golf Club ultimately discharges west into the Intercoastal Waterway.

Section 2

Standard Operating Procedures including Checklists

Part III.A.1

Structural Controls

Exfiltration Trench – Structural Control Inspection
Standard Operational/Maintenance/Documentation Protocol

There are approximately 1,000 linear feet of Exfiltration trenches that are part of the Town of Juno Beach's MS4; the systems are located as shown on the map in the Appendix.

Inspections:

Established Exfiltration trench is inspected once every three years, using the following Structural Control Inspection Form.

New Exfiltration trench is inspected annually for the first two years of operation.

If chronic problems are identified with a run of Exfiltration trench, it is inspected annually until the problem is resolved (two consecutive annual inspections without an issue).

The inspection to check for proper function is conducted close to the recovery time of that Exfiltration trench system (generally 72 hours after a significant rainfall event) to verify that the system still functions as intended. The inspection for sediment accumulation in the system is conducted in dry weather.

Maintenance:

There are several maintenance activities that may be associated with Exfiltration trench. The appropriate activity is chosen to correspond to the reported condition. The following activities may be required:

1. Remove sediment in pipe(s) and/or upstream and downstream structures. This may be done by flushing or vacuuming.

2. Remove trash and debris from the system and dispose of properly.

3. Total rehabilitation (removal and replacement) of the Exfiltration trench system may be required when the system fails to function at the design capacity.

Documentation:

The documentation for the inspection and maintenance activities related to exfiltration trench is noted on the Exfiltration Trench – Structural Control Inspection Form which is attached.

Exfiltration Trench – Structural Control Inspection

Facility/Segment ID: _____ Date: _____

Inspection conducted _____ days/hours after significant rainfall event.

FUNCTION:

Standing water in observation well, inspection port, or inlet? *YES* *NO*

Standing water above inlet grates? *YES* *NO*

If *YES*, report to supervisor for further investigation or schedule for maintenance.

GENERAL:

Sediment amount less than one foot below pipe invert in up or downstream structure? *YES* *NO*

Sediment visible in pipe? *YES* *NO*

Debris accumulation at weir? *YES* *NO*

If *YES*, describe and schedule for maintenance: _____

Any indications of illicit discharge or illegal dumping? YES NO

If YES, describe and report to supervisor for proper response: _____

Wet Detention System – Structural Control Inspection
Standard Operational/Maintenance/Documentation Protocol

There is one (1) wet detention system that is part of the Juno Beach MS4; it is located on the map in the Appendix.

Inspections:

Established wet detention systems are inspected once every three years, using the following Structural Control Inspection Form. In addition, they are observed for problems that may impact their functionality whenever the side slopes are maintained (mowed, trimmed, etc.)

New wet detention systems are inspected annually for the first two years of operation.

If chronic problems are identified with a wet detention system, it is inspected annually until the problem is resolved (two consecutive annual inspections without an issue).

Inspections are conducted close to the storage recovery time of that wet detention system (generally 72 hours after a significant rainfall event) to verify that the system still functions as intended.

Maintenance:

There are several maintenance activities that may be associated with a wet detention system. The appropriate activity will be chosen to correspond to the reported condition. The following activities may be required:

1. Maintain and re-establish any eroded areas on side slopes.
2. Repair any undercutting or piping around inflow and/or outflow structure(s).
3. Remove trash and debris from system and dispose of properly.
4. Remove accumulated sediment from the inflow and/or outflow pipe and dispose of properly.
5. Remove any trees or shrubs that may have become established near the discharge structure/pipe.
6. Remove exotic vegetation from the littoral zone (if applicable) and replant as needed.
7. Remove accumulated sediment from basin to restore design storage volume.

Documentation:

The documentation for the inspection and maintenance activities related to the wet detention systems is noted on the attached form.

Wet Detention System – Structural Control Inspection

Facility ID: _____ Date: _____

Inspection conducted _____ days/hours after significant rainfall event.

FUNCTION:

Pond/Lake level above control elevation longer than recovery time (see facility inventory)? *YES* *NO*

If *YES*, report to supervisor for further investigation or schedule for maintenance.

EROSION:

Vegetation on side slopes failing? *YES* *NO*

Any signs of erosion? *YES* *NO*

If *YES*, describe and schedule for maintenance: _____

INFLOW STRUCTURE:

Any signs of erosion? *YES* *NO*

Any signs of structure settling? *YES* *NO*

Any signs of physical damage? *YES* *NO*

Any signs of accumulated sediment? *YES* *NO*

If *YES* to any of the above, schedule the structure for maintenance.

Any debris present? *YES* *NO*

If *YES*, remove debris or schedule for maintenance.

OUTFLOW STRUCTURE:

Any signs of erosion? *YES* *NO*

Any signs of structure settling? *YES* *NO*

Any signs of physical damage? *YES* *NO*

Any signs of accumulated sediment? *YES* *NO*

If *YES* to any of the above, schedule the structure for maintenance.

Any debris present? *YES* *NO*

If *YES*, remove debris or schedule for maintenance.

GENERAL:

Any indications of illicit discharge or illegal dumping? *YES* *NO*

If *YES*, describe and report to supervisor for proper response: _____

Major Stormwater Outfalls – Structural Control Inspection
Standard Operational/Maintenance/Documentation Protocol

There is one (1) major stormwater outfall (MSWO) that is part of the Town of Juno Beach's MS4. A MSWO is defined as:

- an outfall pipe larger than 36-inch inside diameter (or its equivalent), OR
- discharge from a single conveyance other than a pipe that serves a drainage area of 50 acres or more, OR
- an outfall pipe larger than 12-inches inside diameter (or its equivalent) that serves a drainage area containing industrial land uses, OR
- discharge from a single conveyance other than a pipe that serves a drainage area of 2 acres or more than include industrial land uses.

The MSOW within our MS4 located on the map in the Appendix.

Inspections:

MSWOs are inspected annually, or more frequently if needed. Inspections are conducted in accordance with the following Structural Control Inspection Form.

Maintenance:

There are several maintenance activities that may be associated with MSWO. The appropriate activity is chosen to correspond to the reported condition. The following activities may be required:

1. Remove trash and debris and dispose of properly.
2. Remove accumulated vegetative matter and dispose of properly.
3. Remove accumulated sediment and dispose of properly.
4. Maintain earthen bank adjacent to the discharge pipe or headwall.
5. Maintain the headwall at the outfall, if applicable.
6. Repair/replace pipe if needed.

Documentation:

The documentation for the inspection and maintenance activities related to major stormwater outfall is noted on the attached form – Major Stormwater Outfalls – Structural Control Inspection.

Major Stormwater Outfalls – Structural Control Inspection

Facility ID: _____ Date: _____

FUNCTION:

Debris or sediment accumulation in pipe?	*YES*	*NO*
Barnacle accumulation in pipe?	*YES*	*NO*
Sediment accumulation in receiving water?	*YES*	*NO*
Pipe in need of repair/replacement?	*YES*	*NO*

If *YES*, report to supervisor for further investigation or schedule for maintenance.

GENERAL:

Any indications of illicit discharge or illegal dumping?	*YES*	*NO*

If *YES*, describe and report to supervisor for proper response: _____

Signs of erosion on bank near outfall?	*YES*	*NO*
Rip-rap in need of maintenance?	*YES*	*NO*
Headwall in need of repair/replacement?	*YES*	*NO*

If *YES*, schedule for maintenance.

Pipes/Culverts and Inlets/Manholes – Structural Control Inspection
Standard Operational/Maintenance/Documentation Protocol

There are approximately 7,500 linear feet of pipe and culvert that are part of the Town of Juno Beach's MS4. The locations are shown on the map attached as the Appendix. While identified on the Appendix map, this value does NOT include exfiltration trench, which is catalogued separately. Each pipe segment (between two structures or between a structure and an outfall) has a unique identification. This information is stored on hardcopy maps of the system.

There are 128 inlets, catch basins and manholes that comprise our MS4. Their locations are also shown on the Appendix map. Each structure has a unique identification. This information is stored on hardcopy maps of the system.

Inspections:

At least 10% of the total number of linear feet of pipe/culvert is inspected each year. The inlets, catch basins, and manholes associated with a pipe/culvert system are inspected concurrently. Visual inspections are conducted in accordance with the checklist/procedure that follows. Inspection forms are not used. The hard copy maps are coded to identify the last inspection date for each facility. If warranted, as a result of the visual inspection, a work order for maintenance, repair, or a more detailed pipe or structure investigation is generated. A more detailed investigation may include televising the pipe, or using mirrors or other devices, as appropriate, to determine the condition of the pipe/culvert. As a result of the more detailed investigation, a work order for maintenance or repair may be generated.

Maintenance:

There are several maintenance activities that may be associated with stormwater networks . The appropriate activity is chosen to correspond to the reported condition. The following activities may be required:

1. Remove trash and debris and dispose of properly.
2. Remove accumulated vegetative matter and dispose of properly.
3. Remove accumulated sediment and dispose of properly.
4. Remove barnacles and/or other marine life and dispose of properly.
5. Repair/replace the headwall at the end of the pipe, if applicable.
6. Repair/replace pipe or structure, if needed.

Documentation:

The documentation for the inspection and maintenance activities related to the pipes/culverts and inlets/manholes is shown on the attached form – Pipes/Culverts – Structural Control Inspection.

Pipes/Culverts – Structural Control Inspection

VISUAL INSPECTION:

Evidence of settling above the pipe alignment? *YES* *NO*

Sediment accumulation in pipe (viewed from inlets, manholes, etc.)? *YES* *NO*

Barnacle accumulation in pipe (viewed from inlets, manholes, and/or outfall)? *YES* *NO*

If *YES*, schedule for maintenance and report to supervisor for further investigation.

Control Structures – Structural Control Inspection
Standard Operational/Maintenance/Documentation Protocol

Control structures (weirs, orifices, gates, etc.) that are associated with other structural controls, such as wet and dry retention and detention areas, exfiltration trench, and swales, are inspected along with the structural control system of which they are a part.

Control structures that associated with pipe networks and/or canals (weirs, operable gates, etc.) are inspected as stand-alone facilities. There is one stand-alone control structures that is part of Juno Beach's MS4. It is located on the attached map.

Inspections:

Stand-alone control structures (as Major Stormwater Outfalls) are inspected annually.

Maintenance:

There are several maintenance activities that may be associated with control structures. The appropriate activity is chosen to correspond to the reported condition or required action. The following activities may be required:

1. Remove trash and debris and dispose of properly.
2. Remove accumulated vegetative matter and dispose of properly.
3. Remove accumulated sediment and dispose of properly.
4. Repair/replace structure, if needed.

Documentation:

The documentation for the inspection and maintenance activities related to control structures is noted on the attached form – Control Structure Inspection Form.

Control Structure #_____
Inspection Procedure/Checklist/Form

Facility ID: _____ Date: _____

GENERAL:

Any indications of illicit discharge or illegal dumping? *YES* *NO*

If *YES*, describe and report to supervisor for proper response: _____

Debris accumulation upstream or downstream of structure? *YES* *NO*

Sediment accumulation upstream or downstream of structure? *YES* *NO*

Headwall or riprap in need of repair/replacement? *YES* *NO*

If *YES*, schedule for maintenance.

Pollution Control Device – Structural Control Inspection
Standard Operational/Maintenance/Documentation Protocol

There are two (2) pollution control devices (PCDs) that are part of the MS4 of the Town of Juno Beach; they are located as shown on the Appendix map.

The purpose of PCDs is the removal of debris, sediment, oils, and/or other materials from the stormwater stream before it discharges into a receiving water body. Thus, the more material removed by these devices, the better. Frequent inspection and maintenance is the key to the proper function of these units.

Inspections:

PCDs are inspected quarterly, unless historic operations indicate that a less or more frequent inspection schedule is needed for particular PCDs. Inspections are conducted in accordance with the PCD manufacturer's recommendations

Maintenance:

There are several maintenance activities that may be associated with PCDs. The appropriate activity is chosen to correspond to the reported condition. The following activities may be required:

1. Remove trash and debris from system and dispose of properly.
2. Remove accumulated vegetative matter and dispose of properly.
3. Remove accumulated sediment and dispose of properly.
4. Replace absorbent materials as required.
5. Repair damage to structure, inflow or outflow pipes.

Documentation:

The documentation for the inspection and maintenance activities related to pollution control devices is noted on the attached PCD – Structural Control Inspection Form.

PCD – Structural Control Inspection

Facility ID: _____ Date: _____

FUNCTION:

Sediment accumulation? *YES* *NO*

Debris accumulation? *YES* *NO*

Absorbent materials need replacement? *YES* *NO*

If *YES*, report to supervisor for further investigation or schedule for maintenance.

GENERAL:

Any indications of illicit discharge or illegal dumping? *YES* *NO*

If *YES*, describe and report to supervisor for proper response: _____

Inlets/Outlets damaged or obstructed? *YES* *NO*

If *YES*, schedule for maintenance.

Swale System – Structural Control Inspection
Standard Operational/Maintenance/Documentation Protocol

There are approximately 2,000 linear feet of swales that are part of the Town of Juno Beach's MS4; the swale segments are located as shown on the attached Appendix map.

Inspections:

Established swales are inspected once every three years, using the following Structural Control Inspection Form. In addition, they are observed for problems that may impact their functionality whenever they are maintained.

New swales are inspected annually for the first two years of operation.

If chronic problems are identified with a swale, it is inspected annually until the problem is resolved. Inspections are conducted close to the recovery time of that swale (generally 72 hours after a significant rainfall event) to verify that the system still functions as intended.

Maintenance:

There are several maintenance activities that may be associated with swales. The appropriate activity is chosen to correspond to the reported condition. The following activities may be required:

1. Mow grass.
2. Remove trash and debris from system and dispose of properly.
3. Remove accumulated sediment from the inflow and/or outflow pipe and dispose of properly.
4. Eliminate any mosquito breeding habitats.
5. Repair any undercutting or piping around inflow and/or outflow structure.
6. Repair and re-establish any eroded areas on the bottom, side slopes, and/or near any structure.
7. Scrape, disc, or otherwise aerate the bottom of the swale to restore the infiltration capacity. Include soil testing, if needed, to verify that the infiltration capacity has been restored. Re-establish the surface to its final condition (seed, sod, etc...)

Documentation:

The documentation for the inspection and maintenance activities related to swales is noted on the attached form – Grass Swale – Structural Control Inspection.

Grass Swale – Structural Control Inspection

Facility/Segment ID: _____ Date: _____

Inspection conducted _____ days/hours after significant rainfall event.

FUNCTION:

Wet bottom? *YES* *NO*

Aquatic vegetation present? *YES* *NO*

Dead or dying grass on bottom? *YES* *NO*

Sediment accumulation? *YES* *NO*

Grading issue? *YES* *NO*

If *YES*, report to supervisor for further investigation or schedule for maintenance.

EROSION:

Vegetation on bottom or side slopes failing? *YES* *NO*

Any signs of erosion? *YES* *NO*

If *YES*, describe and schedule for maintenance: _____

GENERAL:

Any signs of damage from parking in swale? *YES* *NO*

Any fences or other objects that could obstruct flow into/through the swale? *YES* *NO*

If *YES*, schedule for maintenance.

Any indications of illicit discharge or illegal dumping? *YES* *NO*

If *YES*, describe and report to supervisor for proper response: _____

Stormwater Pump Station – Structural Control Inspection
Standard Operational/Maintenance/Documentation Protocol

There are no stormwater pump stations (SWPSs) that are part of the Town of Juno Beach's MS4; thus this section is not used.

Conveyance (Ditch & Canal) System – Structural Control Inspection
Standard Operational/Maintenance/Documentation Protocol

There are NO ditches and/or canals that are part of the Town of Juno Beach's MS4; thus this section is not used.

Dry Detention and/or Retention System – Structural Control Inspection Standard Operational/Maintenance/Documentation Protocol

There are NO dry detention systems or dry retention systems that are part of the Town of Juno Beach's MS4; thus this section is not used.

Part III.A.2

Areas of New Development and Significant Redevelopment

Site Plan Review Procedures

Site Plan Reviews are required for applicable projects within the Town of Juno Beach.

Application packages for building/construction/grading permits include brochures presenting the need for obtaining an *Environmental Resource Permit* (ERP) and/or coverage under the *NPDES Generic Permit for Stormwater Discharge from Large and Small Construction Activities* (CGP).

Site Plan Reviews are typically conducted upon formal submittal of the proposed project. Personnel in the Planning and Zoning Department conduct the reviews. Current local, state, and federal criteria are used as the guidelines for review of the temporary and permanent stormwater treatment practices that are being proposed by the site plan.

Applicants for a building/construction/grading permit are advised that coverage under the Construction Generic Permit may be required. Applicants are further advised that a permit to perform clearing, grading or construction activities will not be granted until proof of a SFWMD or FDEP ERP and/or coverage under the CGP is provided, if required.

The following checklist is used when performing site plan reviews:

YES	NO	N/A	
☐	☐	☐	Proposed work requires coverage under CGP.
☐	☐	☐	Proposed work appears to require an ERP.
☐	☐	☐	Proposed temporary stormwater sedimentation & erosion control BMPs appear to be appropriate for the project.
☐	☐	☐	Proposed permanent stormwater BMPs meet local requirements.
☐	☐	☐	Copy of confirmed coverage under CGP provided.
☐	☐	☐	Copy of ERP provided.

Part III.A.3

Roadways

Litter Control Program

The Litter Control Program for the Town of Juno Beach consists of:

- 2.84 miles of litter collection along public streets, roadways, and rights-of-way within our jurisdiction.
- The frequency of collection is:
  Daily along the roadways

- Documentation of volume of litter collected is reported on a weekly Activity Report and summarized for reporting each year.

- All collected litter is properly disposed of at the Palm Beach County Solid Waste Authority.

- The main arterial roads within Juno Beach are under the jurisdiction of the Florida Department of Transportation and the Palm Beach County Highway Department, therefore the "Adopt-a-Road" program is administered by those agencies. On local roadways, residents, businesses and Town staff maintain the cleanliness and litter control on the public way. Town code enforcement officers will issue notices of violation to property owners who do not comply with the code.

Roadway Maintenance Practices
To Reduce Pollutants

Roadway repairs and maintenance may take place anywhere throughout the Town of Juno Beach's jurisdictional area, and is conducted on an as-needed basis.

Major repair work is typically done as a construction project by a contractor. These projects most often required a Notice of Intent under the State's Generic Construction Permit, which requires a Stormwater Pollution Protection Plan. Routine inspections are done as part of the construction site inspection program.

Minor repairs, completed by municipal staff, are performed using the following practices:

- Painting, striping, marking, and asphalt and concrete cutting or repair activities are done in dry weather.
- Nearby storm drain inlets are protected by covers, straw bales, sand bags, filter fabric or plastic to reduce the possible entry of wastes, dusts, overspray and/or slurry.
- All waste and debris remaining after the work is swept up and removed.
- Water use is minimized when saw cutting concrete. The waste slurry is allowed to dry and then swept up or a wet vacuum is used to pick up the waste slurry during or immediately after cutting.
- Maintenance supplies (e.g., cement bags, sealants and tars) are stored under cover and away from drainage areas.

Street Sweeping Program

There are approximately 4 miles of public roadway which are in the Town of Juno Beach Street Sweeping Program. Roadways without curb and gutter, and roadways not owned/maintained by Juno Beach, are not included in the program. Those roads not owned by Juno Beach are maintained by the Florida Department of Transportation of Palm Beach County Highway Department.

The frequency of sweeping is on a quarterly schedule.

Frequency has been established based on historical information about collected amounts over the past 20 years. Those areas swept are the priority areas.

Documentation of volume of street sweeping collection is kept in a log book by date and is summarized for reporting each year.

An estimate of the total phosphorus and total nitrogen collected by the street sweeping is performed based on the Florida Stormwater Association's determinations of street sweeping removal rates project. For this calculation, the land use of the area swept and the amount of material collected is needed. The log below is used for recording this information.

Street Sweeping Collection Log		
Date	**Amount Collected (units)**	**Land Use of Area Swept**

All street sweeping collection is properly disposed of in accordance with DEP's "Guidance For The Management Of Street Sweepings, Catch Basin Sediments and Stormwater System Sediments."

A sample of the format used to calculate total phosphorus and total nitrogen by the Town of Juno Beach is noted on the attached page.

Florida Stormwater Association
Street Sweeping Nutrient Removal Rates

Based on the May 31, 2011 Final Report "Quantifying Nutrient Loads Associated with Urban Particulate Matter (PM), and Biogenic/Litter Recovery Through Current MS4 Source Control and Maintenance Practices" and Table 8 in the report (pg.41), the following values may be used to estimate nutrient removal values from street sweeping activity:

Median Value of Nutrient Removal per Unit of Material Collected	
Total Phosphorus	**Total Nitrogen**
0.000361	0.000563

Example Calculations:

In fiscal year 2010, Palm Beach County collected 1,915 cubic yards of material with the street sweeping program. Assuming the average density of the street sweeping material is 750 pounds per cubic yard,* then 1,436,250 pounds were collected. Using the table above, the total phosphorus removed would be estimated at (1,436,250)(0.000361) = 518 pounds. The total nitrogen removed would be estimated at (1,436,250)(0.000563) = 809 pounds.

Last year the Town of Jupiter collected 35.8 dry tons (71,600 pounds) of street sweeping material from residential areas. The estimated nutrient removal rates for total phosphorous and total nitrogen would be (71,600 pounds)(0.000361) = 26 pounds, and (71,600)(0.000563) = 40 pounds, respectively.

* *This assumption is based on a study done by the City of Tampa.*

Maintenance/Equipment Yard Practices
And Inspections

The attached map depicts the location of the Town of Juno Beach - owned equipment yard and maintenance shop. Below or the standard practices in place at those facilities.

General Housekeeping:

Keep your Spill Prevention Control and Countermeasure (SPCC) Plan up-to-date, and implement accordingly.

Place adequate stockpiles of spill cleanup materials where they are readily accessible.

Keep work sites clean and orderly. Remove debris in a timely fashion.

Spot clean leaks and drips routinely. Leaks are not cleaned up until the absorbent is picked up and disposed of properly.

Clean leaks, drips, and other spills with as little water as possible. Use rags for small spills, a damp mop for general cleanup, and dry absorbent material for larger spills. Use the following three-step method for cleaning floors:

- Clean spills with rags or other absorbent materials
- Sweep floor using dry absorbent material
- Mop the floor. Mop water may be discharged to the sanitary sewer via a toilet or sink.

Sweep the maintenance area weekly, if it is paved, to collect loose particles. Do not hose down the area to a storm drain.

Report leaking vehicles to fleet maintenance.

Vehicle/Equipment Fueling:

Design fueling area to prevent stormwater runoff and spills.

Apply a suitable sealant that protects the asphalt from spilled fuels in areas where covering is infeasible and the fuel island is surrounded by pavement.

Use secondary containment when transferring fuel.

Maintain clean fuel-dispensing areas using dry cleanup methods such as sweeping for removal of litter and debris, or use of rags and absorbents for leaks and spills. Do not wash down areas with water.

Post signs at the fuel dispenser or fuel island warning vehicle owners/operators against "topping off" of vehicle fuel tanks.

Vehicle/Equipment Washing:

If possible, use properly maintained off-site commercial washing and steam cleaning businesses whenever possible. These businesses are better equipped to handle and properly dispose of the wash waters.

Consider washing vehicles and equipment inside the building if washing/cleaning must occur on-site.

Design wash areas to properly collect and dispose of wash water when engine cleaning is conducted and when chemical additives, solvents, or degreasers are used. This may include installation of sumps or drain lines to collect wash water or construction of a berm around the designated area and grading of the area to collect wash water as well as prevent stormwater run-on.

Post signs stating that only washing is allowed in wash area and that discharges to the storm drain are prohibited.

Use biodegradable, phosphate-free detergents for washing vehicles as appropriate.

Use hoses with nozzles that automatically turn off when left unattended.

Vehicle/Equipment Repair:

Move maintenance and repair activities indoors whenever feasible.

If outside, use a vehicle maintenance area designed to prevent stormwater pollution - minimize contact of stormwater with outside operations through berm and appropriate drainage routing.

If temporary work is being conducted outside, use a tarp, ground cloth, or drip pans beneath the vehicle or equipment to capture all spills and drips.

Designate a special area to drain and replace motor oil, coolant, and other fluids. This area should not have any connections to the storm drain or the sanitary sewer and should allow for easy clean up of drips and spills.

Drain all fluids from wrecked vehicles immediately. Ensure that the drain pan or drip pan is large enough to contain drained fluids (e.g. larger pans are needed to contain antifreeze, which may gush from some vehicles).

Do not pour liquid waste to floor drains, sinks, outdoor storm drain inlets, or other storm drains or sewer connections.

Dispose of all waste materials according to applicable laws and regulations.

Collect leaking or dripping fluids in drip pans or containers. Fluids are easier to recycle if kept separate. Promptly transfer used fluids to the proper waste or recycling drums and store in an appropriately designed area that can contain spills. Don't leave drip pans or other open containers lying around.

Do not dispose of oil filters in trash cans or dumpsters, which may leak oil and contaminate stormwater. Place the oil filter in a funnel over a waste oil recycling drum to drain excess oil before disposal. Most municipalities prohibit or discourage disposal of these items in solid waste facilities. Oil filters can also be recycled. Ask your oil supplier or recycler about recycling oil filters.

Avoid hosing down your work areas. If work areas are washed, collect and direct wash water to sanitary sewer.

Storage:

If possible, store materials and wastes under cover whenever possible.

Minimize stormwater run off by enclosing the area or building a berm around it.

Cover the containers where they are stored.

Raise the containers off the ground by use of pallet or similar method, with provisions for spill control and secondary containment.

Use covered dumpsters for waste product containers.

Contain the material in such a manner that if the container leaks or spills, the contents will not discharge, flow, or be washed into the storm drainage system, surface waters or groundwater.

Store cracked and/or dead batteries in a non-leaking covered secondary container and dispose of properly at recycling or household hazardous waste facilities.

If equipment (e.g., radiators, axles) is to be stored outdoors, oil and other fluids should be drained first. This is also applicable to vehicles being stored and not used on a regular basis.

Try to keep chemicals in their original containers, and keep
them well labeled.

Store idle equipment containing fluids under cover.

Inspections:

The attached form is used for the inspection of each site on an annual/monthly/weekly/ daily basis.

Equipment Yard/Maintenance Shop Inspection Form

Facility: _____ Date of Inspection: _____

Address: _____

If site discharges to MS4, provide: Latitude/Longitude of discharge point: _____

and receiving water body: _____

YES	NO	N/A	
☐	☐	☐	Materials/chemicals are stored, handled, and discarded in a manner to reduce the potential risk of spills entering the MS4
☐	☐	☐	A spill kit is on site
☐	☐	☐	Outfalls, inlets, and outlets of stormwater treatment systems are free of debris/pollutants
☐	☐	☐	Storage tanks are clearly marked, properly contained, and protected from potential damage
☐	☐	☐	Loading, unloading, and transfer areas are neat and free of spills/debris/pollutants
☐	☐	☐	Vehicle maintenance areas are properly maintained and draining to the treatment system or sanitary sewer line
☐	☐	☐	Outdoor manufacturing areas are properly maintained and free of spills or debris
☐	☐	☐	Outdoor stockpile/material handling areas are properly maintained and the materials are properly contained (i.e., no potential to leak or leach pollutants)
☐	☐	☐	Trash and debris areas are conspicuous and properly protected from stormwater runoff
☐	☐	☐	Fueling stations are free of petroleum product spills/leaks
☐	☐	☐	Vehicle wash and rinse areas are draining to the treatment system or sanitary sewer line
☐	☐	☐	The site was free of any visual indication of potential illicit connection/illicit discharge to the MS4. If no, note type of indication:

Odor ☐ Color ☐ Foam ☐ Sheen ☐ Surface Scum ☐ Solids ☐ Turbidity ☐

Use reverse side of form for comments.

Part III.A.5

Municipal Waste Treatment, Storage, and Disposal Facilities Not Covered by an NPDES Stormwater Permit

Municipal Waste TSD Facility Procedures

There are no municipal waste TSD facilities within the jurisdiction of the Town of Juno Beach; thus this section is not used.

Part III.A.6

Pesticides, Herbicides, and Fertilizer Application

Pesticide, Herbicide & Fertilizer Minimization Procedures

In accordance with our MS4 permit, the Town of Juno Beach continues to endeavor to minimize its use of pesticides, herbicides, and fertilizers on public property. The procedures used to achieve this are as follows:

Pesticides & Herbicides

Only personnel and contractors who have proof of certification and licensing by the Florida Department of Agriculture and Consumer Services (FDACS) for the application of pesticides and herbicides, are allowed to apply these products.

Fertilizers

(By January 1, 2014), All personnel and contractors who apply fertilizers must demonstrate proof of training through the Green Industry BMP Program. In addition, contracted applicators are required to prove certification for "urban landscape commercial fertilizer application."

Until January 1, 2014, personnel will continue to receive annual training on the proper application practices for fertilizers.

Annually, or more often, training on the proper storage and handling of these products is provided to all relevant personnel. Typically, relevant personnel are required to attend the Palm Beach County joint training event where EXCAL employee training videos on stormwater pollution prevention are shown.

A list is maintained of all personnel and contractors who have received training, licensing, certification, and annual refresher training.

Part III.A.7

Illicit Discharges and Improper Disposal

Part III.A.7.a

Inspections, Ordinances, and Enforcement Measures

Part IIIA.7.c

Investigation of Suspected Illicit Discharges and/or Improper Disposal

Part III.A.7.d

Spill Prevention and Response

Part III.A.7.e

Public Reporting

Part III.A.7.f

Oils, Toxics, and household Hazardous Waste Control

Part III.A.7.g

Limitation of Sanitary Sewer Seepage

Town of Juno Beach, Florida

Proactive Inspection Program (Written Procedures)

1. **Procedure and Criteria for identifying priority areas/facilities**

   According to the MS4 NPDES permit, priority areas for inspection should include:

   - Areas with older infrastructure
   - Industrial, commercial, or mixed use areas
   - Areas with history of past illicit discharges and/or illegal dumping
   - Areas with on-site sewage disposal systems
   - Areas upstream of sensitive or impaired water bodies

   The attached map depicts the extent of our MS4 contributing area; as well as sites that are listed by the EPA as generators, transporters, treaters, storers, and disposers of hazardous waste. A Facility Detail Report is attached to the map. Facilities that have been identified as the source of illicit discharges in the past should be noted on the map.

2. **List of identified priority areas/facilities**

   Since there are no significant areas with Industrial/Commercial Zoning there are no specific areas that take priority. The priority sites are labeled on the attached map. Facilities within the priority area are checked against the list of facility types associated with the FDEP MSGP Sectors (see attached list) to determine their need to be covered by a MSGP.

3. **Annual schedule for inspections**

   All facilities will be inspected at least once within the current permit term. If a facility or area is discovered to have illicit discharges/connections/dumping, it will be placed on the schedule for re-inspection the following year. Inspections are to take place in the order in which they appear on the attached map.

4. **Procedure for conducting site inspections (include checking for MSGP)**

   The inspector should visit the site and look for signs of illicit discharges. Areas adjacent to the site as well as neighboring drainage structures should be inspected. If any are

identified, the inspector is to make a notation on the Inspection Form and forward the form to his supervisor or other appropriate personnel to complete the investigation.

5. **Procedure for tracing source of discovered illicit discharge**

   If an illicit discharge is suspected, the appropriate personnel are to complete an on-site investigation to determine source of illicit discharge. This investigation should cover not only the subject site but other adjacent areas as well.

6. **Procedure for eliminating the discharge**

   Town staff is to work with site operator/owners to determine best course of action to eliminate discharge.

7. **Procedure for documenting the inspections and enforcement activities**
   (See Inspection Form)

8. **Procedures for enforcement actions (or referrals to appropriate jurisdictional authority)**

   Any enforcement actions are to be forwarded to the Code Compliance Section for further processing.

9. **Identification of staff /department/outside entity responsible for inspections and for enforcement**

   The Public Works Department is responsible for inspections.

10. **Description of resources allocated to implement this permit element**

    Public Works staff is to perform initial assessment of site and report suspected illicit discharges to their supervisor for further action.

Town of Juno Beach, Florida

Proactive Illicit Discharge/Illegal Connection Inspection Form

Date of Inspection: _____

Address of Facility OR General Description of Area Inspected: _____

Identification of MS4 component that could receive discharge from this site/area: _____

If Facility inspection, does type of business require an MSGP? Yes___ No___

If yes, does this facility have one? Yes___ No___

Findings:

Evidence of illicit connections to storm sewer? Yes___ No___

Evidence of dumping/spills to storm sewer? Yes___ No___

Evidence of wash water going to storm sewer? Yes___ No___

Storage tanks leaking or improperly contained? Yes___ No___

Stockpiles/debris piles uncontained? Yes___ No___

If "yes," to any above, describe:

_____

_____

_____

_____

_____

_____

Type of Enforcement Action Taken: _____

Date to verify elimination: _____

Date of Referral to FDEP of facility that may require MSGP: _____

Reactive Inspection Program

Section III.A.7.c – Illicit Discharges and Improper Disposal – Inspection and Investigation of Suspected Illicit Discharges and/or Improper Disposal

This permit element requires a written **reactive investigation program** for suspected illicits that are reported by others.

Reactive Investigation Written Program Components

1. Procedure for tracing source of discovered or suspected illicit discharge
2. Procedure for eliminating the discharge
3. Procedure for documenting the inspections and enforcement activities (See form)
4. Procedures for enforcement actions
5. Identification of staff responsible for inspections and for enforcement
6. Description of resources allocated to implement this permit element

Reactive Investigation of Reported Illicit Discharge/Illegal Connection/Illegal Dumping

Date suspected illicit was reported: _____

Date of investigation: _____

MS4 potential Receiving system: _____

If not within MS4, date and to whom referral made: _____

Verification of problem: _____

Type of discharge/connection/dumping: _____

Determined Source: _____

Type of enforcement action taken: _____

Date to verify elimination: _____

Date of Referral to FDEP of facility that may require MSGP: _____

Spill Prevention & Response Training Plan

Following is the Town of Juno Beach's plan for training the appropriate personnel in preventing and responding to spills within our jurisdictional area.

Who
All Public Works personnel shall receive annual training:

Topics
The information covered by the training includes:

- Practices to prevent spills
- How to recognize & assess the nature of a spill
- How to contain a spill
- How to report a spill that is hazardous, too large to manage, or threatens a water body

Method
The training is presented via EXCAL employee training videos. The primary videos for spill prevention & response are "Spills & Skills" and "Controlling Oil: Spill Prevention, Control & Countermeasure." A question and answer period follows the training video. *<This is an example; describe what is appropriate for your entity. Remember that "all appropriate personnel" are to be trained, not just the stormwater department and the fire department.>*

Schedule
The training is presented annually.

Training Documentation
Attendance at the training session is documented by sign-in sheets.

Spill Prevention & Response Procedures

Following is the Town of Juno Beach's procedures for preventing and responding to spills within our jurisdictional area.

Procedure

1. Based on training received, identify whether or not the spill requires that a call be made to the Palm Beach Fire & Rescue Department. If it does, do so immediately and follow any instructions given.
2. Take appropriate steps to contain the spill in order to eliminate or minimize the possibility of the spilled substance entering the storm sewer system.
3. If within your authority, clean up the spill. Rely on training to determine the appropriate method for spill clean-up.
4. Follow up with documentation on any spill incident.

Documentation

Spills and the follow-up responses are documented in the PBC Fire & Rescue log.

Plan to Eliminate Wastewater Contamination in Stormwater

The Town of Juno Beach does not operate the wastewater collection and transmission system within its jurisdiction.

The waster water collection and transmission utilities which service the Town of Juno Beach are:

Sea Coast Utility
Loxahatchee River Environmental Control District

Part III.A.9

Construction Site Runoff

Part III.A.9.a

Site Planning and Non-Structural and Structural Best Management Practices

Part III.A.9.b

Construction Site Runoff – Inspection and Enforcement

Part III.A.9.c

Construction Site Runoff – Site Operator Training

Attachment 4
Town of Juno Beach
Construction Site Inspection Plan and Inspection Form

Construction site inspections are conducted for land-disturbing projects which have the potential to discharge stormwater runoff into our MS4.

Timing

Construction site inspections are conducted:

- Before the start of construction, after the placement of temporary BMPs
- During construction (one or more inspections, based on the project's potential for discharge to our MS4)
- At the end of the construction

Site Priority

All construction sites are considered priority if they have the potential to discharge into water bodies or our MS4. Sites will be inspected with a frequency deemed appropriate during the site plan review process and with consideration to rainfall events. In addition, any sites where compliance is a concern, will be inspected more frequently.

Inspection Procedure

Inspections are the responsibility of the Planning & Zoning and the Public Works Departments and are conducted using the attached construction site inspection form. The intent of the inspection is to verify that BMPs are performing and to document the inspections. All completed inspection forms are kept as part of the public record of the project.

Enforcement

Instances of non-compliance will be handled with successively more rigorous enforcement measures.

1. Notice of Violation
2. Stop work order
3. Fines

The construction site inspector will issue notices of violation or stop work orders as deemed necessary.

Construction Site Inspection Form

Site: _____ Date of Inspection: _____

Address: _____

Lat/Long of discharge point: _____ Receiving water body: _____

Project owner: ☐ Private ☐ Town of Juno Beach

YES	NO	N/A	
☐	☐	☐	Erosion & Sedimentation Controls are installed as shown on plan.
☐	☐	☐	Erosion is being controlled on site.
☐	☐	☐	Sedimentation is being contained on site.
☐	☐	☐	No indication of sedimentation leaving the site.
☐	☐	☐	SWPP & completed inspection forms are on site & available.
☐	☐	☐	Prior non-compliance issues have been addressed.
☐	☐	☐	All other sources of pollution are being controlled.

Comments:

_____

_____

_____

_____

_____

_____

Training

Joint Training Program

There are a number of permittee training requirements in the permit that are conducted jointly by the Steering Committee. These include the topics:

- Identifying and reporting conditions that may indicate illicit discharge/connection/dumping to the MS4 (for permittee personnel & contractors)
- Spill prevention, containment and response techniques (for permittee personnel & contractors)
- Stormwater management, erosion and sedimentation controls (for permittee personnel or contractors)

The first two topics are presented as refresher training once a year. The training is open to all permittee personnel. EXCAL videos are used to present the material. Attendance is documented using sign in sheets.

The last topic is presented at an annual FDEP Erosion and Sedimentation Control Inspector Training, sponsored by the Palm Beach County MS4 permittee group, and presented by Cheryl Moore, a state certified trainer.

Details about the program are provided in the joint annual report and on the website (pbco-npdes.org).

Joint Public Education Program

The three public education elements in the permit are conducted as a joint program supported by all permittees. Please reference the program description in the Joint Annual Report and/or on the website (www.pbco-npdes.org).

Section 3

Drainage Basin/Outfall Maps

REDUCING STORMWATER IMPACTS-

SUMMARY OF CURRENT CODE AIMED

AT LOW IMPACT DEVELOPMENT

April 2013

Introduction

The definition of Low Impact Development "is a stormwater and land use management strategy that strives to mimic pre-disturbance hydrologic processes of infiltration, filtration, storage, evaporation, and transpiration by emphasizing conservation, use of on-site natural features, site planning, and distributed stormwater management practices that are integrated into a project design." (Integrating LID into Local Codes: A Guidebook for Local Governments, prepared by AHBL for the Puget Sound Partnership, Final Draft, November 2011)

The Town of Juno Beach's current Code of Ordinances was reviewed to show the Town's practices to reduce stormwater impacts of new development and areas of significant development. The Town of Juno Beach Code of Ordinances includes the Charter, and Code of Ordinances. As discussed in the MS4 Permitting Resource Manual, the Code promotes:

- reductions in impervious surfaces,
- the use of swales,
- the incorporation of low impact development principles,
- reduction in flow and volume of stormwater,
- increase in natural hydrology, and
- adherence to the principles of the Florida Yards and Neighborhoods program in new landscaping.

Landscape Open Space Requirements

The Town of Juno Beach requires landscape open space calculations as part of the Building Permit Application. The Ordinances references are Ord. No.207, 4.15, 8-8-1979; Ord. No. 371, 7-19-1989; Ord. No. 421, 2-19-1992; Ord. No. 466, 12-14-1994; Ord. No. 485, 9-4-1996). The landscape open space is the total amount of lot coverage area plus impervious area divided by the total area of the lot.

The land surfaces which do not allow the penetration of water including paved roads, sidewalks, driveways, parking lots and highly compacted areas including shell and clay which prevents or severely restricts the natural percolation of water from the surface of the ground to the water table is considered impervious; the percentage of the total area of a lot covered or occupied by the buildings or any part of the buildings, excluding therefrom any projections which are permitted by the Code to extend into yard areas is considered lot coverage. All open space which is covered and maintained with vegetation as required in the definition of landscaping is considered landscaped open space; any of the following or combination thereof: materials such as, but not limited to, grass, ground covers, shrubs, vines, hedges, trees or palms, and other materials such as rocks, pebbles, sand, wall or fences are considered landscaping.

Each zoning district and use has a minimum landscaped open space. The minimum for each zoning district is as follows:

DISTRICTS	USE	LANDSCAPED OPEN SPACE (%)
RS-1,2,3,4,5, HIST-S, HIST-Z, HIST-B, R-DUP,	Single-family	25%
RM-1	Single-family	25%
	Two-family	20%
	Townhouse	20%
	Multiple-family	20%
RM-2, RH, RM-00,	Single-family	20%
	Two-family	20%
	Townhouse	15%
	Multiple-family	15%
RMT	Single-family	20%
	Two-family	20%
	Townhouse	15%
	Multiple-family	15%
	Transient facility	15%
RV PARK	RV park	15%
	Individual lots	5 foot side setbacks shall be preserved as permeable surfaces to provide for drainage.
MH	Individual lots	20%
CG, UTL, GOV, INS	All permitted uses	15%
CO	All permitted uses	10%
REC-PRIV	All permitted uses	95%

The construction or improvement on a lot shall not fall below the minimum landscaped open space requirement. In addition, each zoning district has a maximum lot coverage area that cannot be exceeded. For example, Residential Single-family (RS-1) has a maximum lot coverage area of 35%.

With water retention facilities, the maximum lot coverage area for each zoning district is as follows:

DISTRICTS	USE	LOT COVERAGE (%)
RS-1,2,3,4,5, HIST-	Single-family,	35%

S, HIST-Z, HIST-B, R-DUP,	Two-family	
RM-1	Single-family	35%
	Two-family	35%
	Townhouse	40%
	Multiple-family	40%
RM-2, RH, RM-00,	Single-family	35%
	Two-family	35%
	Townhouse	50%
	Multiple-family	50%
RMT	Single-family	35%
	Two-family	35%
	Townhouse	50%
	Multiple-family	50%
	Transient facility	50%
RV PARK	Individual lots	60%
MH	All permitted uses	75%
CG	All permitted uses	40%
CO, INS	All permitted uses	50%
REC-PRIV	All permitted uses	5%
ULT, GOV	All permitted uses	60%

Drainage facilities must be designed to provide protection of the building finish floor elevation up to the 100 year 3 day storm stage and provide water quality treatment prior to discharge from the site pursuant to current South Florida Water Management District rules and regulations (Chapters 40E-0, 40E-1, 40E-4, 40E-40, 40E-41 and 40E-400, F.A.C.). The maximum impervious surface ratio shall not be exceeded unless a variance is approved.

Landscaping

The Town of Juno Beach requires a percentage of Native Landscaping for new development. The current requirements for landscaping are discussed in the Zoning Chapter of the Town of Juno Beach Code of Ordinances. Currently, native vegetation and xeriscape is encouraged within the Town of Juno Beach. Division 7 Landscaping Requirements states the following:

Section 34-1079. Purpose and intent.
The purpose and intent of this division is to protect, preserve, and enhance the natural environment and beauty of the town by creating minimum standards for landscaping and vegetation protection. Landscaping that meets these standards will:

(1) Improve the aesthetic appearance of the town.

(2) Improve air and water quality by such natural processes as transpiration and the maintenance of permeable land areas for aquifer recharge and surface water filtration.

(3) Reduce noise and pollution through the filtering and buffering capacity of living trees and vegetation.

(4) Promote energy conservation through:

a. The creation of shade which reduces heat gain in or on buildings and paved areas; and

b. The channeling and control of breezes to facilitate the natural cooling of buildings.

(5) Reduce erosion by stabilizing the soil.

(6) Provide habitat for wildlife.

(7) Conserve freshwater resources through the use of drought-tolerant plants.

(8) Provide a visual buffer between otherwise incompatible types of land uses.

(9) Increase land values by requiring landscaping in developments, thereby becoming a capital asset.

(10) Provide direct physical and psychological benefits to humans by reducing noise and glare in addition to breaking up the visual monotony and softening the perception of an urban environment.

(11) Promote innovative and cost-conscious approach to design, installation and maintenance of landscaping, and encourage water and energy conservation.

(12) Require the removal of nuisance vegetation to ensure preservation of protected or native vegetation and encourage no disruption of native ecosystems.

(13) Provide for the public health, safety and welfare.

Section 34-1084.-Landscape requirements.

(a) In keeping with the purpose and intent of this division, the following general requirements shall apply in all zoning districts in the town.

(b) A graphic survey of existing vegetation, delineating all viable native vegetation and all trees greater than four inches in diameter (caliper) at four feet above ground, shall be

submitted. Such graphic survey shall be prepared by a landscape architect or land surveyor registered in the state and be of the same scale as the landscape plan.

(c) Reasonable requirements for the preservation of outstanding natural and cultural features shall be required. These features include trees with trunks larger than eight inches in diameter measuring four feet above the ground, groves, watercourses, historic sites, and similar irreplaceable assets in which there is public interest.

(d) All new trees shall be located so as to provide unrestricted flow or access to drainage swales or utility easements. Vegetation in easements and rights-of-way must have appropriate utility company and agency approval. In addition, the height of damage-prone trees shall be limited along hurricane evacuation routes.

(e) New trees shall meet the specifications as set forth in section 34-1088(f).

(f) Trees shall be hardy and suitable to local soil and climate.

(g) The use of native vegetation plantings shall be maximized, and at a minimum all plant materials of each type, including trees, shrubs and ground cover, shall be at least 50 percent native. In addition, xeriscape principles shall be utilized in all landscape designs and installations (see section 34-1088(a)).

(h) Existing native vegetation shall be preserved to the maximum extent practicable. The town encourages applicants to make all native vegetation to be removed from the site available, either by fee or donation, to the town and its residents for reuse. The developer shall notify the town three weeks prior to vegetation removal, so that the town may notify residents by notice at town hall and phone message of such vegetation availability. Upon such notice residents shall have two weeks to contact the developer regarding removal of native vegetation.

(i) The type and location of landscaping shall take into consideration the preservation of native vegetation areas, and the director may make exceptions to the regulations in this division to ensure the preservation of such native vegetation areas.

(j) All conditions and requirements of the Environmentally Sensitive Lands Ordinance, article IV, division 14 of this chapter, and section 34-1123 shall be complied with.

(k) Changing 30 percent or more of all trees and shrubs on a site from the originally approved landscape plan shall require submittal of a new plan showing new plant types and locations to the planning and zoning department for review and approval.

(l) The public works, planning and zoning, and code compliance departments shall be responsible for managing the town's tree planting program. The public works department shall be responsible for the care and maintenance of trees present on town-owned property.

Swales

Currently the Town of Juno Beach has five sections that deal with the design requirements for swales in the Town of Juno Beach Code of Ordinances. It is as follows:

Subdivision & Platting Regulations, Section 15.10.10 – Swale and Swale Grades.
Swales within the right-of-way shall not exceed those shown in the current Town standards. Runoff may be accumulated and carried in the swales guttered locations in the right-of-way along streets in accordance with the maximum flood lines shown in the current Town standards. Water in excess of these quantities shall not be carried in the street swale or guttered in the right-of-way, but shall instead be diverted therefrom and carried away in storm sewers.

Sec. 34-1080. - Landscape plan submission and approval.(a)(3)
A single-family dwelling and a duplex shall be exempt from all provisions of this division with the exception of those regulations pertaining to swales and visibility at intersections, maintenance of rights-of-way, irrigation restrictions and automatic rain switches required on all new irrigation systems, and those properties greater than four acres in area which must adhere to the Environmentally Sensitive Lands Ordinance.

Sec. 34-1084. - Landscape requirements.(d)
All new trees shall be located so as to provide unrestricted flow or access to drainage swales or utility easements. Vegetation in easements and rights-of-way must have appropriate utility company and agency approval. In addition, the height of damage-prone trees shall be limited along hurricane evacuation routes.

Sec. 34-1088. - Design, installation, maintenance, irrigation and plant material standards.(i)
Grass areas shall be planted in species normally grown as permanent lawns in the county. Grass areas may be sodded, plugged, sprigged or seeded except that solid sod shall be used in swales or other areas subject to erosion. In areas where other than solid sod or grass seed is used between the months of October and March, nursegrass seed shall be sown for immediate effect and protection until coverage is otherwise achieved.

Sec. 34-1307. - Landscaping of streets.(4)
All swale areas shall be sodded and graded to drainage standards acceptable to the town engineer and other right-of-way agencies, if applicable.

Tree Protection

The Town of Juno Beach Code of Ordinances defines a tree as a woody plant having a height of not less than 12 feet and a canopy spread of not less than ten feet, and a clear trunk of not less than six feet at the time of planting. The following Code Sections promote tree protection:

Section 34-1079. Purpose and intent.

Require the removal of nuisance vegetation to ensure preservation of protected or native vegetation and encourage no disruption of native ecosystems.

Sec. 34-1086. Protection of trees and other vegetation to be preserved on site.
Trees and other vegetation which are to be preserved on a site shall be protected from damage during the construction process according to appropriate tree and vegetation protection techniques. The Tree Protection Manual for Builders and Developers, published by the state division of forestry, department of agriculture and consumer services, shall be the standard for determining the appropriateness of proposed techniques for tree protection. All vegetation areas shall be fenced off with screening to prevent any damage. All trees and vegetation which are to be preserved and do not survive shall be replaced by a plant or tree of equal size, or an equivalent number of trees based on trunk diameter.

Sec. 34-1088. Design, installation, maintenance, irrigation and plant material standards.(c)(3)
Landscaping may be inspected as needed, to ensure that the standards established in this section are maintained. The owner, tenant or his agent shall be notified in writing via certified mail by the town of any areas which are not being properly maintained and shall, within 30 calendar days from time of notification, address and rectify the deficiency.

Sec. 18-31. Damaging or removing trees, shrubbery, lawns.
No person in a park shall damage, cut, carve, transplant or remove any tree or plant or injure the bark, or pick the flowers or seeds of any tree or plant. Nor shall any person attach any rope, wire or other contrivance to any tree or plant. A person shall not dig in or walk upon or otherwise disturb grass areas or planted areas which have been posted with "No Trespassing," "Keep Off the Grass," or "Do Not Walk on the Grass" signs, or in any other way injure or impair the natural beauty or usefulness of any area.

It is the Town's practice that a professional arborist recognized and certified by the International Society of Arboriculture (ISA) as an ISA certified arborist municipal specialist or an ISA certified arborist makes the determination if the tree is dying or dead.

Stormwater Control

The following Sections of Article VI. Stormwater Control demonstrates the practices used by the Town:

Sec. 32-189. - Purpose; definitions.
(a) *Purpose and intent.* The purpose of this article is to promote the health, safety and general welfare of the inhabitants of the town. This article is intended to comply with federal and state laws and regulations regarding water quality.

(b) *Definitions.* The following words, terms and phrases, when used in this article, shall have the meanings ascribed to them in this subsection, except where the context clearly indicates a different meaning:

Authorized official means the director and any employee or agent of the town authorized in writing by the director to administer or enforce the provisions of this article.

Director means the director of public works.

Discharge means any direct or indirect entry of any solid, liquid or gaseous matter.

Site of industrial activity means any area or facility used for manufacturing, processing or raw materials storage, as defined under 40 CFR 122.26(a)(14) of regulations of the U.S. Environmental Protection Agency, as amended.

Stormwater means any stormwater runoff, and surface runoff and drainage.

Stormwater system means the system of conveyances owned by the town and used for collection, storing, and transporting stormwater but not including any facilities intended to be used in accordance with applicable law for collection and transporting of sanitary or other wastewater.

Sec. 32-190. - Industrial activity.

(a) *General prohibitions.* Any discharge into the stormwater system in violation of any federal, state, county, municipal or other law, rule, regulation or permit is prohibited.

(b) *Specific prohibitions.* By adoption of industrial activity stormwater regulations or by issuance of industrial activity stormwater permits, or both, the director may impose reasonable limitations as to the quality of stormwater (including, without limitation, the designation of maximum levels of pollutants) discharged into the stormwater system from sites of industrial activity. Any promulgation of such regulations and issuance of permits by the director shall be in accordance with applicable law.

(c) *Administrative orders.* The director may issue an order to any person to immediately cease any discharge determined by the director to be in violation of any provision of this article, or in violation of any regulation or permit issued hereunder.

(d) *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 60 calendar days after the issuance of such permit.

Sec. 32-191. - Illicit discharges.

(a) *General prohibitions.* Except as set forth under subsection (c) of this section or as in accordance with a valid NPDES permit, any discharge to the stormwater system that is not composed entirely of stormwater is prohibited.

(b) *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, order or permits, is prohibited.

(c)*Authorized exceptions.* Unless the director determines that it is not properly managed or otherwise is not acceptable, the following discharges are exempt from the general prohibition set forth under subsection (a) of this section: Flows from firefighting, water line flushing and other contributions from potable water sources, landscape irrigation and lawn watering, irrigation water, diverted stream flows, rising groundwaters, direct infiltration to the stormwater system, uncontaminated pumped groundwater, foundation and footing drains, water from crawl space pumps, air conditioning condensation, springs, individual residential car washing, flows from riparian habitats and wetlands, and dechlorinated swimming pool contributions.

(d) *Illicit connections.* No person may maintain, use or establish any direct or indirect connection to the stormwater system that results in any discharge in violation of this article. This prohibition is retroactive and applies to connections made prior to the effective date of the ordinance from which this article is derived, regardless of whether made under a permit, or other authorization, or whether permissible under laws or practices applicable or prevailing at the time the connection was made.

(e) *Notification of spills.* As soon as any person has knowledge of any discharge to the stormwater system in violation of this article, such person shall immediately notify the director by telephone and if such person is directly or indirectly responsible for such discharge, then such person shall also take immediate action to ensure the containment and clean up of such discharge and shall confirm such telephone notification in writing to the director within three calendar days. Such telephone and written notice shall be to the town's general telephone number and address then in use.

(f) *Administrative order.* The director may issue an order to any person to immediately cease any discharge or any connection to the stormwater system determined by the director to be in violation of any provision of this article, or in violation of any regulation or permit issued hereunder.

Sec. 32-192. - Enforcement.

(a) *Injunctive relief.* The town may seek injunctive relief to prevent any violation of any provision of this article, or of any regulation or order issued hereunder, if necessary to protect the public health, safety or general welfare.

(b) *Continuing violation.* A person shall be deemed guilty of a separate violation for each and every day during any continuing violation of any provision of this article, or of any regulation or permit issued hereunder.

(c) *Enforcement actions.* The director may take all actions necessary, including the issuance of notices of violation, the filing of court actions and/or referral of the matter to

the local code enforcement board to require and enforce compliance with the provisions of this article and with any regulation or permit issued hereunder.

Sec. 32-193. - Inspections and monitoring.

(a) *Authority for inspections.* Whenever necessary to make an inspection to enforce any of the provisions of this article, or regulation or permit issued hereunder, or whenever an authorized official has reasonable cause to believe there exists any condition constituting a violation of any of the provisions of this article, or regulation or permit issued hereunder, any authorized official may enter any property, building or facility at any reasonable time to inspect the same or to perform any duty related to enforcement of the provisions of this article or any regulations or permits issued hereunder; provided that:

(1) If such property, building or facility is occupied, such authorized official shall first present proper credentials and request permission to enter; and

(2) If such property, building or facility is unoccupied, such authorized official shall make a reasonable effort to locate the owner or other person having charge or control of the property, building or facility, and shall request permission to enter.

Any request for permission to enter made hereunder shall state that the owner or person in control has the right to refuse entry, and that in such event that entry is refused, the authorized official may enter to make inspection only upon issuance of a search warrant by a duly authorized magistrate. If the owner or person in control refuses permission to enter after such request has been made, the authorized official is hereby authorized to seek assistance from any court of competent jurisdiction in obtaining entry. Routine or areawide inspections shall be based upon such reasonable selection processes as may be necessary to carry out the purposes of this article, including but not limited to random sampling and sampling in areas with evidence of stormwater contamination, nonstormwater discharges, or similar factors.

(b) *Authority for monitoring and sampling.* Any authorized official may establish on any property such devices as are necessary to conduct sampling or metering of discharges to the stormwater system. During any inspection made to enforce the provisions of this article, or regulations or permits issued hereunder, any authorized official may take any samples deemed necessary.

(c) *Requirements for monitoring.* The director may require any person engaging in any activity or owning any property, building or facility, including but not limited to a site of industrial activity, to undertake such reasonable monitoring of any discharge to the stormwater system and to furnish periodic reports.

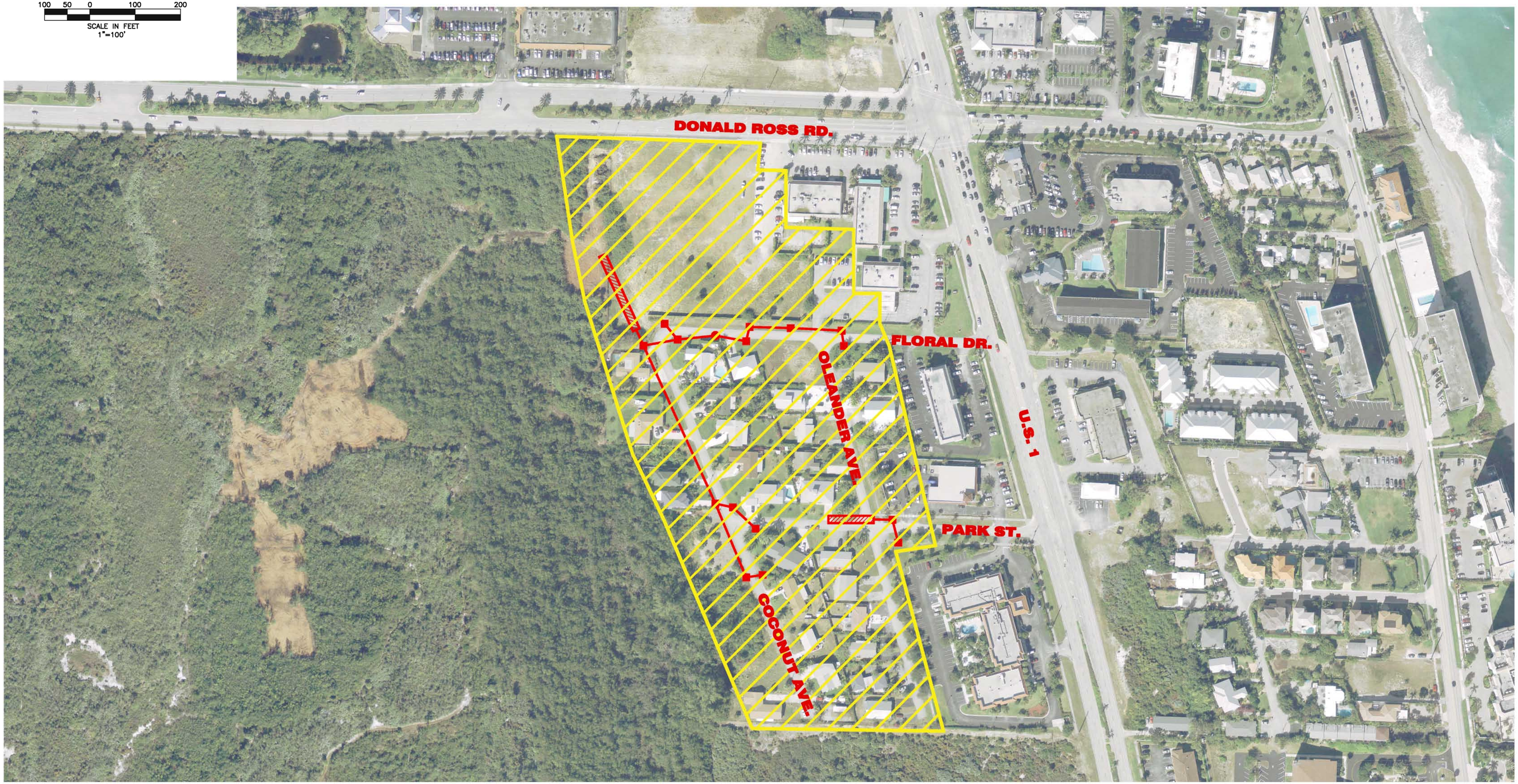
N

100 50 0 100 200

SCALE IN FEET
1"=100'

LEGEND

- DRAINAGE INLET & PIPE
- DRAINAGE MANHOLE & PIPE
- CONTRIBUTING AREA
- EXFILTRATION TRENCH



48 HOURS BEFORE DIGGING
BROWARD ● DALM BEACH ● INDIAN RIVER
ST. LUCIE ● MARTIN COUNTIES
CALL TOLL FREE
1-800-432-4770
SUNSHINE STATE 1 CALL
UNDERGROUND UTILITIES
NOTIFICATION CENTER

REVISIONS

SIMMONS & WHITE
ENGINEERING | PLANNING | CONSULTING | SINCE 1982
5601 Corporate Way, Suite 200, West Palm Beach, Florida 33407
Telephone (561) 478-7846 ● Authorization No. 3452

DESIGN	DRAWN	CHECKED	APPROVED	DATE
T.R.	R.S.			

NEW PALM BEACH HEIGHTS
CITY OF JUNO BEACH, FLORIDA.
SECTION 33, TOWNSHIP 41S., RANGE 43 E.
DRAINAGE EXHIBIT

JOB NO.	DRAWING NO.	SHEET
10-009.4	10009.4T01	1 OF 1

CAD FILES\2010\10-009.4\10009.4-EXHIBIT.dwg, 9/29/2010 9:50:35 AM, DWG To PDF.pc3

N

100 50 0 100 200

SCALE IN FEET
1"=100'

LEGEND

- DRAINAGE INLET & PIPE
- DRAINAGE MANHOLE & PIPE
- CONTRIBUTING AREA

F. P. & L.

UNIVERSE BLVD.

ELLISON WILSON RD.

U.S. HWY 1

UNO LAGO

WATERFORD

48 HOURS BEFORE DIGGING
BROWARD • PALM BEACH • INDIAN RIVER
ST. LUCIE • MARTIN COUNTIES
CALL TOLL FREE
1-800-432-4770
SUNSHINE STATE 1 CALL
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REVISIONS

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DESIGN	DRAWN	CHECKED	APPROVED	DATE
T.R.	R.S.			

UNIVERSE BOULEVARD
CITY OF JUNO BEACH, FLORIDA.
SECTION 33, TOWNSHIP 41S., RANGE 43 E.
DRAINAGE EXHIBIT

JOB NO.	DRAWING NO.	SHEET OF
10-009.4	10009.4T01	1 1

N

100 50 0 100 200

SCALE IN FEET
1"=100'

LEGEND

- DRAINAGE INLET & PIPE
- DRAINAGE MANHOLE & PIPE
- CONTRIBUTING AREA
- EXFILTRATION TRENCH

OLYMPUS DR.
OCEAN DR. / A1A
S. JUNO LN.
JUPITER LN.
N. JUNO LN.
DIANA LN.
APOLLO DR.
PELICAN LAKE
OUTFALL
SEMINOLE GOLF COURSE
CELESTIAL WAY
ALICANTE DR.
MERCURY DR.

48 HOURS BEFORE DIGGING
BROWARD ● PALM BEACH ● INDIAN RIVER
ST. LUCIE ● MARTIN COUNTIES
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DESIGN	DRAWN	CHECKED	APPROVED	DATE
T.R.	R.S.			

PELICAN LAKE OUTFALL
CITY OF JUNO BEACH, FLORIDA.
SECTION 33, TOWNSHIP 41S., RANGE 43 E.
DRAINAGE EXHIBIT

JOB NO.	DRAWING NO.	SHEET OF
10-009.4	10009.4T01	1 1

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Section 4

MS4 Inventory Map

ID NUMBER	PIPE SIZE IN	PIPE SIZE OUT	TYPE	LENGTH	LOCATION
CENTRAL TOWN					
JU01C	15"	15"S	RCP		500 OCEAN DR
JU02C	15"N	15"W	RCP	100 FT.	450 OCEAN DR.
JU03C	15"E	15"S	RCP	35 FT.	340 OCEAN DR.
JB04C	15"N	15"S	RCP	300 FT	340 OCEAN DR
JB05C	15"N/E	24"W	CAP	202 FT.	340 OCEAN DR.
JB06C	24"N/S	24"W	CAP	40 FT.	320 CELESTIAL
JB05-1M	24"E	24"W	CAP	40 FT.	340 OCEAN DR.
JB06C	24"N/S	24"W	CAP		320 CELESTIAL
JB07C	24"S	24"W	CAP	135 FT.	350 CELESTIAL
JB08C	24"S	15"W	CAP	10 FT.	350 CELESTIAL
JB09C		15"S	RCP	95 FT.	380 CELESTIAL
JB10C		15"N	RCP	95 FT.	320 CELESTIAL
JB11C		12"W	PVC	79 FT.	BEACH BOWND
JB12C		15"W	RCP	100 FT.	WEXFORD CT.
JB13C		18"W	CAP	300 FT.	COTE DE LAMER
JB14C		12"W	PVC	135 FT.	COTE DE LAMER
JB15C		15"W	CAP	100 FT.	BARCLAY
JB16C		18"W	CAP	140 FT	BESSEMER
JB17C		15"N	CAP	24 FT.	OESSEMER
JB18CU		15"E	CAP	12 FT.	SEA SIDE
JB19C		15"E	POLY	100 FT	NEPTUNE WAY
JB20C		18"S	CAP	103 FT	340 OCEAN DR.
JB57C	18"N	18"W	CAP	40 FT.	340 OCEAN DR
JB58C	18"E	18"S	CAP	130 FT.	340 OCEAN DR.
JB59C		15"W	CAP	57 FT	340 OCEAN DR
JB60C	15"E	15"W	CAP	40 FT	340 OCEAN DR.
JB61C	18"N/15"E	24"S	CAP	110 FT.	340 OCEAN DR.
JB62CS	24"N	24"E	CAP	103 FT	340 OCEAN DR.
SOUTH TOWN					
JB20C		18"W	CAP		GOLD COAST
JB21M	18"S	18"W	CAP	81 FT	FP&L
JB22M	18"E	18"W	CAP	146 FT.	FP&L
JB23C	18"E/S	18"W	CAP	86 FT.	FP&L
JB27C	18"E/S	18"W	CAP	240 FT	FP&L
JB23C	18"E/S	18"W	CAP		FP&L
JB24C		18"N	CAP	82 FT.	WATERFORD
JB25C		18"S	CAP		WATERFORD
JB26C	18"E	18"N	CAP	82 FT.	WATERFORD
JB27C	18"E/S	18"W	CAP	81 FT	FP&L
JB27-1M	18"E	18"N	CAP	300 FT.	FP&L
JB28C	18"E/S	18"W	CAP	255 FT	FP&L
JB29C		18"N	CAP		LAND LAGO
JB29C	18"E/S	18"W	CAP	70 FT	FP&L
JB30M	18"E	18"W	CAP	166 FT.	FP&L
JB31C	18"E/S	18"W	CAP	342 FT	FP&L

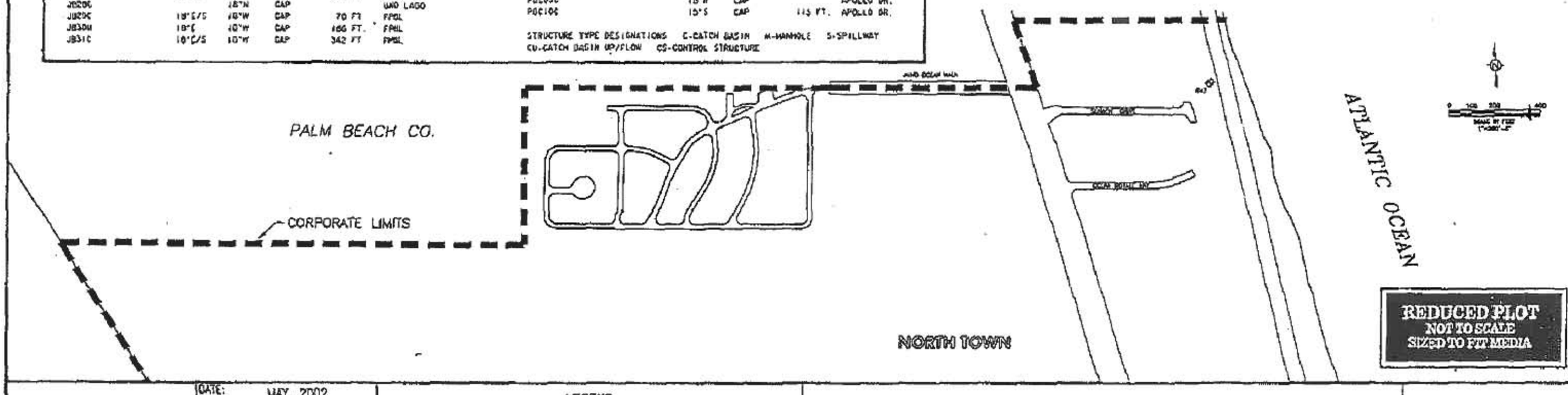
ID NUMBER	PIPE SIZE IN	PIPE SIZE OUT	TYPE	LENGTH	LOCATION
SOUTH TOWN					
JB32C	18"S	18"N	CAP	76 FT	LAND LAGO
JB33C	18"E/S	18"W	CAP		LAND LAGO
JB34C	18"E/S	36"W	CAP	180 FT	FP&L
JB33C		18"N	CAP		LAND LAGO
JB34C	18"E/S	36"W	CAP	80 FT	LAND LAGO
JB35M	36"E	36"N	CAP	60 FT.	ELL.WELL.RD
JB36M	36"E/S	60"E	CAP	301 FT.	ELL.WELL.RD.
JB37M	60"E	60"S	CAP	100 FT.	SEACOAST L/S
JB38M	60"N	60"W	CAP	20 FT	SEACOAST L/S
JB39M	60"E	60"W	CAP	450 FT	BAY COLONY
JB40M	60"E	60"W	CAP	300 FT.	BAY COLONY
JB41CS	60"W			172 FT	INTRACOASTAL
NEW PALM BEACH HEIGHTS					
JB42C		18"N	RCP		PARK STREET
JB43C	18"S	18"W	RCP	35 FT.	PARK STREET
JB43C		18"W	CAP	Distance to end not known.	
JB44C		15"N	RCP		PARK STREET
JB45C	15"S	20"W	RCP	63 FT	PARK STREET
JB46C	20"E	24"N	RCP	35 FT.	COCONUT AVE.
JB47M	24"S	24"E	RCP	300 FT.	COCONUT AVE.
JB48C	24"W/W	24"E	RCP	60 FT	FLORAL AVE.
JB49C		15"S	RCP	42 FT.	FLORAL AVE.
JB50M	24"W	24"E	RCP	74 FT.	FLORAL AVE.
JB51C	24"W	24"N	RCP	75 FT.	FLORAL AVE.
JB52C	24"S	20"E	RCP	33 FT	FLORAL AVE
JB53C	20"W	20"E	RCP	80 FT.	FLORAL AVE
JB54C	20"W	15"E	RCP	110 FT	FLORAL AVE.
JB55C		15"W	RCP	30 FT.	FLORAL AVE
PALM BEACH COUNTY					
PBC01C		15"N	CAP		SUNRISE WAY
PBC02C		15"S	CAP	62 FT	SUNRISE WAY
PBC03C		15"N	CAP		SUNSET WAY
PBC04C		15"S	CAP	62 FT	SUNSET WAY
PBC05C		15"N	CAP		DIANA LA.
PBC06C		15"S	CAP	67 FT	DIANA LA.
PBC07C		24"S	SCP		OCEAN DR.
PBC08CU		24"W	SCP	60 FT	OCEAN DR.
PBC09C		15"N	CAP		APOLLO DR.
PBC10C		15"S	CAP	115 FT.	APOLLO DR.

STRUCTURE TYPE DESIGNATIONS C-CATCH BASIN M-MANHOLE S-SPILLWAY
CU-CATCH BASIN UP/FLOW CS-CONTROL STRUCTURE

ELEVATION REFERENCE MONUMENT LOCATIONS

RM1	32 FT. EAST OF CENTERLINE OF OCEAN DRIVE AND 42 FT. SOUTH OF CENTERLINE OF SOUTH JUNO LANE. ALSO 20 FT SOUTH OF SOUTH ENTRANCE TO TOWN CENTER AND 1 FT. OFF EAST SIDE OF SIDEWALK.
RM2	CENTER OF CROSS ISLAND IN FRONT OF PBC FIRE RESCUE STATION #15 65 FT EAST OF CENTERLINE OF US HWY 1.
RM3	31 FT. EAST OF CENTERLINE OF OCEAN DRIVE ACROSS FROM CENTERLINE OF SOUTH LYRA 1 FT FROM EAST SIDE OF SIDEWALK.
RM4	33 FT. EAST OF THE CENTERLINE OF OCEAN DRIVE, 175 FT. NORTH OF THE CENTERLINE OF NORTH LYRA CIRCLE AND 1 FT OFF EAST SIDE OF SIDEWALK.
RM5	27 FT EAST OF THE CENTERLINE OF OCEAN DRIVE 50 FT SOUTH OF THE CENTERLINE OF THE SOUTH TURNOUT OF CELESTIAL WAY AND 3 FT. OFF EAST SIDE OF SIDEWALK.
RM6	28 FT. EAST OF THE CENTERLINE OF OCEAN DRIVE, 36 FT. SOUTH OF THE CENTERLINE OF DONALD ROSS RD. AND 1 FT. OFF EAST SIDE OF SIDEWALK.
RM7	WEST SIDE OF OCEAN DRIVE 10 TO 12 FT. SOUTH OF JUNO BEACH PARK AND 1 TO 2 FT WEST OF SIDEWALK.
RM8	EAST OF CELESTIAL WAY ON THE STORM DRAIN HEAD WALL IN FRONT OF COLONY COND.
DIANA LA.	23 FT. EAST OF THE CENTERLINE OF OCEAN DRIVE, 13 FT. SOUTH OF THE CENTERLINE OF DIANA LANE AND 6 FT. WEST OF THE SIDEWALK.
DNR	IN THE DUNES TO THE NORTH SIDE OF ATLANTIC DUNE WALK OVER 6 TO 8 FT NORTH OF THE TOP OF STAIRS

VERIFICATION - MAY, 2002



REDUCED PLOT
NOT TO SCALE
SIZED TO FIT MEDIA

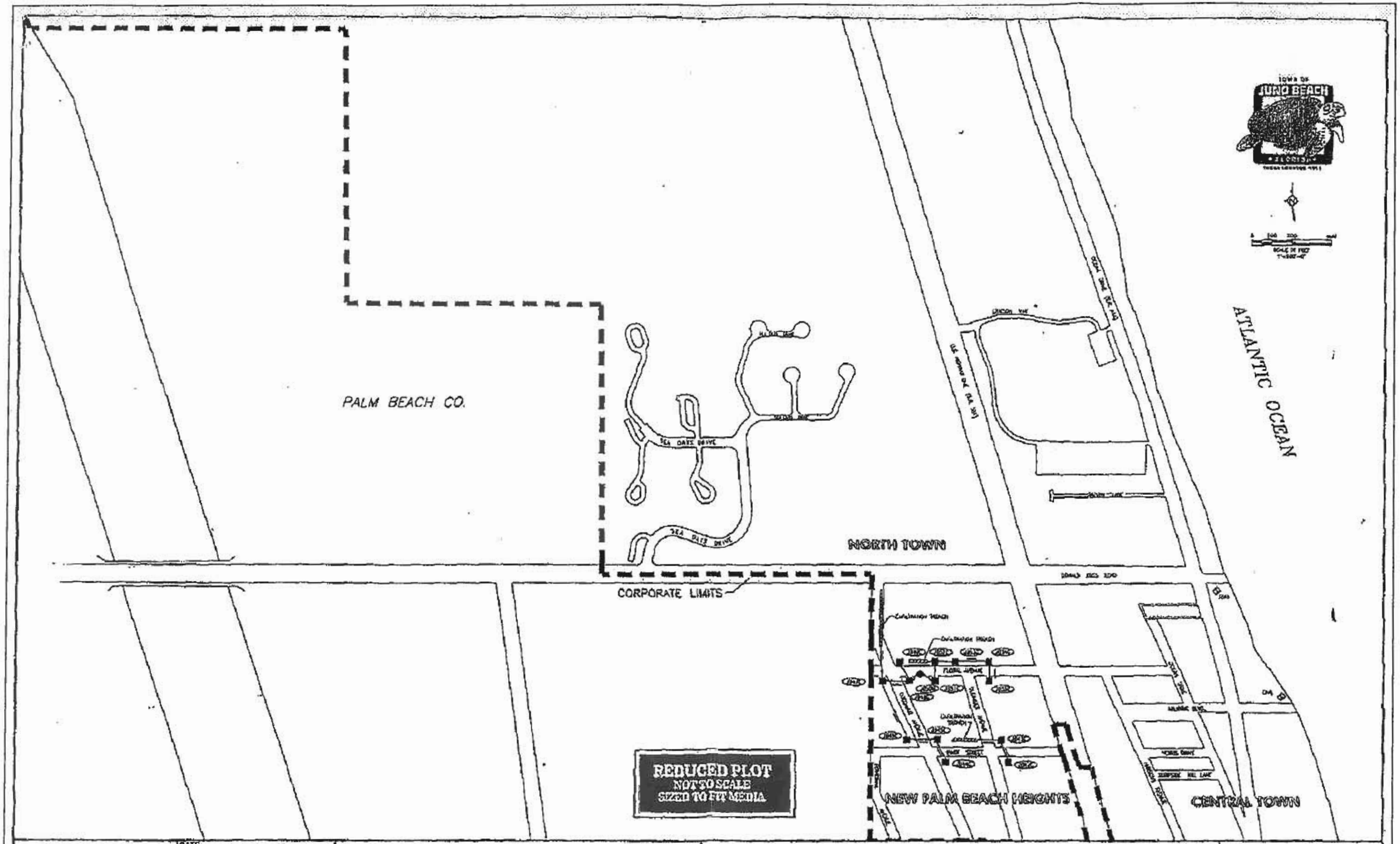
MAP COURTESY OF
Jay Nelson Cadd

DATE: MAY, 2002
FILE: JB02E01A.DWG
REVISED: MAY, 2003

LEGEND
- CATCH BASIN (INLET)
- MANHOLE
- CATCH BASIN FRENCH DRAIN
- CONTROL STRUCTURE
- FLOW ARROW
- ELEVATION REFERENCE MARK

STORM DRAINAGE SYSTEM MAP
TOWN OF JUNO BEACH

SHEET 1 OF FOUR



MAP COURTESY OF
Jay Nelson Cadd

DATE: MAY. 2002
FILE: JB02E01A.DWG
REVISED: MAY. 2003

LEGEND

- CATCH BASIN (INLET)
- MANHOLE
- CATCH BASIN (MONROE DRAIN)
- CONTROL STRUCTURE
- FLOW ARROW
- BENCHMARK REFERENCE MARK

STORM DRAINAGE SYSTEM MAP
TOWN OF JUNO BEACH

SHEET 2 OF FOUR

PALM BEACH CO.

INTRACOASTAL WATERWAY

CORPORATE LIMITS

PALM BEACH CO.

REDUCED PLOT
NOT TO SCALE
SIZED TO FIT MEDIA

ATLANTIC OCEAN

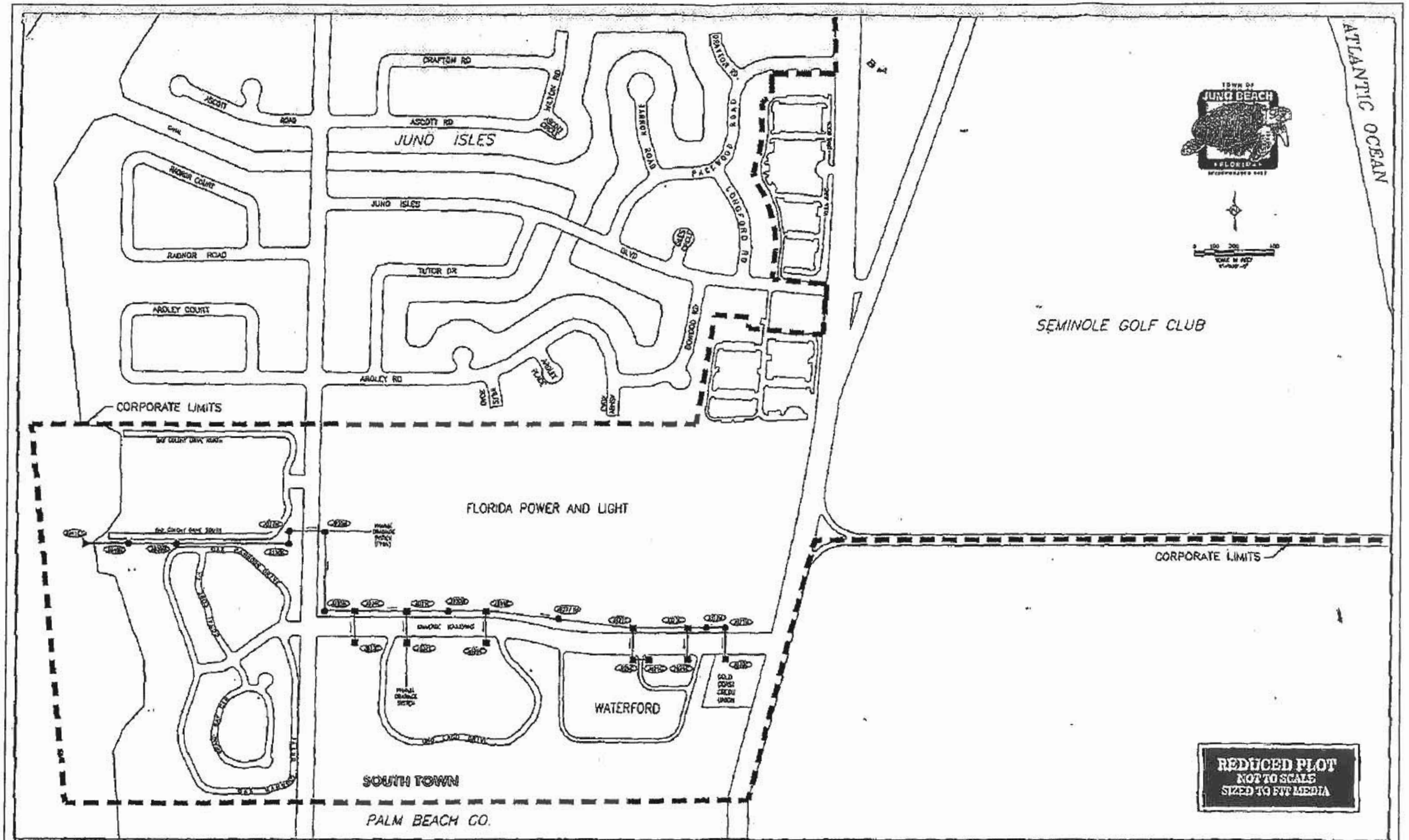
PELICAN LAKE

CENTRAL TOWN

MAP COURTESY OF Jay Nelson Cadd	DATE: MAY, 2002 FILE: JB02E01A.DWG REVISED: MAY, 2003	LEGEND ■ CATCH BASIN (INLET) ● MANHOLE □ CATCH BASIN FRENCH DRAIN ▲ CONTROL STRUCTURE — FLOW ARROW ◈ ELEVATION REFERENCE MARK

STORM DRAINAGE SYSTEM MAP
TOWN OF JUNO BEACH

SHEET 3 OF FOUR



REDUCED PLOT
NOT TO SCALE
SIZED TO FIT MEDIA

MAP COURTESY OF
Jay Nelson Cadd

DATE:	MAY, 2002
FILE:	JB02E01A.DWG
REVISED:	MAY, 2003

LEGEND

- CATCH BASIN (INLET)
- MANHOLE
- CATCH BASIN FRENCH DRAIN
- CONTROL STRUCTURE
- FLOW ARROW
- ELEVATION REFERENCE MARK

STORM DRAINAGE SYSTEM MAP
TOWN OF JUNO BEACH

SHEET 4 OF FOUR