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 Lake Park		
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): 10/ 2011 through 9 / 2012		
F.	Name of the Responsible Authority: Mr. Dale S. Sugerman, Ph.D		
	Title: Town Manager		
	Mailing Address: 535 Park Avenue		
	City: Lake Park	Zip Code: 33403	County: Palm Beach
	Telephone Number: 561-881-3304	Fax Number: 561-881-3314	
	E-mail Address: townmanager@lakeparkflorida.gov		
G.	Name of the Designated Stormwater Management Program Contact (if different from Section I.F above): Mr. David Hunt		
	Title: Director Public Works		
	Department: Public Works		
	Mailing Address: 650 Old Dixie Highway		
	City: Lake Park	Zip Code: 33403	County: Palm Beach
	Telephone Number: 561-881-3345	Fax Number: 561-881-3349	
	E-mail Address: dhunt@lakeparkflorida.gov		

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

A.	Number of outfalls ADDED to the outfall inventory in the current reporting year (insert "0" if none): 0 (Does this number include non-major outfalls? ☐ Yes ☐ No ☒ Not Applicable)
B.	Number of outfalls REMOVED from the outfall inventory in the current reporting year (insert "0" if none):0 (Does this number include non-major outfalls? ☐ 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: The monitoring 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 monitoring information.
B.	Provide a brief discussion of the monitoring results to date: • Please see the Palm Beach County Joint Annual Report for the monitoring information. • See Part V of the permit for the monitoring requirements.
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: $510,561
B.	Total budget for the NPDES stormwater management program for the subsequent reporting year: $505,000

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	***DEP Note: Please complete Checklists A & B at the end of the tailored form.***
☐	☒	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): Dale S. Sugerman

Title: Town Manager

Signature: Dale S. Sugerman Date: 5/16/2013

SECTION VII. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE

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

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)	7791	0	0	0	0	Inspection Forms	Public Works	Requirements to be met with next cycle
Dry detention systems	1	0	0	0	0	Inspection Forms	Public Works	No maintenance necessary
Major stormwater outfalls	10	0	0	0	0	Inspection Forms	Public Works	Requirements to be met with next cycle
MS4 pipes / culverts (miles)	46170	15536	34%	15536	34%	Inspection Forms	Public Works	Pipes cleaned w/ Vaccon Truck
Inlets / catch basins / grates	409	168	41%	168	41%	Inspection Forms	Public Works	Inlets cleaned w/ Vaccon Truck
Ditches / conveyance swales (l.f.)	79,200	5701	7%	5701	7%	Inspection Forms	Public Works	Swales regraded and sodded
ATTACH explanation if any of the minimum inspection frequencies in Table II.A.1.a were not met								See Attached
Year 1 ONLY: Attach a map of all known major outfalls as per Rule 62-624.600(2)(a), F.A.C.								

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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			No new projects submitted
	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		Attached		
	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	Weekly	Collection Records	Public Works	
	PERMITTEE Litter Control Program: Estimated amount of area maintained (acres)	13.6			1 road, 2 parks
	PERMITTEE Litter Control Program: Estimated amount of litter collected (cubic yards)	335			
	CONTRACTOR Litter Control Program: Frequency of litter collection	0			
	CONTRACTOR Litter Control Program: Estimated amount of area maintained (linear feet)	0			
	CONTRACTOR Litter Control Program: Estimated amount of litter collected (cubic yards)	0			
	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				
	Keep PBC Beautiful Trash Pick-up Events: Estimated amount of litter collected (lbs.)				
	Coastal Cleanup Program: Total miles cleaned				
	Coastal Cleanup Program: Estimated amount of litter collected (lbs)				
	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	Semi Monthly			
	Total miles swept (per year)	621	Sweeper Logs	Public Works	
	Estimated quantity of sweeping material collected (cubic yards)	30	Sweeper Logs	Public Works	
	Total nitrogen loadings removed (pounds)	34	Records	Consultant	FSA Calculator
	Total phosphorus loadings removed (pounds)	22	Records	Consultant	FSA Calculator
	Year 1 ONLY: If have curbs and gutters, attach explanation of why no				

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Permit Citation/ SWMP Element	Permit Requirement/Quantifiable SWMP Activity	Number of Activities Performed	Documentation / Record	Entity Performing the Activity	Comments
	street sweeping program and the alternate BMPs used or planned				
	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: Public Works Maintenance Yard	12	Inspection Logs	Public Works	Monthly
Part III.A.4	**Flood Control Projects**				
	Report the total number of flood control projects that were constructed by the permittee during the reporting period and the number of those projects that did NOT include stormwater treatment. The permittee shall provide a list of the projects where stormwater treatment was not included with an explanation for each of why it was not. Report on any stormwater retrofit planning activities and the associated implementation of retrofitting projects to reduce stormwater pollutant loads from existing drainage systems that do not have treatment BMPs.				
	Flood control projects completed during the reporting period	0			
	Flood control projects completed during the reporting period that did not include stormwater treatment	0			
	ATTACH a list of the flood control projects that did not include stormwater treatment and an explanation for each of why it was not				
	Stormwater retrofit projects planned	0			
	Stormwater retrofit projects under construction during the reporting period	0			
	Stormwater retrofit projects completed during the reporting period	0			
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:Public Works Maintenance Yard	12	Inspection Logs	Public Works	monthly
Part	**Pesticides, Herbicides, and Fertilizer Application**				

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Permit Citation/ SWMP Element	**Permit Requirement/Quantifiable SWMP Activity**	**Number of Activities Performed**	**Documentation / Record**	**Entity Performing the Activity**	**Comments**
III.A.6					
	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	0			Application is contracted
	CONTRACTORS: FDACS certified / licensed applicators of pesticides and herbicides	1	State License	Nozzle Nolen	
	CONTRACTORS: FDACS certified / licensed applicators of fertilizer	1	State License	Rood Landscape	
	PERSONNEL: Green Industry BMP Program training completed	1	Registration Form	UF IFAS	
	CONTRACTORS: Green Industry BMP Program training completed	0			
	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				Not within the watershed of a nutrient impaired water body.
	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.			
Part III.A.7.a	**Illicit Discharges and Improper Disposal — Inspections, Ordinances, and Enforcement Measures**				

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	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	2	Inspection Forms	Public Works	Inlet/Pipe Inspections
	Illicit discharges / connections / dumping found during a proactive inspection	2	Warning Notice	Code Compliance	
	Notices of Violation (NOVs) / warning letters / citations issued for illicit discharges / connections / dumping found during a proactive inspection	2	Warning Notice	Code Compliance	
	Fines issued for illicit discharges / connections / dumping found during a proactive inspection	0			
	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			
	Reactive investigations of reports of suspected illicit discharges/ connections / dumping	0			
	Illicit discharges / connections / dumping found during a reactive investigation	0			
	Notices of Violation (NOVs) / warning letters / citations issued for illicit discharges / connections / dumping found during a reactive investigation	0			
	Fines issued for illicit discharges / connections / dumping found during a reactive investigation	0			
	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).				
		Initial Training	**Refresher Training**		
	Personnel trained	**0**	**0**		
	Contractors trained	**1**	**0**	Sign in sheet	In-house
Part III.A.7.d	**Illicit Discharges and Improper Disposal — Spill Prevention and Response**				

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Permit Citation/ SWMP Element	**Permit Requirement/Quantifiable SWMP Activity**		**Number of Activities Performed**	**Documentation / Record**	**Entity Performing the Activity**	**Comments**
	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		2	E-mail from PBCFR	PBC Fire Rescue	
	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	**20**	**6**		Sign in Sheet	Town	DVD from SPCC
	Contractors trained	**1**	**0**		Sign In Sheet	PBC Joint Committee	
Part III.A.7.e	**Illicit Discharges and Improper Disposal — Public Reporting**					
	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.			
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.			
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		11,112 l.f. lined 1,528 l.f. replaced	Correspondence from SUA	SUA	

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	Activity to reduce/eliminate SSOs and inflow / infiltration: Septic systems removed				N/A
	Activity to reduce/eliminate SSOs and inflow / infiltration: Emergency generator added				N/A
	SSO incidents discovered				None Reported
	SSO incidents resolved				N/A
	Inflow / infiltration incidents discovered				None Reported
	Inflow / infiltration incidents resolved				N/A
	Name of owner of the sanitary sewer system	Seacoast Utility Authority (SUA)			

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.

During Year 1 of the permit, develop and implement a written plan for conducting inspections of high risk facilities to determine compliance with all appropriate aspects of the stormwater program. While the permittee may determine the order and frequency of the inspections, the permittee shall inspect each identified facility at least once during the permit term; however, facilities identified as high risk due to the findings of the proactive inspection program as per Part III.A.7.c of the permit shall be inspected annually. Report on the high risk facilities inspection program, including the number of inspections conducted and the number and type of enforcement actions taken.

	Number of Facilities	Number of Inspections	For violations discovered during a high risk inspection				
			Fines issued	Notices of Violation (NOVs) / warning letters / citations issued			
Total high risk facilities	3						Per EPA Website
New high risk facilities added to the inventory during the current reporting period	1						
Operating municipal landfills	0	0	0	0			
Hazardous waste treatment, storage, disposal and recovery (HWTSDR) facilities	2	0	0	0			

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Permit Citation/ SWMP Element	**Permit Requirement/Quantifiable SWMP Activity**				**Number of Activities Performed**	**Documentation / Record**	**Entity Performing the Activity**	**Comments**
	EPCRA Title III, Section 313 facilities (that are not landfills or HWTSDR facilities)	**0**	**0**	0	0			Per TRI
	Facilities determined as high risk by the permittee through the proactive inspections as per Part III.A.7.c	**0**	**0**	0	0			
	Other facilities determined as high risk by the permittee (that are not facilities identified through the proactive inspections)	**1**	**0**	0	1	Inspection Report	Public Works	
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.							
	High risk facilities sampled				0	0	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			
	PERMITTEE SITES: Construction site plans approved				0			
	PRIVATE SITES: Construction site plans reviewed				0			No submittals
	PRIVATE SITES: Construction site plans approved				0			No Submittals
	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			No Submittals
	Confirmed ERP coverage				0			For this
	Notified of CGP stormwater permit requirements				0			Period
	Confirmed CGP coverage				0			
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							

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	active construction sites inspected, and the number and type of enforcement actions / referrals taken.				
	PERMITTEE SITES: Active construction sites	0			No construction
	PERMITTEE SITES: Inspections of active construction sites for proper stormwater, erosion and sedimentation BMPs	0			In Town limits
	PERMITTEE SITES: Percentage of active construction sites inspected	0			For reporting
	PRIVATE SITES: Active construction sites	0			period
	PRIVATE SITES: Inspections of active construction sites for proper stormwater, erosion and sedimentation BMPs	0			
	PRIVATE SITES: Percentage of active construction sites inspected	0			
	Notices of Violation (NOVs) / warning letters / citations issued	0			
	Stop Work Orders issued	0			
	Fines issued	0			
	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	1	0	1		EPA Certification	Cheryl Moore	
Permittee construction site plan reviewers	1	0	1		EPA Certification	Cheryl Moore	
Permittee construction site operators	0	0	0				
Private persons							

SECTION VIII. CHANGES TO THE STORMWATER MANAGEMENT PROGRAM (SWMP) ACTIVITIES (Not Applicable In Year 4)

SECTION VIII. CHANGES TO THE STORMWATER MANAGEMENT PROGRAM (SWMP) ACTIVITIES (Not Applicable In Year 4)		
A.	Permit Citation/ SWMP Element	Proposed Changes to the Stormwater Management Program Activities Established as Specific Requirements Under Part III.A of the Permit (Including the Rationale for the Change) — REQUIRES DEP APPROVAL PRIOR TO CHANGE IF PROPOSING TO REPLACE OR DELETE AN ACTIVITY.
		None
B.	Permit Citation/ SWMP Element	Changes to the Stormwater Management Program Activities NOT Established as Specific Requirements Under Part III.A of the Permit (Including the Rationale for the Change)
		None

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 III.A.2	**YEAR 2:** A Stormwater Management Plan (SWMP)	2	Stormwater Management Plan
☐	☒	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

TOWN OF LAKE PARK, FLORIDA
STORMWATER MANAGEMENT PROGRAM
SWMP

PREPARED FOR SUBMISSION IN THE **NPDES**, THIRD TERM PERMIT
SECOND YEAR ANNUAL REPORT

ATTACHMENTS

Attachment 1	Town Ordinance, Chapter 54, Land Development Regulations, Stormwater Drainage
Attachment 2	Interlocal Agreement, Lead Permittee Responsibilities
Attachment 3	Map of the MS4 w/ tables
Attachment 4	Town Ordinance, Chapter 32, Utilities, Stormwater Management
Attachment 5	Stormwater Utility Fund, Fiscal Year 2012 Budget
Attachment 6	Town Ordinance, Chapter 10, Environment, Nuisances (Litter Control)
Attachment 7	Town Ordinance, Chapter 67, Land Development Code (Relating to Stormwater Management)
Attachment 8	Engineering Investigation and Report: Comprehensive Storm Drainage Improvements, Analysis of Existing Storm Drainage System and Recommendations
Attachment 9	Draft of 'Ordinance for Florida-Friendly Fertilizer Use on Urban Landscapes'
Attachment 10	Interlocal Agreement with Palm Beach County Fire Rescue; Services to be Provided; Hazardous materials response and mitigation
Attachment 11	Drafts of the Proactive and Reactive Inspection Programs, including Written Procedures and Inspection Forms
Attachment 12	Joint Training Programs in conjunction with the Palm Beach County, MS4, NPDES Program
Attachment 13	Seacoast Utility Authority's written Response Plan for a Major Sewage Spill or Backup

Attachment 14	Town Sanitation Division's Public Information flyer; Instructions for disposing of Household Hazardous Waste
Attachment 15	Seacoast Utility Authority's Plan to Eliminate Wastewater Contamination in Stormwater
Attachment 16	Seacoast Utility Authority map, Proposed Gravity & Low Pressure Sewer System (Areas currently connected to septic tank systems)
Attachment 17	Potential High Risk Facilities Inspections and Current Status spreadsheet
Attachment 18	Drafts of the Construction Site Review and Inspection Program, including Written Procedures and Inspection Forms
Appendix 'A'	Standard Operating Procedures (SOP's) and Inspection / Report Forms

Town of
LAKE PARK

Department of
PUBLIC WORKS

Stormwater

STORMWATER MANAGEMENT PROGRAM
SWMP

- The Town of Lake Park, Florida's Code of Ordinances, Chapter 54, Article IV. STORMWATER DRAINAGE, DIVISION 1. GENERALLY, Sec. 54-161, Purpose and Intent., was written to, "…promote the health, safety and general welfare of the inhabitants of the town. This article is intended to regulate the discharge of stormwater and other unpolluted water into the stormwater drainage system and to improve the quality of existing and future discharge of stormwater drainage in the town. It is the intent of this article to comply with The Federal Clean Water Act (33 USC 1251 et seq.), as implemented by regulations of the U.S. Environmental Protection Agency adopted November 16, 1990 (40 CFR 122).

- The foregoing, along with Chapter 54, Article IV. STORMWATER DRAINAGE: DIVISION 2. GENERAL PROHIBITIONS, DIVISION 3. PERMITS AND DESIGN, DIVISION 4. ACCIDENTAL DISCHARGE AND/OR DUMPING, DIVISION 5. ENFORCEMENT, and DIVISION 6. INSPECTIONS AND MONITORING (see Attachment 1) provides the authority for the Town's Stormwater Management Program (**SWMP**).

- The Town of Lake Park's SWMP follows the criteria established by the Florida Department of Environmental Protection's Municipal Separate Storm Sewer System Permit to Discharge to Waters of the State (Permit Number FLS000018-003).

- The Town entered into an Interlocal Agreement with the Northern Palm Beach County Improvement District acknowledging the District as the Lead Permittee in order that certain obligations and responsibilities required of the Town by the NPDES Permit may be performed jointly by the Permittee on behalf of the Town and the approximately 39 other Palm Beach County Co-Permittees (see Attachment 2, the Interlocal Agreement's "Exhibit 'A', Lead Permittee Responsibilities).

- The Town's Municipal Separate Storm Sewer System (MS4) was catalogued in the 1986 Engineering Investigation and Report: Comprehensive Storm Drainage Improvements

Program and revised in 1999. The system map (see Attachment 3) submitted as part of the 1999 revised report, is being updated by the field crew during the scheduled inspections.

- The Town funds the maintenance, inspection, and capital improvement activities associated with the MS4 with a Stormwater Utility. Town Ordinance, Chapter 32, UTILITIES, ARTICLE III. STORMWATER MANAGEMENT (see Attachment 4) lists requirements of the Stormwater Management Program. Sec. 32-76. Establishment of stormwater utility states in part, "The stormwater utility is hereby established by the commission to provide for the general welfare of the town and its residents: and…(b) To provide a mechanism for mitigating the damaging effects of uncontrolled and unplanned stormwater runoff from both a water quality and water quantity standpoint; (c) To provide for the safe and efficient capture and conveyance of stormwater runoff and the correction of stormwater problems; (d) To authorize the establishment and implementation of a master plan for stormwater drainage including design, coordination, construction, management, operation, maintenance, inspection and enforcement; [and] (f) To encourage and facilitate urban water resources management techniques, including but not limited to the retention-detention of stormwater runoff, minimization of the need to construct storm sewers and the enhancement of the environment.

  Sec. 32-77, Definitions., further details the program: *Stormwater management system* or *system* means the existing stormwater management system of the town and all improvements thereto which by this article are constituted as the property and responsibility of the stormwater utility, to be operated as an enterprise fund to, among other things, conserve water, control discharges necessitated by rainfall events, incorporate methods to collect, convey, store, absorb, inhibit, treat, use or reuse water to prevent or reduce flooding, drainage, environmental degradation and water pollution or otherwise affect the quality and quantity of discharge from such system. This shall include management services such as designing, permitting, planning, and reviewing the stormwater-related infrastructure; operation, maintenance, repair and replacement of the infrastructure; and the improvement or enhancement of the infrastructure related to the town's comprehensive plan for the town.

- The annual budget for the Stormwater Utility Fund (see Attachment 5) provides the funding allocations for the general duties associated with the SWMP.

- The Town's SWMP has adopted the Inspection and Maintenance Schedule for Structural Controls and Roadways as detailed in the MS4 permit Table II.A.1.a.

  In order to implement the goals outlined in Table II.A.1.a., the Town's Department of Public Works has developed Standard Operating Procedures (SOP's) along with the appropriate reporting forms, to address the following Permit items. A copy of all of the SOP's and

reporting forms can be found in Appendix 'A' of this report. Digital copies are stored on the Town's Public Works share drive. These SOP's shall be reviewed annually and revised as needed.

Part III.A.1. Structural Controls and Stormwater Collection Systems Operations, Structural Control Inspections:
- Pipes, Inlets, and Manholes
- Exfiltration Trench
- Major Stormwater Outfalls
- Swale Systems
- Dry Retention / Retention Systems

Part III.A.3. Roadways:
- Street Sweeping Program
- Litter Control Program

Note: the Stormwater Utility operation for litter control is an enhancement to the Town Ordinance, Chapter 10, ENVIRONMENT, ARTICLE II, NUISANCES, Sec.'s 10-31 and 10-32 (see Attachment 6) prohibiting nuisances and enforced by the Code Compliance Officials.

- Other sections of the MS4 Permit are addressed as follows:

Part III.A.2. Areas of New Development and Significant Redevelopment. Portions of Town Ordinance, Chapter 67, Land Development Code, Article II, Platting, Conceptual Plan and Development Plan, Sec. 67-38. "Development plan content" currently addresses the Activity outlined in the Permit (see Attachment 7).

For the Second Year Report, The Community Development Department reviewed this Ordinance and made suggestions as to how changes can be made to reduce the stormwater impact of new development and areas of significant redevelopment.

Part III.A.4. Flood Control Projects. A major flood control project has been designed and permitted for the Town roadway adjacent to the Intracoastal Waterway. The Engineers designed stormwater treatment methods into the project as a part of increased outfall capacities. This project cannot move forward until funds are appropriated.

The Town's Engineering Investigation and Report: Comprehensive Storm Drainage Improvements, Section VIII, Analysis of Existing Storm Drainage System and

Recommended Improvements, and Section IX, Conclusions and Recommendations (see Attachment 8) states, "The solution recommended in this study is to use exfiltration trenches, also referred to as French drains or seepage trenches, along the new drainage pipes constructed…The exfiltration trenches, by percolating a portion of the runoff into the surrounding soils, reduced the runoff in the drainage pipes and allowed most of the existing pipes to remain in the recommended drainage system. The exfiltration trenches also remove the pollutants from the "first flush" of the storm event from the runoff discharged to the surface water which is both desirable and also required to meet current standards for water quality."

The Town shall continue to task Project Engineers to incorporate stormwater quality improvements into their designs and to control drainage without increasing discharges whenever possible.

Part III.A.5. Municipal Waste Treatment, Storage, or Disposal (TSD) Facilities Not Covered By An NPDES Stormwater Permit. A Municipal Maintenance Yard Inspection Checklist (see Appendix 'A') was developed based upon a review of the specific activities conducted at the Town's Public Works compound. Monthly inspections of the facility are made and documented for inclusion in the Annual Report.

Part III.A.6. Pesticides, Herbicides, and Fertilizer Application. The Town shall 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. The Town shall report the number of permittee personnel applicators and contracted commercial applicators of pesticides and herbicides who are FDACS certified / licensed. The Town shall 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.

Permittee personnel are training at the Palm Beach County Cooperative Extension Service facility, in conjunction with the University of Florida, Institute of Food and Agricultural Sciences (UF – IFAS), located at 559 N. Military Trail, West Palm Beach, Florida. Personnel are learning about safe landscaping practices that protect the environment, including surface waters, by successfully completing the Green Industry Best Management Practices (GI-BMP) program. After completing the GI-BMP program, select personnel are training for acquiring a Limited Certification for Urban Fertilizer Applicators.

Contracted commercial applicators and applicator contractors applying for a Local Business Tax Receipt are being advised of the necessity of having their staff trained as well.

Even though the Town is not within the watershed of a nutrient-impaired water body, the Public Works Department is preparing an 'Ordinance for Florida-Friendly Fertilizer Use on Urban Landscapes' (see Attachment 9) for Town Commission consideration and possible adoption during Year 3 of the Permit. This ordinance codifies the written pesticide, herbicide, & fertilizer minimization procedures (see Appendix 'A').

A written public education and outreach program to encourage citizens to reduce their use of pesticides, herbicides, and fertilizers has been developed and implemented as a joint effort by the Palm Beach County Co-permittees. Reference the Palm Beach County Joint Annual Report for information about these programs.

Part III.A.7. Illicit Discharges and Improper Disposal

a.) – Inspections, Ordinances, and Enforcement Measures. The Town prohibits Non-stormwater discharges to the MS4 by virtue of the authority in the Code of Ordinances, Chapter 54, Article IV. STORMWATER DRAINAGE: DIVISION 2. GENERAL PROHIBITIONS, DIVISION 3. PERMITS AND DESIGN, DIVISION 4. ACCIDENTAL DISCHARGE AND/OR DUMPING, DIVISION 5. ENFORCEMENT, and DIVISION 6. INSPECTIONS AND MONITORING (see Attachment 1).

The Town enforces the ordinances that prohibit illicit connections and illegal dumping into the MS4.

c.) – Inspection and Investigation of Suspected Illicit Discharges and/or Improper Disposal. The Town shall develop and implement a written proactive inspection program during Year 3 of the permit. The inspection program shall build upon the programs already in place [Part III.A.1. Structural Controls and Stormwater Collection Systems Operation; Part III.A.8.a.) Industrial and High Risk Runoff – Identification of Priorities and Procedures for Inspections (see Appendix 'A')] as well as program elements already implemented in this section 7.c.), such as the Town's Code Compliance procedures for conducting reactive investigations to identify and eliminate the source(s) of illicit discharges or improper disposal to the MS4, based on reports received from permittee personnel, contractors, citizens, or other entities regarding suspected illicit activity. In addition to enforcement action, the Code Compliance Division maintains documentation of the reactive investigations performed which includes the verification of the elimination of the violation.

The Town contracts with Palm Beach County Fire Rescue (PBCFR) for its life-safety services which include hazardous material response and mitigation (see Attachment 10).

The Public Works Department's Stormwater Division, the Community Development Department's Code Compliance Division and the PBCFR spill response team shall review a proactive inspection program along with the Town procedures for reactive investigations and responses in an effort to integrate their activities into a coherent written policies document. Inspection activities and documentation responsibilities shall be delegated among the three divisions using the draft written procedures and inspection forms (see Attachment 11) as templates for discussion and eventual implementation.

A written plan for the training of all appropriate permittee personnel and contractors has been developed and implemented as a joint training program by the Palm Beach County MS4, NPDES Program (see Attachment 12) to identify and report conditions in the stormwater facilities that may indicated the presence of illicit discharges / connections / dumping / to the MS4.

d.) – Spill Prevention and Response. In conjunction with the joint training program developed by the Palm Beach County MS4, NPDES Program (see Attachment 12), a Spill Prevention & Response Training Plan (see Appendix 'A') has been implemented so that permittee personnel and contractors can identify and report conditions in the stormwater facilities that may indicate the presence of illicit discharges / connections / dumping to the MS4. In addition, the Town's contractor for handling large spills, PBCFR, has their own spill response training plan for its fire-rescue personnel.

The number and type of training activities, and the number of permittee personnel and contractors trained shall be reported in each Annual Report.

A written Spill Prevention & Response Procedures (see Appendix 'A') plan has been prepared along with a Spill Response Report form. Responding personnel shall take appropriate steps to contain the spill in order to eliminate or minimize the possibility of the spilled substance entering the storm sewer system. Any spills in excess of 25 gallons shall be immediately reported to PBCFR and the Duty Officer at Palm Beach County Warning Point.

The Seacoast Utility Authority (SUA) operates and maintains all of the sanitary sewer and potable water utilities in the Town. The SUA has a written Response Plan for a Major Sewage Spill or Backup in place (see Attachment 13).

e.) – Public Reporting. In an effort to reach the widest audience possible, a public outreach and education plan is carried out as a joint effort by the Palm Beach County Co-permittees. These annual activities are described in the Palm Beach County Joint Annual Report for public education and outreach.

f.) – Oils, Toxics, and Household Hazardous Waste Control. In an effort to reach the widest audience possible, a public outreach and education plan is carried out as a joint effort by the Palm Beach County Co-permittees along with Palm Beach County's Solid Waste Authority (SWA). These annual activities are described in the Palm Beach County Joint Annual Report for public education and outreach.

The Town's Public Works Department, Sanitation Division produced a flyer (see Attachment 14) that was distributed to all households in its jurisdiction. This flyer, which continues to be given to each new customer, instructs residents to contact the SWA for instructions on how to dispose of hazardous materials such as gasoline, lacquer, oil based paint, explosives, motor oil, and pressurized containers.

g.) – Limitations of Sanitary Sewer Seepage. The Town's utilities are provided by the Seacoast Utility Authority (SUA). The SUA maintains its entire wastewater and potable water infrastructure. The permittee receives an annual report from the SUA of the sanitary sewer overflows (SSO's) and inflow / infiltration incidents addressed as well as a list of remediation projects (I.e., sewer lining, sewer replacement) performed in the permittee's jurisdiction in the permit year.

The SUA provided the permittee with an outline of their standard operating plan (see Attachment 15) to eliminate wastewater contamination in stormwater by preventing SSO's.

The permittee shall advise the SUA of a potential violation if constituents common to wastewater contamination are discovered in the permittee's MS4.

In conjunction with SUA, the permittee has identified areas within its jurisdiction that do not have sanitary sewer service (see Attachment 16). The SUA has provided a study that proposes several options for the construction of sewer lines in those areas currently using septic tank systems. This study shall be referenced whenever major right of way improvements are planned for the areas in question.

Part III.A.8. Industrial and High Risk Runoff

a.) - Identification of Priorities and Procedures for Inspections. The permittee, at the advice of the agency issuing the permit, queried the RCRAInfo, TRI, and CERCLA databases to prepare a spreadsheet of businesses operating within the permittee's jurisdiction. The current businesses listed in the spreadsheet were inspected and only two were found to fit the criteria requiring annual inspections (see Attachment 17).

The permittee has developed and implemented a written plan (see Appendix 'A'), along with documentation forms, for conducting inspections of high risk facilities in order to

determine compliance with all appropriate aspects of the stormwater program. The plan includes the following: procedures for prioritizing the inventoried facilities for inspection; an annual inspection schedule (that includes the order, frequency and timing of the inspections); procedures for conducting the outfall inspections (including confirming whether a facility has coverage under the MSGP); procedures for addressing discharges to the MS4 that are not in compliance; procedures for documenting the inspections and any enforcement referrals (including use of a standard form/report); identification of the staff, departments, and outside entities responsible for performing the inspections; a schedule for the training of the inspectors as per Part III.A.7.c of the permit, in conjunction with the joint training program developed by the Palm Beach County MS4, NPDES Program (see Attachment 12); and a description of the resources allocated to implement the plan. The permittee shall inspect each identified facility at least once during the permit term.

In the event that the inspection identifies conditions or activities that are in violation of local codes and ordinances, the permittee shall implement the necessary enforcement to prevent the discharge of pollutant to the MS4.

Scheduled inspections of high risk facilities shall be documented along with the type of enforcement action(s) taken in cases where illicit discharges are found. The date of the verification of the elimination of the illicit discharge shall also be documented. This documentation shall be placed in the Annual Report.

Part III.A.9. Construction Site Runoff

a.) – Site Planning and Non-Structural & Structural Best Management Practices.
b.) – Inspection and Enforcement.
The permittee continues to instruct the Town's contract engineer to implement the local codes concerning land development regulations (See Attachment 7, Code of Ordinances, Chapter 67, Land Development Code, Article II., Sec. 67-38, (2) Proposed development activities and design, g. *Stormwater management.* 1.) and the written pre-construction site plan review procedures during the plan review process that require the use and maintenance of appropriate structural and non-structural erosion and sedimentation controls during construction.

All plan reviews for large, commercial sites are documented using the Site Plan Review – Annual Activity Report form (see Appendix 'A') which also records the number of site inspections performed along with any follow-up action taken in the event of violations. This completed form is submitted with the annual report.

As part of the plan review process, the permittee determines if the project requires a Notice of Intent (NOI) and notifies the developer of the need to submit to either the South Florida Water Management District or the Florida Department of Environmental Protection.

During Year 3 of the permit, the Public Works Department's Stormwater Division, the Community Development Department's Planning Division and the Town's contract engineer shall review a site plan review and approval process along with developing and implementing written procedures, such as checklist requirements, to assure that the Environmental Resource Permit (ERP) and the Generic Permit for Stormwater Discharge from Large and Small Construction Activities (CGP) have been obtained prior to issuing any local grading or clearing permits or approvals. The amended plan review and approval process shall build upon the program already in place and implement the documentation of the current and future activities required of an adopted written policies document. The three divisions shall use the draft written procedures and inspection forms (see Attachment 18) as templates for discussion and eventual implementation of review, notification, inspection, enforcement, and documentation responsibilities.

c.) – Site Operator Training. A written plan for stormwater training / outreach for construction site plan reviewers, site inspectors, and site operators has been developed and implemented as a joint training program by the Palm Beach County MS4, NPDES Program (see Attachment 12). Training is provided by the Joint Training Program 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 within the permittee's jurisdiction shall be certified through the Florida Stormwater, Erosion, Sedimentation Control Inspector Training program that is approved by the DEP.

The training is presented at an annual FDEP Erosion and Sedimentation Control Inspector Training program, sponsored by the Palm Beach County MS4 permittee group, and presented by Cheryl Moore, a state certified trainer. The training is presented annually and attendance at the training session is documented by sign-in sheets and testing.

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

DIVISION 1. - GENERALLY

Sec. 54-161. - 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 regulate the discharge of stormwater and other unpolluted water into the stormwater drainage system and to improve the quality of existing and future discharge of stormwater drainage in the town. It is the intent of this article to comply with The Federal Clean Water Act (33 USC 1251 et seq.), as implemented by regulations of the U.S. Environmental Protection Agency adopted November 16, 1990 (40 CFR 122).

(Ord. No. 16-1993, § I, 6-2-1993; Code 1978, § 7-131)

Sec. 54-162. - Definitions.

The following words, terms and phrases, when used in this article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

Authorized official means 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 town community development director.

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

Person means any natural individual, corporation, partnership, institution or other entity.

Runoff means the part of rainfall that is not absorbed by the soil but is drained off in rills or streams.

Site of industrial activity means any area or facility used for manufacturing, processing or raw material 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 water runoff and drainage.

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

(Ord. No. 16-1993, § I, 6-2-1993; Code 1978, § 7-132)

Cross reference— Definitions generally, § 1-2.

Secs. 54-163—54-180. - Reserved.

DIVISION 2. - GENERAL PROHIBITIONS

Sec. 54-181. - Prohibited discharge.

(a) Under no condition shall the discharge of any domestic, sanitary, industrial, commercial waste or polluted water of any kind be permitted to be discharged into the stormwater drainage system, natural outlet or area under the jurisdiction of the town.

(b) No person shall discharge or cause to be discharged any stormwater, surface water, ground water, roof runoff, subsurface drainage, contaminated or uncontaminated cooling water or industrial process waters into any sanitary sewer within the town.

(Ord. No. 16-1993, § I, 6-2-1993; Code 1978, § 7-133)

Sec. 54-182. - Damaging or tampering with the stormwater drainage system.

(a) No person shall willfully, negligently or maliciously, break, damage, alter, uncover, deface or tamper with any structure, appurtenance or equipment which is part of the stormwater drainage system.

(b) No person shall uncover, make any connections or openings into, use, alter or disturb any part of the stormwater drainage system or appurtenance thereof without first obtaining a written permit from the town community development department and any other regulating authority having jurisdiction.

(Ord. No. 16-1993, § I, 6-2-1993; Code 1978, § 7-134)

Sec. 54-183. - Unlawful connections.

No person may maintain, use or establish any direct or indirect connection to the stormwater drainage system that results in any discharge in violation of this article. This prohibition is retroactive and applies to connections made prior to adoption of this article including any connection made pursuant to a permit, or other authorization, or otherwise permissible under laws or practices applicable or prevailing at the time the connection was made.

(Ord. No. 16-1993, § I, 6-2-1993; Code 1978, § 7-135)

Sec. 54-184. - Authorized exceptions.

Unless determined by the director to be in conflict with the requirements or intent of this article or otherwise not acceptable, the following discharges are exempt from section 54-181:

(1) Flows from firefighting operations or county fire department training;

(2) Water line flushing and other contributions from potable water sources;

(3) Landscape irrigation and lawn watering;

(4) Other irrigation water;

(5) Diverted stream flows;

(6) Rising groundwaters;

(7) Direct infiltration to the stormwater drainage system;

(8) Uncontaminated pumped groundwater;

(9) Foundation and footing drains;

(10) Water from crawl space pumps;

(11) Air conditioning condensation;

(12) Natural springs;

(13) Individual residential car washings using approved cleansing substances;

(14) Flows from riparian habitats and wetlands; and

(15) Dechlorinated swimming pool contribution.

(Ord. No. 16-1993, § I, 6-2-1993; Code 1978, § 7-136)

Secs. 54-185—54-200. - Reserved.

DIVISION 3. - PERMITS AND DESIGN

Sec. 54-201. - 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 effective date of the ordinance from which this article is derived or 60 calendar days after issuance of such permit.

(Ord. No. 16-1993, § I, 6-2-1993; Code 1978, § 7-137)

Sec. 54-202. - Written permit required for use of the storm drainage system.

(a) No person shall uncover, make any connection or openings into, use, alter or disturb any part of the stormwater drainage system or appurtenance thereof without first obtaining a written permit from the town community development department and any other regulating authority having jurisdiction.

(b) The permit application shall be supplemented with any plans, specifications and other information considered pertinent in the judgment of the town community development director. The permit fee shall be as established by the town community development department.

(Ord. No. 16-1993, § I, 6-2-1993; Code 1978, § 7-138)

Sec. 54-203. - Stormwater drainage system design.

All stormwater drainage systems for existing and new development shall meet the design criteria and standards of the South Florida Water Management District as well as any other regulating authority having jurisdiction. The town may periodically require existing systems to make modifications in design and construction in compliance with updated criteria and standards. New systems shall be designed to meet criteria and standards in force at the time of permitting. All such systems whether existing or new development, including redevelopment, shall be designed by a professional engineer registered to work in the state. Any plans submitted on behalf of such systems shall display the signature and seal of the design engineer.

(Ord. No. 16-1993, § I, 6-2-1993; Code 1978, § 7-139)

Sec. 54-204. - Maintenance and operation.

The town department of public works shall be responsible for the maintenance and operation of the town-owned stormwater drainage system and appurtenances. Property owners are responsible for the maintenance and operation of the drainage systems located within the boundaries of their property.

(Ord. No. 16-1993, § I, 6-2-1993; Code 1978, § 7-140)

Secs. 54-205—54-220. - Reserved.

DIVISION 4. - ACCIDENTAL DISCHARGE AND/OR DUMPING

Sec. 54-221. - General prohibitions.

Except as set forth under section 54-184, authorized exceptions of this article, or as in accordance with a valid NPDES permit, any discharge to the stormwater drainage system that is not composed entirely of stormwater is prohibited.

(Ord. No. 16-1993, § I, 6-2-1993; Code 1978, § 7-141)

Sec. 54-222. - Notification of accidental discharges and/or dumping.

Any person having knowledge of any accidental or unlawful discharge into the stormwater drainage system in violation of this article shall immediately notify the town community development department by telephone or in person. If the notifying person is directly or indirectly responsible for such discharge, such person shall also take immediate action to ensure the containment and cleanup of discharge. Said notification shall not relieve any responsible person of any expense, loss, damage or other liability to the town, the town storm drainage system, wildlife or any other damage to persons or property resulting from such discharge, nor shall said notification relieve the responsible person of any fines, civil penalties or other liability which may be imposed by this article, other applicable law or other agency having jurisdiction.

(Ord. No. 16-1993, § I, 6-2-1993; Code 1978, § 7-142)

Sec. 54-223. - Written report required.

Within five days following an accidental discharge and/or dumping, the responsible person shall submit to the town community development director a written report describing the cause, corrective actions taken and measures to prevent future occurrences.

(Ord. No. 16-1993, § I, 6-2-1993; Code 1978, § 7-143)

Sec. 54-224. - Notice to employees.

Permitted users of the town stormwater drainage system shall permanently post, in a prominent location, on the property or premises a notice advising employees of the notification required by section 54-222. Furthermore, all employers shall ensure that every employee is advised of said notification procedure.

(Ord. No. 16-1993, § I, 6-2-1993; Code 1978, § 7-144)

Secs. 54-225—54-240. - Reserved.

DIVISION 5. - ENFORCEMENT

Sec. 54-241. - Administrative order.

The director may issue an order to any person to immediately cease any discharge, or connection to the stormwater drainage system, determined by the director to be in violation of this article.

(Ord. No. 16-1993, § I, 6-2-1993; Code 1978, § 7-145)

Sec. 54-242. - Notice of violation.

(a) *Generally.* Any person found to be violating any provision of this article shall be served by the town with written notice stating the nature of the violation and providing a reasonable time for the correction thereof. The offender shall, within the time period stated in the notice, correct and permanently cease all violations.

(b) *Liability for expenses, loss or damage.* Any person violating any provisions of this article shall become liable to the town for any expense, loss or damage occasioned the town by reason of that violation.

(Ord. No. 16-1993, § I, 6-2-1993; Code 1978, § 7-146)

Sec. 54-243. - Penalty.

This article may be enforced pursuant to code enforcement or alternate code enforcement procedures of the town. Any person who is found to have violated an order of the town or who willfully or negligently fails to comply with any provision of this article may be fined up to $500.00 per day for each offense. Each day a violation shall occur or continue after notification shall be deemed a separate and distinct offense. In addition to the penalties provided herein, the town may recover all reasonable attorney's fees, court costs and other expenses of litigation. Payment of any penalties or costs to the town shall not relieve the responsible person of any fines or penalties levied by any other authority having jurisdiction.

(Ord. No. 16-1993, § I, 6-2-1993; Code 1978, § 7-147)

Secs. 54-244—54-260. - Reserved.

DIVISION 6. - INSPECTIONS AND MONITORING

Sec. 54-261. - Inspections.

(a) *Annual inspections.* The community development director shall cause the storm drainage system to be inspected not less than once each year for illicit connections.

(b) *Investigation of complaints.* The community development director or the community development director's designee shall receive all complaints and cause same to be investigated for any possible violation of this article or pollution.

(c) *Right of entry for inspection.* 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 the enforcement of the provisions of this article.

(d) *Powers of inspection.* If such property, building or facility is occupied, such authorized official shall first present proper credentials and request permission to enter, if such 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 for permission to enter. Any request for permission to enter shall state the owner or person in control has the right to refuse entry and that in the event that entry is refused, the authorized official may enter to make inspection only upon issuance of an administrative search warrant issued 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.

(e) *Routine or areawide inspections; sampling.* 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 to stormwater contamination, nonstormwater discharges or similar factors.

(Ord. No. 16-1993, § I, 6-2-1993; Code 1978, § 7-148)

Sec. 54-262. - Authority for monitoring sampling.

Any authorized official may establish on any property such devices as are necessary to conduct sampling or metering of discharges to the stormwater drainage system. During any inspections made to enforce the provisions of this article, or regulations or permits issued hereunder, any authorized official may take any samples deemed necessary.

(Ord. No. 16-1993, § I, 6-2-1993; Code 1978, § 7-149)

Sec. 54-263. - Requirements for monitoring.

The community development director or the community development director's designee may require any person engaging in any activity or owning any property, building or facility to undertake such reasonable monitoring of any discharges to the stormwater drainage system and to furnish periodic reports.

NPDES THIRD TERM PERMIT
INTERLOCAL AGREEMENT

This Interlocal Agreement (the "Agreement") is being entered into by and between NORTHERN PALM BEACH COUNTY IMPROVEMENT DISTRICT, 359 Hiatt Drive, Palm Beach Gardens, Florida 33418 (hereinafter referred to as the "Lead Permittee"), and TOWN OF LAKE PARK (hereinafter referred to as "the Co-Permittee").

W I T N E S S E T H:

WHEREAS, the United States Environmental Protection Agency (hereinafter referred to as "EPA") on the 9th day of December, 1996, issued its National Pollutant Discharge Elimination System ("NPDES") Permit No. FLS000018 (with it and all such subsequent permits being hereinafter referred to as the "MS4 NPDES Permit") to approximately forty (40) governmental entities designated as the Palm Beach County-Municipal Separate Storm Sewer System ("MS4") Permittees (hereinafter referred to jointly as the "Permittees"); and

WHEREAS, EPA has since delegated its regulatory and enforcement authority relating to the MS4 NPDES Permit to the Florida Department of Environmental Protection ("FDEP"); and

WHEREAS, Section 403.0885, Florida Statutes, established the federally approved state NPDES Program; and

WHEREAS, FDEP Rule 62-4.052, F.A.C., implemented an annual regulatory program and also set fees to effect the legislative intent that FDEP's costs for administering the NPDES Permit be borne by the regulated entities; and

WHEREAS, at or before the expiration of each MS4 NPDES Permit, the Permittees must file a re-application to FDEP for renewal of the MS4 NPDES Permit for a subsequent term; and

WHEREAS, the MS4 NPDES Permits granted by FDEP to the Permittees contain separate obligations and responsibilities for each individual Permittee, as well as obligations and responsibilities that may be performed jointly by the Permittees; and

WHEREAS, due to the number of Permittees and the tasks that must be performed pursuant to each MS4 NPDES Permit, it would be more economically and administratively feasible to allocate duties, responsibilities, and costs associated with the MS4 NPDES Permits pursuant to individual interlocal agreements between each Co-Permittee and the Lead Permittee; and

WHEREAS, the Permittees previously established a 7-member Steering Committee comprised of 2 representatives of large municipalities, 2 representatives of smaller municipalities, 1 representative of special districts, 1 representative from Palm Beach County, and the Lead Permittee,

IN WITNESS WHEREOF, the parties have set their hand and seals the day and year hereafter written.

EXECUTED by Lead Permittee this 27th day of July, 2011.

ATTEST:

By: _____
Secretary

NORTHERN PALM BEACH COUNTY IMPROVEMENT DISTRICT

By: _____
Print: ADRIAN M. SALEE
Title: VICE-PRESIDENT

[DISTRICT SEAL]

EXECUTED by Co-Permittee this 13th day of July, 2011.

ATTEST:

By: _____
Vivian Lemley, Town Clerk

[SEAL]

TOWN OF LAKE PARK SEAL FLORIDA

TOWN OF LAKE PARK

By: _____
Print: James DuBois
Title: Mayor

APPROVED AS TO FORM AND
LEGAL SUFFICIENCY

By: _____

EXHIBIT "A"

LEAD PERMITTEE RESPONSIBILITIES

The responsibilities of the Lead Permittee as to the implementation and execution of the MS4 NPDES Permit No. FLS000018 are generally as follows:

I. The timely preparation, coordination, and execution of interlocal agreements necessary to establish and implement the joint activities required by the Permit.

II. The timely preparation, coordination, and submittal to FDEP each year during the term of this Agreement, of an annual report describing the activities carried out jointly to fulfill requirements in the permit.

III. The timely preparation, coordination, and distribution of standardized forms and guidance documents as approved by NPDES Steering Committee to assist permittees in carrying out the terms of the MS4 NPDES Permit.

IV. The timely preparation, coordination, and execution of a countywide public education and outreach program required by Part III.A.6, Part III.A.7.e. and Part III.A.7.f. as approved by the NPDES Steering Committee.

V. The timely preparation and coordination of training materials to fulfill the requirements of Part III.A.6, Part III.A.7.c, Part III.A.7.d., Part III.A.9.b, and Part III.A.9.c of the MS4 NPDES permit, as approved by the NPDES Steering Committee.

VI. The timely preparation, coordination, and submittal to FDEP of major watershed pollutant load estimates required by Part V.A. of the MS4 NPDES Permit.

VII. The timely preparation, coordination, and execution of a monitoring program required by Part V.B. of the MS4 NPDES Permit.

VIII. The timely coordination, assessment, monitoring, and execution of activities associated with FDEP's Total Maximum Daily Load (TMDL Program) as required by Part VIII.

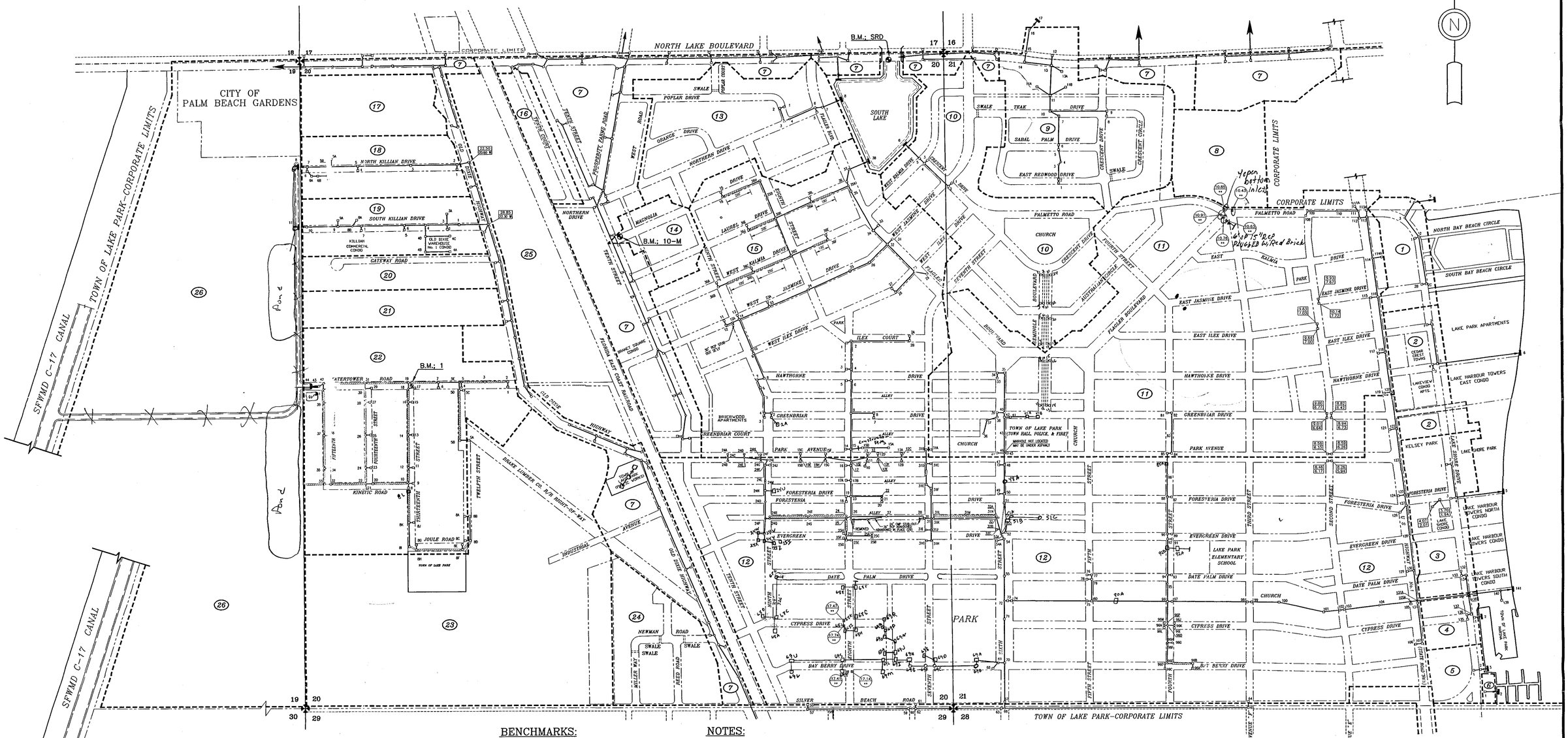
IX. The preparation and coordination of all MS4 NPDES Steering Committee workshops and meetings.

X. The timely remittance of all necessary permit fees to FDEP, subject to the timely and sufficient collection of same for all other permittees.

The Lead Permittee Services described herein may be revised from time to time as required by each MS4 NPDES Permit, as agreed to in writing between the MS4 NPDES Steering Committee and Northern Palm Beach County Improvement District, which revisions shall be incorporated herein and made a part of this agreement.

(Balance of Page Intentionally Left Blank.)

EXISTING DRAINAGE MAP
FOR THE
TOWN OF LAKE PARK, FLORIDA



LEGEND:

- DRAINAGE INLET WITH OPEN BOTTOM.
- DRAINAGE INLET WITH OPEN BOTTOM AND CONNECTING DRAINAGE PIPE.
- DRAINAGE INLET WITH OPEN BOTTOM WITH 18" PERFORATED PIPE WRAPPED WITH FILTER FABRIC
- DRAINAGE INLET WITH DRAINAGE PIPE. SEE SHEET 2 FOR INFORMATION.
- DRAINAGE MANHOLE WITH DRAINAGE PIPE. SEE SHEET 2 FOR INFORMATION.
- DRAINAGE OUTFALL. SEE SHEET 2 FOR INFORMATION.
- EXFILTRATION TRENCH
- BENCHMARK LOCATION AND DESIGNATION
- SWALE DRAINAGE ACROSS PAVEMENT
- SECTION CORNER WITH SECTION DESIGNATIONS

BENCHMARKS:

BM; NO. 1

#3 ROD ON CENTERLINE OF WATERTOWER ROAD 961.93' WEST OF CENTERLINE OF OLD DIXIE HIGHWAY. ELEV.; 17.28

BM; SRD

BRASS DISC AT S.E. CORNER OF BRIDGE OVER LAKE ON SIDEWALK. ELEV.; 11.895

BM; 10-M

DISC AND BOLT AT S.E. CORNER OF 10th STREET AND MAGNOLIA DRIVE. ELEV.; 12.219

NOTES:

1.) DRAINAGE MAP PREPARED FROM ZONING MAP SUPPLIED BY TOWN OF LAKE PARK, (PREPARED BY "DAILEY AND ASSOCIATES", FILE NO. LP-BWZON).. DRAINAGE STRUCTURES HAVE BEEN SHOWN IN THEIR APPROXIMATE LOCATION.

2.) MAP IS INTENDED FOR INFORMATIONAL PURPOSES ONLY.

DATE	DESCRIPTION	BY
2-3-10	Hand Drawn up Date By John Lytle	

REVISIONS

SEAL

DESIGN AD
DRAWN AD
CHECKED J.D.R.

BARKER, OSHA & ANDERSON, INC.
PROFESSIONAL ENGINEERS
NORTH PALM BEACH, FLORIDA

NOT TO BE USED FOR CONSTRUCTION UNTIL APPROVED

APPROVED

DATE JUNE 1999

EXISTING DRAINAGE SYSTEM

MASTER DRAINAGE STUDY
FOR THE
TOWN OF LAKE PARK, FLORIDA

PROJECT NO. 98-1035
SCALE NOT TO SCALE
SHEET 1 OF 3
FILE NO. D-5266-016

C:\1-WORKING-DRAWINGS\Lake Park\98-1035-1.dwg

DRAINAGE BASIN NUMBER	STRUCT. NUMBER	GRATE ELEVATION	INVERTS				COMMENTS
			NORTH	EAST	SOUTH	WEST	
NO. 1	2B	UK		UK			
	2C	UK	UK			UK	
	1	3.68		0.13			
	2	3.68	NW'LY (-)0.32			(-)0.20	
	3	UK	NE'LY UK		SE'LY UK		MANHOLE BURIED
	4	UK		UK	SW'LY UK		MANHOLE BURIED
	5	UK				(-)0.16	HEADWALL
NO. 2	1	2.95		1.25			
	2	3.02			0.40	1.20	
	3	2.73	1.00				
	4	2.67		0.72	0.82		
	5	2.69	0.19	(-)0.29		0.69	
	6	UK				(-)1.61	HEADWALL
NO. 3	1	2.75		1.00			
	2	2.71			0.31	0.76	
	3	2.87		0.42			
	4	2.88	0.08	(-)0.52		0.13	
	5	UK				(-)1.00	HEADWALL
NO. 4	1	2.86	0.00				
	2	UK				0.29	HEADWALL
NO. 5	1	3.42		1.33			
	2	2.85		1.20		1.25	
	3	UK				0.35	HEADWALL
NO. 6	1	3.36		(-)0.14			
	2	UK				(-)0.25	HEADWALL
NO. 7							F.D.O.T./P.B.Co. SYSTEM
NO. 8							PRIVATE SYSTEM
NO. 9	1	9.63	6.00				
	2	9.68	5.82		5.94		
	3	11.96	NE'LY 5.49		5.44		
	4	11.68	5.10		SW'LY 5.11		
	5	9.72	4.61		4.81		
	6	9.55	4.46		4.58		
	7	9.16	NW'LY 3.83		3.82		
	8	10.30	6.93				
	9	10.15			6.63	6.40	
	10	9.19	1.90	6.08	SE'LY 3.67		
	11	10.07	1.75	NE'LY 6.01	1.92	NW'LY 6.43	
	11A	10.30		SE'LY 7.62			PRIVATE SYSTEM
	11B	9.67			SW'LY 6.33		PRIVATE SYSTEM
	12	UK					F.D.O.T. SYSTEM
	13	11.12	4.72	SE'LY 0.19	1.73	1.73	F.D.O.T. SYSTEM
	14	11.40	1.66	1.66			F.D.O.T. SYSTEM
	15	11.50	(-)2.93		1.66		F.D.O.T. SYSTEM
	16	UK	NE'LY (-)3.58			NW'LY (-)3.58	F.D.O.T. SYSTEM
	17	UK			NE'LY (-)4.08		HEADWALL; F.D.O.T. SYSTEM
NO. 10	1	8.16				SW'LY 3.40	
	2	8.41	NW'LY 3.10	NE'LY 3.40			
	3	5.55			SW'LY 2.35		
	4	5.90	NE'LY 2.20	SE'LY 0.85		NW'LY 0.85	
	5	6.02	NW'LY 0.75	SE'LY 0.80			
	6	UK		SE'LY (-)0.10			HEADWALL
NO. 11							STRUCTURES ARE ALL OPEN BOTTOM INLETS
NO. 12	1	12.81		10.34			
	2	12.89		8.59	8.46	10.11	
	2A	11.01			9.01		
	2B	11.01	9.01			8.96	
	3	12.18		9.91			
	4	12.04	8.35		8.40	8.38	
	5	12.30		9.82			
	6	12.29	8.09		8.14	9.24	
	7	12.26	10.06				
	8	12.04			9.86	9.88	
	9	13.10	7.85	9.57	7.83		
*	10	12.86	11.46				EXISTING STRUCTURE CONNECTED TO PARK AVENUE SYSTEM
*	11	12.80	9.3				
*	12	13.27	9.0	8.52	9.0	8.52	
*	12A	13.0			9.5		
*	12B	13.0	9.5				
*	12C	13.47	9.3		9.3	8.97	
*	12D	12.83			9.33		
*	12E	12.83	9.33				
*	12F	13.30	9.0	8.65	9.0	8.65	
*	13	12.80			9.3		
*	14	12.82		8.82			
*	15	12.82	7.70±	UK	7.70±	8.50	
*	15A	UK		UK		UK	TYPE "E" DRAINAGE INLET; APARTMENT COMPLEX; PRIVATE SYSTEM
*	15B	UK				UK	TYPE "E" DRAINAGE INLET; APARTMENT COMPLEX; PRIVATE SYSTEM
*	15C	13.5			9.5		
*	15D	13.5	9.5				
*	15E	13.97	9.3	8.97	9.3		
*	15F	13.3			9.3		
*	15G	13.3	9.3				
*	15H	13.77	9.0	8.77	8.77	9.0	
*	15I	15.31	9.0	9.0	9.0	9.0	
*	16	12.84		10.48			
*	17	12.86	7.66		7.65	10.25	
*	17A	13.36		9.41			
*	17B	13.32	7.41		7.30	9.09	
*	18	13.94	11.36				
*	19	13.96		11.21	11.29		
*	20	12.59	9.99				
*	21	12.64	9.92		9.93		
*	22	13.2			9.91	9.50	
*	23	13.69	7.45	9.41	7.45	11.26	
*	24	14.60			11.03	11.13	BOTTOM ELEVATION 10.00
*	24A	15.3			11.3		
*	24B	15.3	11.3				
*	24C	15.77	11.0	11.0	11.0		
*	24D	14.84			10.84		
*	24E	15.31	10.5	10.31		10.31	
*	24F	14.40			10.40		
*	24G	14.40	10.40				
*	24H	14.58	10.20	9.94	10.20	9.94	
*	24I	14.79			SW'LY 9.79	NW'LY 9.79	
*	24J	14.19				10.19	
*	24K	14.19	NE'LY 9.69	9.99	9.69		
*	24L	15.35	9.57		9.47		
*	24M	15.60	9.46		9.36		BOTTOM ELEVATION; 7.59
*	24N	15.73	9.28		9.18		
*	24O	16.77	9.08		8.98		BOTTOM ELEVATION; 8.14
*	24P	15.75	8.86	8.76			
*	24Q	15.75	12.17	8.62		8.72	
*	24R	15.75		12.20	12.20		BOTTOM ELEVATION; 11.20
*	24S	16.50	12.17	8.21		8.31	
*	24T	16.50		12.20	12.20	12.20	BOTTOM ELEVATION; 11.20
	25	14.69	11.00	8.27	10.13	7.55	
	25A	14.16			10.45		
	25B	14.32	10.85				
	25C	14.60	10.35		10.33	10.03	
	25D	15.45	10.46	10.39	10.70	NW'LY 11.68	
	25E	15.23				11.61	
	25F	15.13		SE'LY 11.70			
	25G	15.46	10.84	11.46		NW'LY 11.46	
	25H	15.11		SE'LY 11.77			
	26	14.49	7.21	7.38	--	8.13	MANHOLE FOUND DURING FIELD SURVEY. 30" RCP. SOUTH HAS BEEN PLUGGED. MANHOLE SOUTH REMOVED.
	27	14.09		7.07		7.07	
	28	12.75		SE'LY 7.70		7.70	
	29	UK					STRUCTURE REMOVED. 24" CMP STUB-OUT FROM STRUCTURE NO. 30 REMAINS.
	30	13.99	NW'LY 7.40	7.39		7.53	
	31	14.25	8.32	7.38	9.76	7.40	
	31A	13.25				10.00	
	31B	13.25		9.85	9.85		
	31C	13.26				9.65	
	31D	13.26	9.85	9.76	9.59		
	31E	14.42	9.56		SE'LY 9.17		
	31F	14.40	NW'LY 8.95		8.82		
	31G	14.36		10.39			
	31H	14.30	9.47			9.82	
	31I	14.25		10.82			
	31J	14.21	10.00		9.42	10.60	
	31K	14.80	NE'LY 8.48	7.11		7.05	
	31L	13.83		8.98		SW'LY 8.83	
	31M	11.77		7.96		7.96	
	31N	10.94		SE'LY 7.04		7.08	
	32	10.15	NW'LY 7.00	7.19	SE'LY 7.20	6.79	
	32A	9.69				7.56	
	33	12.16	10.81				
	34	11.82		10.52	10.52		
	35	11.88			10.01	9.99	
	36	12.22	NE'LY 9.52				PRIVATE SYSTEM
	37	12.44		NE'LY 9.40	SW'LY 9.45		PRIVATE SYSTEM
	38	11.79	9.38		SW'LY 9.59		
	39	11.80		9.25	9.22		
	40	11.94	8.19		8.22	8.30	
	41	11.54				9.46	
	42	11.99	8.28	9.23	8.24		
	43	12.36	8.14		8.14		
	44	12.18		9.68			
	45	12.27				9.77	
	46	UK	UK	UK	UK	UK	MANHOLE NOT LOCATED. MAY BE UNDER ASPHALT.
	47	12.25		9.26			
	48	12.50	7.69		7.85	8.70	
	49	10.27		7.75			
	50	10.42	6.86		6.90	8.76	
	51	10.21	6.69		6.72		
	52	9.69			SW'LY 7.94		
	53	10.20	N'LY 6.13	NE'LY 6.32	SE'LY 6.13	NW'LY 6.36	
	53A						ADDITIONAL MANHOLE FOUND IN FIELD LOCATED BETWEEN 53 AND 54.
	54	9.63	NW'LY 6.13		5.81	SW'LY 5.90	
	54A	9.53		NE'LY 6.11			15" ADS PIPE CONNECTED DIRECTLY TO EXISTING 30" RCP PIPE
	55	9.86	5.57		5.62		
	56	15.10			10.50		P.B.Co. SYSTEM
	57	15.05	9.80	9.60			P.B.Co. SYSTEM
	58	16.09		9.74	9.69	9.70	P.B.Co. SYSTEM
	59	12.42		8.42		8.40	P.B.Co. SYSTEM
	60	12.67		8.45	8.49	8.42	P.B.Co. SYSTEM
	61	11.70			8.40		P.B.Co. SYSTEM
	62	11.85	8.55		8.42	8.45	P.B.Co. SYSTEM
	63	11.74		7.41		7.34	P.B.Co. SYSTEM
	64	10.41			5.62		P.B.Co. SYSTEM
	65	UK	UK			UK	CATCH BASIN TOP FILLED WITH CONCRETE. P.B.Co. SYSTEM
	66	UK	UK	UK		UK	P.B.Co. SYSTEM
	67	11.79	7.13		7.16		P.B.Co. SYSTEM
	68	11.12	NE'LY 9.76				
	69	11.23		8.43	SW'LY 9.54		
	70	10.72	6.23		6.21	7.72	
	71	10.76	6.38		6.30		
	72	10.93	5.53	5.45	6.20		
	73	10.69		5.44		5.44	
	74	10.67		5.46		5.44	
	75	9.34		4.16		4.14	
	76	9.14		6.65			
	77	9.11			5.89	5.91	
	78	8.97		6.88			
	79	8.95	5.60		5.65	5.89	
	80	9.31	5.31	4.11		4.13	
	81	11.01		7.23			
	82	10.97			6.12	6.99	
	83	10.48	6.39		5.57		
	84	10.09	5.26			5.35	
	85	10.11		5.27	5.35		
	86	10.14	4.90		4.97		
	87	9.99				7.51	
	88	9.77	4.86	4.91	7.27		
	89	9.58				6.98	
	90	9.74	4.74	6.80	4.76		
	91	9.89				7.41	
	92	9.85	4.74	7.40	4.76		
	93	9.89				6.98	
	94	10.06	4.50	6.86	4.54		
	95	10.12	4.20		4.24		
	96	9.69	3.65	3.13	5.03	3.13	
	96A	10.33	7.00				
	96B	10.41			6.81	6.73	BOTTOM ELEVATION 5.70
	96C	11.20	6.70				
	96D	11.22		6.52	6.64		
	96E	11.28	6.24	6.31		6.38	BOTTOM ELEVATION 5.14
	96F	11.20	5.96		6.00		BOTTOM ELEVATION 4.80
	96G	11.19				7.55	
	96H	11.20	5.45	7.30	5.88		
	96I	11.45	7.25				
	96J	11.19			7.64		
	96K	11.87	6.88		6.45	6.34	
	96L	11.33	6.97				
	96M	11.31			7.74		
	96N	12.01	7.20	6.70	6.79		
	96O	11.82	5.15	5.89	5.28	6.27	
	96P	11.57	5.17		5.23		BOTTOM ELEVATION 4.72
	97	9.60		3.04		3.10	
	98	10.97		1.66		1.66	
	99	11.06		1.41		1.46	
	100	11.54		1.03		0.91	
	101	10.11		0.16		0.17	
	102	8.99		0.23		0.19	
	103	9.04		0.27		0.21	
	104	9.70		(-)0.51		(-)0.61	
	105	6.80	1.54				F.D.O.T. SYSTEM
	105A						DIRECT CONNECTION TO 60" RCP
	106	7.75		4.47			F.D.O.T. SYSTEM
	107	7.65	3.80			3.75	F.D.O.T. SYSTEM
	108	9.83		NE'LY 7.43			
	109	10.04		7.34	SW'LY 7.29		
	110	11.42		6.72		6.72	
	111	9.81	NW'LY 5.53		5.45	5.48	F.D.O.T. SYSTEM
	111A	8.61			SE'LY 6.18		F.D.O.T. SYSTEM
	112	9.16	5.28	5.29			F.D.O.T. SYSTEM
	113	9.16	5.11		4.72	5.05	F.D.O.T. SYSTEM
	113A	8.40			5.42		F.D.O.T. SYSTEM
	114	10.12	4.16	7.50	4.18		F.D.O.T. SYSTEM
	114A	11.00				8.38	F.D.O.T. SYSTEM
	115	9.38		6.11			F.D.O.T. SYSTEM
	116	9.33	3.58		3.23	5.91	F.D.O.T. SYSTEM
	117	8.38		5.27			F.D.O.T. SYSTEM
	118	8.29	2.26		2.31	5.07	F.D.O.T. SYSTEM
	119	7.80		4.66			F.D.O.T. SYSTEM
	120	7.78	1.74		1.65	4.46	F.D.O.T. SYSTEM
	121	7.18		3.85			F.D.O.T. SYSTEM
	122	7.19	1.18		1.21	3.65	F.D.O.T. SYSTEM
	123	UK	UK		UK		MANHOLE BURIED F.D.O.T. SYSTEM
	124	7.33		3.70			F.D.O.T. SYSTEM
	125	7.11	0.46		0.44	3.45	F.D.O.T. SYSTEM
	126	7.68	NE'LY 4.10				F.D.O.T. SYSTEM
	127	7.40	0.11	SW'LY 3.85	(-)0.07		F.D.O.T. SYSTEM
	128	8.27	(-)0.82		(-)0.68		F.D.O.T. SYSTEM
	129	7.30		4.26			F.D.O.T. SYSTEM
	130	7.31	(-)0.96		(-)0.98	4.00	F.D.O.T. SYSTEM
	131	6.82	1.28		1.43		F.D.O.T. SYSTEM
	131A	UK					F.D.O.T. SYSTEM
	132	2.93			1.25		
	133	2.95	1.10	0.75			
	134	2.95			0.25	0.50	
	135	2.88	1.38				
	136	2.95		0.72	1.00		
	137	3.01	0.25			0.68	
	138						DIRECT CONNECTION TO 60" RCP
	139	2.28	0.32				
	140	UK					DIRECT CONNECTION TO 60" RCP
	141	UK				(-)2.74	HEADWALL
NO. 13	1	5.78			SW'LY 2.43		
	2	5.94	NE'LY 2.26		SW'LY 1.64		
	3	6.35	NW'LY 1.25	NE'LY 1.25			
	4	UK	NE'LY UK		SW'LY UK		
	~~5~~	~~5.57~~	~~NW'LY 1.84~~				
	6	5.94		0.40	SE'LY 1.29	SW'LY 0.34	
	7	5.10	NE'LY (-)1.10			(-)1.00	
	8	11.20			SW'LY (-)1.35		HEADWALL
NO. 15	1	12.47	10.00				
	2	12.70			9.80	9.80	
	3	12.20	9.90				
	4	12.31	6.90	9.60	9.80		
	5	12.10	NW'LY 6.00		6.10		
	6	11.50	NW'LY 5.80		SE'LY 5.85		
	7	11.11		SE'LY 5.60	5.60		
	8	11.15	NW'LY 5.50			5.50	
	9	10.32	NW'LY 4.50		SE'LY 4.50		
	10	10.58	NW'LY 4.17		SE'LY 4.25		
	11	10.29			SE'LY 6.50		
	12	10.28	NW'LY 6.25		NE'LY 6.15		
	12A	10.20	NE'LY 4.20	SE'LY 4.30	SW'LY 5.94		30" RCP STUB OUT SOUTHEASTERLY. END HAS BEEN CAPPED.
	13	10.04			SE'LY 6.00		
	14	10.20	NE'LY 3.00	SE'LY 3.28	SW'LY 4.05	NW'LY 5.70	
	15	9.75		SE'LY 6.50			
	16	9.75	NE'LY 5.50			NW'LY 5.75	
	23	10.50	NE'LY 3.00		SW'LY 3.00	NW'LY 6.90	
	23A	10.50		SE'LY 7.00			
	24	14.01	NE'LY 0.27		SW'LY 0.27		
	25	10.60	NE'LY (-)0.15		SW'LY (-)0.19		
	26	7.60	NE'LY (-)0.69		SW'LY (-)0.71		
	27	8.10		SE'LY 5.40			
	28	8.70	NE'LY 5.15			NW'LY 5.25	
	29	9.47				5.70	
	30	9.14	NW'LY 4.15	SE'LY 5.06	SW'LY 4.60		
	31	7.92			SW'LY 4.30		
	32	7.12	NW'LY (-)0.43	NE'LY 3.55	SE'LY 3.00	SW'LY (-)0.40	
	33	6.96			SW'LY 3.66		
	34	6.15	NE'LY 3.05	SE'LY (-)1.00		NW'LY (-)1.20	
	35	5.50		SE'LY (-)1.20		NW'LY (-)1.20	
	35A	6.00		SE'LY (-)1.28	SW'LY 1.10	NW'LY (-)1.28	
	35B	10.40		SE'LY 3.58		NW'LY 3.97	
	36	5.48	NE'LY (-)1.70	SE'LY (-)1.65			
	36A	10.70		SE'LY 7.28			
	36B	10.70	NE'LY 6.83			NW'LY 7.18	
	36C	10.10		SE'LY 6.65			
	36D	10.10	NE'LY 4.68		SW'LY 5.18	NW'LY 6.55	
	36E	9.30		SE'LY 5.60			
	36F	9.30			SW'LY 5.40	NW'LY 5.50	
	36G	12.25	NE'LY 4.32		SW'LY 4.06	NW'LY 3.50	
	36H	11.50		SE'LY 4.12	SW'LY 4.22		
	36I	9.50		SE'LY 6.10			
	36J	9.50	NE'LY 5.25			NW'LY 6.00	
	36K	10.20	NE'LY 3.00	SE'LY 3.10	SW'LY 4.30	NW'LY 3.40	
	36L	9.40		SE'LY 5.50			
	36M	9.40	NE'LY 2.15		SW'LY 2.15	NW'LY 5.40	
	37	5.62	NE'LY (-)2.15		SW'LY (-)1.90		
	38	UK			SW'LY (-)3.15		HEADWALL
NO. 18	1	22.69	19.34				
	2	22.10		19.35	19.31	18.98	
	3	21.40		14.85		14.95	
	4	21.30	18.30				
	5	21.42		15.02	15.00	14.65	
	5A	18.34			16.14		
	6	13.03	11.00	SE'LY 11.33			
	6A	14.21	NW'LY 12.26	12.26			
	6B	15.65		13.00		13.05	
	6C	17.35				13.55	
	7	13.60		10.31	10.36	9.48	
	8	UK		8.84			HEADWALL
NO. 19	1	23.25		20.37		19.95	
	2	21.13	17.38				
	3	21.53	18.50	17.53	16.65	16.53	
	3A	21.54			20.54		
	4	18.51		14.95	15.86	14.91	
	4A	25.50				18.10	
	4B	23.47	17.12	17.07			
	4C	23.57		17.37		17.37	
	4D	20.54	16.03	16.39	16.14		
	5	17.56	14.92				
	6	17.55		12.63	14.00	13.45	
	7	15.18	11.18				
	8	15.48		10.83	10.38	13.45	
	8A	16.75			SW'LY 13.67		
	8B	15.68	NE'LY 12.66	9.92		9.92	
	9	15.94	13.04	8.65		8.65	
	9A	17.43			16.32		
	10	14.50		7.71		7.50	
	11	UK		6.25			HEADWALL
NO. 22	1	35.50	32.05				
	2	35.50			31.95	31.55	BOTTOM ELEVATION; 30.55
	3	36.53		31.85		31.85	BOTTOM ELEVATION; 30.55
	4	30.98	27.59				
	5	30.82		26.27	27.54	23.02	BOTTOM ELEVATION; 21.95
	5A	27.19		PLUGGED (22.00)		22.01	
	5B	27.25	21.65	21.76		PLUGGED (21.80)	
	5C	28.81				23.77	
	5D	28.78	22.45	23.73	21.72	PLUGGED (22.00)	CONTROL STRUCTURE. TOP OF WEIR ELEVATION; 23.87
	5E	27.42		21.42	24.37	21.31	
	6	21.38	18.28				
	7	21.35		17.43	18.02	17.43	BOTTOM ELEVATION; 16.43
	8	17.00	12.94		11.98		EXISTING STRUCTURE RELOCATED. NEW CONTROL STRUCTURE. TOP OF WEIR ELEVATION; ELEV. 14.29
	8A	24.61		20.60		PLUGGED (20.60)	
	8B	24.58		PLUGGED (19.80)	19.83	20.50	
	8C	19.90		16.82			
	8D	19.92	16.39	PLUGGED (16.30)	SW'LY 16.30	16.27	
	8E	20.61		SE'LY 16.82			
	8F	20.49	NE'LY 16.36	NW'LY 16.33	PLUGGED (16.30)	16.28	
	8G	23.08			18.97		
	8H	23.07	18.50	16.36	PLUGGED (16.30)	NW'LY 16.34	
	8I	22.13	18.99		SE'LY 16.44		
	8J	18.48		PLUGGED (14.40)		14.28	
	8K	18.49	12.01	14.24	14.57	PLUGGED (14.30)	
	9	16.77				13.83	
	10	16.75	12.00	12.85	12.83	12.85	TYPE "I" MANHOLE BOTTOM ELEVATION; 11.85
	11	16.09				12.84	
	12	16.12	11.98	12.60	11.99		TYPE "I" MANHOLE BOTTOM ELEVATION; 10.93
	13	15.85				12.49	
	14	15.92	11.89	12.44	11.97		TYPE "I" MANHOLE BOTTOM ELEVATION; 10.93
	15	16.15				12.45	
	16	16.00	11.50	12.30	11.77		TYPE "I" MANHOLE BOTTOM ELEVATION; 10.63
	17	17.45				13.55	
	18	16.43	11.53	13.28	11.76		TYPE "I" MANHOLE BOTTOM ELEVATION; 10.58
	19	16.09		11.79	11.51	11.09	BOTTOM ELEVATION; 10.18
	20	13.14		9.79		9.14	BOTTOM ELEVATION; 8.17
	21	13.05	9.11				
	22	13.05	8.32	9.03	9.01	9.03	TYPE "I" MANHOLE BOTTOM ELEVATION; 8.30
	23	12.27				8.97	
	24	12.29	8.29	8.69	8.29		BOTTOM ELEVATION; 7.36
	25	12.33				8.85	
	26	12.31	8.31	8.79	8.36		BOTTOM ELEVATION; 7.36
	27	12.31				8.84	
	28	12.36	8.04	8.36	8.04		BOTTOM ELEVATION; 7.03
	29	13.07				9.52	
	30	13.00	8.00	9.45	8.00		TYPE "I" MANHOLE BOTTOM ELEVATION; 7.03
	31	12.49		7.97	7.86	7.68	BOTTOM ELEVATION; 6.63
	32	10.25		6.72		6.72	BOTTOM ELEVATION; 5.75
	33	9.98	5.66	6.60			BOTTOM ELEVATION; 4.68
	34	9.58				6.14	
	35	9.60	5.66	6.04	5.66		BOTTOM ELEVATION; 4.68
	36	9.55				6.17	
	37	9.67	5.66	6.04	5.66		BOTTOM ELEVATION; 4.68
	38	9.51				6.08	
	39	9.77	5.55	5.83	5.63		BOTTOM ELEVATION; 4.68
	40	10.17				6.79	
	41	10.53	5.53	6.50	5.53		TYPE "I" MANHOLE BOTTOM ELEVATION; 4.47
	42	10.16		6.11	5.26	SW'LY 5.26	BOTTOM ELEVATION; 4.45
	43	12.00	NE'LY 5.42			5.42	CONTROL STRUCTURE TOP OF WEIR EL. 9.50
	44	UK		5.24			HEADWALL

NOTES:

1.) UK–DENOTES UNKNOWN

2.) *–DENOTES INFORMATION IS FROM CONSTRUCTION DRAWINGS. RECORD DRAWING INFORMATION NOT AVAILABLE.

3.) F.D.O.T.–FLORIDA DEPARTMENT OF TRANSPORTATION
P.B.Co–PALM BEACH COUNTY

DATE	DESCRIPTION	BY
10/01/99	REVISED PER REVIEW	P.A.D.

REVISIONS

SEAL

DESIGN
IAD

DRAWN
IAD

CHECKED
J.D.R.

BARKER, OSHA & ANDERSON, INC.
PROFESSIONAL ENGINEERS
NORTH PALM BEACH, FLORIDA

NOT TO BE USED FOR CONSTRUCTION UNTIL APPROVED

APPROVED

DATE
JUNE 1999

EXISTING DRAINAGE STRUCTURES

MASTER DRAINAGE STUDY
FOR THE
TOWN OF LAKE PARK, FLORIDA

PROJECT NO. 98–1035
SCALE NOT TO SCALE
SHEET 2 OF 3
FILE NO. D–5266–016

C:\1-WORKING-DRAWINGS\Lake Park\98-1035-2.dwg

DRAINAGE BASIN NUMBER	STRUCTURE NO.		PIPE LENGTH	PIPE SIZE/MAT'L	SLOPE	COMMENTS
	FROM	TO				
NO. 1	2B	2C	40'	30"–RCP	UK	
	2C	2	400	36"–RCP	UK	
	1	2	33'	24"–RCP	S=1.00%	
	2	3	110'	36"–RCP	UK	
	3	4	70'	36"–RCP	UK	
	4	5	180'	36"–RCP	UK	OUTFALL TO LAKE WORTH
NO. 2	1	2	37'	15"–RCP	S=0.14%	
	2	5	330'	30"–RCP	S=0.064%	
	3	4	50'	15"–RCP	S=0.36%	
	4	5	37'	24"–RCP	S=0.81%	
	5	6	697'	30"–RCP	S=0.19%	OUTFALL TO LAKE WORTH
NO. 3	1	2	38'	24"–RCP	S=0.63%	
	2	4	285'	30"–RCP	S=0.081%	
	3	4	37'	24"–RCP	S=0.78%	
	4	5	392'	36"–RCP	S=0.28%	
NO. 4	1	2	21'	12"–RCP	S=1.38%	OUTFALL TO LAKE PARK MARINA
NO. 5	1	2	73'	15"–RCP	S=3.86%	
	2	3	22'	15"–RCP	S=3.86%	OUTFALL TO LAKE PARK MARINA
NO. 6	1	2	61'	18"–RCP	S=0.18%	OUTFALL TO LAKE PARK MARINA
NO. 7						F.D.O.T./P.B.Co. SYSTEM
NO. 8						PRIVATE SYSTEM
NO. 9	1	2	37'	15"–RCP	S=0.16%	
	2	3	117'	18"–RCP	S=0.032%	
	3	4	12'	18"–RCP	S=3.17%	
	4	5	119'	18"–RCP	S=0.24%	
	5	6	37'	21"–RCP	S=0.081%	
	6	7	220'	24"–RCP	S=0.29%	
	7	10	78'	27"–RCP	S=0.21%	
	8	9	36'	18"–RCP	S=0.83%	
	9	10	475'	21"–RCP	S=0.067%	
	10	11	86'	30"–RCP	S=0.023%	
	11A	11	74'	12"–RCP	S=1.60%	PRIVATE SYSTEM
	11B	11	63'	15"–RCP	S=0.50%	PRIVATE SYSTEM
	11	13	221'	36"–RCP	S=0.01%	
	12	13	UK	UK	UK	F.D.O.T. SYSTEM
	13A	13	103'	15"–RCP	UK	PRIVATE SYSTEM
	13	14	150'	36"–RCP	S=0.05%	F.D.O.T. SYSTEM
	14	15	80'	36"–RCP	S=0.000%	F.D.O.T. SYSTEM
	15	16	240'	36"–RCP	S=0.27%	F.D.O.T. SYSTEM
	16	17	100'	36"–RCP	S=0.50%	F.D.O.T. SYSTEM OUTFALL TO ERMIN RIVER
NO. 10	1	2	32'	30"–RCP	S=0.00%	
	2	4	264'	36"–RCP	S=0.85%	
	3	4	32'	18"–RCP	S=0.47%	
	4	5	83'	36"–RCP	S=0.6%	
	5	6	162'	36"–RCP	S=0.52%	OUTFALL TO SOUTH LAKE
NO. 12	1	2	36'	15"–RCP	S=0.64%	
	2A	2B	32'	12"–RCP	S=0.00%	
	2B	2	460'	12"–RCP	S=0.08%	
	2	4	212'	15"–RCP	S=0.052%	
	3	4	31'	15"–RCP	S=4.93%	
	4	6	100'	18"–RCP	S=0.31%	
	5	6	32	15"–RCP	S=1.81%	
	6	9	293'	18"–RCP	S=0.099%	
	7	8	32	15"–RCP	S=0.63%	
	8	9	190'	18"–RCP	S=0.16%	
	9	15	326'	24"–RCP	S=0.043%	
	14	15	27'	15"–RCP	S=0.74%	
	15A	15B	UK	UK	UK	PRIVATE SYSTEM
	15B	15	UK	UK	UK	PRIVATE SYSTEM
*	15	15I	75'	24"–RCP	UK	
*	12A	12C	16'	18"–RCP	S=1.25%	
*	12B	12C	16'	18"–RCP	S=1.25%	
*	12C	12F	194'	30"–RCP	S=0.165%	
*	12D	12F	16'	18"–RCP	S=2.06%	
*	12E	12F	16'	18"–RCP	S=2.06%	
*	12F	12	82'	30"–RCP	S=0.158%	
*	10	11	48'	UK	UK	
*	11	12	16'	18"–RCP	S=1.87%	
*	13	12	16'	18"–RCP	S=1.87%	
*	12	15I	141'	30"–RCP	S=0.149%	CONNECTS TO EXISTING 24" RCP PIPE.
*	15C	15E	16'	18"–RCP	S=1.25%	
*	15D	15E	16'	18"–RCP	S=1.25%	
*	15E	15H	168'	30"–RCP	S=0.119%	
*	15F	15H	16'	18"–RCP	S=1.87%	
*	15G	15H	16'	18"–RCP	S=1.87%	
*	15H	15I	137'	30"–RCP	S=0.336%	
*	15I	17	55'	30"–RCP	S=0.038%	CONNECTS TO EXISTING 24" RCP PIPE.
*	16	17	27'	15"–RCP	S=0.85%	
*	17	17B	152'	30"–RCP	S=0.051%	
*	17A	17B	37'	15"–HDPE	S=0.86%	
*	17B	23	124'	30"–RCP	S=0.051%	
*	18	19	53'	15"–RCP	S=0.11%	
*	19	23	34'	15"–RCP	S=0.71%	
*	20	21	37'	15"–RCP	S=0.03%	
*	21	22	8'	15"–RCP	S=0.13%	
*	22	23	119'	18"–RCP	S=0.40%	
*	23	26	170'	30"–RCP	S=0.13%	
*	24A	24C	17'	18"–RCP	S=1.76%	
*	24B	24C	17'	18"–RCP	S=1.76%	
*	24C	24E	133'	30"–RCP	S=0.519%	
*	24D	24E	17'	15"–RCP	S=2.00%	
*	24E	24H	138'	30"–RCP	S=0.268%	
*	24F	24H	17'	18"–RCP	S=0.667%	
*	24G	24H	10'	18"–RCP	S=2.00%	
*	24H	24I	51'	30"–RCP	S=0.294%	
*	24I	24K	47'	30"–RCP	S=0.213%	
	24J	24K	20'	15"–RCP	UK	
	24K	24L	125'	30"–RCP	S=0.1%	
	24L	24M	10'	30"–HDPE	S=0.1%	
	24M	24N	75	30"–HDPE	S=0.11%	
	24N	24O	100'	30"–HDPE	S=0.1%	
	24O	24P	125'	30"–HDPE	S=0.1%	
	24P	24Q	35'	30"–HDPE	S=0.1%	
	24R	24Q	10'	15"–HDPE	S=0.3%	
	24R	24T	310'	15"–HDPE	S=0.0%	290 L.F. OF EXFILTRATION TRENCH
	24Q	24S	310'	30"–HDPE	S=0.1%	
	24T	24S	10'	15"–HDPE	S=0.3%	
	24T	24	310'	15"–HDPE	S=0.35%	240 L.F. OF EXFILTRATION TRENCH
	24	25	10'	15"–HDPE	S=0.3%	
	24S	25	310'	30"–HDPE	S=0.1%	
	25A	25C	11.2'	15"–HDPE	S=0.89%	
	25B	25C	24'	15"–HDPE	S=3.42%	
	25C	25D	210'	15"–HDPE	S=0.03%	
	25E	25G	40'	15"–HDPE	S=0.37%	
	25F	25G	24'	15"–HDPE	S=0.20%	
	25G	25D	46'	15"–HDPE	S=0.31%	
	25H	25D	20'	15"–HDPE	S=0.45%	
	25D	25	143'	15"–HDPE	S=0.23%	110 L.F. OF EXFILTRATION TRENCH (3.5Hx3.5W)
	25	26	37'	15"–HDPE	S=0.38%	
	26	27	293'	36"–RCP	S=0.11%	
	27	28	305'	36"–RCP	S=0.21%	
	28	30	15'	36"–RCP	S=2.00%	STRUCTURE NO. 29 HAS BEEN REMOVED. NEW STRUCTURE NO. 29 HAS NOT BEEN INSTALLED.
	30	31	50'	30"–RCP	S=0.0%	
	31A	31B	22'	15"–RCP	S=0.68%	
	31B	31D	220'	18"–RCP	S=0.9%	
	31C	31D	39'	15"–HDPE	S=0.18%	
	31D	31E	175'	15"–HDPE	S=0.02%	45 L.F. OF EXFILTRATION TRENCH (3.5Hx3.5W)
	31E	31F	49'	15"–HDPE	S=0.45%	
	31F	31	250'	15"–HDPE	S=0.20%	45 L.F. OF EXFILTRATION TRENCH (3.5Hx3.5W)
	31G	31H	34'	15"–HDPE	S=1.68%	
	31H	31J	80'	15"–HDPE	S=0.063%	
	31I	31J	35'	15"–HDPE	S=0.63%	
	31J	31	99'	15"–HDPE	S=0.24%	
	31	31K	15'	30"–RCP	S=0.0%	
	31L	31K	14'	15"–HDPE	S=2.50%	
	31L	31M	252'	15"–HDPE	S=0.40%	245 L.F. OF EXFILTRATION TRENCH (3.5Hx3.5W)
	31M	31N	253'	15"–HDPE	S=0.35%	235 L.F. OF EXFILTRATION TRENCH (3.5Hx3.5W)
	31N	32	10'	15"–HDPE	S=0.40%	
	31K	32	519'	36"–RCP	S=0.14%	
	32A	32	21'	15"–RCP	UK	
	32	32B	95'	30"–HDPE	S=0.36%	
	32C	32B	16'	15"–HDPE	S=2.25%	CONNECTS DIRECTLY TO 30" H.D.P.E. PIPE.
	32B	53	45'	30"–HDPE	S=0.36%	
	33	34	55'	15"–RCP	S=0.52%	
	34	35	58'	15"–RCP	S=0.31%	
	35	40	326'	18"–RCP	S=0.56%	
	36	37	102'	8"–C.I.P.	S=0.02%	PRIVATE SYSTEM
	37	38	38'	10"–C.I.P.	S=0.50%	PRIVATE SYSTEM
	38	39	45'	15"–RCP	S=0.36%	
	39	40	64'	15"–RCP	S=1.48%	
	40	42	44'	18"–RCP	S=0.14%	
	41	42	13'	18"–RCP	S=1.77%	
	42	43	139'	30"–RCP	S=0.07%	
	43	46	140'	30"–RCP	S=0.29%	
	44	46	46'	15"–RCP	UK	
	45	46	10'	15"–RCP	UK	
	46	48	95'	30"–RCP	S=0.29%	
	47	48	45'	15"–RCP	S=1.20%	
	48	50	267'	30"–RCP	S=0.39%	
	49	50	29'	15"–RCP	S=0.52%	
	50	51	67'	30"–RCP	S=0.34%	
	51	53	257'	30"–RCP	S=0.29%	
	52	53	19'	12"–RCP	S=2.53%	
	53	53A	8'	30"–RCP	UK	
	53A	54	25'	30"–RCP	S=0.36%	
	54A	54	51'	15"–HDPE	S=0.04%	
	54	55	341'	42"–RCP	S=0.06%	
	55	72	173'	42"–RCP	S=0.052%	
	56	57	35'	18"–RCP	S=2.00%	P.B.Co. SYSTEM
	57	58	215'	24"–RCP	S=0.05%	P.B.Co. SYSTEM
	58	59	600'	24"–RCP	S=0.22%	P.B.Co. SYSTEM
	59	60	54'	24"–RCP	S=0.00%	P.B.Co. SYSTEM
	60	62	28'	24"–RCP	S=0.00%	P.B.Co. SYSTEM
	61	62	35'	18"–RCP	S=0.43%	P.B.Co. SYSTEM
	62	63	725'	24"–RCP	S=0.15%	P.B.Co. SYSTEM
	63	66	31'	24"–RCP	UK	STRUCTURE NO. 66, MANHOLE, MAYBE LOCATED UNDER ASPHALT. P.B. Co. SYSTEM
	64	65	39'	24"–RCP	UK	P.B.Co. SYSTEM
	65	66	1,337'	UK	UK	STRUCTURE NO. 65, CATCH BASIN, FILLED WITH CONCRETE. PIPE SIZE UNKNOWN. P.B. Co. SYSTEM
	66	67	35'	36"–RCP	UK	P.B.Co. SYSTEM
	67	70	343'	36"–RCP	S=0.27%	P.B.Co. SYSTEM
	68	69	39'	12"–RCP	S=0.56%	
	69	70	77'	15"–RCP	S=0.92%	
	70	71	329'	36"–RCP	S=0.021%	
	71	72	181'	36"–RCP	S=0.099%	
	72	73	22'	48"–RCP	S=0.045%	
	73	74	30'	48"–RCP	S=0.00%	
	74	75	570'	48"–RCP	S=0.23%	
	75	80	36'	48"–RCP	S=0.083%	
	76	77	35'	15"–RCP	S=2.11%	
	77	79	95'	18"–RCP	S=0.30%	
	78	79	35'	15"–RCP	S=2.82%	
	79	80	185'	18"–RCP	S=0.55%	
	80	96	600'	48"–RCP	S=0.16%	
	81	82	36'	15"–RCP	S=0.63%	
	82	83	200'	18"–RCP	S=0.43%	
	83	84	137'	18"–RCP	S=0.23%	
	84	85	38'	18"–RCP	S=0.21%	
	85	86	236'	24"–RCP	S=0.18%	
	86	88	126'	24"–RCP	S=0.09%	
	87	88	35'	15"–RCP	S=0.69%	
	88	90	275'	24"–RCP	S=0.058%	
	89	90	35'	15"–RCP	S=0.51%	
	90	92	101'	30"–RCP	S=0.040%	
	91	92	35'	15"–RCP	S=0.029%	
	92	94	268'	30"–RCP	S=0.097%	
	93	94	35'	15"–RCP	S=0.34%	
	94	95	56'	30"–RCP	S=0.61%	
	95	96	174'	30"–RCP	S=0.34%	
	96A	96B	35'	12"–HDPE	S=0.3%	
	96B	96E	234'	15"–HDPE	S=0.1%	170 L.F. OF EXFILTRATION TRENCH (3.5Hx3.5W)
	96C	96D	36'	12"–HDPE	S=0.2%	
	96D	96E	20'	12"–HDPE	S=0.2%	
	96E	96F	140'	18"–HDPE	S=0.15%	
	96F	96H	15'	18"–HDPE	S=0.15%	
	96G	96H	38'	12"–HDPE	S=0.3%	
	96H	96O	160'	24"–HDPE	S=0.1%	
	96I	96K	18'	12"–HDPE	S=0.3%	
	96J	96K	15'	12"–HDPE	S=0.3%	
	96K	96O	64'	12"–HDPE	S=0.2%	
	96L	96N	18'	12"–HDPE	S=0.3%	
	96M	96N	15'	12"–HDPE	S=0.3%	
	96N	96O	30'	12"–HDPE	S=0.2%	
	96O	96P	20'	24"–HDPE	S=0.1%	
	96P	96	175'	24"–HDPE	S=0.1%	
	96	97	33'	54"–RCP	S=0.091%	
	97	98	600'	54"–RCP	S=0.23%	
	98	99	41'	54"–RCP	S=0.49%	
	99	100	198'	60"–RCP	S=0.25%	
	100	101	402'	60"–RCP	S=0.21%	
	101	102	129'	60"–RCP	S=0.02%	
	102	103	39'	60"–RCP	S=0.51%	
	103	104	299'	60"–RCP	S=0.26%	
	104	105A	249'	60"–RCP	S=0.20%	
	105	105A	12'	18"–RCP	S=21.7%	
	105A	131A	58'	60"–RCP	S=0.20%	
	106	107	58'	15"–RCP	S=1.24%	F.D.O.T. SYSTEM
	107	131	322'	18"–RCP	S=0.74%	F.D.O.T. SYSTEM
	131	131A	12'	24"–RCP	S=10.4%	F.D.O.T. SYSTEM
	108	109	38'	15"–RCP	S=0.37%	F.D.O.T. SYSTEM
	109	110	252'	15"–RCP	S=0.25%	F.D.O.T. SYSTEM
	110	111	176'	15"–RCP	S=0.70%	F.D.O.T. SYSTEM
	111A	111	36'	15"–RCP	S=1.80%	F.D.O.T. SYSTEM
	111	112	68'	18"–RCP	S=0.28%	F.D.O.T. SYSTEM
	112	113	58'	18"–RCP	S=0.41%	F.D.O.T. SYSTEM
	113A	113	73'	15"–RCP	S=0.42%	F.D.O.T. SYSTEM
	113	114	378'	24"–RCP	S=0.15%	F.D.O.T. SYSTEM
	114A	114	174'	8"–RCP	S=0.51%	F.D.O.T. SYSTEM
	114	116	329'	24"–RCP	S=0.18%	F.D.O.T. SYSTEM
	115	116	58'	15"–RCP	S=0.34%	F.D.O.T. SYSTEM
	116	118	345'	30"–RCP	S=0.28%	F.D.O.T. SYSTEM
	117	118	58'	15"–RCP	S=0.34%	F.D.O.T. SYSTEM
	118	120	427'	30"–RCP	S=0.13%	F.D.O.T. SYSTEM
	119	120	58'	15"–RCP	S=0.34%	F.D.O.T. SYSTEM
	120	122	297'	36"–RCP	S=0.16%	F.D.O.T. SYSTEM
	121	122	58'	18"–RCP	S=0.35%	F.D.O.T. SYSTEM
	122	123	277'	36"–RCP	S=0.13%	F.D.O.T. SYSTEM
	123	125	282'	36"–RCP	S=0.13%	F.D.O.T. SYSTEM
	124	125	59'	15"–RCP	S=0.42%	F.D.O.T. SYSTEM
	125	127	79'	36"–RCP	S=0.42%	F.D.O.T. SYSTEM
	126	127	74'	15"–RCP	S=0.34%	F.D.O.T. SYSTEM
	127	128	265'	42"–RCP	S=0.28%	F.D.O.T. SYSTEM
	128	130	293'	42"–RCP	S=0.10%	F.D.O.T. SYSTEM
	129	130	58'	15"–RCP	S=0.43%	F.D.O.T. SYSTEM
	130	131A	212'	42"–RCP	S=0.14%	F.D.O.T. SYSTEM
	131A	138	428'	60"–RCP	S=0.2%	
	132	133	53'	15"–RCP	S=0.28%	
	133	134	35'	24"–RCP	S=0.71%	
	134	138	152'	30"–RCP	UK	
	135	136	52'	15"–RCP	S=0.73%	
	136	137	34'	24"–RCP	S=0.12%	
	137	138	153'	30"–RCP	UK	
	138	140	275'	60"–RCP	S=0.2%	
	139	140	79'	12"–CMP	S=0.2%	
	140	ENDWALL	91'	60"–RCP	S=0.2%	OUTFALL TO LAKE WORTH
NO. 13	1	2	37'	24"–RCP	S=0.50%	
	2	3	126'	30"–RCP	S=0.31%	
	3	4	57'	30"–RCP	S=0.36%	
	4	6	194'	30"–RCP	S=0.36%	
	5	6	36'	15"–RCP	S=1.53%	
	6	7	97'	30"–RCP	S=1.44%	
	7	8	165'	30"–RCP	S=0.15%	OUTFALL TO SOUTH LAKE
NO. 15	1	2	51'	15"–RCP	S=0.39%	
	2	4	42'	15"–RCP	S=0.48%	
	3	4	51'	15"–RCP	S=0.20%	
	4	5	124'	18"–RCP	S=0.65%	
	5	6	72'	18"–RCP	S=0.21%	
	6	7	65'	18"–RCP	S=0.21%	
	7	8	47'	30"–RCP	S=0.21%	
	8	9	244'	24"–RCP	S=0.41%	
	9	10	39'	24"–RCP	S=0.28%	
	10	14	238'	24"–RCP	S=0.37%	
	11	12	37'	15"–RCP	S=0.71%	
	12	12A	35'	18"–RCP	S=0.3%	
	12A	14	56'	30"–RCP	S=0.27%	
	13	14	37'	18"–RCP	S=0.3%	
	14	23	265'	36"–RCP	S=0.39%	
	23A	23	34'	15"–RCP	S=0.30%	
	23	24	325'	36"–RCP	S=0.84%	
	24	25	383'	36"–RCP	S=0.12%	
	25	26	240'	36"–RCP	S=0.23%	
	26	32	172'	36"–RCP	S=0.17%	
	27	28	44'	15"–RCP	S=0.34%	
	28	30	233'	18"–RCP	S=0.24%	
	29	30	64'	18"–RCP	S=1.00%	
	30	32	311'	24"–RCP	S=0.37%	
	31	32	67'	18"–RCP	S=1.12%	
	32	34	238'	36"–RCP	S=0.23%	
	33	34	56'	15"–RCP	S=1.09%	
	34	35	427'	36"–RCP	S=0.00%	
	35	35A	30'	36"–RCP	S=0.45%	
	36A	36B	33'	15"–RCP	S=0.30%	
	36B	36D	320'	18"–RCP	S=0.52%	220 L.F. OF EXFILTRATION TRENCH
	36C	36D	33'	15"–RCP	S=0.30%	
	36D	36G	360'	15"–RCP	S=0.30%	250 L.F. OF EXFILTRATION TRENCH
	36E	36F	36'	15"–RCP	S=0.30%	
	36F	36G	360'	15"–RCP	S=0.39%	120 L.F. OF EXFILTRATION TRENCH
	36G	36K	332'	24"–RCP	S=0.12%	
	36I	36J	34'	15"–RCP	S=0.30%	
	36J	36K	220'	18"–RCP	S=0.43%	220 L.F. OF EXFILTRATION TRENCH
	15	16	37'	15"–RCP	S=2.03%	
	16	36H	344'	18"–RCP	S=0.37%	220 L.F. OF EXFILTRATION TRENCH
	36H	35B	146'	18"–RCP	S=0.10%	
	35B	36K	178'	18"–RCP	S=0.10%	
	36K	36M	355'	24"–RCP	S=0.24%	
	36L	36M	34'	15"–RCP	S=0.30%	
	36M	35A	290'	24"–RCP	S=0.36%	180 L.F. OF EXFILTRATION TRENCH
	35A	36	70'	36"–RCP	S=0.45%	
	36	37	68'	36"–RCP	S=0.29%	
	37	38	162'	36"–RCP	S=0.62%	OUTFALL TO SOUTH LAKE
NO. 18	1	2	39'	24"–RCP	S=0.026%	
	2	3	390'	30"–RCP	S=1.05%	
	3	5	443'	30"–RCP	S=0.016%	
	4	5	39'	18"–RCP	S=8.46%	
	5	5B	210'	30"–RCP	S=1.08%	
	5A	5B	43'	12"–PVC	UK	PRIVATE SYSTEM
	5B	7	204'	30"–RCP	S=1.08%	
	6C	6B	103'	12"–CMP	S=0.53%	PRIVATE SYSTEM
	6B	6A	68'	12"–CMP	S=1.25%	PRIVATE SYSTEM
	6C	6	28'	12"–CMP	S=3.32%	PRIVATE SYSTEM
	6	7	40'	18"–RCP	S=1.60%	
	7	8	67'	36"–RCP	S=0.96%	OUTFALL TO C–17 CANAL DRAINAGE DITCH
NO. 19	EXIST.	1	246'	18"–RCP	S=0.78%	
	1	3	99'	30"–RCP	S=2.65%	
	2	3	40'	15"RCP	S=1.83%	
	3A	3	60'	10"–PVC	S=3.40%	PRIVATE SYSTEM
	3	4	188'	30"–RCP	S=0.84%	
	4A	4B	188'	15"–CMP	S=0.55%	PRIVATE SYSTEM
	4B	4D	132'	15"–CMP	S=0.74%	PRIVATE SYSTEM
	4C	4D	222'	15"–CMP	S=0.44%	PRIVATE SYSTEM
	4D	4	87'	18"–CMP	S=0.20%	PRIVATE SYSTEM
	4	6	162'	30"–RCP	S=0.79%	
	5	6	40'	18"–RCP	S=2.30%	
	6	8	352'	36"–RCP	S=0.74%	
	7	8	40'	18"–RCP	S=2.00%	
	8	8B	75'	48"–RCP	S=0.61%	
	8A	8B	45'	10"–PVC	S=2.53%	PRIVATE SYSTEM
	8B	9	120'	48"–RCP	S=0.58%	
	9A	9	40'	12"–CMP	S=5.50%	PRIVATE SYSTEM
	9	10	258'	48"–RCP	S=0.58%	
	10	11	53'	54"–CMP	S=2.36%	OUTFALL TO C–17 CANAL DRAINAGE DITCH
NO. 22	1	2	40'	18"–RCP	S=2.30%	
	2	3	175'	15"–RCP	S=0.17%	165± L.F. OF EXFILTRATION TRENCH
	3	5	200'	15"–RCP	S=2.8%	190± L.F. OF EXFILTRATION TRENCH
	4	5	36'	15"–RCP	S=0.30%	
	5	5E	65'	15"–RCP	S=2.8%	55'±–EXFILTRATION TRENCH
	5A	5B	38'	15"–RCP	S=0.66%	
	5B	5D	379'	15"–RCP	S=2.30%	369'±–EXFILTRATION TRENCH
	5C	5D	38'	15"–RCP	S=0.105%	
	5D	5E	64'	15"–RCP	S=3.00%	
	5E	7	134'	15"–RCP	S=2.8%	124'±–EXFILTRATION TRENCH
	6	7	36'	15"–RCP	S=0.30%	
	7	19	283'	15"–RCP	S=1.96%	273'±–EXFILTRATION TRENCH
	8	10	54'	15"–RCP	S=0.17%	
	9	10	64'	15"–RCP	S=2.88%	
	10	12	194'	15"–RCP	S=0.00%	184'±–EXFILTRATION TRENCH
	11	12	36'	15"–RCP	S=0.67%	
	12	14	227'	15"–RCP	S=0.00%	217'±–EXFILTRATION TRENCH
	13	14	36'	15"–RCP	S=0.14%	
	14	16	255'	15"–RCP	S=0.47%	245'±–EXFILTRATION TRENCH
	15	16	36'	15"–RCP	S=0.42%	
	16	18	88'	15"–RCP	S=0.29%	78'±–EXFILTRATION TRENCH
	17	18	54'	15"–RCP	S=0.51%	
	18	19	31'	15"–RCP	S=0.065%	
	19	31	347'	15"–RCP	S=0.42%	337'±–EXFILTRATION TRENCH
	10	20	292'	15"–RCP	S=0.70%	282'±–EXFILTRATION TRENCH
	20	22	50'	15"–RCP	S=0.22%	
	21	22	36'	15"–RCP	S=0.28%	
	22	24	118'	15"–RCP	S=0.06%	108'±–EXFILTRATION TRENCH
	23	24	36'	15"–RCP	S=0.78%	
	24	26	266'	15"–RCP	S=0.03%	256'±–EXFILTRATION TRENCH
	25	26	36'	15"–RCP	S=0.17%	
	26	28	266'	15"–RCP	S=0.10%	256'±–EXFILTRATION TRENCH
	27	28	36'	15"–RCP	S=1.33%	
	28	30	122'	15"–RCP	S=1.33%	112'±–EXFILTRATION TRENCH
	29	30	53'	15"–RCP	S=0.13%	
	30	31	32'	15"–RCP	S=0.44%	
	31	42	347'	15"–RCP	S=0.45%	337'±–EXFILTRATION TRENCH
	22	32	294'	15"–RCP	S=0.54%	284'±–EXFILTRATION TRENCH
	32	33	52'	15"–RCP	S=0.23%	
	33	35	118'	15"–RCP	S=0.00%	108'±–EXFILTRATION TRENCH
	34	35	36'	15"–RCP	S=0.28%	
	35	37	118'	15"–RCP	S=0.00%	108'±–EXFILTRATION TRENCH
	36	37	36'	15"–RCP	S=0.36%	
	37	39	266'	15"–RCP	S=0.017%	256'±–EXFILTRATION TRENCH
	38	39	36'	15"–RCP	S=0.69%	
	39	41	120'	15"–RCP	S=0.017%	110'±–EXFILTRATION TRENCH
	40	41	53'	15"–RCP	S=0.55%	
	41	42	32'	15"–RCP	S=0.84%	
	42	43	31'	24"–RCP	S=0.005%	
	43	44	16'	24"–RCP	S=0.005%	OUTFALL TO C–17 CANAL DRAINAGE DITCH
	8A	8B	38'	15"–RCP	S=2.13%	
	8B	8D	257'	15"–RCP	S=1.34%	
	8C	8D	38'	15"–RCP	S=1.44%	
	8D	8F	88'	15"–RCP	S=0.07%	90'±–EXFILTRATION TRENCH
	8E	8F	40'	15"–RCP	S=0.48%	
	8F	8H	378'	15"–RCP	S=0.021%	357'±–EXFILTRATION TRENCH
	8G	8H	38'	15"–RCP	S=1.23%	
	8H	8I	78'	15"–RCP	S=0.123%	74'±–EXFILTRATION TRENCH
	8I	8K	215'	15"–RCP	S=2.06%	
	8J	8K	38'	15"–RCP	S=0.10%	
	8K	8	236'	15"–RCP	S=0.013%	226'±–EXFILTRATION TRENCH

NOTES:

1.) UK–DENOTES UNKNOWN

2.) *–DENOTES INFORMATION IS FROM CONSTRUCTION DRAWINGS. RECORD DRAWING INFORMATION NOT AVAILABLE.

3.) F.D.O.T.–FLORIDA DEPARTMENT OF TRANSPORTATION
P.B.Co–PALM BEACH COUNTY

DATE	DESCRIPTION	BY

REVISIONS

SEAL

DESIGN FAD

DRAWN FAD

CHECKED J.D.R.

BARKER, OSHA & ANDERSON, INC.
PROFESSIONAL ENGINEERS
NORTH PALM BEACH, FLORIDA

NOT TO BE USED FOR CONSTRUCTION UNTIL APPROVED

APPROVED

DATE JUNE 1999

EXISTING DRAINAGE STRUCTURES

MASTER DRAINAGE STUDY
FOR THE
TOWN OF LAKE PARK, FLORIDA

PROJECT NO. 98–1035

SCALE NOT TO SCALE

SHEET 3 OF 3

FILE NO. D–5266–016

C:\1-WORKING-DRAWINGS\Lake Park\98-1035-3.dwg

ARTICLE III. - STORMWATER MANAGEMENT

Sec. 32-75. - Authority.

The town is authorized by the Florida Constitution and the provisions of F.S. Chapter 166, as amended and supplemented; F.S. Section 403.0893, as amended and supplemented; F.S. Chapter 197, as amended and supplemented; the Town Charter of the town; and other applicable provisions of law to construct, reconstruct, improve, and extend stormwater utility systems and to issue revenue bonds and other debts or assess benefited properties as needed to finance in whole or part the cost of a stormwater system and to establish just and, equitable rates, fees, and charges for the services and facilities provided by the stormwater system.

(Ord. No. 09-2008, § 1, 8-6-2008)

Sec. 32-76. - Establishment of stormwater utility.

The stormwater management utility is hereby established by the commission to provide for the general welfare of the town and its residents: and

(a) To provide for effective management and financing of a stormwater management system within the Town (the "System");

(b) To provide a mechanism for mitigating the damaging effects of uncontrolled and unplanned stormwater runoff from both a water quality and water quantity standpoint;

(c) To provide for the safe and efficient capture and conveyance of stormwater runoff and the correction of stormwater problems;

(d) To authorize the establishment and implementation of a master plan for stormwater drainage including design, coordination, construction, management, operation, maintenance, inspection and enforcement;

(e) To establish a reasonable stormwater management assessment based on each property's estimated contribution of stormwater runoff to the system and the benefit derived by each property from the use of the facilities of the system;

(f) To encourage and facilitate urban water resources management techniques, including but not limited to the retention-detention of stormwater runoff, minimization of the need to construct storm sewers and the enhancement of the environment; and

(g) To provide for the issuance of bonds or levy of assessments to finance additions, extensions and improvements to the system.

(Ord. No. 09-2008, § 2, 8-6-2008)

Sec. 32-77. - Definitions.

For the purpose of this article, the following definitions shall apply: Words not defined herein shall be construed to have the meaning given by common and ordinary use as defined in the latest edition of Webster's Dictionary.

Availability charge means a charge to a developer or individual property owner to recover the debt service and extension and replacement costs paid for the system facility that had been previously constructed, but which serves such developer or individual property owner.

Bonds means revenue bonds, notes, loans or any other debt obligations issued or incurred to finance the costs of construction.

Costs of construction means costs reasonably incurred in connection with providing capital improvements to the system or any portion thereof, including, but not limited to, the costs of:

(1) Acquisition of all property, real or personal, and all interests in connection therewith, including all rights-of-way and easements therefore;

(2) Physical construction, installation and testing, including the costs of labor, services, materials, supplies and utility services used in connection therewith;

(3) Architectural, engineering, legal and other professional services;

(4) Insurance premiums taken out and maintained during construction, to the extent not paid for by a contractor for construction and installation;

(5) Any taxes or other charges which become due during construction;

(6) Expenses incurred by the town or on its behalf with its approval in seeking to enforce any remedy against any contractor or subcontractor in respect of any default under a contract relating to construction;

(7) Principal of and interest of any bonds; and

(8) Miscellaneous expenses incidental thereto.

Debt service means, with respect to any particular fiscal year and any particular series of bonds, an amount equal to the sum of (i) all interest payable on such bonds during such fiscal year, plus (ii) any principal installments of such bonds during such fiscal year.

Developed property means real property which has been altered from "natural" state by the addition of any improvements such as a building, structure, or impervious surface.

Director means the director of public works or his designee.

Dwelling unit means a single unit or apartment providing complete, independent living facilities for one or more persons including permanent provisions for living, sleeping, eating, cooking and sanitation.

Equivalent stormwater unit or *ESU* means a single unit of measure equal to the average impervious area of residential developed property per dwelling unit located within the town and as established by a resolution of the commission and as provided herein. An ESU is numerically equal 5,202 square feet of impervious area.

ESU rate means an assessment rate charged on each ESU as established by the commission's resolution and as provided herein to pay operations and maintenance, extensions and replacement and debt service.

Extension and replacement means costs of extensions, additions and capital improvements to, or the renewal and replacement of capital assets of, or purchasing and installing new equipment for, the system, or land acquisition for the system and any related costs thereto, or paying extraordinary maintenance and repair, including the costs of construction, or any other expense which are not costs of operation and maintenance or debt service.

Fee-in-lieu-of means a charge to a developer or property owner to recover:

(1) The costs of construction and debt service on a new stormwater management system facility which serves such developer or property owner; or

(2) The extension and replacement costs necessitated by development undertaken by such developer or property owner.

Fiscal year means a 12-month period commencing on the first day of October of any year, or such other 12-month period adopted as the fiscal year of the stormwater utility.

Impervious area means roofed and paved areas, including, but not limited to, areas covered by roofs, roof extensions, patios, porches, pools, driveways, sidewalks, parking areas and athletic courts, or other structures or improvements that do not permit the absorption of water into the ground surface.

Multifamily property means a parcel designated by the Palm Beach County Property Appraiser and Tax Collector under Land Use Code 0300.

Multifamily residential <10 units property means a parcel designated by the Palm Beach County Property Appraiser and Tax Collector under Land Use Code 0800.

Nonresidential property means all parcels other than those classified by the Palm Beach County Property Appraiser and Tax Collector under Land Use Codes 0100, 300, 0400 and 0800.

Operating budget means the annual stormwater utility operating budget adopted by the town for the succeeding fiscal year.

Operations and maintenance means the current expenses, paid or accrued, of operation, maintenance and current repair of the system, as calculated in accordance with sound accounting practice, and includes, without limiting the generality of the foregoing, insurance premiums, overhead or indirect charges, administrative expenses, labor, executive compensation, the cost of materials and supplies used for current operations, and charges for the accumulation of appropriate reserves for current expenses not annually incurred, but which are such as may reasonably be expected to be incurred in accordance with sound accounting practice.

Property appraiser means the office of the Palm Beach County Property Appraiser.

Residential condominium property means a parcel designated by the Palm Beach County Property Appraiser and Tax Collector under Land Use Code 0400.

Residential single-family property means a parcel that is classified by the Palm Beach County Property Appraiser and Tax Collector under Land Use Code 0100.

Revenues mean all rates, fees, assessments, rentals or other charges or other income received by the stormwater utility, in connection with the management and operation of the system, including amounts received from the investment or deposit of monies in any fund or account and any amounts contributed by the town, all as calculated in accordance with sound accounting practice.

Stormwater management system or *system* means the existing stormwater management system of the town and all improvements thereto which by this article are constituted as the property and responsibility of the stormwater utility, to be operated as an enterprise fund to, among other things, conserve water, control discharges necessitated by rainfall events, incorporate methods to collect, convey, store, absorb, inhibit, treat, use or reuse water to prevent or reduce flooding, drainage, environmental degradation and water pollution or otherwise affect the quality and quantity of discharge from such system. This shall include management services such as designing, permitting, planning, and reviewing the stormwater-related infrastructure; operation, maintenance, repair and replacement of the infrastructure; and the improvement or enhancement of the infrastructure related to the town's comprehensive plan for the town.

Unimproved land means a parcel which has not been altered from its natural state by dredging, filling, removal of trees and vegetation or other activities which have disturbed or altered the topography or soils on the property.

Stormwater management assessment means a non-ad valorem assessment imposed by the town pursuant to this chapter and F.S. Section 403.0893, as amended and supplemented, on all real property of the town in relation to the real property's estimated contribution of stormwater runoff to the system and the benefit derived from the use of the facilities of the system, and the future improvements to be funded

from stormwater management assessments. Such stormwater assessment shall include the cost of operation and maintenance of the system, extension and replacement and debt service based on the same proportion of benefit assessed against each parcel within the benefited area.

Stormwater management utility or *utility* means the enterprise fund utility created by this article to operate, maintain and improve the system.

Uniform collection method means the method to be utilized by the town for the year commencing October 1, 2008 and each year thereafter for the billing, collection and enforcement of the stormwater management assessments, as authorized pursuant to F.S. Section 403.0893, as amended and supplemented and F.S. Chapter 197, as amended and supplemented.

(Ord. No. 09-2008, § 3, 8-6-2008)

Sec. 32-78. - Operation of the stormwater utility.

(a) *Operating budget.* The town shall adopt an operating budget for the stormwater management utility not later than the first day of each fiscal year. The operating budget shall set forth for such fiscal year the estimated revenues and the estimated costs for operations and maintenance, extension and replacement and debt service.

(b) *Required levels of rates for stormwater management assessments.* The commission shall require that adequate revenues are generated to provide for a balanced operating budget by at least annually levying sufficient levels of stormwater management assessments.

(c) *Imposition of stormwater management assessment, classification and criteria.*

(1) A stormwater management assessment is hereby imposed on each parcel of land within the benefited area.

(2) For purposes of imposing the stormwater management assessment, all parcels of land shall have one of the following classifications:

a. Residential single-family property

b. Residential condominium property

c. Multifamily property

d. Multifamily residential <10 units property

e. Nonresidential property

(3) The stormwater management assessment shall be fair and reasonable and levied in proportion to the special benefit each parcel receives by the use of the system, including such additions, extensions and improvements made hereto. It is also recognized that both developed property and unimproved land contributes stormwater runoff, and absent the utilization of the system, the use, enjoyment and value of each parcel will be diminished in proportion to the uncontrolled stormwater runoff attributable to each sub-parcel. It is also recognized that each user of the system derives special benefit from the effective operation and maintenance of the system.

(d) *Establishment of rates for stormwater management assessments.*

(1) The rate of stormwater management assessments for each parcel within the benefited area shall be established each year by adoption of a resolution by the commission.

(2) The developer or property owner of each parcel within the benefited area, for which a stormwater management assessment is levied, shall be responsible for the payment of assessments.

(3) The rate of stormwater management assessments for the various classes of property within the benefited areas shall be as follows:

a. Residential single-family property. The annual stormwater management assessment for a single-family residential unit shall be the rate for one ESU, multiplied by one ESU, multiplied by 12.

b. Residential condominium property. The annual stormwater management assessment for each residential condominium unit shall be the rate for one ESU, multiplied by one ESU, multiplied by 12.

c. Multifamily property. The annual stormwater management assessment for each multifamily property shall be the rate for one ESU, multiplied by one ESU, multiplied by 12 multiplied by the number of units on the property.

d. Multifamily <10 units property. The annual stormwater management assessment for each multifamily <10 units property shall be the rate for one ESU, multiplied by one ESU, multiplied by 12, multiplied by the number of units on the property.

e. Nonresidential property. The annual stormwater management assessment for each nonresidential property shall be the rate for one ESU, multiplied by a numerical factor to be determined by dividing the total impervious area of the property (in square feet) by the impervious square footage per one ESU, multiplied by 12. The minimum stormwater management assessment for any nonresidential property shall be equal to rate for one ESU, multiplied by one ESU, multiplied by 12.

(e) *Billing and payment, penalties.* The stormwater management assessments shall be imposed against the owners of all real property in the town and collected pursuant to the uniform method of collection for fiscal year commencing October 1, 2008. Thereafter, the town will use the uniform method of collection unless the town determines that another method of collecting stormwater management assessments is in the best interest of the town.

The stormwater management assessments shall be due and payable at the time set forth in the notice of non-ad valorem assessments prepared by the county tax collector. Stormwater management assessments collected pursuant to the uniform method of collection shall be subject to all collection provisions of F.S. Chapter 197, as amended and supplemented.

(f) *Adjustment of fees.*

(1) Request for adjustment of the utility fee shall be submitted to the director, who is hereby given the authority to develop and administer the procedures and standards for the adjustment of fees as established herein. All requests shall be judged on the basis of the amount of impervious area on the site. No credit shall be given for the installation of facilities required by town or county development codes or state stormwater rules. The following procedures shall apply to all adjustment requests of the stormwater management assessment:

a. Any developer or property owner who believes the stormwater management assessment is incorrect may, subject to the limitations set forth in this article, submit an adjustment request to the director.

b. The adjustment request shall be made in writing and set forth, in detail, the grounds upon which correction is sought.

c. An adjustment request shall be made within 60 days after receipt by the developer or property owner of his or her tax bill containing the stormwater management assessment. The adjustment request will be reviewed by the director within a two-month period from the date of filing the adjustment request. Consideration by the director of the developer or property owner's request for adjustment shall not relieve the developer or property owner

of the obligation to make timely payment of the stormwater management assessment. In the event an adjustment is granted by the director, which decreases the stormwater management assessment, the developer or property owner shall be entitled to a refund of the excess stormwater management assessments paid. The refund shall be mailed by the Palm Beach County Tax Collector (the "tax collector") unless the tax collector and the town agree otherwise.

d. The developer or property owner requesting the adjustment may be required, at his own cost, to provide supplemental information to the director including, but not limited to, survey data and engineering reports approved by either a Florida-registered professional land surveyor or a professional engineer. Failure to provide such information may result in the denial of the adjustment request.

e. The adjustment to the stormwater management assessment shall be made upon the granting of the adjustment request, in writing, by the director. The document granting the adjustment request shall be provided to the developer or property owner and shall also be sent to the tax collector. A denial of an adjustment request shall be made in writing by the director, a copy of which shall be provided to the developer or property owner.

(g) *Capital contributions.*

(1) Where the town has constructed or plans to construct stormwater facilities which are proposed to be used by a developer or property owner in lieu of a facility usually required to be constructed by him, the town may accept a capital contribution from the developer or property owner and waive certain construction requirements.

2. Procedures and standards developed by the town shall define appropriate means by which to optimize the property owner or developers' capital constructions in the construction or refunding of stormwater systems. These capital contributions shall take the form of fee-in-lieu-of or availability charges. Each situation will be analyzed by the town and a specific written decision will be developed. The application of each is defined as follows:

(a) Fee-in-lieu-of is applied to a site specific negotiated procedure, wherein a development's stormwater contribution (quantity and quality) is assessed its share of the capital needs of the facilities required to serve the development in question. This capital contribution would be used for the construction or refunding of the town-owned stormwater facilities. The process does not apply wherein the stormwater facilities are privately held. Each application is evaluated against the town's master plan, or where the master plan is incomplete, against the cumulative impacts from the development.

(b) Availability charge is administered on a site specific basis identical to the fee-in-lieu-of procedure noted above. The only difference is that the capital investment advanced by the town in implementing a stormwater facility is now recovered through an availability charge. The capital charge is determined on a pro rata share of the capacity used by the new developer as measured by the cumulative impact from the development upon all impacted facilities applied to the present worth of the original capital expenditure. In the case of a developer constructing stormwater management facilities in excess of the site needs, the town may enter an agreement with that developer to rebate fee-in-lieu-of charges paid to the town by other developers utilizing those facilities over a period of time not exceeding seven years from the date of the agreement.

(h) *Program responsibility.* It shall be the duty of the director of the department of public works to administer the stormwater management utility. The director shall keep an accurate record of all persons using the services and facilities of said stormwater management system of the town and to make changes in accordance with the rates and charges established in this article.

(i) *Stormwater management enterprise funds.* There shall be established a stormwater management enterprise fund for the deposit of all fees and charges collected by the stormwater utility. These

funds shall be for the exclusive use of the town's stormwater management utility, including, but not limited to, the following:

(1) Administrative costs associated with the management of the stormwater management utility, including any assessment programs implemented.

(2) Planning and engineering fees.

(3) Legal.

(4) Operation and maintenance of the system.

(5) Funding of pollution abatement devices constructed on stormwater systems discharging to the surface water of the Town.

(6) Extensions and replacements.

(7) Debt service.

(Ord. No. 09-2008, § 4, 8-6-2008)

TOWN OF LAKE PARK

PROPOSED BUDGET

STORMWATER UTILITY FUND 402

FISCAL YEAR
October 1, 2011 through September 30, 2012

TOWN OF LAKE PARK - ANNUAL BUDGET
STORMWATER UTILITY FUND RECAP

FUND	402	FUNCTION	PW STORMWATER UTILITY
		ACTIVITY	Revenues & Expenditures

Budget Summary	Actual Expenses 2008-09	Actual Expenses 2009-10	Current Budget 2010-11	Estimate for the Year 2010-11	By Department 2011-12	Proposed Budget 2011-12	Adopted Budget 2011-12
Revenues	553,067	522,647	503,000	503,000	503,000	503,000	-
Personal Services	40,903	82,056	106,340	105,595	113,745	109,140	-
Operating Expenses	125,229	158,997	183,240	179,940	232,760	199,505	-
Capital Outlay	-	-	13,100	31,630	-	-	-
Debt Service	6,058	13,597	61,970	61,970	61,975	108,475	-
Non-Operating	16,920	69,300	138,350	68,225	94,520	85,880	-
Total Expenses	189,110	323,950	503,000	447,360	503,000	503,000	-
Surplus (Deficit)	363,957	198,697	-	55,640	-	-	-

Personnel Recap

	Present	Submitted	Proposed
Stormwater Technician I	1	1	1
Stormwater Technician II	1	1	1
	2	2	2

ESU's	6741
Rate	6.50

Schedule 1

Cost Center 402 - Stormwater Utility Fund

ACCOUNT NUMBER	DESCRIPTION	2009 ACTUAL	2010 ACTUAL	2011 CURR YR BUDGET	2011 ESTIMATE FOR THE YEAR	2012 BY DEPARTMENT	2012 PROPOSED BUDGET	2012 ADOPTED BUDGET
	REVENUES							
402-311.120	Delinquent Stormwater Assessme	3,918	9,601	2,500	2,500	2,500	2,500	
402-334.460	State Grant - DEP	95,754	4,246	-	-	-	-	
402-361.100	Interest Income	1,725	3,535	500	500	500	500	
402-363.120	Stormwater Assessments	451,670	505,265	500,000	500,000	500,000	500,000	
	TOTAL REVENUE	553,067	522,647	503,000	503,000	503,000	503,000	-
	EXPENDITURES							
402-53-538-402-12000	Regular Salaries	26,388	61,215	61,000	61,000	61,630	59,950	
402-53-538-402-14000	Overtime Salaries	-	148	250	250	250	250	
402-53-538-402-21000	FICA Taxes	1,971	4,484	4,700	4,675	4,750	4,625	
402-53-538-402-22000	Retirement	-	1,510	4,595	3,875	3,875	3,025	
402-53-538-402-23100	Health Insurance	1,972	6,496	22,550	22,550	26,985	25,410	
402-53-538-402-23200	Insurance - Dental	251	861	960	960	1,060	930	
402-53-538-402-23300	Insurance - Life	71	246	250	250	275	250	
402-53-538-402-23400	Insurance - Vision	30	103	120	120	120	110	
402-53-538-402-23500	Disability	220	828	915	915	1,050	840	
402-53-538-402-24000	Worker's Compensation Insuranc	10,000	6,165	11,000	11,000	13,750	13,750	
	TOTAL PERSONNEL EXPENSES	40,903	82,056	106,340	105,595	113,745	109,140	-
402-53-538-402-31000	Professional Services	3,407	3,267	4,500	4,700	4,500	3,000	
402-53-538-402-34000	Contractual Services	1,284	230	80	330	36,000	70	
402-53-538-402-34010	Permit Fees - NPDES	3,060	3,060	3,260	3,260	3,500	3,500	
402-53-538-402-34200	Contractual Services-Maint Gen	61,725	70,125	78,000	78,000	78,000	78,000	
402-53-538-402-34310	Disposal Fees - SWA	-	7,336	6,000	6,000	6,000	6,000	
402-53-538-402-34500	Commissions - PBC Tax Collecto	1,386	1,614	5,000	3,000	3,000	3,000	
402-53-538-402-34901	Administrative Fees	32,100	33,000	45,500	45,500	45,500	50,000	
402-53-538-402-40000	Travel & Training	168	282	1,200	1,000	1,200	1,700	

Schedule 1

Cost Center 402 - Stormwater Utility Fund

ACCOUNT NUMBER	DESCRIPTION	2009 ACTUAL	2010 ACTUAL	2011 CURR YR BUDGET	2011 ESTIMATE FOR THE YEAR	2012 BY DEPARTMENT	2012 PROPOSED BUDGET	2012 ADOPTED BUDGET
402-53-538-402-41100	Telephone	126	349	375	350	900	350	
402-53-538-402-41200	Postage & Shipping	174	67	750	500	500	250	
402-53-538-402-43000	Utilities	704	1,179	1,500	500	500	700	
402-53-538-402-44100	Rentals	-	56	-	-	-	-	
402-53-538-402-45000	Insurance-Liability, Property,	1,500	2,172	2,500	2,500	2,500	2,500	
402-53-538-402-46000	Repairs & Maintenance	20	5,068	10,000	5,000	10,000	5,000	
402-53-538-402-46080	Repairs & Maintenance - Lines	-	-	-	-	-	12,000	
402-53-538-402-46300	Vehicle Parts & Supplies	4,697	12,656	5,000	10,000	15,000	10,000	
402-53-538-402-48100	Advertising	560	-	-	-	-	-	
402-53-538-402-49400	Uniforms	643	746	725	500	725	500	
402-53-538-402-51000	Office Supplies	-	-	-	-	245	245	
402-53-538-402-52000	Operating Supplies	8,573	5,966	8,500	8,000	12,000	10,000	
402-53-538-402-52100	Gasoline & Diesel Fuel	5,102	11,824	10,000	10,000	12,000	12,000	
402-53-538-402-52200	Small Tools & Others	-	-	-	360	250	250	
402-53-538-402-54200	Memberships, Dues, & Subscript	-	-	350	440	440	440	
	TOTAL OPERATING EXPENSES	125,229	158,997	183,240	179,940	232,760	199,505	-
402-53-538-402-63010	Improvements - Drainage	-	-	12,000	25,000	-	-	-
402-53-538-402-63102	Improvements - Overflow Parkin	-	-	1,100	1,100	-	-	-
402-53-538-402-64100	Machinery & Equipment	-	-	-	2,675	-	-	-
402-53-538-402-82101	Improvements-Drainage (DEP mat	-	-	-	2,855	-	-	-
	TOTAL CAPITAL OUTLAY	-	-	13,100	31,630	-	-	-
402-53-538-402-71000	Principal	-	-	50,770	50,770	53,365	53,365	
402-53-538-402-72000	Interest	2,008	13,597	11,200	11,200	8,610	8,610	
402-53-538-402-71000	Principal - Alley & Equipment	-	-	-	-	-	27,500	
402-53-538-402-72000	Interest - Alley & Equipment	-	-	-	-	-	19,000	
402-53-538-402-73000	Amortization Expenses	4,050	-	-	-	-	-	
	TOTAL DEBT SERVICE	6,058	13,597	61,970	61,970	61,975	108,475	-

Schedule 1

Cost Center 402 - Stormwater Utility Fund

ACCOUNT NUMBER	DESCRIPTION	2009 ACTUAL	2010 ACTUAL	2011 CURR YR BUDGET	2011 ESTIMATE FOR THE YEAR	2012 BY DEPARTMENT	2012 PROPOSED BUDGET	2012 ADOPTED BUDGET
402-53-538-402-99001	Transfer to General Fund	-	51,300	51,300	51,300	51,300	51,300	
402-53-538-402-99002	Transfer to Capital Reserve	-	-	50,000	-	25,000	16,430	
402-53-538-402-99190	Transfer to Streets & Roads	16,920	18,000	16,925	16,925	18,150	18,150	
402-53-538-402-99901	Contingency	-	-	20,125	-	70		
	TOTAL OTHER EXPENSES	16,920	69,300	138,350	68,225	94,520	85,880	-
	TOTAL DEPT EXPENDITURES	189,110	323,950	503,000	447,360	503,000	503,000	-
	BUDGET SURPLUS/(DEFICIT)	363,957	198,697	-	55,640	-	-	-

Stormwater Budget Analysis FY11-12

402-31000 **Professional Services** – Consultant fees to Town Engineer for NPDES reporting and miscellaneous design and budgeting services ($3,000).

402-34000 **Contractual Services** – $70 for CDL medical exams and misc. drug screening.

402-34010 **Permit Fees** – NPDES co-permittee fees ($3,500).

402-34200 **Contractual Services – Maint. Gen.** – Transfers to Streets & Roads to pay for services of Foreman ($78,000).

402-34310 **Disposal Fees - SWA** – Estimated cost of disposal of street sweepings and catch basin debris at the Solid Waste Authority ($6,000).

402-34500 **Commissions – PBC Tax Collector** – Commissions paid to Palm Beach County for collection of taxes ($3,000).

402-34901 **Administrative Fees** – Transfers to General Fund for administrative services ($50,000).

402-40000 **Travel & Training** – Vac-con operator and mechanic training and conference attendance fees ($1,700).

402-41100 **Telephone** – Technician's two-way radio expense ($350).

402-41200 **Postage & Shipping** – Cost estimated at $250 for specialty parts shipping.

402-43000 **Utilities** – Estimated cost of hydrant water for vac/jet truck and street sweeper ($700).

402-45000 **Insurance** – Property/Liability insurance premiums ($2,500).

402-46000 **Repair & Maintenance** – Estimated cost of repairs to utility truck and equipment performed by outside vendors as needed ($5,000).

Stormwater Budget Analysis FY11-12 (cont.)

402-46080 **Repair & Maintenance – Storm Line Repairs** – Budget $12,000 to repair and reline deteriorated stormwater lines.

402-46300 **Vehicle Parts & Supplies** – Parts and repairs performed in-house for vac/jet truck, street sweeper, and skid steer loader ($10,000).

402-49400 **Uniforms & Clothing** – Cost to purchase safety shoes and replacement uniforms ($500).

402-51000 **Office Supplies** – $245 for miscellaneous supplies including copy paper, notebooks, and pens.

402-52000 **Operating Supplies** – Estimated cost of $10,000 for re-sodding swales and placing manatee grates over outfalls.

402-52100 **Gasoline & Diesel Fuel** – Estimated fuel costs of $12,000 for vehicles and equipment.

402-52200 **Small Tools & Others** – Miscellaneous specialty tools associated with the vac/jet truck ($250).

402-54200 **Membership, Dues, & Subscr** - $440 membership for the Town's participation in the Florida Stormwater Association.

402-64100 **Machinery & Equipment** – $93,200 for a turn-key drain line camera and recorder mounted in a towable trailer. Includes inspection accessories such as drain plugs. The FDEP/EPA storm water rules require inspection of all Town drain lines within the next five years. Video records will assist in the formulation of a repair & replacement master plan.

ARTICLE II. - NUISANCES [2]

Sec. 10-31. - Definitions.

For the purposes of this article, the word "nuisance" is hereby defined as any person doing an unlawful act, or omitting to perform a duty, or suffering or permitting any condition or thing to be or exist, which act, omission, condition or thing either:

(1) Injures or endangers the comfort, repose, health or safety of others;

(2) Offends decency;

(3) Is offensive to the senses;

(4) Unlawfully interferes with, obstructs or tends to obstruct or renders dangerous for passage any public or private street, highway, sidewalk, stream, ditch or drainage;

(5) In any way renders other persons insecure in life or the use of property; or

(6) Essentially interferes with the comfortable enjoyment of life and property, or tends to depreciate the value of the property of others.

(Code 1978, § 16-1)

Cross reference— Definitions generally, § 1-2.

Sec. 10-32. - Prohibited nuisances on developed or cleared lots.

The maintaining, using, placing, depositing, leaving or permitting to be or remain on any public or private property of any of the following items, conditions or actions are hereby declared to be and constitute a nuisance and are prohibited within the town; provided, however, this enumeration shall not be deemed or construed to be conclusive, limiting or restrictive:

(1) Noxious weeds and other rank vegetation; excessive or untended undergrowth, dead or dying plant materials, tree branches, lawn clippings and other excessive or untended vegetation;

(2) Accumulation of rubbish, trash, refuse, junk, debris, and other abandoned materials, metals, lumber or other things;

(3) Any condition which provides harborage for rats, mice, and other vermin or for the breeding of mosquitoes;

(4) Any building or other structure which is in such a dilapidated condition that it is unfit for human habitation, or kept in such an unsanitary condition that it is a menace to the health of people residing in the vicinity thereof, or presents a more than ordinarily dangerous fire hazard in the vicinity where it is located;

(5) All unnecessary or unauthorized noises and annoying vibrations, including animal noises;

(6) All disagreeable or obnoxious odors and stenches, as well as the conditions, substances or other causes which give rise to the emission or generation of such odors and stenches;

(7) The carcasses of animals or fowl not disposed of within a reasonable time after death;

(8) The pollution of any public well or cistern, stream, lake, canal or body of water by sewage, dead animals, creamery, industrial wastes or other substances;

(9) Any building, structure or other place or location where any activity which is in violation of local, state or federal law is conducted, performed or maintained;

(10) Any accumulation of stagnant water on any lot or piece of ground;

(11) Dense smoke, noxious fumes, gas, soot or cinders, in unreasonable quantities.

(Ord. No. 4-1982, § 1, 2-17-1982; Ord. No. 8-1983, § 1, 6-1-1983; Code 1978, § 16-2)

Sec. 10-33. - Prohibited.

It shall be unlawful for any person to cause, permit, maintain or allow the creation or maintenance of a nuisance.

(Code 1978, § 16-3)

Secs. 10-34—10-70. - Reserved.

FOOTNOTE(S):

--- (**2**) ---

State Law reference— Abatement of nuisances by injunction, F.S. § 60.05; sanitary nuisances, F.S. § 386.01 et seq.; public nuisances in general, F.S. ch. 823. (Back)

ARTICLE II. - PLATTING, CONCEPTUAL PLAN AND DEVELOPMENT PLAN [2]

Sec. 67-38. - Development plan content.

A development plan shall include the information required in a conceptual plan plus the following additional or more detailed information as applicable to a proposed development:

(1) *Existing conditions.*

a. A recent (taken not more than three years before the date of application) aerial photograph encompassing the project area and identifying the project area and total land areas. The scale shall be no smaller than one inch equals 800 feet.

b. A soils map of the site (existing U.S. Soil Conservation Service maps are acceptable).

c. A map of vegetative cover including the location and identity by common name of all protected trees. Groups of protected trees may be designated as "clusters" with the estimated total number noted. This information shall be summarized in tabular form on the plan.

d. A topographic map of the site clearly showing the location, identification, and elevation of benchmarks, including at least one benchmark for each major water control structure.

e. A detailed overall project area map showing existing hydrography and runoff patterns, and the size, location, topography, and land use of any off-site areas that drain onto, through, or from the project area.

f. Existing surface water bodies, wetlands, streams and canals within the proposed development site, including seasonal high water table elevations and attendant drainage areas for each.

g. A map showing the locations of any soil borings or percolation tests as may be required by these regulations. Percolation tests representative or design conditions shall be performed if the stormwater management system will use swales, percolation (retention), or exfiltration (detention with filtration) designs.

h. A depiction of the site, and all land within 400 feet of any property line of the site, showing the locations of environmentally significant lands as established in chapter 58

i. The location of any underground or overhead utilities, culverts and drains on the property and within 100 feet of the proposed development boundary.

j. Location, names and widths of existing and proposed streets, highways, easements, building lines, alleys, parks, and other public spaces and similar facts regarding adjacent property.

k. The 100-year flood elevation, minimum required floor elevation and boundaries of the 100-year floodplain for all parts of the proposed development.

l. Drainage basin or watershed boundaries identifying locations of the routes of off-site waters onto, through, or around the project.

(2) *Proposed development activities and design.*

a. *Generally.*

1. Area and percentage of total site area to be covered by an impervious surface.

2. Grading plans specifically including perimeter grading.

3. Construction phase lines.

c. *Potable water and wastewater systems.*

1. Proposed location and sizing of potable water and waste water facilities to serve the proposed development, including required improvements or extensions of existing off-site facilities.

2. The boundaries of proposed utility easements.

3. Location of the nearest available public water supply and wastewater disposal system and the proposed tie-in points, or an explanation of alternative systems to be used.

d. *Parking and loading.*

1. The engineering data, calculations and analyses shall cover important features affecting design, and important features of construction for which commonly accepted standards are not used, including but not limited to high water, subsurface soil data in mucky areas, drainage facilities of all kinds, radii at intersections when the minimum standards of the American Association of State Highway Officials (AASHO) are inadequate, and alternate pavement and subgrade types in which case similar and comparable data, calculations and analyses shall also be supplied for the specified types.

7. Typical and special roadway and drainage sections and summary of quantities.

g. *Stormwater management.*

1. An erosion and sedimentation control plan that describes the type and location of control measures, the stage of development at which such measures will be put into place or used, and maintenance provisions.

2. A description of the proposed stormwater management system, including:

i. Channel, direction, flow rate, and volume of stormwater that will be conveyed from the site, with a comparison to natural or existing conditions.

ii. Detention and retention areas, including plans for the discharge of contained waters, maintenance plans, and predictions of surface water quality changes.

iii. Areas of the site to be used or reserved for percolation including an assessment of the impact on groundwater quality.

iv. Location of all water bodies to be included in the surface water management system (natural and artificial) with details of hydrography, side slopes, depths, and water surface elevations or hydrographs.

v. Linkages with existing or planned stormwater management systems.

vi. On-site and off-site rights-of-way and easements for the system including locations and a statement of the nature of the reservation of all areas to be reserved as part of the stormwater management system.

vii. The entity or agency responsible for the operation and maintenance of the stormwater management system.

3. The location of off-site water resource facilities such as works, surface water management systems, wells, or well fields, that will be incorporated into or used by the proposed project, showing the names and addresses of the owners of the facilities.

4. Runoff calculations shall be in accord with the methodology of the South Florida Water Management District (SFWMD).

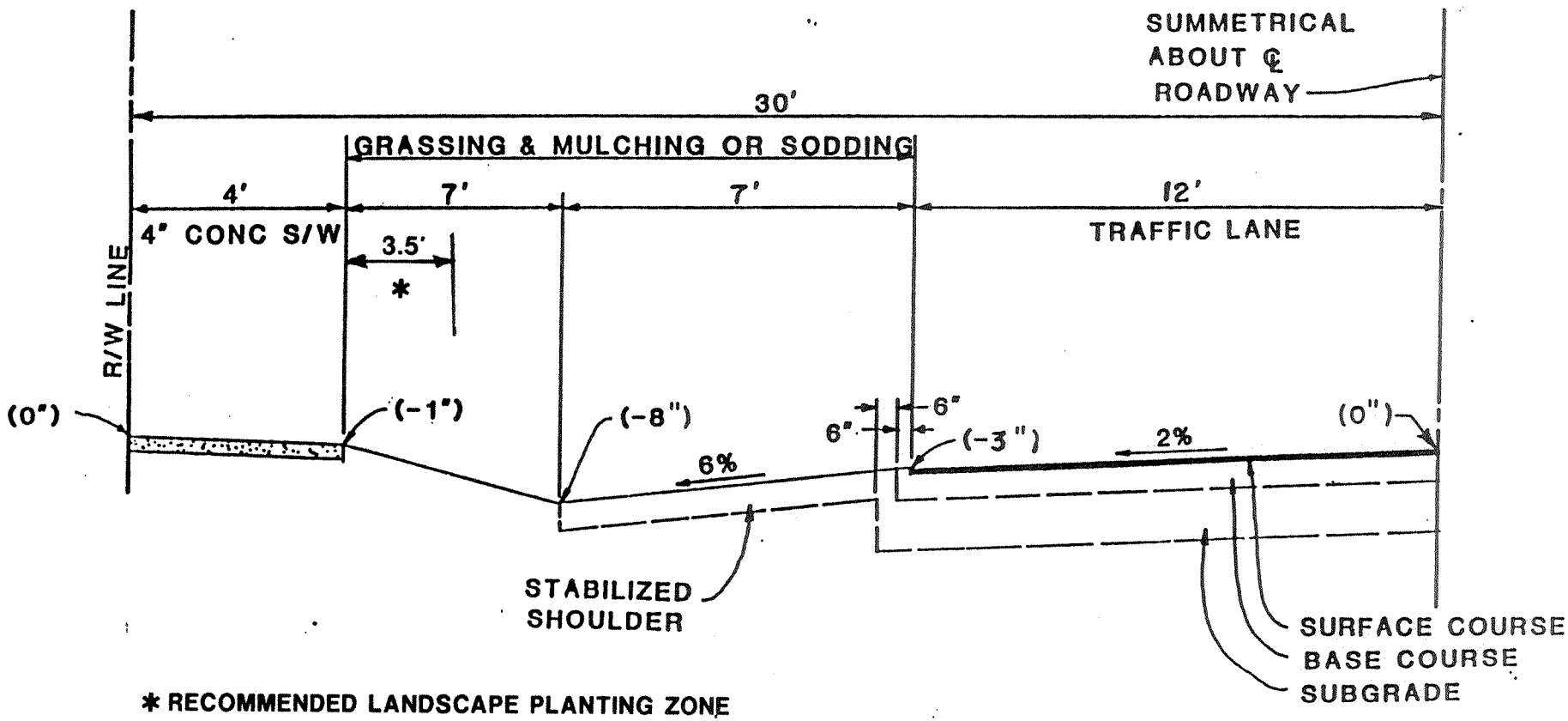
SECTION VIII

ANALYSIS OF EXISTING STORM DRAINAGE SYSTEM AND RECOMMENDED IMPROVEMENTS

The Town's existing storm drainage system, where it exists, generally includes grassed swales, drainage inlets and underground gravity drainage pipes with positive discharge to various water bodies as previously noted. The typical roadway configuration in Lake Park consists of a sixty (60) feet wide right-of-way which includes approximately twenty-four (24) feet of pavement with a fourteen (14) feet wide grassed swale on each side and a four (4) feet wide concrete sidewalk on each side at the right-of-way line (See Figure 1 on the following page).

Generally the stormwater runoff from the roadway and adjacent properties is collected in the grassed swales and transported to drainage inlets. The drainage inlets collect the runoff from the swales and redirect it to the gravity drainage pipe system where it is channeled to the discharge point. In order to reduce the potential for flooding, each of the elements of the stormwater drainage system must have sufficient capacity to convey the runoff from the design storm event.

The amount of stormwater runoff or loading was calculated for each portion of the existing stormwater drainage system using the Rational Method of analysis. This method of analysis is used exclusively by the F.D.O.T. in the design of stormwater sewer systems, is recognized by the S.F.W.M.D., and is a locally accepted engineering approach for areas generally less than 1,000 acres in size. The formula for this method is expressed by the equation:



* RECOMMENDED LANDSCAPE PLANTING ZONE

TYPICAL RESIDENTIAL STREET 60' R/W

FIGURE 1

	Q	=	CIA
in which	Q	=	runoff in cubic feet per second (cfs)
	I	=	intensity of rainfall in inches per hour
	A	=	drainage area in acres
	C	=	coefficient of runoff

For this analysis, each of these parameters was calculated as follows:

1. The tributary drainage area (A) expressed in acres was determined for each drainage inlet in the system. These areas are shown on Exhibit 11, appended to this report. These areas were determined from the existing street elevations shown on Exhibit 8 and analyzing and observing the flow patterns in the study area. Exhibit 11 also shows the existing developed areas in Town with no existing drainage facilities. Because there is no discharge point available to these areas, the stormwater runoff ponds at the low point along the roadways until it can percolate into the soil.

2. The coefficient of runoff (C) is a dimensionless coefficient which expresses the runoff to rainfall ratio for the tributary drainage area under consideration. Each drainage area is composed of elements with various values of C. The greater the imperviousness of an element, the greater will be its shedding efficiency. For example, street, alleys, side and yard walks, together with house and shed roofs, as the principal impervious components, produce high coefficients; lawns and gardens, as the principal pervious components, produce low coefficients. To arrive at a composite runoff rainfall ratio, a weighted average was computed from the following information:

Areal Component		Runoff Coefficient, %
Streets:	asphalt	70 to 95
	concrete	80 to 95
	brick	70 to 85
Drives and Walks		75 to 85
Roofs		75 to 95
Lawns:	sandy soil, flat (2%)	5 to 10
	steep (7%)	15 to 20
	heavy soil, flat (2%)	13 to 17
	steep (7%)	25 to 35

The weighted average coefficient (C) calculated for the various land uses in Town and used in this analysis were 0.9 (pavement), 0.8 (commercial), 0.5 (medium density residential), 0.35 (single family residential), 0.2 (parks and open space).

3. The intensity of rainfall (I) expressed in inches per hour was determined from F.D.O.T. rainfall intensity-duration curves, (Zone 10). To use the curves, the design storm must be selected and the time of concentration (tc) must be calculated. The design storm used in this study was a three year frequency storm which is a storm that would be equalled or exceeded in rainfall only once every three years based on the statistical data from previous rainstorms. The time of concentration is the time it takes for the stormwater runoff to travel from the most remote point in the drainage area to the point being considered. The time of concentration for a given point in the drainage system is composed of the initial surface storage time, the overland flow time required for the runoff to reach the drainage inlet and the time of flow in the drainage pipes for the runoff to reach the point in the drainage system under consideration.

For each drainage area the initial surface storage time was estimated depending on the nature of the area and varied from as little as 5 minutes for impervious areas to 20 minutes for previous areas. The overland flow time was calculated for each drainage area by dividing the length from the most distant point in the drainage area to the drainage inlet along the flow path by the velocity of overland flow. The velocity of overland flow was estimated for each drainage area from F.D.O.T. curves which show average runoff velocities as a function of average slope of the terrain and the degree of development for the area. The time of flow in a storm-water drainage pipe is calculated by dividing the length of the pipe by the average velocity of flow in the pipe. Knowing the stormwater runoff (Q) through a given pipe and the cross-sectional area of the pipe (A) the average velocity of flow in the pipe was calculated from the equation Q=VA. All pipes in the system were assumed to be flowing full.

The time of concentration for any point in the drainage system being considered is the sum of the initial surface storage time, the overland flow time to the drainage inlet and the flow times in each drainage pipe up to the point being considered. Where two or more drainage pipes come to a junction, the time of concentration at that point is taken as the greater of the times of concentration of the pipes contributing at that point. This is because the Rational Method of analysis assumes that the runoff at any point in the drainage system will be at its maximum value when all of the drainage areas upstream of the point are contributing.

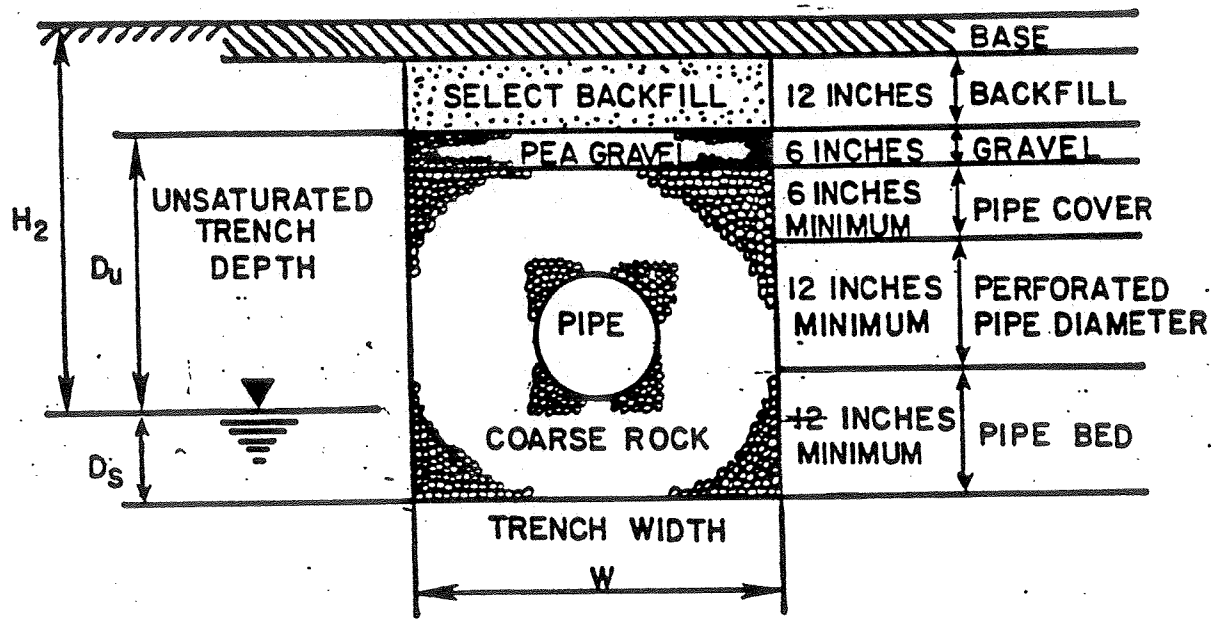
Knowing the time of concentration, the F.D.O.T. rainfall intensity curves (Zone 10) were entered for the 3 year design storm and the rainfall intensity was determined. After determining the total contributing area, weighted average runoff coefficient and rainfall intensity, the total runoff for each drainage pipe in the system was calculated.

One of the objectives of the study was to retain and utilize the existing drainage structures, pipes, and outfalls to the greatest extent possible. It quickly became apparent during the study that most of the existing system did not have sufficient capacity to handle the 3 year design storm. This most likely was the result of not having a long-range master drainage plan to implement as the system grew. Another contributing factor is that the F.D.O.T. rainfall intensity-duration curves used in this study were revised in 1978 based on recent statistical rainfall data. The F.D.O.T. curves used previously for estimating rainfall intensity predicted values approximately 10 to 15 percent lower than the current curves predict. Therefore, either the existing system had to be replaced with pipes of greater capacity or the runoff in the system had to be reduced.

Because the Town is substantially developed in the areas under investigation, the use of surface retention/detention facilities is not feasible. The solution recommended in this study is to use exfiltration trenches, also referred to as French drains or seepage trenches, along the new drainage pipes constructed. Figure 2 on the next page shows the typical construction feature for an exfiltration trench and also the equation used to determine the length of trench

FIGURE 2

TYPICAL EXFILTRATION TRENCH



$$L = \frac{CAR}{K(H_2W + 2H_2D_u - D_u^2 + 2H_2D_S) + (1.39 \times 10^{-4})WD_u}$$

L = LENGTH OF TRENCH REQUIRED (FEET)

C = RUNOFF COEFFICIENT (RATIONAL RUNOFF METHOD)

A = CONTRIBUTING AREA (ACRES)

R = ONE-HOUR DESIGN RAINFALL (INCHES)

W = TRENCH WIDTH (FEET)

K = HYDRAULIC CONDUCTIVITY (CFS/FT.^{2}-FT.HEAD)

H_2 = DEPTH TO WATER TABLE (FEET)

D_u = NON-SATURATED TRENCH DEPTH (FEET)

D_S = SATURATED TRENCH DEPTH (FEET)

required. The exfiltration trenches, by percolating a portion of the runoff into the surrounding soils, reduced the runoff in the drainage pipes and allowed most of the existing pipes to remain in the recommended drainage system. The exfiltration trenches also remove the pollutants from the "first flush" of a storm event from the runoff discharged to the surface water which is both desirable and also required to meet current standards for water quality.

Seven (7) hydraulic conductivity (K) tests using the Usual Open Hole Method were conducted for use in calculating the trench length required. The results are shown in Exhibit 12 appended to this report and the locations of the tests are shown on Exhibit 13.

The exfiltration trenches in the recommended system are designed to exfiltrate runoff from a one-hour design rainfall (3 year storm). The use of additional length of trench above the required footage is not cost-effective. Therefore, only the calculated required length of trench is used in this analysis.

A typical calculation for determining the runoff, required trench length and exfiltration amount is shown below. This calculation is for the drainage pipe between Inlet 36f and Inlet 36g in Drainage Basin 15 as shown in Exhibit 13.

SAMPLE PIPE CALCULATION

Known: Design Storm Frequency = 3 year (Assumed)
Pipe Length (L) = 330' (Measured from Exhibit 13)
Pipe Diameter (D) = 15" (Initially Assumed)
Contributing Area (A) = 2.3 acres (Measured from Exhibit 11)
Runoff Coefficient (C) = 0.35 (Single Family Residential)
Initial Surface Storage Time = 20 minutes (Grass)
Length for Overland Flow = 450' (Measured from Exhibit 11)
Overland Flow Velocity = 45 feet per minute (From F.D.O.T. Curve)
Hydraulic Conductivity of Soil = 4.0×10^{-4} C.F.S./FT^2-FT. HEAD (From Exhibit 12)

Calculations:

Concentration Time (tc) = Initial Surface Storage Time & Overland Flow Time

$$= 20 + \frac{450}{45}$$

$$= 30 \text{ minutes}$$

Therefore Rainfall Intensity (I) = 4.4 (From F.D.O.T. Curves)

Total Runoff Through Pipe = Q = CIA

$$= (0.35)\ (4.4)\ (2.3)$$

$$= \underline{3.54} \text{ cubic feet per second}$$

Velocity of Flow Through Pipe (V) = $\frac{Q}{A}$

Where A = Cross Sectional Area of Pipe = $\pi\left(\frac{D}{2}\right)^2$

$$\pi\left(\frac{1.25'}{2}\right)^2$$

$$= 1.227 \text{ square feet}$$

Therefore, V = $\frac{3.54}{1.227}$ = 2.88 feet per second

Exfiltration Trench Length Required (L) = $\frac{CAR}{K(H_2W + 2H_2\ Du - Du^2 + 2H_2D_S) = (1.39 \times 10^{-4})W\ Du}$

See Figure 1 for Explanation of Terms

$$L = \frac{(0.35)\ (2.3)\ (2.95)}{4.0 \times 10^{-4}\ [(5')\ (4') + 2\ (5')(3') - (3')^2 + 2\ (5')(1')] + 1.39 \times 10^{-4}(4')(3')}$$

$$= \frac{2.37}{0.022068}$$

$$= \underline{107.6} \text{ feet of trench}$$

Amount of Runoff Exfiltrated from this Pipe = 2.37 C.F.S.

For the drainage pipe in this example 110' of the 330' of 15" pipe constructed will include exfiltration trench. By constructing this length of trench 2.37 C.F.S. of the 3.54 C.F.S. runoff through the pipe will be exfiltrated, thus reducing the hydraulic loading on the remaining pipes downstream.

After the runoff was calculated for each pipe in the system and corrected for exfiltration trench if applicable, the hydraulic gradient was determined for each pipe run. The hydraulic gradient or slope of the hydraulic grade line is a function of the frictional resistance to flow in a given length of drainage pipe. The hydraulic grade line is the elevation, under design conditions, to which the storm water will rise into various inlets and manholes. The Manning equation for pipes flowing full was used to calculate the hydraulic gradient. The equation is expressed as:

$$Q = \frac{0.463}{n} D^{8/3} S^{\frac{1}{2}}$$

Where Q = runoff or discharge, cfs
D = diameter of pipe, ft.
S = hydraulic gradient, ft per ft of pipe
n = coefficient, dependent on surface roughness.

All drainage pipes in the recommended system are reinforced concrete pipes. For this study the value of n used were as follows:

$n = 0.013$ for $15" \leq D \leq 30"$
$n = 0.012$ for $36" \leq D \leq 48"$
$n = 0.011$ for $54" \leq D$

The design high water elevations were determined at the outfalls and exit losses at the discharge points were accounted for. The hydraulic gradient elevation was then calculated for each drainage structure in the system to be sure it did not exceed the inlet grate and/or manhole top elevation for the design storm.

The next element of the drainage system that was reviewed was the inlet locations. The existing inlets were retained and used in the recommended system where possible. Additional inlets are included in the recommended drainage system, at low points along the roadways, at junctures of two or more drainage pipes, at changes in alignment of drainage pipes, at locations along the swales where the swale capacity is exceeded by the runoff being carried and at locations where exfiltration trenches had to be added to the system to reduce the hydraulic loading on the existing drainage pipes so that they could be retained in the recommended system. With the flat slopes of the existing roadside swales and the large spacing between inlets that exists in many areas of the present system, the potential for flooding in the swales is high.

The final element of the drainage system that was reviewed was the grassed swales. A typical cross-section of the swale and street for a 60-feet wide right-of-way would be as shown on Figure 1. The capacity of swales is dependant on the cross-sectional area, the gradient or slope along the swale and the coefficient of roughness. The swale capacity is calculated from the equation

$$Q = VA$$

in which Q = quantity of flow, cfs
V = mean velocity of flow, fps
A = area of flow, sq. ft.

The mean velocity of flow in the swale is calculated by the Manning equation for open channels which is expressed as

$$V = \frac{1.486}{n} R^{2/3} S^{\frac{1}{2}}$$

in which R = hydraulic radius, ft.
S = slope of energy grade line
N = coefficient of roughness

To demonstrate what occurs in the swales during the design storm, the swale flowing to Inlet 2 in Drainage Basin 13 is analyzed in the sample swale calculation below.

SAMPLE SWALE CALCULATION

This sample swale calculation is for the grassed swale along the south side of Poplar Drive flowing to Inlet 2 in Drainage Basin 13. The runoff which is collected by this swale presently flows approximately 1,100 feet before discharging to Inlet 2. The runoff to this swale in the existing drainage system is as follows:

Q = runoff to swale = CIA

$= (0.35)(3.3)(4.3)$

$= \underline{4.97 \text{ C.F.S.}}$

The swale capacity, assuming it is developed to the typical cross-section, is as follows:

Cross-Sectional Area of Swale (A) = ½ (5/12") (5') + ½ (5/12") (7') = 2.5 S.F.

$$\text{Hydraulic Radius (R)} = \frac{\text{Area of Cross Section}}{\text{Wetted Perimeter}}$$

$$= \frac{2.5 \text{ S.F.}}{12.03 \text{ FT.}}$$

$$= 0.2078 \text{ FT.}$$

$$S = \frac{3.39'}{1{,}100'} = 0.0031 \text{ ft. per ft.} = 0.31\%$$

N = 0.027 (Assumed for Short Grass Swale)

$$\text{Velocity of Flow (V)} = \frac{1.486}{n} R^{2/3} S^{1/2}$$

$$= \frac{1.486}{.027} (0.2078)^{2/3} (.0031)^{1/2}$$

= 1.08 fps

Therefore Swale Capacity (Q) = VA
= (1.08)(2.5)
= 2.70 C.F.S.

When the runoff to the swale for the design storm exceeds the swale capacity, the street will start to flood. For the above sample swale calculation the runoff to the swale exceeds the existing swale capacity by approximately 1.8 times. When Inlet 2C is added in the recommended system, the length of flow in the swale to the inlet is reduced to approximately 700 feet and the runoff to the swale at Inlet 2C is as follows:

Q = runoff to swale = CIA
= (0.35)(3.8)(2.1)
= 2.79C.F.S.

This runoff is within the capacity of the swale when it is developed to the typical street cross sections.

The recommended drainage system, based on an engineering analysis of the system, is shown on Exhibit 13 appended to this report. As stated previously, the inlets, manholes, pipes, and outfalls in the existing drainage system were retained in the recommended system to the greatest extent possible.

The drainage system was analyzed on the basis of 26 separate drainage basins, where each drainage basin had its own outfall. the limits of the drainage basins are also shown on Exhibit 13. The conclusions and recommended improvements for each drainage basin are discussed in Section IX of this report. The estimated cost for the recommended improvements is presented in Section X of this report.

END OF SECTION

SECTION IX

CONCLUSIONS AND RECOMMENDATIONS

The engineering investigation and analysis of storm drainage has included the entire Town of Lake Park. The study area was divided into 26 drainage basins with each drainage basin having its own outfall. The analysis has identified drainage problems within the existing drainage system and also identified those areas in the developed portions of Town which do not presently have drainage facilities. Those portions of the Town which are presently served by drainage facilities owned, operated, and maintained by Palm Beach County or the State of Florida were analyzed only where they impacted on the Town's drainage system. The conclusions and recommended improvements for each drainage basin are presented below. The recommended improvements will upgrade the Town's drainage system to current engineering design standards for stormwater drainage and provide capacity in the system to handle the design 3 year storm event. The estimated cost for the recommended improvements is presented in Section X of this report by drainage basin.

Drainage Basin 1 through 6

These drainage basins include the area along Lake Shore Drive east of U.S. Highway No. 1. The existing centerline of pavement elevations varies from 3.88 to 5.30 Mean Sea Level (MSL). However, the existing inlet grade elevations vary from 2.75 to 3.00 MSL. There are six existing outfalls serving this area varying in size from 12" to 60" in diameter. The average high tides experienced in

this area are approximately 2.25 MSL while the "spring and fall" tides vary from 3.50 to 3.75 MSL. The existing grassed swales are deteriorated and need to be reshaped. During the extreme high tides and also during the average high tides with a design storm event there is severe flooding in these drainage basins. The southwest corner of the intersection of Jasmine Drive and Lake Shore Drive is not presently served by the drainage system.

The recommended improvements to these drainage basins include constructing additional inlets and drainage pipes, reconstructing two existing outfalls, removing or plugging existing inlets and drainage pipes not being retained, adjusting and/or constructing all inlet grates to a minimum elevation of 4.0 MSL, raising the centerline of pavement to a minimum elevation of 4.67 MSL, reconstructing concrete sidewalks and grassed swales to the typical street cross section and adjusting existing driveway turnouts as required. No exfiltration trenches are recommended in these drainage basins because of the high groundwater levels present relative to the surface elevations.

Drainage Basin 7

No improvements recommended. This drainage basin includes the areas which are presently served by drainage facilities which are owned, operated and maintained by Palm Beach County or the State of Florida.

Drainage Basin 8

No improvements recommended.

Drainage Basin 9

This drainage basin is generally well drained with the exceptions of the Crescent Circle area and portions of Crescent Drive. The grassed swales particularly around Crescent Circle are deteriorated and need to be reshaped. This drainage basin also includes a small area along the Northlake Boulevard and discharges to the Earman River through a 36" diameter outfall pipe.

The recommended improvements to this drainage basin includes constructing additional inlets and drainage pipes, exfiltration trenches, removing and/or plugging existing inlets and drainage pipes not being retained, adjusting existing inlet grates, eliminating existing crossroad swales, reconstructing grassed swales to the typical street cross section and adjusting existing driveway turnouts as required.

Drainage Basin 10

Approximately fifty percent of this drainage basin is not presently served by the existing positive outfall stormwater drainage system. In 1990, Seminole Boulevard, from Greenbriar Drive to Crescent Drive, was improved including reshaping of grassed swales and the construction of inlets and underground exfiltration system. To date, this localized system appears to be performing well. Existing drainage problems in this drainage basin include the north areas along Jasmine Drive and along Kalmia Drive north of Crescent Drive. Most of the grassed swales in this basin, except for Seminole Boulevard, are deteriorated and need to be reshaped. This basin discharges to South Lake through a 36" diameter outfall pipe.

The recommended improvements to this drainage basin include constructing additional inlets and drainage pipes, exfiltration trenches, adjusting existing inlet grates, eliminating existing crossroad swales, reconstructing grassed swales to the typical street cross section, reconstructing deteriorated pavement and concrete sidewalks and adjusting existing driveway turnouts as required. The recommended improvements also include connecting the localized exfiltration system on Seminole Boulevard to the outfall to South Lake.

Drainage Basin 11

Approximately fifty-three percent of this drainage basin is not presently served by the existing stormwater drainage system. Existing drainage problems in this drainage basin include all of Second Street, most of the street intersections at Park Avenue, Flagler Boulevard at Palmetto Road, Palmetto Road at Australian Drive, East Kalmia Drive east of Second Drive, East Ilex Drive west of Second Street and other miscellaneous locations. Most of the grassed swales in this basin are deteriorated or do not exist at all. There is no existing outfall available to serve this basin. A small area of this drainage basin along Fourth Street and Sixth Street north of Park Avenue and along U.S. Highway No. 1 north of Greenbriar Drive, has been rerouted to the new outfall in this drainage basin. This was necessary to provide sufficient capacity in the Drainage Basin 12 system to serve areas in that basin not presently served.

The recommended improvements to this drainage basin include constructing additional inlets, manholes, and drainage pipes,

exfiltration trenches, constructing a new transmission main along Greenbriar Drive east to a new outfall at Lake Worth, a pollution control structure, reconstructing grassed swales to the typical street cross section, removing or plugging existing inlets and drainage pipes not being retained and adjusting existing driveway turnouts as required. The recommended improvements also include connecting the localized exfiltration system on Seminole Boulevard (south end) to the new drainage facilities.

Drainage Basin 12

Approximately forty-two percent of this drainage basin is not presently served by the existing stormwater drainage system. Existing drainage problems in this drainage basin include all of Second street, most of the street intersections along Park Avenue, Ninth Street at Cypress Drive, Eighth Street at Bayberry Drive, Evergreen Drive east of Fourth Street, and other miscellaneous locations. Most of the grassed swales in this basin are deteriorated or do not exist at all. This basin discharges to Lake Worth through a 60" diameter outfall pipe at the north end of the Lake Park Municipal Marina.

The recommended improvements to this drainage basin include constructing additional inlets, manholes, and drainage pipes, exfiltration trenches, adjusting existing inlet grates, reconstructing grassed swales to the typical street cross section, removing or plugging existing inlets and drainage pipes not being retained, reconstructing concrete sidewalks and adjusting existing driveway turnouts as required.

Drainage Basin 13

This drainage basin is generally well drained with the exception of Poplar Court at Poplar Drive and Orange Drive north of Northern Drive. The grassed swales are deteriorated and need to be reshaped. This drainage basin discharges to South Lake through a 30" diameter outfall which was rehabilitated in 1993.

The recommended improvements to this drainage basin include constructing additional inlets and drainage pipes, exfiltration trenches, adjusting existing inlet grates, eliminating existing cross road swales, reconstructing pavement and concrete sidewalk on Orange Drive, reconstructing grassed swales to the typical street cross section and adjusting existing driveway turnouts as required.

Drainage Basin 14

This drainage basin is intended to drain west to existing Palm Beach County drainage inlets at Tenth Street, but because of the existing street grades, the runoff accumulates at the alley east of Tenth Street. The grassed swales in this basin are deteriorated and need to be reshaped.

The recommended improvements to this drainage basin include constructing additional inlets and drainage pipes, exfiltration trenches, reconstructing grassed swales to the typical street cross section and adjusting existing driveway turnouts as required.

Drainage Basin 15

Most of this drainage basin is presently well drained with the exception of some minor existing drainage problems along Ninth Street, Ilex Drive west of Flagler Boulevard, and Greenbriar Drive east of Eighth Street. A small area of this drainage basin along

Eighth Street between Park Avenue and Ilex Court has been rerouted to this drainage basin. This was necessary to provide sufficient capacity in the Drainage Basin 12 system to serve areas in that basin not presently served. The drainage improvements recommended in this basin in the 1986 report from Magnolia Drive to West Jasmine Drive were constructed in 1987 under the Phase I Drainage Improvements Project. These improvements have eliminated the "sink hole" problem previously noted along the drainage pipe between Eighth Street and Ninth Street from Jasmine Drive to Laurel Drive. Most of the grassed swales in this basin, except for the Phase I Drainage Improvements area, are deteriorated or do not exist and need to be reshaped. This basin discharges to South Lake through a 36" diameter outfall pipe.

The recommended improvements to this drainage basin include constructing additional inlets and drainage pipes, exfiltration trenches, adjusting existing inlet grates, reconstructing deteriorated pavement and sidewalks, removing or plugging existing inlets and drainage pipes not being retained, reconstructing grassed swales to the typical street cross section and adjusting existing driveway turnouts as required.

Drainage Basin 16

This drainage basin is a fully developed commercial area. Because the surface is almost totally impervious, the runoff coefficient is high and therefore the runoff from this area is great. The right-of-way in this area is totally paved and the runoff flows along the street approximately 1,600' before it discharges to an inlet at the northwest corner of Tenth Street and

Northern Drive. While grassed swales are not feasible because of the nature of the area, the recommended improvements will intercept and remove the runoff from the street surface as well as reducing the hydraulic and pollution loading at the discharge point.

The recommended improvements to this drainage basin include constructing additional inlets and drainage pipes, exfiltration trench and restoring the existing paved surface disturbed.

Drainage Basin 17

No improvements recommended. This drainage basin includes the K-Mart Shopping Center which has a self contained on-site exfiltration system with an overflow connection to the Palm Beach County storm drainage system along Northlake Boulevard.

Drainage Basin 18 & 19

These drainage basins are generally well drained. The primary existing drainage problem in these basins is swale erosion. This is caused by high velocities of flow in the swales because of the quantity of runoff and the higher gradient or slope that exists along the street and swales. This erosion clogs the drainage system with sand and debris transported by the high runoff velocities, diminishes the appearance of the area and is undermining the concrete sidewalks which will eventually lead to costly repairs.

The recommended improvements to these drainage basins include constructing additional inlets and drainage pipes, reconstructing grassed swales to the typical street cross section, stabilizing the swales to prevent further erosion and adjusting existing driveway turnouts as required.

Drainage Basin 20

While the roadway and most of the abutting property in this drainage basin are fully developed, there were no drainage facilities included in the public right-of-way which is contrary to the requirements of the Town's land development regulations. Existing drainage problems in this basin include the lack of a stormwater collection and transmission system and swale erosion due to the same reasons discussed above. The area of the Town west of the ridge line generally along Old Dixie Highway slopes to the west. The runoff from this area eventually discharges to Canal C-17 which is owned, operated and maintained by the S.F.W.M.D. Any drainage system improvements in this area will have to satisfy both water quality as well as water quantity requirements of the District. Additionally, before any drainage system improvements are made in this area, permission will have to be obtained from the owner of the property between the west end of this basin and Canal C-17 (Drainage Basin 26) to discharge the runoff from the improvements to the existing drainage ditch which runs along the west end of this basin and then west to Canal C-17.

The recommended improvements to this drainage basin include constructing inlets and drainage pipes, exfiltration trench, an outfall structure, reconstructing the grassed swales to the typical street cross section, stabilizing the swales to prevent further erosion, adjusting existing driveway turnouts as required, and obtaining a drainage easement to Canal C-17.

Drainage Basin 21

No improvements recommended. The property in this drainage basin is presently vacant. When the property is developed the improvement plans will have to include stormwater drainage facilities to satisfy the current requirements of the Town and the S.F.W.M.D. A drainage easement to Canal C-17 will also be required.

Drainage Basin 22

No improvements recommended. The drainage improvements recommended in the 1986 report for this basin were constructed in 1990 as a part of the Watertower Road Area Improvements Project.

Drainage Basin 23

No improvements recommended. The property in this drainage basin is presently vacant. When the property is developed it will have to meet the same criteria as stated above for Drainage Basin 21.

Drainage Basin 24

This drainage basin is a fully developed light industrial area of Town with a highly impervious surface and large runoff. When the roadways in this area were constructed there were no drainage facilities included in the public rights-of-way, except direct percolation to groundwater, which is contrary to the requirements of the Town's land development regulations. Existing drainage problems in this basin include severe flooding, deterioration of streets and deteriorated swales due to the lack of a stormwater collection and transmission system.

The recommended improvements to this drainage basin include constructing inlets and drainage pipes, exfiltration trench, an

outfall structure, reconstructing the grassed swales to the typical street cross section and adjusting existing driveway turnouts as required. Because this basin eventually discharges to Canal C-17 the drainage system improvements will have to satisfy the water quality and quantity requirements of the S.F.W.M.D.

Drainage Basin 25

No improvements recommended. This basin is located between Old Dixie Highway and the Florida East Coast Railroad from Northlake Boulevard to Park Avenue. This basin contains approximately 38.6 acres of land of which approximately 28.4 acres are presently developed. Approximately 5.9 acres of the developed property in this basin presently drains to the Palm Beach County drainage system along Old Dixie Highway. The remaining 22.5 acres of developed property in this basin rely on on-site exfiltration systems and/or discharge easterly toward the Florida East Coast Railroad right-of-way where the runoff percolates into the groundwater. Because of the high surface elevations relative to the groundwater level and the high values of soil hydraulic conductivity, percolation rates are good. Improvements to the vacant properties in this basin should include retention/detention facilities to accommodate the stormwater runoff.

Drainage Basin 26

No improvements recommended. The property in this drainage basin is presently vacant. When the property is developed it will have to meet the same criteria as stated for Drainage Basin 21.

Cleaning, Evaluation & Repairs to Existing Drainage System

The Town's existing drainage system contains approximately 46,170' of drainage pipe ranging in size from 12-inch diameter to 60-inch diameter, 74 manholes and 335 inlets. The recommended drainage system improvements include constructing 48,228' of drainage pipe ranging in size from 15-inch diameter to 60-inch diameter, 26,803' of exfiltration trench and 350 inlets. The recommended improvements include either removing or plugging and abandoning 8,552' of drainage pipe and 93 inlets or manholes, which are now part of the existing drainage system. Therefore, after the recommended improvements are completed there will remain 37,618' of drainage pipe and 316 inlets or manholes which are now part of the existing drainage system.

It is imperative that those older portions of the existing drainage system be cleaned, evaluated and repaired as necessary to restore their original hydraulic capacity and structural integrity. While a detailed evaluation of these facilities is beyond the scope of the report of this investigation, an allocation of funds has been included in the estimate of cost for this purpose.

Additional Recommendations

It is recommended in this report that all of the grassed swale areas be reconstructed to the typical street cross section shown and the existing driveway turnouts be adjusted as required. It is also recommended that during the reconstruction of the swale areas that all impervious materials, with the exception of driveway turnouts, be removed. The swale area should only be used for the temporary storage, transmission and percolation of stormwater runoff. Landscaping within the swale area should be discouraged along the invert or flow line of the swale. Landscaping within the swale area should not be allowed where it would interfere with existing exfiltration systems (see Existing Drainage System map). If landscaping within the swale area is

permitted by the Town, it should be restricted to the area from the front edge of the concrete sidewalk to a line halfway between the swale invert and the sidewalk and only to the extent that it does not interfere with the flow along the swale (See Figure 1). Where existing landscaping within the areas interferes with the flow, it is recommended that it be removed or relocated during the reconstruction of the swales.

ORDINANCE NO. 2013-__

AN ORDINANCE OF THE TOWN COMMISSION OF THE TOWN OF LAKE PARK, FLORIDA, AMENDING CHAPTER 32, ENTITLED "UTILITIES", BY CREATING A NEW ARTICLE IV ENTITLED "FLORIDA-FRIENDLY FERTILIZER USE" AND ESTABLISHING REGULATIONS TO ADDRESS STORMWATER RUNOFF WITH EXCESSIVE NUTRIENT LEVELS IN WATER BODIES; PROVIDING FOR DEFINITIONS; PROVIDING FOR PURPOSE AND INTENT; PROVIDING FOR APPLICABILITY; PROVIDING FOR TIMING OF FERTILIZER APPLICATIONS; PROVIDING FOR FERTILIZER FREE ZONES; PROVIDING FOR FERTILIZER CONTENT AND APPLICATION RATES; PROVIDING FOR FERTILIZER APPLICATION PRACTICES; PROVIDING FOR MANAGEMENT OF GRASS CLIPPINGS AND VEGETATIVE MATTER PROVIDING FOR EXEMPTIONS; PROVIDING FOR TRAINING; PROVIDING FOR LICENSING OF COMMERCIAL APPLICATORS; PROVIDING FOR ENFORCEMENT; PROVIDING FOR PENALTIES; PROVIDING FOR SEVERABILITY; PROVIDING FOR INCLUSION IN THE CODE OF LAWS AND ORDINANCES; PROVIDING FOR ENFORCEMENT; PROVIDING FOR CAPTIONS; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, pursuant to Section 303(d) of the federal Clean Water Act and the resulting Florida Impaired Waters Rule (Chapter 62-303, Florida Administrative Code), the Florida Department of Environmental Protection (FDEP) has classified specific water bodies in Palm Beach County (the County) as "impaired" as a result of the presence of excessive nutrients; and

WHEREAS, Section 403.9337, Fla. Stat., requires those governmental entities located within the watershed of a water body or water segment that is listed as impaired by nutrients pursuant to Section 403.067, Fla. Stat. to adopt regulations to implement Florida-Friendly™ fertilizer use on urban landscapes; and

WHEREAS, the FDEP on the 2nd day of March 2011, issued its Palm Beach County Municipal Separate Storm Sewer System Permit No. FLS 000018-003 (hereinafter referred to as the "MS4 Permit") to 41 governmental entities including Town of Lake Park; and

WHEREAS, the MS4 permit requires all of the 41 governmental entities (including Lake Park) which are within the watershed of a nutrient impaired water body to adopt all of the requirements set forth in the FDEP's Model Ordinance for Florida Friendly Fertilizer Use on Urban Landscapes; and

WHEREAS, surface water runoff and base flow runoff leaves residential neighborhoods, commercial centers, industrial areas, and other lands in the Town and the County enters into natural and artificial stormwater and drainage conveyances and natural water bodies within the Town and the County; and

WHEREAS, phosphorus and nitrogen, the primary nutrients associated with the degradation of surface water, are commonly the primary components of fertilizer for turf and landscape application; and

WHEREAS, the quality of streams, lakes, and wetlands is important to environmental, economic, and recreational prosperity and to the health, safety, and welfare of the residents of the Town and County; and

WHEREAS, algae blooms and accelerated growth of aquatic weeds in the Town's and the County's water bodies have heightened community concerns about water quality and eutrophication of surrounding waters; and

WHEREAS, it is generally recognized that Eastern Palm Beach County soils naturally have adequate phosphorus content for most vegetative needs and that

additional phosphorus is therefore only occasionally needed to create or maintain a vibrant landscape; and

WHEREAS, it has been recognized that proper application of slow-release nitrogen sources is more efficiently used by plants and less likely to leach or runoff; and

WHEREAS, this Ordinance is part of a larger regulatory program to address nonpoint sources of nutrient pollution which is scientifically based, and economically and technically feasible; and

WHEREAS, in the process of adoption of this Ordinance, Town Commission has considered scientific information, including input from the Department of Environmental Protection, the Department of Agriculture and Consumer Services, and the University of Florida Institute of Food and Agricultural Sciences.

NOW, THEREFORE, BE IT ORDAINED BY THE TOWN COMMISSION OF LAKE PARK, FLORIDA, that:

SECTION 1. Chapter 32 of the Town Code, entitled "Utilities" is hereby amended to create a new Article IV, entitled Florida-Friendly Fertilizer Use, as follows:

ARTICLE IV. FLORIDA-FRIENDLY FERTILIZER USE

SEC. 32-80 . Definitions.

The following words, terms, and phrases, when used in this chapter, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

"Application" or "Apply" means the actual physical deposition of fertilizer to turf or landscape plants.

"Applicator" means any person who applies fertilizer on turf and/or landscape plants in Town of Lake Park.

"Approved Test" means *a* soil test from the University of Florida, government, or other commercial licensed laboratory that regularly performs soil testing and recommendations.

"Best Management Practices (BMP's)" means turf and landscape practices or combination of practices based on research, field-testing, and expert review, determined to be the most effective and practical site-specific means, including economic and technological considerations, for improving water quality, conserving water supplies and protecting natural resources.

"Commercial Fertilizer Applicator" except as provided in section 482.1562(9), F.S., means any person who applies fertilizer for payment or other consideration to property not owned by the person or firm applying the fertilizer or the employer of the applicators.

"Fertilizing", or "Fertilization" means the act of applying fertilizer to turf, specialized turf, or landscape plants.

"Fertilizer" means any substance or mixture of substances that contains one or more recognized plant nutrients and promotes plant growth, or controls soil acidity or alkalinity, or provides other soil enrichment, or provides other corrective measures to the soil.

"Institutional Applicator" means any person, other than a private, non-commercial or a Commercial Applicator (unless such definitions also apply under the circumstances), that applies fertilizer for the purpose of maintaining turf and/or

landscape plants. Institutional Applicators shall include, but shall not be limited to, owners, managers, or employees of public lands, schools, parks, religious institutions, utilities, industrial or business sites and any residential properties maintained in condominium and/or common ownership.

"Landscape Plant" means any native or non-native tree, shrub, or groundcover (excluding turf).

"Pasture" means land managed for livestock grazing.

"Person" means any natural person, business, corporation, limited liability company, partnership, limited partnership, association, club, organization, and/or any group of people acting as an organized entity.

"Prohibited Application Period" means the time period during which a Flood Watch or Warning, a Tropical Storm Watch or Warning, or a Hurricane Watch or Warning is in effect for any portion of Town of Lake Park, issued by the National Weather Service, or if heavy rain (2 inches or more within a twenty-four (24) hour period) is likely.

"Saturated Soil" means a soil in which the voids are filled with water. Saturation does not require flow. For the purposes of this Ordinance, soils shall be considered saturated if standing water is present or the pressure of a person standing on the soil causes the release of free water.

"Slow-Release", *"Controlled Release"*, *"Timed Release"*, *"Slowly-Available"*, *or "Water Insoluble Nitrogen"* means nitrogen in a form which delays its availability for vegetative uptake and use after application, or which extends its availability to the vegetation longer than a reference rapid or quick release product.

"Turf", "Sod", or "Lawn" means an area of grass-covered soil held together by the roots of the grass.

"Urban Landscape" means pervious areas on residential, commercial, industrial, institutional, highway rights-of-way, or other nonagricultural lands that are planted with turf or landscape plants. For the purposes of this section, agriculture has the same meaning as provided in section 570.02, Florida Statutes.

SEC. 81. FINDINGS:

As a result of the Florida Department of Environmental Protection's (FDEP) determination that certain water bodies within Palm Beach County are impaired for excessive nutrient levels, the Town finds that the best management practices contained in the most recent edition of the *"Florida-Friendly Best Management Practices for Protection of Water Resources by the Green Industries"*, should be implemented by this Ordinance. Overgrowth of algae and vegetation hinder the effectiveness of flood attenuation provided by natural and constructed stormwater conveyances. Regulation of nutrients, including both phosphorus and nitrogen contained in fertilizer, is anticipated to help improve and maintain water and habitat quality.

SEC. 82. PURPOSE AND INTENT:

These regulations are intended to provide for the proper use of fertilizers by any applicator; to require the training of commercial and institutional fertilizer applicators; to establish training and licensing requirements; to establish a Prohibited Application Period; and to specify allowable fertilizer application rates and methods, fertilizer-free zones, and exemptions. It is also the intent and purpose of these regulations to require the use of Best Management Practices to minimize negative environmental effects

associated with excessive nutrients in the Town's natural and constructed stormwater conveyances, rivers, creeks, canals, lakes, estuaries and other water bodies. Collectively, these water bodies are an asset important to the environmental, recreational, cultural and economic well-being of the residents of the Town and Palm Beach County and the furtherance of the public's health, safety, and general welfare.

SEC. 83. APPLICABILITY:

This regulation shall be applicable to and shall regulate any and all applicators of fertilizer and areas of application of fertilizer to urban landscapes within the area Town, unless such application is specifically exempted as provided for herein.

SEC. 84. TIMING OF FERTILIZER APPLICATIONS.

1. No applicator shall apply fertilizers containing nitrogen and/or phosphorus to turf and/or landscape plants during the Prohibited Application Period or to saturated soils.

2. Fertilizer containing nitrogen and/or phosphorus shall not be applied before seeding or sodding a site, and shall not be applied for the first 30 days after seeding or sodding, except when hydro-seeding for temporary or permanent erosion control in an emergency situation (wildfire, etc), or in accordance with the Stormwater Pollution Prevent Plan for that site.

SEC. 85. FERTILIZER FREE ZONES:

Fertilizer shall not be applied within 10 feet, or 3 feet if a deflector shield or drop spreader is used, of any pond, stream, water body, lake, canal, or wetland as defined by Chapter 62-340 of the Florida Administrative Code or from the top of a seawall or lake bulkhead. Newly planted turf or landscape plants may be fertilized in this zone only for

a 60 day period beginning thirty 30 days after planting if needed to allow the vegetation to become well established. Caution shall be used to prevent direct deposition of fertilizer into the water.

SEC. 86. FERTILIZER CONTENT AND APPLICATION RATES:

1. Fertilizers applied to turf within Town shall be applied in accordance with requirements and directions provided by Rule 5E-1.003(2), Florida Administrative Code, *Labeling Requirements For Urban Turf Fertilizers.* Under Rule 5E-1.003(2), Florida Administrative Code, the required application rate and frequency maximums, which vary by plant and turf types, can be found on the labeled fertilizer bag or container.

2. Nitrogen or phosphorus fertilizer shall not be applied to turf or landscape plants except as provided for hereinabove, or in UF/IFA recommendations for landscape plants, vegetable gardens, and fruit trees and shrubs, unless a soil or tissue deficiency has been verified by an approved test.

3. Fertilizer used for sports turf at golf courses shall be applied in accordance with the recommendations in “Best Management Practices for the Enhancement of Environmental Quality on Florida Golf Courses”, published by the FDEP, dated January 2007, as amended. Fertilizer used at park or athletic fields shall be applied in accordance with Rule 5E-1.003(2), Florida Administrative Code.

SEC. 87. FERTILIZER APPLICATION PRACTICES:

1. Spreader deflector shields shall be used when fertilizing via rotary (broadcast) spreaders. Deflectors must be positioned such that fertilizer granules are deflected away from all impervious surfaces, fertilizer-free zones and water bodies, including wetlands. Any fertilizer applied, spilled, or deposited, either intentionally or

accidentally, on any impervious surface shall be immediately and completely removed to the greatest extent practicable.

2. Fertilizer released on an impervious surface shall be immediately contained and either legally applied to turf or any other legal site, or returned to the original or other appropriate container.

3. In no case shall fertilizer be washed, swept, or blown off impervious surfaces into stormwater drains, ditches, conveyances, or water bodies.

4. Property owners and managers shall use an Integrated Pest Management (IPM) strategy as currently recommended by the University of Florida Cooperative Extension Service publications.

SEC. 88. MANAGEMENT OF GRASS CLIPPINGS AND VEGETATIVE MATTER:

In no case shall grass clippings, vegetative material, and/or vegetative debris intentionally be washed, swept, or blown on to or into stormwater drains, ditches, conveyances, water bodies, wetlands, sidewalks or roadways.

SEC. 89. EXEMPTIONS:

The provisions set forth above shall not apply to:

(a) bona fide farm operations as defined in the Florida Right-to-Farm Act, Section 823.14, Florida Statutes.

(b) other properties not subject to or covered under the Florida Right-to-Farm Act that have pastures used for grazing livestock.

(c) any lands used for bona fide scientific research, including, but not limited to, research on the effects of fertilizer use on urban stormwater, water quality, agronomics, or horticulture.

SEC. 90. TRAINING:

1. All commercial and institutional applicators of fertilizer within the Town shall abide by and successfully complete the six-hour training program in the *"Florida-Friendly Best Management Practices for Protection of Water Resources by the Green Industries"* offered by the FDEP through the University of Florida/Palm Beach County Cooperative Extension Service "Florida-Friendly Landscapes" program or an approved equivalent program.

2. Non-commercial and non-institutional applicators not otherwise required to be certified, such as private citizens on their own residential property, are encouraged to follow the recommendations of the University of Florida/IFAS "Florida-Friendly Landscape Program" and label instructions when applying fertilizers.

SEC. 91. LICENSING OF COMMERCIAL APPLICATORS:

1. All businesses applying fertilizer to turf or landscape plants (including, but not limited to, residential lawns, golf courses, commercial properties, and multi-family and condominium properties) in the Town must ensure that the business owner or his/her designee holds the appropriate *"Florida-Friendly Best Management Practices for Protection of Water Resources by the Green Industries"* training certificate prior to the business owner obtaining a Town Business Tax Certificate. Owners for any category of occupation which may apply any fertilizer to Turf and/or Landscape Plants in the Town shall provide proof of completion of the program to the Town's Business Registration Office. It is the responsibility of the business owner to maintain the *"Florida-Friendly Best Management Practices for Protection of Water Resources by the Green Industries"* certificate to receive their Business Tax Receipt annually.

2. After December 31, 2013, all commercial applicators of fertilizer within Town, shall have and carry in their possession at all times when applying fertilizer, evidence of certification by the Florida Department of Agriculture and Consumer Services as a Commercial Fertilizer Applicator per Rule 5E-14.117(18), Florida Administrative Code.

3. All businesses applying fertilizer to turf and/or landscape plants (including, but not limited to, residential lawns, golf courses, commercial properties and multi-family and condominium properties) must ensure that at least one employee has an appropriate "Florida-Friendly Best Management Practices for Protection of Water Resources by the Green Industries" training certificate prior to the business owner obtaining a Local Business Tax Certificate. Standard Business Tax Receipt (BTR and transaction fees shall apply).

SEC. 92. ENFORCEMENT:

Violations of this Ordinance in the Town shall be enforced by the Town'sEnforcement Board or Special Magistrate pursuant to the authority granted by Section 162.01 et. seq., Fla. Stat., as amended and the Town Code, as amended.

1. Failureto comply with these regulations shall constitute a violation and shall be a separate violation for each new day the violation continues to exist.

SECTION 2 . SEVERABILITY:

If any section, paragraph, sentence, clause, phrase, or word of this Ordinance is for any reason held by a Court of competent jurisdiction to be unconstitutional, inoperative, or void, such holding shall not affect the remainder of this Ordinance.

SECTION 3. INCLUSION IN THE CODE OF LAWS AND ORDINANCES:

The provisions of this Ordinance shall become and be made a part of the Town of Lake Park Code. The sections of this Ordinance may be renumbered or relettered to accomplish such, and the word “ordinance” may be changed to “section”, “article”, or other appropriate word.

SECTION 4. EFFECTIVE DATE:

The provisions of this Ordinance shall become effective upon adoption.

R2002 0993

JUN 18 2002

INTERLOCAL AGREEMENT FOR FIRE PROTECTION AND EMERGENCY MEDICAL SERVICES BY AND BETWEEN THE TOWN OF LAKE PARK AND PALM BEACH COUNTY

THIS INTERLOCAL AGREEMENT, made and entered into this 5th day of June, 2002, by and between the TOWN OF LAKE PARK, a Florida municipal corporation located in Palm Beach County, Florida, (hereinafter the "Town") and PALM BEACH COUNTY, FLORIDA, a political subdivision of the State of Florida (hereinafter the "County"), by and through its Board of County Commissioners, for fire-rescue services.

WITNESSETH

WHEREAS, Section 163.01, Florida Statutes, known as the Florida Interlocal Cooperation Act of 1969" authorizes local governments to make the most efficient use of their powers by enabling them to cooperate with other localities on a basis of mutual advantage and thereby to provide services and facilities that will harmonize geographic, economic, population, and other factors influencing the needs and development of local communities; and

WHEREAS, Palm Beach County Ordinance No. 83-23, as amended, created a municipal service taxing unit (MSTU), as a mechanism for the provision of fire protection and emergency medical services; and

WHEREAS, Section 125.0101, Florida Statutes, authorizes counties to contract with municipalities to provide fire protection and other essential services; and

WHEREAS, the Town desires to contract for the provision of fire protection and emergency medical services from the County; and

WHEREAS, representatives of the Town and County have discussed the terms of an Interlocal Agreement on numerous occasions; and

B. Oversight by the Town:

The Town, through its Town Manager, shall oversee and monitor the County's performance of the services provided for in this Agreement. Notwithstanding the Town's ultimate authority and responsibility for the oversight of services provided hereunder, the rendition of services, standards of performance, discipline of officers and employees, and all other matters incidental to County's control of its personnel and the performance of services, including but not limited to equipment, facilities, agreements for automatic/mutual aid, and implementation of its policies and procedures, shall reside with the County.

SECTION 5. SERVICES TO BE PROVIDED:

The County, by means of this Interlocal Agreement, shall provide to the residents of the Town, the personnel and equipment necessary to provide fire suppression, emergency medical services, special operations, hazardous materials response and mitigation, emergency communications, confined space rescue, dive rescue, fire code inspections, arson investigation, new construction inspection, community education programs, and all other emergency and non-emergency services including Advanced Life Services/Basic Life Services (ALS/BLS) and ALS Transport Services generally provided by Palm Beach County Fire-Rescue Department, hereinafter called "Fire-Rescue." For localized, non-emergency incidents the Town Manager will contact the Battalion Chief to request assistance. The Manager and Battalion Chief agree to discuss resource availability and response options.

The County and the Town hereby recognize that the County, through Fire-Rescue, provides fire-rescue services throughout Palm Beach County and those services, at the County's discretion, may be provided from facilities and with personnel and apparatus located within or without the municipal boundaries of the Town. Provided to the Town as part of this agreement is the ability of the Town's volunteer firefighters to become part of the PBC Volunteer Division, located at Station 42, on Hagen Ranch Road. Volunteers who chose to continue service through the Volunteer Division may chose to do their ride time at the Lake Park Facility.

bodies of both parties. Such an ordinance must be adopted prior to December first of any year to be effective no sooner than October first of the following year. County shall assume the responsibility and costs of an implementation study if such a study is deemed necessary, which cost of study may be recouped through the MSBU/MSTU.

SECTION 10. EMERGENCY MEDICAL SERVICES:

Emergency medical services provided by the County pursuant to this Agreement shall be in accordance with Palm Beach County Ordinance No. 2001-025, as it may be amended from time to time, the rules and regulations pursuant thereto, and all subsequent amendments thereto. The Town shall take any and all action necessary to facilitate the delivery of EMS services by County hereunder, including but not limited to the transfer or assignment of its Certificate of Public Convenience and Necessity (COPCN) to County for the provision of ALS and/or BLS services. Should Palm Beach County Fire-Rescue not be granted the necessary COPCNs to provide the contemplated services within Lake Park during the term of this Agreement, then any further obligations under this Agreement shall be considered null and void and the Agreement terminated without penalty, damages or recourse to either party.

SECTION 11. MONTHLY REPORT:

A log of all calls for service within the Town shall be maintained and presented monthly to the Town Manager. The log shall contain, at a minimum, the following:

A. Time call received by Fire-Rescue
B. Time of dispatch
C. Identification of all units dispatched
D. Classification of call
E. Time en route
F. Travel time
G. Time of arrival

The Battalion Chief shall promptly report to the Town Manager in the event of the following:

A. Substantial property damage

B Civilian injuries

C. Fatalities

D. Hazardous materials incidents

The Battalion Chief shall be the contact person for all operational issues within the Town. The Town Manager and Battalion Chief shall provide each other with emergency contact numbers.

SECTION 12. TERM; RENEWAL; and TERMINATION:

The term of this Agreement shall commence at 7:30 A.M. on June 29, 2002 and expire at 7:30 A.M. on October1, 2009. Thereafter, this Agreement shall automatically renew for an additional seven (7) year period, without further action of the parties, unless either party shall notify the other in writing on or before October 1st of the final year of the agreement of its intent not to renew. This Agreement shall not be terminated by either party, at any time during its term or any renewal thereof, unless agreed to in writing by both parties or unless either party shall default on any of its material obligations and fail to cure said default in accordance with this Agreement.

SECTION 13: ANNUAL REPORT

The County shall submit an annual report of the status and activities of the fire-rescue services provided to the Town pursuant to this Agreement that shall include all pertinent information relating to number and classification of calls, response time, programs proposed, programs deleted, services proposed, services recommended to be deleted, and the need for additional services, if any. This report shall be completed by January 15 following completion of each fiscal year during the term of this Agreement.

SECTION 14. RELATIONSHIP OF EMPLOYEES

This Agreement does not and shall not be construed to make any officer or employee of County an officer or employee of the Town for any purpose whatsoever, nor any officer or employee of the Town an officer or employee of County for any purposes whatsoever. Neither party is authorized to make or enter into any contract, agreement, or warranty for or on behalf of

IN WITNESS WHEREOF, the parties through their duly authorized representatives do hereby execute this Agreement on the date first written above.

TOWN OF LAKE PARK, FLORIDA,
BY ITS COMMISSION

By: _____
Paul Castro, Mayor

ATTEST:

By: _____
Town Clerk

Approved as to form
and legal sufficiency:

By: _____
Betty Resch, Esq.
Town Attorney

R2002 0993
JUN 18 2002

TOWN OF LAKE PARK FLORIDA SEAL

PALM BEACH COUNTY, FLORIDA
BY ITS BOARD OF COUNTY
COMMISSIONERS

By: _____
Warren Newell, Chair

ATTEST:
DOROTHY H. WILKEN

By: _____
Deputy Clerk

BOARD OF COUNTY COMMISSIONERS PALM BEACH COUNTY FLORIDA

Approved as to form and
Legal sufficiency

By: _____
Assistant County Attorney

Approved as to terms and conditions

By: _____
Fire Rescue

H:\AAA.FIL\CONTRACT.S\LakeParkAg5-21c.wpd

Town of
LAKE PARK

Department of
PUBLIC WORKS

Stormwater

MS4 PERMIT; PART III. A. 7.c.) *Illicit Discharges and Improper Disposal – Inspection and Investigation of Suspected Illicit Discharges and/or Improper Disposal.*

Proactive Inspection Program

These procedures are for the Town of Lake Park's use in complying with the MS4 NPDES permit requiring a written **proactive inspection program** for identifying and eliminating sources of illicit discharges, illicit connections, or illegal dumping to our MS4.

Portions of our MS4 that have a reasonable potential of containing illicit discharges/connections/ dumping are inspected annually. The FDEP has indicated that the portions of our MS4 that have a reasonable potential of containing illicit discharges/connections/dumping should be considered to be the commercially zoned areas/properties that could potentially discharge into our MS4.

NOTE: FDEP allows these inspections to be combined with other inspection programs, but the inspections must include specific inspection for potential stormwater contamination.

Town of
LAKE PARK

Department of
PUBLIC WORKS

Stormwater

Proactive Inspection Program (Written Procedures)

1. **Procedure and Criteria for identifying priority areas/facilities**
   For consistency with the Municipal Separate Storm Sewer System (MS4) National Pollutant Discharge Elimination System (NPDES) permit, the following areas are considered a priority in the inspection program:
   - 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 areas zoned as industrial or commercial, that lie within our MS4 contributing area or in an area that discharges from an outfall for which we are responsible. The map is updated each year, typically in the month of _____, by the _____ department and saved as a PDF format file for use by all.

2. **List of identified priority areas/facilities**
   Each year, a list of addresses is created from an overlay of the map created above and the County's current parcel map and associated database. This list is cross-referenced with the Florida Department of Environmental Protection (FDEP) list of facilities that have coverage under the Multi-Sector Generic Permit (MSGP). If any facilities that appear to require an MSGP are not on the FDEP list, the names and addresses of those businesses are referred to FDEP. The annual creation of the list of addresses and cross-referencing with the FDEP MSGP database is typically done in the month of _____ each year.

3. **Annual schedule for inspections**
   All priority areas/facilities are inspected at least once within the current five-year permit term. The inspection area has been divided into _____ zones. One zone will be inspected during each year of the permit term. If an area is found to have illicit discharges/connections/dumping, it is re-inspected for compliance and if warranted, specific facilities within that area are considered for placement on the high risk facility list for more frequent inspection.

In addition, inspections for signs of illicit discharges are part of the Standard Operating Procedure for all structural control inspections and maintenance. A "checkbox" for this activity is included on the inspection forms for those activities. If a suspected illicit is identified, it is reported to _____ for investigation under the Reactive Investigations program.

Finally, all appropriate field personnel receive illicit discharge and illegal dumping identification and notification training. If a suspected illicit is identified during the course of performing their regular activities, it is reported to _____ for investigation under the Reactive Investigations program.

4. **Procedure for conducting inspections**

The inspector(s) patrols the prioritized area searching for indications of illicit discharges/connections/dumping into the City's MS4, in accordance with the training received. If any are identified, the inspector makes a cursory attempt at identifying the source of the illicit. If the source is identified, the inspector makes the decision to either approach the facility owner or refer the finding to his supervisor for further action. In speaking with the facility owner or operator, the inspector advises of the findings and cites the ordinance which prohibits such discharges. The inspector may use photo documentation to support the inspection. The inspector indicates his/her intention to return to verify that the problem has been corrected. If no source is identified, the findings are reported to the inspector's supervisor for further investigation.

Pro-active inspections also take place during the inspection of structural controls and other MS4 components by ___*department or division or position*___ personnel that are trained in illicit discharge identification and reporting.

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

Visual observation, investigation, and testing if necessary, are used to identify the source of an illicit discharges/connections/dumping.

6. **Procedure for eliminating the discharge**

If an illicit connection to the MS4 through a pipe is identified, it is immediately terminated (plugged or removed). If the illicit is traced back to a property owner/operator, the owner of the property is contacted by _____. The owner is notified of the problem and asked to address the situation immediately. The owner is also notified of the re-inspection date, typically one week.

7. **Procedure for documenting the inspections and enforcement activities**

The MSGP coverage research and reporting is documented by the copies of the lists generated during each step (list of facilities within MS4 that are commercial/industrial), list of facilities in the City with MSGP coverage, list of facilities that appear to need MSGP coverage but appear not to have it). These lists will be maintained with other back-up documentation to support the annual permit activities conducted by the City. The list of facilities that appear to need MSGP coverage will be sent to FDEP for follow-up.

The attached inspection form is used for pro-active inspections and the subsequent follow-up. Photo documentation is also provided, as needed. _____*describe how the records are maintained and used to follow-up with any necessary enforcement action*_____.

8. **Procedures for enforcement actions (or referrals to appropriate jurisdictional authority)**
   For cases within ___*permittee name*____'s MS4 contributing area, an unresolved matter is handled by the ___*department or division or position*___. For cases outside ___*permittee name*____'s MS4, the appropriate entity is notified (FDOT, Palm Beach County, etc.) by ___*department or division or position*___.

9. **Identification of staff /department/outside entity responsible for inspections and for enforcement**
   Inspection activities are carried out by ___*department or division or position*___.
   Follow-up and management are provided by ___*department or division or position*___.
   Documentation is handled by the ___*department or division or position*___.

10. **Description of resources allocated to implement this permit element**
    Approximately $_____ has been allocated for this program for the _____ fiscal period.

Town of
LAKE PARK

Department of
PUBLIC WORKS

Stormwater

Proactive Illicit Discharge/Illegal Connection Inspection Form

(Use as many sheets as necessary)

Date of Inspection: _____ Inspector Name: _____

□ New Inspection □ Follow-up Inspection

Description of inspection area: _____

_____

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

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 correction: _____

Town of
LAKE PARK

Department of
PUBLIC WORKS

Stormwater

MS4 PERMIT; PART III. A. 7.c.) *Illicit Discharges and Improper Disposal – Inspection and Investigation of Suspected Illicit Discharges and/or Improper Disposal.*

Reactive Inspection Program

These procedures are for the Town of Lake Park's use in complying with the MS4 NPDES permit requiring a written **reactive inspection program** for suspected illicit discharges, illicit connections, or illegal dumping into the MS4 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 (or referrals to appropriate jurisdictional authority)
5. Identification of staff /department/outside entity responsible for inspections and for enforcement
6. Description of resources allocated to implement this permit element

Town of
LAKE PARK

Department of
PUBLIC WORKS

Stormwater

Reactive Inspection Program (Written Procedures)

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

2. **Procedure for eliminating the discharge**

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

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

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

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

Town of
LAKE PARK

Department of
PUBLIC WORKS

Stormwater

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: _____

The Palm Beach County
MS4 NPDES Program

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).

4. MAJOR SEWAGE SPILL OR BACKUP

A. RRWTP will notify Collection System personnel and/or Collection Supervisors to verify the problem.

B. The PBCHD must be notified for any amount of spillage. The Wastewater Spillage Report (page T4-4) must be faxed to the PBCHD; daytime 561-837-5293; nights and weekends to 561-471-2502.

C. Collection System Service Personnel will valve off damaged section of force main and shut off lift stations pumping to the break area if necessary. In major backups, Collection System Service Personnel will open cleanouts on low slab elevation customers identified on 300 scale maps, after shutting off lift stations pumping into the backed up gravity sewer system if necessary.

D. Collection System Service Personnel notify RRWTP who will call Collection System Supervisors and Wastewater Department Manager if it appears that immediate repairs to force main, gravity main or lift station are required.

E. Collection System Supervisor will assess spill area to determine

1. If sewage has been contained.

2. The extent to which the spill has traveled further via swales, ditches, canals or storm drains.

3. The quantity of sewage spilled; for spills greater than 1000 gallons, Collection System Supervisor will notify Wastewater Department Manager and Manager will notify PBCHD and State Warning Point immediately by telephone (not later than 24 hours following discovery of a spill exceeding 1000 gallons or creating a threat to public health) and will also follow up with a written report about spill incident to DEP no later than 72 hours following discovery of spill. Laboratory Supervisor will arrange for sampling all affected bodies of water for fecal coliform, enterococcus and dissolved oxygen.

F. If more than 50,000 gallons of sewage has traveled from spill site Collection Supervisor or Wastewater Department Manager will notify RRWTP who will notify:

1. Laboratory Supervisor

2. Administrative Services Manager

3. Director of Operations

4. Executive Director

5. Customer Service/Billing Manager

G. Collection System Supervisor will determine extent of off site spill and coordinate efforts to contain sewage with temporary berms and by pumping back into collection system where possible and to repair the damaged facilities. Once repairs are completed, deactivated lift stations and force mains will be turned back on. Administrative Services Manager or Customer Service Manager will prepare press release containing all pertinent information and will forward to Customer Relations Supervisor or CRFR on call for distribution if necessary.

NOTIFICATION TELEPHONE NUMBERS

	DAY	NIGHT	FAX
PBCHD	837-5900	471-2502	837-5293
DEP (State Warning Point)		1-800-320-0519	
DEP (WPB)	681-6600		681-6760
SFWMD	686-8800	682-6449 1-800-437-7597	682-2346
EPA	1-404-562-8700	24 Hour Spill Reporting Number	
NRC	1-800-424-8802		

NOTE: If telephone contact cannot be made with a regulatory agency after hours, FAX notice of spill to them and retain confirmation report as proof of notification.

H. In the event of a major sewage spill affecting an extensive water body, Wastewater Department Manager will initiate the following notification/remediation activities which will be put in place as soon as possible;

1. Notify PBCHD & DEP

2. Disinfect and clean property directly affected by spill.

3. Prepare door hangers for residences which are adjacent to affected water bodies.

4. Install silt screens to trap solids and floating debris, arrange for prompt removal of floating debris from affected water bodies.

5. Install warning signs on banks of affected water bodies.

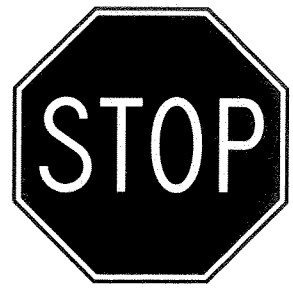
6. Clean and remove collected sewage from all affected storm water catch basins. Install temporary pumps to return diluted sewage back to collection system. Arrange for tanker truck if necessary.

7. Install portable aerators to restore dissolved oxygen in affected water bodies.

8. Videotape area affected by spill to show conditions created by spill.

9. Arrange for earliest possible meeting with regulatory authorities to discuss spill and containment remediation procedures.

6. **THE TOWN WILL NOT PICK UP:**



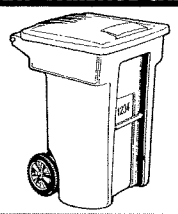
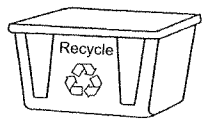
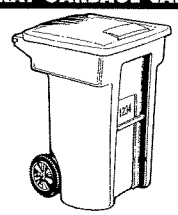
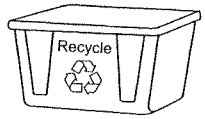
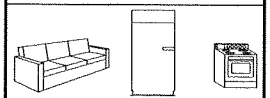
- Construction materials such as concrete, asphalt, plaster, rock, roofing materials, etc.
- Trash containing household garbage.
- Dead animals.
- Automotive parts including tires, car batteries, engine blocks, gas tanks, transmissions, etc.
- Hazardous materials such as gasoline, lacquer, oil based paint, explosives, motor oil, pressurized containers, etc. For disposal instructions call Solid Waste Authority at 687-1100.

7. **VIOLATIONS:**

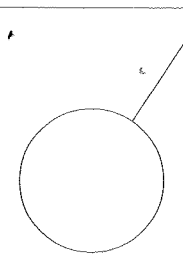
- Violation Notices will be left with resident outlining the reason why trash/garbage was not picked up. **(See sample)**
- Special Pickup Charge: In addition to special pickups and other charges there will be an additional fee of $25.00 charged when trash and/or garbage, vegetation and recyclable items are placed out and collected on days not specified in the pickup schedule.

8. **Schedules:** A pickup schedule is enclosed. Please keep this schedule and post it so you can keep track of the pickup days.

TOWN OF LAKE PARK TRASH/RECYCLING PICKUP SCHEDULE

MONDAYS	WEDNESDAYS	THURSDAYS
GRAY GARBAGE CANS	RECYCLABLES ONLY	GRAY GARBAGE CANS
	Mixed Paper Container 	
 Bagged Leaves, Bagged Grass Clippings, Stacked Yardwaste & Vegetation	Commingled Container 	 Bulk Trash, Appliances, Carpeting, White Goods
Special Pickups - **Vegetation Only**		Special Pickups - **Bulk Trash Only**

(SEE BACK FOR DESCRIPTION OF RECYCLABLE ITEMS) Printed on Recycled Paper



State of Florida
Town of Lake Park
SANITATION CODE VIOLATION
Public Works Department
881-3345

Address _____
Date _____ Time _____

- ❑ Vegetation/yardwaste placed out on wrong day - ***Mondays Only***
- ❑ Trash in yardwaste piles/contaminated yardwaste - ***Call for Instructions***
- ❑ Household trash placed out on wrong day - ***Thursdays Only***
- ❑ Trash too close to Utilities/trees
- ❑ Gray can overloaded
- ❑ Gray can placed out on wrong day - ***Mondays and Thursdays Only***
- ❑ Gray can placed improperly ***(metal bar should face toward street)***
- ❑ Gray can is too close to trash or other fixed objects. ***Must be 10 feet from any other material or object***
- ❑ Building materials/Construction materials - ***Load Unacceptable***
- ❑ Hazardous Waste - Will Not Pickup - ***Call Solid Waste Authority for disposal instructions at 687-1100***
- ❑ Automotive parts or discarded tires - ***Will Not Pickup***
- ❑ Over 2 cubic yards. ***Call for special pickup***

Other _____

Town of
LAKE PARK

Department of
PUBLIC WORKS

Stormwater

MS4 PERMIT; PART III. A. 7.g.) *Illicit Discharges and Improper Disposal – Limitation of Sanitary Sewer Seepage*

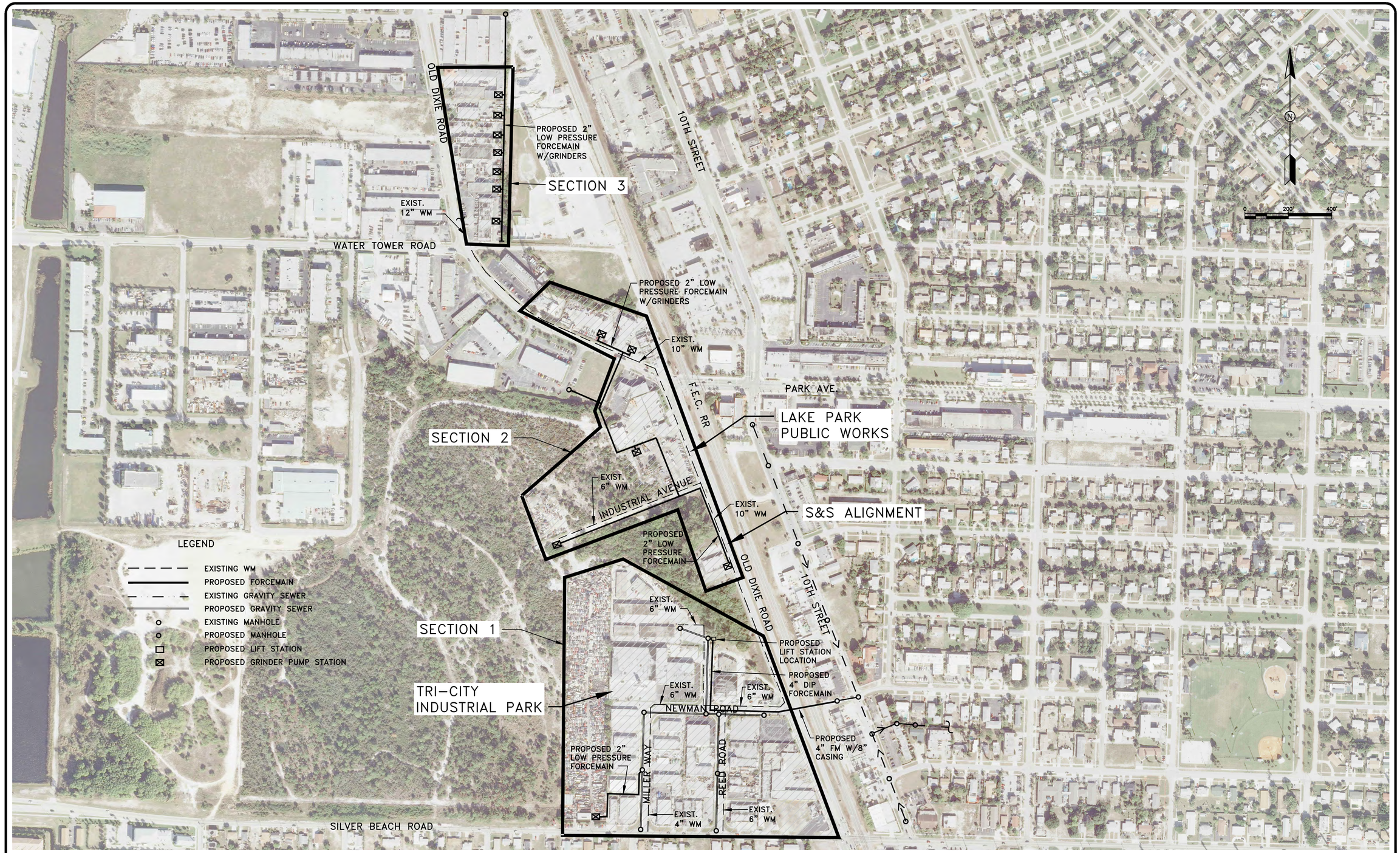
Plan to Eliminate Wastewater Contamination in Stormwater

The Town of Lake Park does not operate the wastewater collection and transmission system within our jurisdiction. The Seacoast Utility Authority (SUA) owns, operates, and maintains these systems.

Seacoast Utility Authority has an inspection program for preventing sanitary sewer overflows (SSO's). The program consists of monitoring station runtimes to detect inflow and infiltration issues, televising suspect collection lines, and repairing/replacing/lining those lines as best practices dictate.

SUA has a grease interceptor program which monitors compliance with all registered grease interceptors within the service area to prevent excessive grease accumulation in the collection system from commercial sources.

Additionally, those lines that have experienced multiple SSO's in the past, that inspections have not revealed a physical problem with the collection line (lines that are located in domestic areas but still experience substantial grease build-up, etc.), are put on a preventative cleaning schedule that is a minimum of 30% more frequent than the shortest recorded timeframe between SSO events on that line.



DATE	BY	REVISIONS

Date: 9-13-2012
Scale: N/A
Design By: BW
Drawn By: PRC
Check By: DH

LAKE PARK / OLD DIXIE HIGHWAY
PROPOSED GRAVITY AND LOW PRESSURE
SEWER SYSTEM

SEACOAST
UTILITY AUTHORITY

HOLTZ CONSULTING ENGINEERS, INC.
50 SOUTH US HIGHWAY ONE, SUITE 206
JUPITER, FLORIDA 33477
PH. (561) 575-2005
Cert. No. 26960

DAVID HOLTZ, P.E. BCEE
License No: 42595

FIGURE 1

March 2012 EPA Database

LAKE PARK POTENTIAL HIGH RISK FACILITIES

DATE OF INSPECTION	NAME	Business Name or type Different then that identified at F.D.O.P.	ADDRESS	CITY	RATING	DISTANCE TO STORM DRAINAGE SYSTEM	Comments
5/10/2012	ALLSTAR AUTO SERVICE		1400 10TH CT	LAKE PARK	Low	300'	drains to a palm beach co. system then into F.D.O.T system
5/10/2012	LAKE PARK AUTO MACHINE INC		1402 10TH CT	LAKE PARK	Low	300'	drains to a palm beach co. system then into F.D.O.T system
5/10/2012	PEACOCK RADIATOR SERVICE	Business Closed	1434 10TH CT	LAKE PARK	Low	520'	drains to a palm beach co. system then into F.D.O.T system
5/10/2012	A - 1 PAINT & BODY		1452 10TH CT	LAKE PARK	Low	210	drains to a palm beach co. system then into F.D.O.T system
5/11/2012	CINDERELLA		1454 10TH STREET	LAKE PARK	Low	116'	drains to a palm beach co. system then into F.D.O.T system
5/10/2012	EXXON CO USA #44096	Valero Food Mart	1401 10TH ST	LAKE PARK	Low	5'	drains to a palm beach co. system then into F.D.O.T system
5/11/2012	HIGHLANDER COIN LAUNDRY	Sunshine Coin Laundry	1306 10TH ST	LAKE PARK	Low	5'	drains to a palm beach co. system then into F.D.O.T system
5/16/2012	COMET CLEANERS	Heart of God Missions Thrift Store	804 10TH ST	LAKE PARK	Low	5'	drains to a palm beach co. system then into F.D.O.T system
5/10/2012	COASTAL CHEMICAL INC		226 10th STREET	LAKE PARK	High	430'	Drains to Lake Park MS4
5/10/2012	HARD CHROME ENTERPRISES INC		220 10TH STREET	LAKE PARK	Low	370'	Drains to Lake Park MS4
5/10/2012	TALBOT PAINTING INC	Al's Unlimited Marine Service	110 10TH ST	LAKE PARK	Low	367'	Drains to Lake Park MS4
5/11/2012	ADI INC	Mullinax Ford	1415 OLD DIXIE HWY	LAKE PARK	Low	5'	drains to a palm beach co. system then into F.D.O.T system
5/11/2012	TIRE KINGDOM INC #1		1340 OLD DIXIE HWY #2	LAKE PARK	Low	5'	Drains to Lake Park MS4
5/11/2012	ECONO AUTO PAINTING OF LAKE PARK	no such address	1306 OLD DIXIE HIGHWAY	LAKE PARK			
5/11/2012	DENT & SCRATCH USA INC	Business Closed	1233 OLD DIXIE HWY UNIT 33	LAKE PARK	Low	5'	drains to a palm beach co. system then into Lake Park MS4
5/11/2012	JIM PRICE BODY SHOP		1145 OLD DIXIE HWY	LAKE PARK	Low	5'	drains to a palm beach co. system then into Lake Park MS4
5/11/2012	LYONS AUTO BODY INC	A & K Tires	1107 OLD DIXIE HWY	LAKE PARK	Low	5'	drains to a palm beach co. system then into Lake Park MS4
5/11/2012	R & B ROICK PROPERTIES		950 OLD DIXIE HWY	LAKE PARK	Low	95'	drains to a palm beach co. system then into Lake Park MS4

March 2012 EPA Database

LAKE PARK POTENTIAL HIGH RISK FACILITIES

DATE OF INSPECTION	NAME	Business Name or type Different then that identified at F.D.O.P.	ADDRESS	CITY	RATING	DISTANCE TO STORM DRAINAGE SYSTEM	Comments
5/11/2012	PALM BEACH PERFORMANCE	Business Closed	850 OLD DIXIE HWY STE 5	LAKE PARK	Low	5'	Drains to Lake Park MS4
5/11/2012	MAACO AUTO PAINTING & BODY WORKS	Business Closed	804 OLD DIXIE HWY	LAKE PARK	Low	96'	drains to a palm beach co. system then into Lake Park MS4
5/11/2012	INTERCITY EMS	Town of Lake Park Public Works	640 OLD DIXIE HWY	LAKE PARK	High	5'	drains to a palm beach co. system
5/11/2012	S & S ALIGNMENT & BRAKE		410 OLD DIXIE HWY	LAKE PARK	Low	10'	drains to a palm beach co. system
5/11/2012	FLOYD BACHRACH	Davis Automotive Service	102 OLD DIXIE HWY	LAKE PARK	Low	5'	drains to a palm beach co. system
5/11/2012	DISCOVERY TANK TESTING INC		1209 GATEWAY RD #203	LAKE PARK	Low	765'	Drains to Lake Park MS4
5/11/2012	RONS AUTO BODY & PAINT SHOP INC	Business Closed	1354 S KILLIAN DR	LAKE PARK	Low	50'	Drains to Lake Park MS4
5/11/2012	ANSPACH EFFORT INC		1349 S KILLIAN DR	LAKE PARK	Low	75'	Drains to Lake Park MS4
5/11/2012	JAYSON CONCEPTS INC	NRI innovative composite solutions	1346 S KILLIAN DR	LAKE PARK	Low	75'	Drains to Lake Park MS4
5/11/2012	FLORIDA DESIGN IRRIGATION	DSL Properties	1344 S KILLIAN DR	LAKE PARK	Low	47'	Drains to Lake Park MS4
5/11/2012	PDR - CHIRAL INC	Business Closed	1331 S KILLIAN DR UNIT A	LAKE PARK	Low	10'	Drains to Lake Park MS4
5/11/2012	CUSTOM CABINETRY		1321 S KILLIAN DR STE B	LAKE PARK	Low	5'	Drains to Lake Park MS4
5/11/2012	STEVE MARTZ PAINT & BODY INC	Business Closed	1392 N KILLIAN DR	LAKE PARK	Low	5'	Drains to Lake Park MS4
5/11/2012	OPTICS & APPLIED TECH LAB	Business Closed	1391 N KILLIAN DR	LAKE PARK	Low	50'	Drains to Lake Park MS4
5/11/2012	MOTOR WERKES	Business Closed	1379 N KILLIAN DR	LAKE PARK	Low	90'	Drains to Lake Park MS4
5/11/2012	RENNTECH INC		1369 N KILLIAN DR	LAKE PARK	Low	27'	Drains to Lake Park MS4
5/11/2012	CONTROL CHEMICAL ENTERPRISES INC	Business Closed	1368 NORTH KILLIAN DRIVE	LAKE PARK	Low	211'	Drains to Lake Park MS4
5/11/2012	ED MORSE BODY SHOP		1245 WATERTOWER RD	LAKE PARK	Low	5'	Drains to Lake Park MS4

March 2012 EPA Database

LAKE PARK POTENTIAL HIGH RISK FACILITIES

DATE OF INSPECTION	NAME	Business Name or type Different then that identified at F.D.O.P.	ADDRESS	CITY	RATING	DISTANCE TO STORM DRAINAGE SYSTEM	Comments
5/16/2012	EMERGENCY VEHICLES INC		705 13TH ST	LAKE PARK	Low	10'	Drains to Lake Park MS4
5/16/2012	FPL LAKE PARK SUBSTATION		1221 2ND ST	LAKE PARK	Low	64'	Drains to Lake Park MS4
5/11/2012	FLORIDA AERO PRECISION INC		120 REED RD	LAKE PARK	Low	397'	drains to a palm beach co. system
5/11/2012	HARDRIVES CO	Business Closed	117 MILLER WAY	LAKE PARK	Low	850'	drains to a palm beach co. system
5/11/2012	JAS MARINE SERVICE INC		1009 NEWMAN RD	LAKE PARK	Low	249'	drains to a palm beach co. system
5/11/2012	TRANS CIRCUITS		210 NEWMAN RD	LAKE PARK	Low	440'	drains to a palm beach co. system
5/11/2012	BIX & MARTINO FURN REF		207 BRANT RD	LAKE PARK	Low	217'	drains to a palm beach co. system
5/11/2012	WOOTENS THOUSANDS OF PARTS		1306 SILVER BEACH RD	LAKE PARK	Low	1060'	drains to a palm beach co. system
5/11/2012	IMAGE SIGNS	Street Signs USA	1137 SILVER BEACH RD	LAKE PARK	Low	746'	drains to a palm beach co. system
5/11/2012	MICRO FUSION INC	Global Electpic Inc.	1129 SILVER BEACH RD	LAKE PARK	Low	704'	drains to a palm beach co. system
5/11/2012	BASIC MICROELECTRONICS INC TEXTRON	Fire Side Distributors	1121 SILVER BEACH ROAD	LAKE PARK	Low	578'	drains to a palm beach co. system
5/16/2012	PALM BEACH PLATERS	Fleet Maintenance Inc.	1061 SILVER BEACH RD	LAKE PARK	Low	370'	drains to a palm beach co. system
5/11/2012	PALM BEACH COUNTY LAKE PARK ELEM		410 THIRD STREET	LAKE PARK	Low	5'	Drains to Lake Park MS4
5/11/2012	JIFFY MART	Valero Food Mart	140 US HIGHWAY 1	LAKE PARK	Low	5'	drains into F.D.O.T system and then into Lake Park MS4
5/11/2012	STEWART LAKE PARK TOYOTA		1215 N FEDERAL HWY	LAKE PARK	Low	5'	Drains to Lake Park MS4
5/11/2012	AMOCO SERVICE STATION #7027	NOT IN LAKE PARK	4481 NORTHLAKE BLVD	LAKE PARK			
5/11/2012	HOME DEPOT #220	NOT IN LAKE PARK	3860 NORTHLAKE BLVD	LAKE PARK			
5/11/2012	PENSKE AUTO CENTER	K-Mart / Sears	1220 NORTHLAKE BOULEVARD #1	LAKE PARK	Low	10'	drains into F.D.O.T system

March 2012 EPA Database

LAKE PARK POTENTIAL HIGH RISK FACILITIES

DATE OF INSPECTION	NAME	Business Name or type Different then that identified at F.D.O.P.	ADDRESS	CITY	RATING	DISTANCE TO STORM DRAINAGE SYSTEM	Comments
5/11/2012	HESS STATION #09240		1216 NORTHLAKE BLVD	LAKE PARK	Low	10'	drains into F.D.O.T system
5/11/2012	BEV SMITH FORD INC	Mullinax Ford	1210 NORTHLAKE BLVD	LAKE PARK	Low	10'	drains to a palm beach co. system then into F.D.O.T system
5/11/2012	AMOCO SERVICE STATION #6304	BP Oil	980 NORTHLAKE BLVD	LAKE PARK	Low	10'	drains to F.D.O.T system
5/16/2012	BP #30457	Sign - A - Rama	900 N LAKE BLVD	LAKE PARK	Low	10'	drains to F.D.O.T system
5/11/2012	TEXACO #240211320	Sunoco Gas	774 NORTHLAKE BLVD	LAKE PARK	Low	10'	drains to F.D.O.T system
5/11/2012	NORTON TIRE	GoodYear Tire Center	532 NORTHLAKE BLVD	LAKE PARK	Low	10'	drains to F.D.O.T system
5/11/2012	LOWE'S OF LAKE PARK		401 N CONGRESS AVE	LAKE PARK	Low	10'	drains to F.D.O.T system
5/11/2012	TARGET #1941		500 N CONGRESS AVE	LAKE PARK	Low	10'	drains to F.D.O.T system
5/11/2012	WAL-MART SUPERCENTER #3348		101 N CONGRESS AVE	LAKE PARK	Low	10'	drains to a palm beach co. system
5/11/2012	BP OIL CO #00439	NOT IN LAKE PARK	9009 PROSPERITY FARMS RD	LAKE PARK	Low		
5/18/2012	New Image Auto Body	Business Closed	108 Miller Way	Lake Park	Low		drains to a palm beach co. system
5/18/2012	TEXACO #460		917 10Th St. Lake Park	Lake Park	Low	10'	drains to a palm beach co. system
5/18/2012	Maschmeyer Concrete –		1142 Water Tower Rd	Lake Park	Low	10'	Drains to Lake Park MS4
	CEMEX LLC - Lake Park		800 RAILROAD AVE	Lake Park			FDEP LIST: WAFR_NPDES Added - 03/13; Needs inspection

Town of
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Community Development
Department

Planning

Site Plan Review Procedures

Site Plan Reviews are required for ___all/some/?? projects___ within the Town of Lake Park.

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 ____at what point in the process?____. Personnel in the Engineering Services/Planning/Building/ <pick one> Department conduct the reviews along with the Town's contract engineering firm. Current local/state/federal <pick one> criteria are used as the guideline 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 proof of a SFWMD or FDEP Permit and/or coverage under the CGP, if applicable, will be required during the first construction site inspection.

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.

Town of
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Community Development
Department

Planning

Construction Site Inspection Plan (Written Procedures)

Construction site inspections are conducted for land-disturbing projects which have the potential to discharge stormwater runoff into the Town of Lake Park's 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 Town's contract engineering firm, Simmons & White 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 _____.

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. Fines will be issued according to the following schedule:

1. _____

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Planning

Construction Site Inspection Form

Site: _____ Date of Inspection: _____

Address: _____

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

Project owner: ☐ Private ☐ Town of Lake Park

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.
☐	☐	☐	Copy of SFWMD or FDEP Permit (if applicable) is on-site.
☐	☐	☐	Coverage under the GCP has been obtained.
☐	☐	☐	Prior non-compliance issues have been addressed.
☐	☐	☐	All other sources of pollution are being controlled.

Comments:

_____

_____

_____

_____

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MS4 PERMIT; PART III. A. 1. *Structural Controls and Stormwater Collection Systems Operation*

Standard Operating Procedures
Structural Control Inspections
Major Stormwater Outfalls

These Standard Operating Procedures are for the Town of Lake Park's use in complying with the MS4 NPDES permit requirements of the inspection and maintenance of structural control inspections. The Town of Lake Park conducts inspections of all of the major stormwater outfalls (MSWO's) on an annual basis.

There are six MSWO's that are a part of the Town's MS4. There is one MSWO operated by others, but it does not serve a drainage area containing an industrial land use. A Major Stormwater Outfall (MSWO) is defined as: an outfall pipe larger than 36-inch inside diameter (or its equivalent), OR an outfall pipe larger than 12-inches inside diameter (or its equivalent) that serves a drainage area containing industrial land uses.

The MSWO's within the Town's MS4 are shown on Sheet 1 of 3 on the hardcopy map submitted as Exhibit 7, "Existing Drainage System", in the August, 1999, Engineering Investigation and Report, Comprehensive Storm Drainage Improvements Program report for the Town of Lake Park. Sheet 3 of 3 of Exhibit 7 identifies which drainage basins the outfalls serve, along with pipe type and diameter.

Inspections:

MSWO's are inspected annually. Inspections are conducted in accordance with the attached Structural Control Inspection Form.

Maintenance:

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

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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. Maintain earthen bank adjacent to the discharge pipe or headwall.
6. Maintain the headwall at the outfall, if applicable.
7. Repair/replace pipe if needed.

Documentation:

The MSWO inspections are recorded in the Lake Park Storm Water Division time sheet along with the attached Structural Control Inspection Form.

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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.

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MS4 PERMIT; PART III. A. 1. *Structural Controls and Stormwater Collection Systems Operation*

Standard Operating Procedures
Structural Control Inspections
Swale Systems

These Standard Operating Procedures are for the Town of Lake Park's use in complying with the MS4 NPDES permit requirements of the inspection and maintenance of structural control inspections. The majority of the fully developed areas of the Town are drained by grassy swales in residential neighborhoods leading to storm sewers having outfalls either into South Lake or Lake Worth. The Town Code of Ordinances, Sec. 34-12. Maintenance of town swale areas, states, "It shall be the duty and obligation of all owners and occupants of real property within the town, to maintain all swale areas abutting, adjacent, or contiguous to their property, in a good and proper, neat and clean condition. This maintenance duty and obligation for owners and occupants of real property shall include, but not be limited to, sodding, grass cutting, proper landscape maintenance, tree pruning and maintenance, removal of debris, plant waste, garbage, or trash,…"

Inspections:

Town swales are constantly monitored by the Code Compliance Officers for compliance with community standards.

Town swales are constantly monitored by the Sanitation Foreman for depressions and lost sod due to bulk trash collection activities.

Established swales are inspected once every three years, using the attached Structural Control Inspection Form. 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.

Areas of standing water, some of which are associated with swale deficiencies, are shown on the hardcopy map submitted as Exhibit No. 8, "Existing Elevations & Standing Water", in the August, 1999, Engineering Investigation and Report, Comprehensive Storm Drainage Improvements Program report for the Town of Lake Park. These areas are regularly inspected to

see if further deterioration is occurring which shall prompt a more immediate response over less impacted areas.

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 (two consecutive annual inspections without an issue).

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 (Responsibility of Property Owners, their Contractors, and Town Grounds Maintenance staff, where applicable).

2. Remove trash and debris from system and dispose of properly (Responsibility of Property Owner and Town Sanitation Division on a weekly basis).

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. Re-establish the surface to its final condition (seed, sod, etc...)

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Documentation:

1. The Community Development Department keeps files of Warnings and Notices of Violation written to property owners not properly maintaining their swales. Non-compliance cases are documented when brought before the Town's Special Magistrate.

2. The Streets and Stormwater Divisions respond to Work Orders generated by the Sanitation Division for the replacement of fill and sod at trash collection sites.

3. The extent of swale remediation projects are recorded in the Lake Park Storm Water Division time sheet with quantities of material removed and replaced noted.

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Grass Swale – Structural Control Inspection

Location Address: _____ Date:_____

Inspection conducted_____days/hours after significant rainfall event (Must be within 72 hours).

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: _____

_____

_____

Lake Park Stormwater Division

Date	Truck #	Personnel	Truck Hours: Start	Truck Hours: Finished	Meter Read: Start	Meter Read: Finished

Line Footage	Footage Shot	Catchbasins Cleaned / Inspected

Cubic Yards Dumped:		

Project Location	Time Started	Time Finished	Job Description

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MS4 PERMIT; PART III. A. 1. *Structural Controls and Stormwater Collection Systems Operation*

Standard Operating Procedures
Structural Control Inspections
Dry Detention / Retention System

There is one dry retention system in the Town of Lake Park that is a part of the MS4. It is located adjacent to the Intracoastal Waterway at the Lake Park Harbor Marina. It is regularly mowed by a lawn maintenance contractor.

Inspections:

The Town of Lake Park conducts inspections of the Stormwater dry detention / retention systems every three years, using the following Dry Detention / Retention System – Structural Control Inspection Form. This inspection form is archived for documentation purposes. It is also inspected for problems during the mowing process and any issues in functionality are reported to the Stormwater Division for necessary attention or repair. General inspections are also conducted as to the storage recovery time of that dry detention/retention 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 dry detention/retention system. 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 pipe and dispose of properly.
4. Eliminate any mosquito breeding habitats.
5. Repair any undercutting or piping around inflow structure.
6. Repair and re-establish any eroded areas on the bottom, side slopes, and/or near inflow structure.
7. Scrape, disc, or otherwise aerate the bottom of the detention/retention area to restore the infiltration capacity. Re-established the surface to its final condition (seed, sod, etc...)

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Dry Detention/Retention System – Structural Control Inspection

Facility ID:_____ Date:_____

Inspection conducted _____days/hours after significant rainfall event (Must be within 72 hours).

FUNCTION:

Wet bottom? *YES* *NO*

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

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

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

EROSION:

Vegetation on bottom and 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.

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OUTFLOW STRUCTURE (for Dry Detention systems only):

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 signs of "excessive petroleum hydrocarbon contamination"? *YES* *NO*

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

If *YES*, address issue as required.

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MS4 PERMIT; PART III. A. 3. *Roadways*
Standard Operating Procedures
Street Sweeping Program

These Standard Operating Procedures are for the Town of Lake Park's use in complying with the MS4 NPDES permit requirements of the maintenance along public streets, roadways, and rights-of-way within our jurisdiction. The Town of Lake Park conducts a street sweeping program that consists of approximately 69 miles of streets, roadways, and rights-of-way. A map of streets, roadways, and right-of-ways within our jurisdiction and maintained by the Town of Lake Park are on the attached map. Roadways with curb and gutter are swept at least once a month and every effort is made to sweep all paved travel ways throughout the Town at least six times a year. Documentation of the volume of debris collected is kept in a log book by date and is summarized for reporting each year. All collected debris is properly disposed of at the Palm Beach County Solid Waste Authority land fill. 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.

Documentation:

See attached Town of Lake Park, Street Sweeping and Disposal Log that is used to document street sweeping activity and the associated volume and weight of the collected debris.

Exhibit:

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:

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

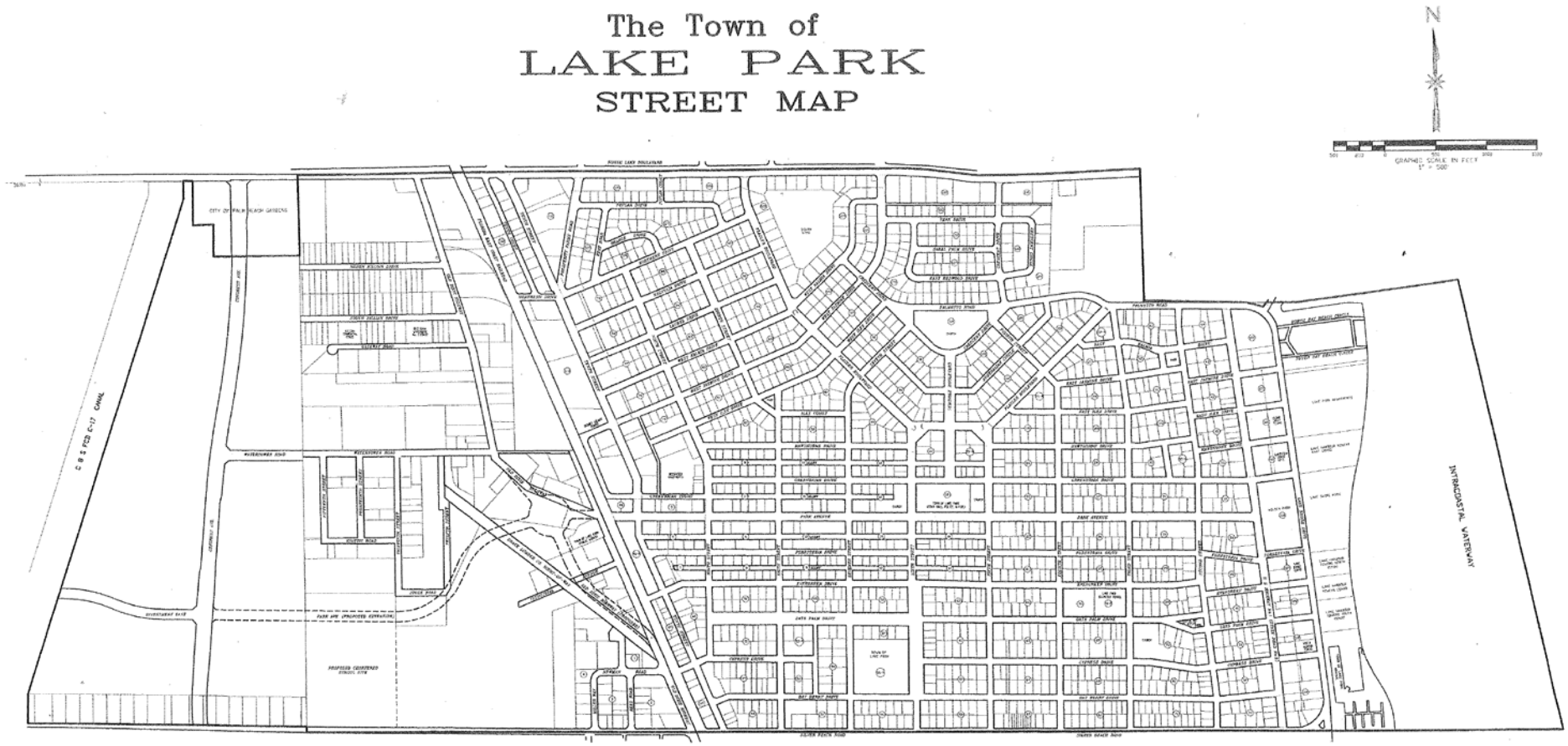
Example Calculations:

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 2,295 pounds per cubic yard,* then 4,394,925 pounds were collected. Using the table above, the total phosphorus removed would be estimated at (4,394,925)(0.000361) = 1,587 pounds. The total nitrogen removed would be estimated at (4,394,925)(0.000563) = 2,474 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.

Alternatively, the State has provided a spreadsheet tool, wherein the user has only to enter the cubic feet OR wet or dry pounds of street sweepings collected, in order to determine the pounds of TP and TN removed by the activity. This spreadsheet is available on the Palm Beach County MS4 NPDES website.

The Town of
LAKE PARK
STREET MAP



Town of Lake Park
Public Works Department
Stormwater Division
Street Sweeping and Disposal Log

Operator:			Hours, **Start** →	
Date:			Hours, **End** →	
Truck No. (circle one)	**15 (sweeper) / 59 (tandem dump)**		Hours, **Total** →	0
Cubic Yards Collected:			Miles, **Start** →	
			Miles, **End** →	
SWA Ticket # & Tot. Wgt.			Miles, **Total** →	0

Document Streets Swept; Enter Street Name with Start & Stop Cross Street:

Town of
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MS4 PERMIT; PART III. A. 3. *Roadways*

Standard Operating Procedures
Litter Control Program

These Standard Operating Procedures are for the Town of Lake Park's use in complying with the MS4 NPDES permit requirements of the maintenance along public streets, roadways, and rights-of-way within our jurisdiction. The Town of Lake Park conducts a Litter Control Program that consists of staff policing approximately 3.4 miles of streets, roadways, and right-of-ways, as well as 15.2 acres of vacant lots and parks. A map of the areas maintained by the Town of Lake Park is attached. Documentation of the volume of debris collected is kept in a log book by date and is summarized for reporting each year.

The Litter Control Program for the Town of Lake Park consists of collecting debris in advance of turf mowing activities, collecting debris on litter prone right-of ways, and the emptying of garbage cans in high litter generating areas.

The frequency of collection is:

- Emptying garbage cans two times a week and recycle containers once a week at Lake Shore and Kelsey Parks, which are adjacent to the Intracoastal Waterway.

- Emptying garbage cans once a week on three and a half blocks of Park Avenue's downtown district.

- Collecting litter in advance of mowing Town lots, roadway medians, and swales.

See attached map as frequency of collection varies by location.

Documentation of volume of litter collected is kept in a log book by date and is summarized for reporting each year.

All collected litter is properly disposed of by the Town of Lake Park Sanitation Division at a Solid Waste Authority facility.

There is not an "Adopt-a-Road" program in place. The major roadways that would benefit from an "Adopt-a-Road" program are not owned and maintained by the Town. The major Town collector streets are maintained by Town staff and a contractor.

Town of
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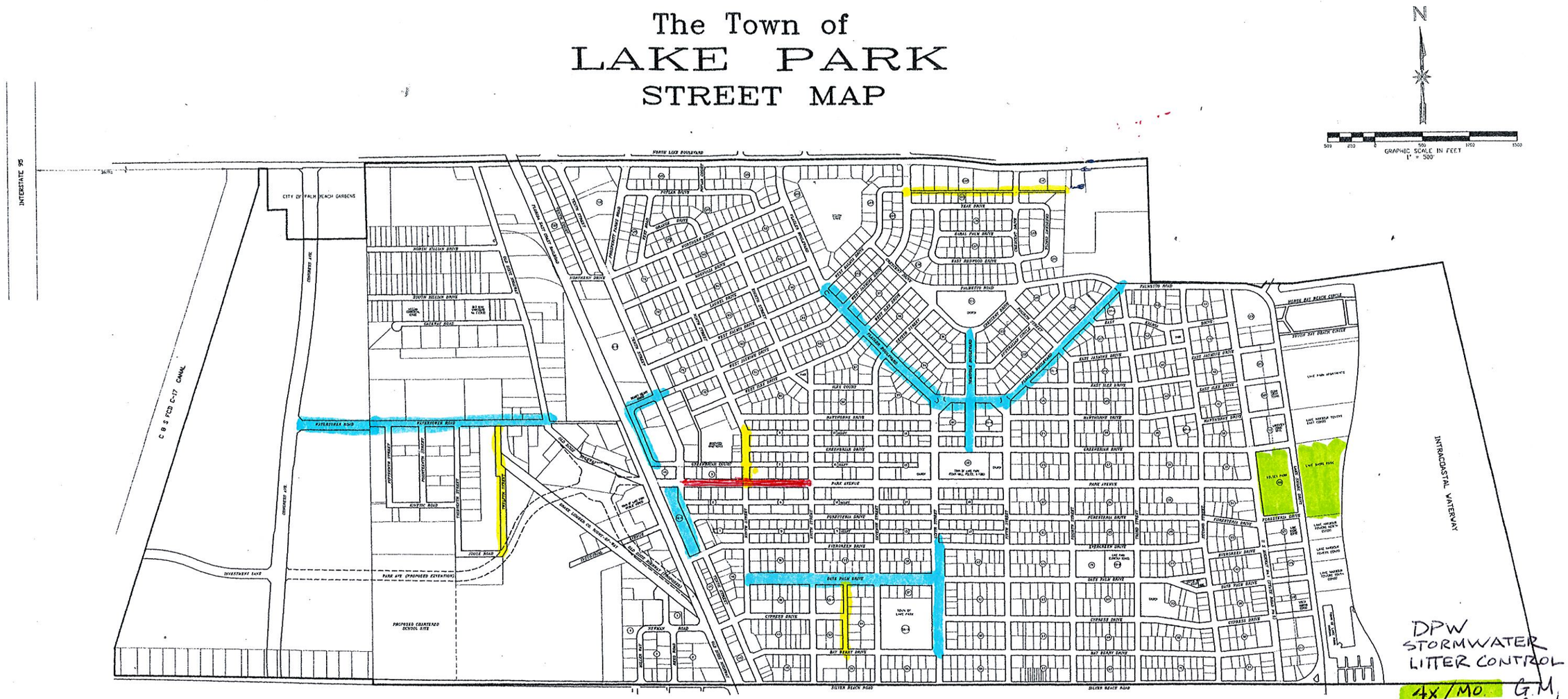
The Town Code of Ordinances also addresses litter control.

- Chapter 10, **ENVIRONMENT, ARTICLE II. NUISANCES, Sec. 10-32. Prohibited nuisances on developed or cleared lots.** (see attached)
- Town of Lake Park code enforcement officers will issue notices of violation to property owners who do not comply with the code.

The Town of
LAKE PARK
STREET MAP



DAILEY AND ASSOCIATES
SURVEYING AND MAPPING
112 NORTH US HIGHWAY ONE
TEQUESTA, FLORIDA 33469
PHONE (561) 746-8424

DATE: 02/18/00 FILE: LPSTREET.DWG

TOWN OF LAKE PARK

LITTER COLLECTION LOG SHEET

GROUNDS MAINTENANCE									
WATERTOWER RD.		TENTH ST. VACANT LOT		TENTH ST. R/R ALLEY		DATE PALM DRIVE/ 6TH STREET		FLAGLER/SEMINOLE	
DATE	# OF GALLONS COLLECTED	DATE	# OF GALLONS COLLECTED	DATE	# OF GALLONS COLLECTED	DATE	# OF GALLONS COLLECTED	DATE	# OF GALLONS COLLECTED

TOWN OF LAKE PARK
LITTER COLLECTION LOG SHEET

STORMWATER

SEVENTH COURT	
DATE	# OF GALLONS COLLECTED

NINTH STREET (TOWN GREEN)	
DATE	# OF GALLONS COLLECTED

TWELTH STREET (DPW STORAGE)	
DATE	# OF GALLONS COLLECTED

NORTHLAKE ALLEY	
DATE	# OF GALLONS COLLECTED

TOWN OF LAKE PARK
LITTER COLLECTION LOG SHEET

GROUNDS MAINTENANCE

LAKE SHORE PARK

GARBAGE

DATE	# OF 101 GALLON CANS BROUGHT TO CURB

RECYCLABLES

DATE	# OF 101 GALLON CANS BROUGHT TO CURB

KELSEY PARK

(GARBAGE ONLY)

DATE	# OF 101 GALLON CANS BROUGHT TO CURB

TOWN OF LAKE PARK
LITTER COLLECTION LOG SHEET

SANITATION

PARK AVENUE (CRA)

(GARBAGE ONLY)

DATE	# OF 101 GALLON CANS BROUGHT TO CURB

(GARBAGE ONLY)

DATE	# OF 101 GALLON CANS BROUGHT TO CURB

ARTICLE II. - NUISANCES [2]

Sec. 10-31. - Definitions.

For the purposes of this article, the word "nuisance" is hereby defined as any person doing an unlawful act, or omitting to perform a duty, or suffering or permitting any condition or thing to be or exist, which act, omission, condition or thing either:

(1) Injures or endangers the comfort, repose, health or safety of others;

(2) Offends decency;

(3) Is offensive to the senses;

(4) Unlawfully interferes with, obstructs or tends to obstruct or renders dangerous for passage any public or private street, highway, sidewalk, stream, ditch or drainage;

(5) In any way renders other persons insecure in life or the use of property; or

(6) Essentially interferes with the comfortable enjoyment of life and property, or tends to depreciate the value of the property of others.

(Code 1978, § 16-1)

Cross reference— Definitions generally, § 1-2.

Sec. 10-32. - Prohibited nuisances on developed or cleared lots.

The maintaining, using, placing, depositing, leaving or permitting to be or remain on any public or private property of any of the following items, conditions or actions are hereby declared to be and constitute a nuisance and are prohibited within the town; provided, however, this enumeration shall not be deemed or construed to be conclusive, limiting or restrictive:

(1) Noxious weeds and other rank vegetation; excessive or untended undergrowth, dead or dying plant materials, tree branches, lawn clippings and other excessive or untended vegetation;

(2) Accumulation of rubbish, trash, refuse, junk, debris, and other abandoned materials, metals, lumber or other things;

(3) Any condition which provides harborage for rats, mice, and other vermin or for the breeding of mosquitoes;

(4) Any building or other structure which is in such a dilapidated condition that it is unfit for human habitation, or kept in such an unsanitary condition that it is a menace to the health of people residing in the vicinity thereof, or presents a more than ordinarily dangerous fire hazard in the vicinity where it is located;

(5) All unnecessary or unauthorized noises and annoying vibrations, including animal noises;

(6) All disagreeable or obnoxious odors and stenches, as well as the conditions, substances or other causes which give rise to the emission or generation of such odors and stenches;

(7) The carcasses of animals or fowl not disposed of within a reasonable time after death;

(8) The pollution of any public well or cistern, stream, lake, canal or body of water by sewage, dead animals, creamery, industrial wastes or other substances;

(9) Any building, structure or other place or location where any activity which is in violation of local, state or federal law is conducted, performed or maintained;

(10) Any accumulation of stagnant water on any lot or piece of ground;

(11) Dense smoke, noxious fumes, gas, soot or cinders, in unreasonable quantities.

(Ord. No. 4-1982, § 1, 2-17-1982; Ord. No. 8-1983, § 1, 6-1-1983; Code 1978, § 16-2)

Sec. 10-33. - Prohibited.

It shall be unlawful for any person to cause, permit, maintain or allow the creation or maintenance of a nuisance.

(Code 1978, § 16-3)

Secs. 10-34—10-70. - Reserved.

FOOTNOTE(S):

--- (**2**) ---

State Law reference— Abatement of nuisances by injunction, F.S. § 60.05; sanitary nuisances, F.S. § 386.01 et seq.; public nuisances in general, F.S. ch. 823. (Back)

Town of LakePark
MUNICIPAL MAINTENANCE YARD INSPECTION CHECKLIST

Date: _____ Time: _____

Site Name and Location: DPW Sanitation and Facilities Maintenance Yard, 650 Old Dixie Hwy

Description of Activities: Sanitation Fleet storage & maint; fleet fueling and washing

Receiving Water Body: FDOT & City of Riviera Beach's MS4; exfiltration

Fueling Areas

		Comments:
	Check operation of Emergency Fuel Shut Off Switch	
	Check Dispencer Nozzles and Hoses for leaks	
	Inspect Fuel Tanks for conditions as per PBCDERM	
	Check tanks for proper decals and placards	
	Check Exterior of tanks for rust or corrosion	
	Test electronic Leak detection system for fuel tanks	
	Dry clean up suppies availabile for fuel spills	

Vehicle and Equipment Maintenance

	Proper storage & disposal of greasy rags	
	Proper storage & disposal of oil filters	
	Proper storage & disposal of spent coolant	
	Proper storage & disposal of batteries	
	Hazardous materials stored properly w/o evidence of spills	
	Inventory of materials maintained onsite with labels and Material Safety Data Sheets	
	Liquid waste disposed of properly and not being poured into storm system or sinks	
	Empty dip pans are cleaned and stored properly	

Outdoor vehicle and equipment storage

	Dip pans used during maintenance of vehicles	
	Dip pans cleaned and stored properly	
	Storage area covered and maintained properly	
	Ground free of visual stains from oil or other vehicle fluids	
	Hazardous materials stored properly w/o evidence of spills	

Vehicle and equipment washing areas

	Area designated for cleaning activities	
	Parts and equipment washed within proper cleaning area	
	Employees trained on proper washing procedures	
	Hazardous materials stored properly w/o evidence of spills	

Liquid Storage in above ground storage

	Safeguards installed, such as secondary containment	
	System inspected weekly	
	Employees trained on proper filling and transfer procedures	
	Storage containers maintained in good condition	
	Inspected for indication of illicit discharges	

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MS4 PERMIT; PART III.A.6. *Pesticides, Herbicides, and Fertilizer Application*
Pesticide, Herbicide & Fertilizer Minimization Procedures

In accordance with its MS4 permit, the Town of Lake Park 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 permittee personnel, applicators contracted to apply pesticides, herbicides, or fertilizers on permittee-owned property, or applicator contractors applying for a Local Business Tax Receipt 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 commercial applicators and applicator contractors holding a Local Business Tax Receipt 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, and applicator contractors shall be advised of the training opportunities available at the Palm Beach County Cooperative Extension Service.

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.

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MS4 PERMIT; PART III. A. 7.d.) *Illicit Discharges and Improper Disposal – Spill Prevention and Response.*

Spill Prevention & Response Procedures

These procedures are for the Town of Lake Park's use in complying with the MS4 NPDES permit requiring a written plan 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 a supervisor or the Fire 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 Spill Response Report.

Town of Lake Park
SPILL RESPONSE REPORT

ID:	Basin #	Structure #	Date:	
			Time:	
Location:				
Weather:				
Receiving Body of Water:				
Description of Spill:				
Type of material spilled:				
Estimated Quantity:	*** If spill is more than 25 gallons, see below**			
Surface type:				
Surface condition:				
Name the Agencies Responding:				
Describe the actions taken to control the spill:				
Did spilled material enter a drainage structure?	**YES**	**NO**	Check one	
If YES, describe action taken to prevent material from entering the receiving body of water:				
Name of the Party causing the spill:				
Address & Phone #:				
Name of any Witnesses:				
Address & Phone #'s:				
Spill Reported By: (inc. contact phone #)				

* IF SPILL IS GREATER THAN 25 GALLONS: CALL **911** IMMEDIATELY.
SECOND CALL MUST BE PLACED TO EITHER YOUR SUPERVISOR OR THE DUTY OFFICER AT PALM BEACH COUNTY WARNING POINT: **561.712.6428**

Town of
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MS4 PERMIT; PART III. A. 7.c.) *Illicit Discharges and Improper Disposal – Inspection and Investigation of Suspected Illicit Discharges and/or Improper Disposal.*

Spill Prevention & Response Training Plan

These procedures are for the Town of Lake Park's use in complying with the MS4 NPDES permit requiring a written plan for training the appropriate personnel and contractors to identify and report conditions in the stormwater facilities that may indicate the presence of illicit discharges / connections / dumping to the MS4.

The following personnel shall receive annual training:

- Stormwater Technician II
- Stormwater Technician I
- Code Compliance Officer

The following personnel may receive periodic training:

- Public Works Director
- Town Engineer of Record
- General Infrastructure Foreman
- Vehicle Maintenance Foreman
- Equipment Operator III (Sanitation)

The topics covered by the training may include:

- 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.

Presenter:

The training is presented by Palm Beach County, NPDES Lead Permittee.

Schedule:

The training is presented annually, usually in March.

Training Documentation:

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

Town of
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MS4 PERMIT; PART III. A. 8. a.) *Industrial and High Risk Runoff – Identification of Priorities and Procedures for Inspections*

Procedures for Inspections of High Risk Facilities

These procedures are for the Town of Lake Park's use in complying with the MS4 NPDES permit requiring a written plan for conducting inspections of high risk facilities within our jurisdiction that will determine compliance with all appropriate aspects of the stormwater program.

High Risk facilities, that have been defined as follows, may be found located in the Town:

- Facilities that are subject to EPCRA Title III, Section 313, a.k.a. Toxics Release Inventory or TRI.
- Any other industrial or commercial discharge that the Town 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.

High Risk Facility Written Program, Components

1. An up-to-date inventory that includes the outfall location of each high risk facility and the surface water body into which the facility discharges
2. Procedure for prioritizing the inventory for inspection
3. Procedure for conducting site inspections (include checking for Multi-Sector Generic Permit [MSGP])
4. Procedure for addressing non-compliant discharges
5. Procedure for documenting the inspections and enforcement activities (See form)
6. Identification of staff /department/outside entity responsible for inspections and for enforcement
7. Schedule for the training of inspectors
8. Description of resources allocated to implement this permit element

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High Risk Facility Inventory and Inspection Program (Written Procedures)

1. **An up-to-date inventory**

   The inventory is updated as follows:
   - Municipal landfills are located using the Palm Beach County Solid Waste Authority website (www.swa.org).
   - Hazardous Waste TSDR facilities are located using the EPA's envirofacts website (www.epa.gov/enviro/).
   - Facilities subject to EPCRA Title III, Section 313 are located using EPA's Toxic Release Inventory (www.epa.gov/tri).
   - Additional facilities are added as deemed appropriate during the proactive inspections for illicit discharges.

   The inventory includes the following information about each facility:

   Name
   Address
   Latitude/Longitude (optional)
   Source of listing
   Type (landfill, HWTSDR, TRI sites, other)
   Priority

   The inventory is updated annually.

2. **Procedure Prioritizing Facilities**

   Facilities that have had recent reported releases or that were added to the high risk facility inventory as a result of a pro-active inspection for illicit discharges are given top priority (Priority = 1). Facilities that are in the watershed of the Intracoastal Waterway, Earmin River, or the C-17 canal will be given secondary priority (Priority = 2).

3. **Procedure for conducting site inspections (include checking for business types that require an MSGP)**

All High Risk facilities are inspected once within the Permit Term. Facilities that have been given a Priority 1 or 2 ranking are inspected annually. Inspection forms (see attached) are generated for the facilities to be inspected. Information available ahead of time is filled in before going into the field. At this time the facilities to be inspected are compared to the list of business types that require an MSGP. If a facility appears to be required to have coverage under an MSGP, it is noted on the inspection form.

The inspector conducts an unannounced visit to the facility address. A standardized inspection form is used to determine any stormwater non-compliance issue.

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

   The Town Code of Ordinances addresses discharges into the MS4.

   - Chapter 10, **ENVIRONMENT, ARTICLE II. NUISANCES, Sec. 10-32. Prohibited nuisances on developed or cleared lots.** (8) The pollution of any public well or cistern, stream, lake, canal or body of water by sewage, dead animals, creamery, industrial wastes or other substances;

   - Town of Lake Park code enforcement officers will issue notices of violation to property owners who do not comply with the code.

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

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

   The following staff members are responsible for the high risk facility inspections and enforcement activity.

Name	Department
Dennis Kelley	DPW, Stormwater
Doris Bainter	CDD, Code Compliance

7. Schedule for Training Inspectors

Annual training shall be provided for individuals whose job responsibility it is to conduct high risk facility inspections. The training is concurrent with the training for the pro-active illicit discharge inspection program.

8. Description of resources allocated to implement this permit element

Annually, no funds are specifically budgeted for this permit program. The work is conducted as a part of the employee's regular job functions and is paid for out of her department's cost center, "Regular Wages" budget line item.

Town of
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High Risk Facility Inspection Form

Date of Inspection: _____

Name of Business or Owner: _____

Address of Facility: _____

Is the Business name or type different than that listed on the F.D.E.P. permit? Yes_____ No_____

New Business Name: _____

(insert picture of site here)

(insert picture of site here)

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

Does type of business require an MSGP? 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____

Town of
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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: _____

NPDES 10/11 thru 9/12

Simmons White, Inc.

Annual Services

for the Town of Lake Park

COMMERCIAL CONSTRUCTION ACTIVITY

PROJECT NAME	Was developer notified of requirement to submit NOI to SFWMD or DEP?	Was the construction site plan/permit application reviewed?	How many construction site inspections were performed?	Were any NOV's, fines , or Stop Work Orders Issued?
Any additional projects? Please list:				