TOWN OF LAKE PARK, FL
DEPARTMENT OF PUBLIC WORKS

Stormwater Standard Operating Procedures

(DRAFT)

FEBRUARY 2020

HOW TO USE THIS DOCUMENT

This document contains the Standard Operating Procedures (SOPs) for Stormwater Management at the Town of Lake Park, FL. It is set up in an easy to use tabbed format and was designed for ease of use during field work.

This document does not include SOPs for stormwater control structures, or major construction. A supervisor should be contacted for operations relating to these items.

If there are any questions regarding the procedures in this document, the Utilities Operations Maintenance Superintendent should be contact at 561-881-3345.

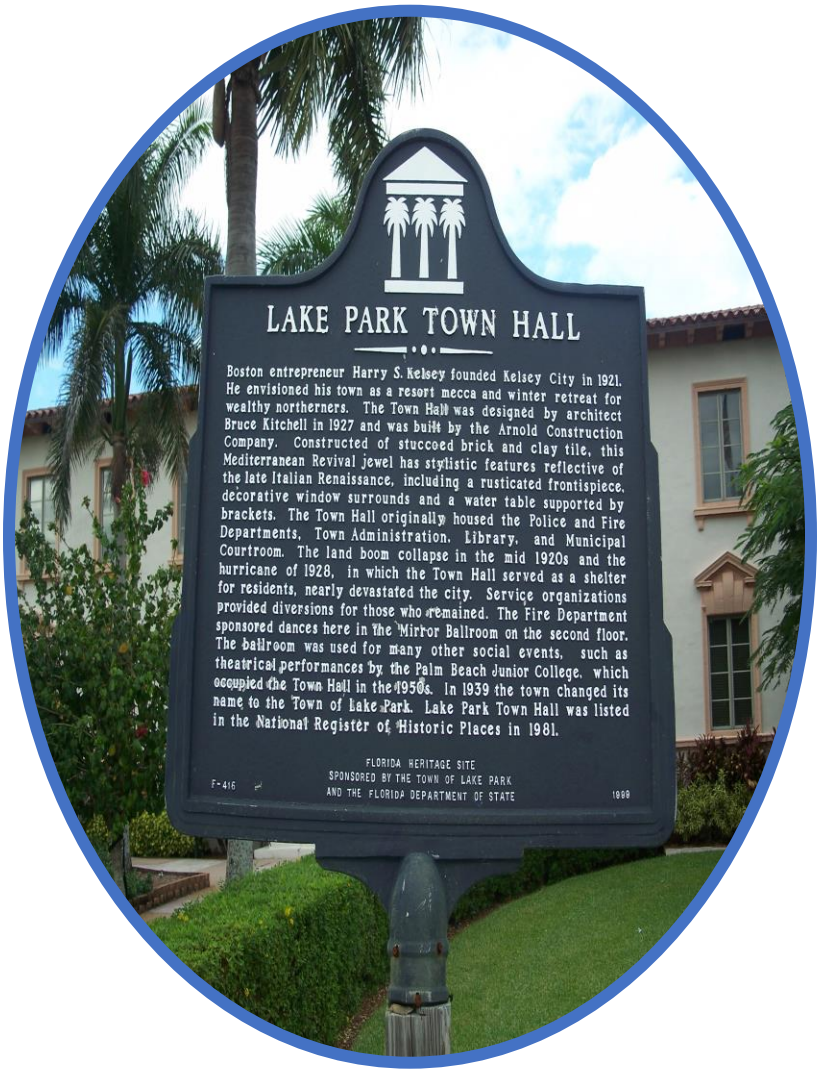


TABLE OF CONTENTS

List of Appendices

1. REFERENCE MATERIALS

This section contains reference materials for the remainder of this document and items that may be needed quickly in the field.

(To be complewted with PW/O&M staff)

1.1 ACRONYMS & ABBREVIATIONS

BMP = Best Management Practice

CC = Construction Coordinator

CCTV = Closed Circuit Television

CEU = Continuing Education Unit

CMMS = Computerized Maintenance Management System

ECS = Engineering Construction Supervisor

EPA = U.S. Environmental Protection Agency

EPCRA = Emergency Planning and Community Right-to-Know Act

FDACS = Florida Department of Agriculture and Consumer Services

FDEP = Florida Department of Environmental Protection

FDOT = Florida Department of Transportation

FOG = Fats, Oils and Grease

GIS = Geographic Information System(s)

IU = Industrial User

MOT = Maintenance of Traffic

MRT = Mayor's Response Team

MS4 = Municipal Separate Storm Sewer Systems

MSWO = Major Stormwater Outfalls

NOI = Notice of Intent

NPDES = National Pollutant Discharge Elimination System

OSHA = Occupational Safety and Health Administration

PBC = Palm Beach County

PBCHD = Palm Beach County Health Department

PC = Project Coordinator

PCD = Pollutant Control Device

RFI = Request for Information

RTU = Remote Terminal Unit

SAM = Stormwater and Me

SCADA = Supervisory Control and Data Acquisition

SFWMD = South Florida Water Management District

SOP = Standard Operating Procedure

SSC = Senior Construction Coordinator

SWA = Solid Waste Authority

SWPPP = Stormwater Pollution Prevention Plan

SWPS = Stormwater Pump Station

TMDL = Total Maximum Daily Load

TSD = Transportation, Storage and Disposal

1.2 EMERGENCY PROCEDURES

In the event of an emergency situation such as:

- Unforeseen flooding
- Significant water quality issues (may or may not include a spill)
- Fire
- Injuries to field crew and/or others
- Other unforeseen emergencies

Crews should immediately contact their supervisor. The site should be immediately secured from the public through the use of traffic control devices. Crews should ask any members of the public to please stay outside the area until Town staff can arrive to assess. Crews should defer media and public inquiries to the Maintenance Superintendent.

Critical numbers are provided below:

Emergency Services	**911**
Maintenance Superintendent	**(561) 881-3345**
Assistant Director of Utilities (backup if Superintendent cannot be reached)	**(561) 881-3349**

STAFF RESPONSIBILITIES FOR STORMWATER

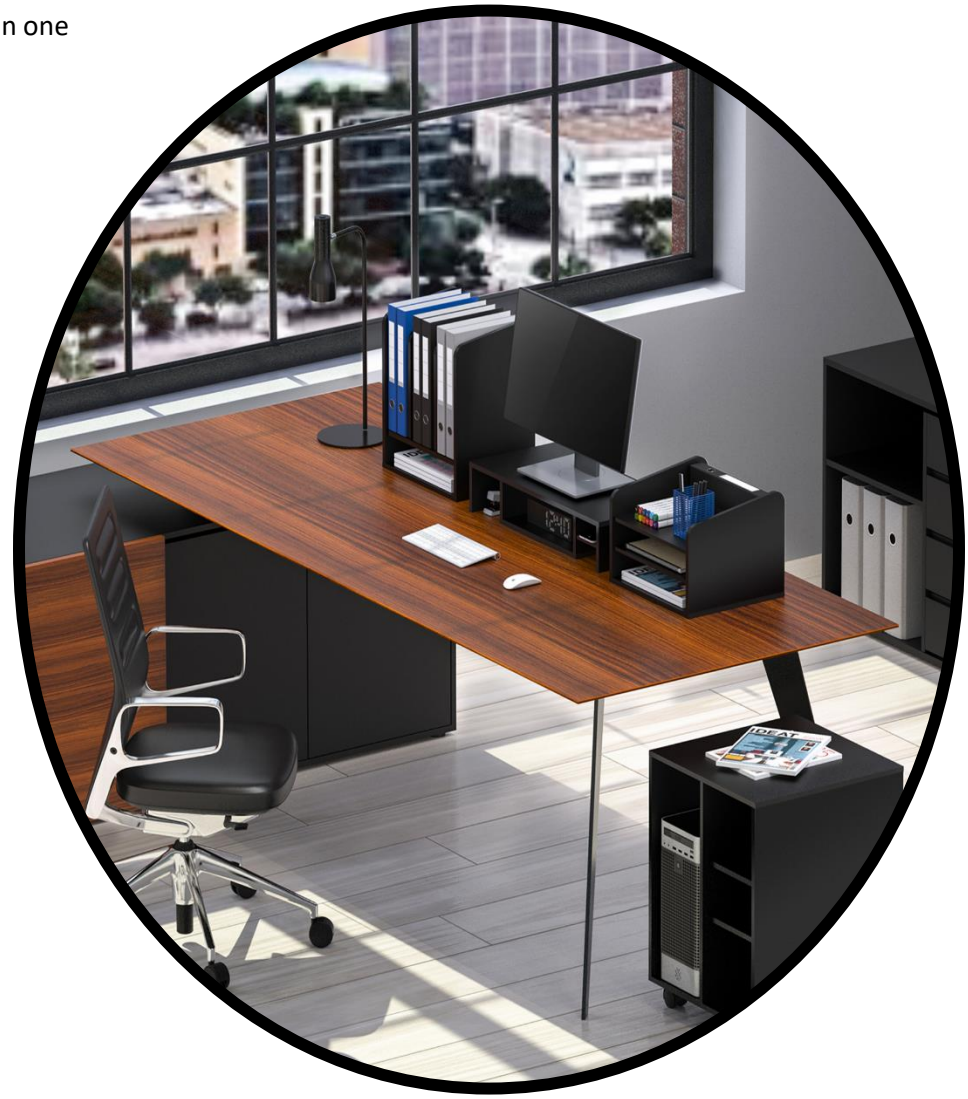
The matrix below summarizes primary staff positions involved with stormwater. A detailed description for each position can be obtained from the Stormwater department administration. This table is used primarily for staff training and coordination.

STAFF POSITION	SUMMARY OF RESPONSIBILITIES FOR STORMWATER MANAGEMENT
Utilities Operations Maintenance Superivisor	Plans, supervises, coordinates and controls the Town's centralized maintenance, construction and repair efforts dedicated to infrastructure
Utilities Maintenance Assistant Supervisor	Performs a variety of responsible skilled supervisory work in maintenance and construction of stormwater conveyance systems. Assist Supervidor.
Secretary	Performs a variety of secretarial and clerical functions for one or more staff/management personnel following established procedures and practices
Utilities Maintenance Worker I	Performs a variety responsible unskilled, semi-skilled, and skilled work in maintenance and construction of stormwater conveyance systems
Utilities Maintenance Worker II (Not currently filled)	Performs a variety of responsible semi-skilled and skilled work in maintenance and construction of stormwater conveyance systems
Utilities Maintenance Worker III (Not currently filled)	Performs a variety of responsible skilled work in maintenance and construction of stormwater conveyance systems

2. OFFICE PROCEDURES

The following SOPs cover tasks that must be completed in the office, either at the beginning or end of a maintenance call, or at the beginning and end of the workday for days when more than one call is made.

(To be completed by PW/O&M)



2.1 TOWN MANAGER'S RESPONSE TEAM (TMRT) REQUIREMENT

The Town has strict requirements regarding the response time for any calls originating from the tMRT. Maintenance staff must respond to calls within 24 hours of being logged into the Town's system. This requirement includes weekends and holidays. For a routine call that comes in on the weekend (non-emergency), a response can be as simple as a note regarding when the call will be addressed during the following week. The Maintenance Superintendent will determine when calls can be deferred, particularly during weekends and special situations.

2.2 PUBLIC NOTIFICATION PROCEDURES

Prior to beginning any work that may affect residents or businesses, notification must be provided to each affected party. This notification should be sent out a minimum of two (2) weeks before activities and include the following:

- Location of work activities
- General description of work activities
- Dates and times that the work will take place
- Instructions for property owners
- Contact information for the Town if the property owners have any questions

This public notification should be sent out by mail or door hangers depending on the activity. The O&M division should be contacted when mailers are sent out to assist with developing an address list.

A template for the door hanger or mailer is shown on the next page. The public notification should be created by the Stormwater, Drainage secretary (or other assigned staff) and approved by the Public Works Director and Operations Maintenance Supervisor.

Enter Town Letter

(To be completed by O&M staff)

2.3 FIELD PREPARATION REQUIREMENTS

Before leaving on a call(s), the following procedures must be followed:

STEP 1:
Verify that a work order has been created. Copies of each work order should be found in the O&M designated computer system. A template of the work order request has been included in Appendix B.

STEP 2:
Verify that Public Notifications were distributed according to Section 2.2 (at least two weeks prior to beginning work).

STEP 3:
Determine that the site is accessible. Refer to the easement map in Appendix C to determine what easements are on site.

STEP 4:
Verify stormwater infrastructure in the area from the Town stormwater atlas. The latest atlas should be obtained from the maintenance superintendent.

STEP 5:
Determine how many crew members and what specialties are required to complete the task.

STEP 6:
Determine what equipment is necessary to complete the task

- Determine if equipment is available
- Determine if equipment is in working order. Equipment checks (as applicable) include, but are not limited to:
  - Check fluid levels
  - Check tire pressures
  - Check that moving parts are operating as intended
  - Check that batteries are operational
  - Check that all lights on equipment are operational
  - Check that back up horns and other auditory devices are operational
  - Check that all safety chains are present on towed equipment
  - Verify that equipment turns on

STEP 7:
Determine how many staff and how much equipment is needed for Maintenance of Traffic (see Section 3.1)

STEP 8:

Safety conditions at each call must be considered. These conditions include, but are not limited to:

- Location of site in proximity to traffic
- Location of any possible contamination on site
- Trench safety equipment per OSHA requirements
- Crew safety equipment including hard hats, vests, shoes, and eye protection
- Additional specialty crew safety equipment if necessary, including but not limited to ventilation systems, fall protection and lighting

2.4 WORKDAY CLOSE OUT PROCEDURES

The following steps must be completed at the conclusion of the workday by each crew.

STEP 1:

Vehicles and equipment should be cleaned, maintained, and checked to ensure they will be in good working order for the following workday. Any issues should be reported to the Maintenance Supervisor. Equipment should be placed in the location it was obtained from.

STEP 2:

Complete work order form outlining total equipment and labor used. This form should be submitted to the appropriate Maintenance Supervisor. A sample of the work order close out form has been included at the end of this section.

STEP 3:

When a modification is made in the field that changes the physical layout or flow within the Town's system, an asset revision must be made to the Town's system. An asset revision should also be made if different conditions are found at the site than what was depicted in the Town's data. The following types of changes qualify for an asset revision:

- A change in pipe size, length, invert, control elevation, or material
- New structures of any type
- A change in the layout of piping (when a route changes)
- Any new construction

The Maintenance Supervisor will determine if a revision is needed in cases where it may be unclear. To complete a revision, one staff member from each crew should complete the Asset Maintenance Revision Request checklist in Appendix B and submit to the appropriate Maintenance Supervisor, who in turn will submit to PW Director or Asst Director/Assigned PM. The Maintenance Superintendent should submit this to the Town's GIS department to incorporate into the stormwater atlas. These revisions must be completed on a daily basis at the conclusion of the workday.

STEP 4:

If an unforeseen or problematic condition was encountered in the field, the Maintenance Superintendent should be contacted immediately. These conditions may include, but are not limited to:

- Any issues related to the public or private property
- Issues affecting other types of Town property (water or sewer lines, for example)
- Water quality issues
- Damage or breakage of equipment
- Any occurrences that were beyond the usual that may require follow-up

3. FIELD MAINTENANCE PROCEDURES

For the purpose of this set of SOPs, field maintenance includes:

- Stormwater pipe cleaning
- Stormwater pipe televising
- Stormwater structure cleaning (including Pollutant Control Devices)
- Curb and gutter cleaning
- Control structure cleaning
- Seawall Outfall cleaning

All other activities should refer to Section 4 (New Construction).

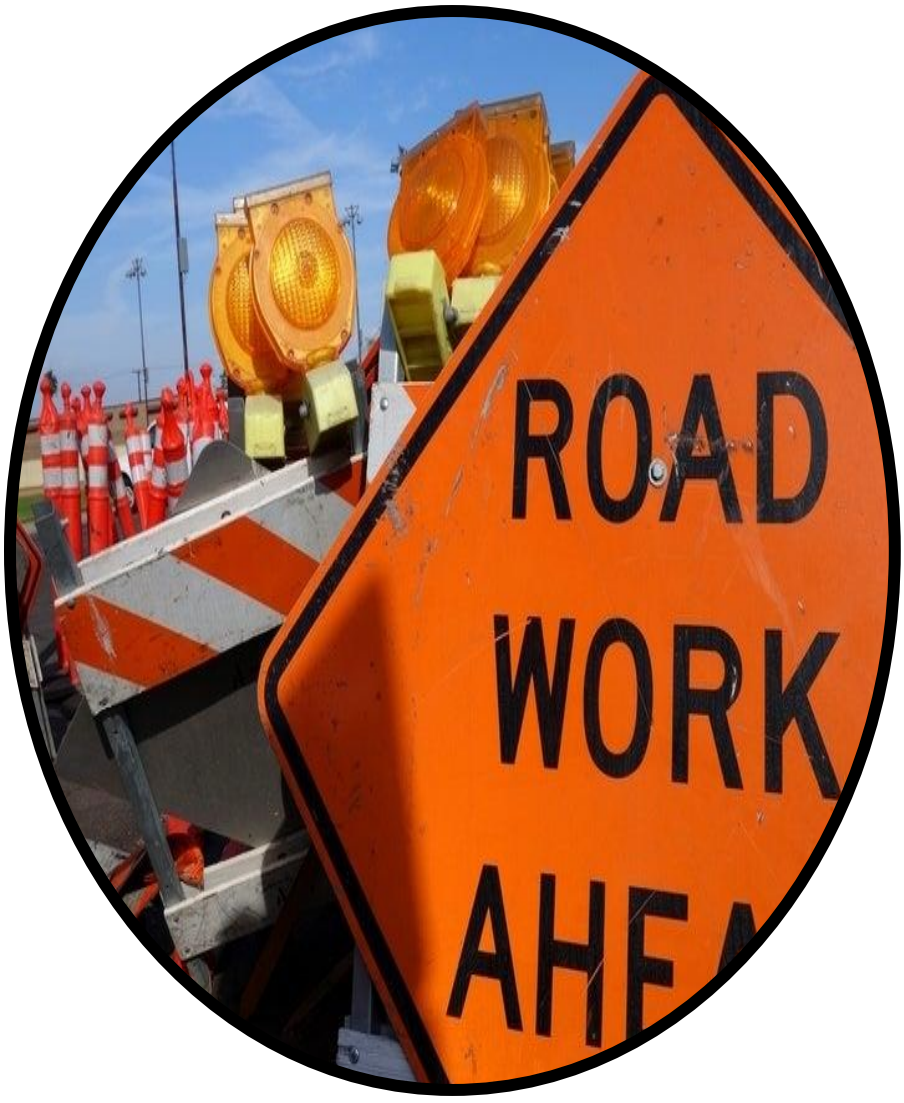
(Other activities to be completed by PW/O&M staff)

3.1 MAINTENANCE OF TRAFFIC

A maintenance of traffic (MOT) plan should be considered before completing any work within the public right of way. The purpose of this plan is to protect the public as well as the workers. The Town of Lake Park uses the Florida Department of Transportation standards to regulate the MOT procedures within the Town. The MOT standards from the Florida Department of Transportation Standard Index 2014 have been included in the end of this section.

MOT Situations

Different working situations will require different MOT procedures and a different number of Town staff. The table on the following page presents the different work environments that may be encountered, the number of staff members that should be present and dedicated to the MOT during the work operations, and the FDOT standard index reference number. The FDOT standard index sheets referenced in this table are included in Appendix A. It should be noted that the number of staff members present listed in this table does not include the staff members needed to set up the MOT prior to work, only those required during the work.



Work Description for MOT Determination	No. of Staff Required for MOT During Work Operations	FDOT Standard Index Reference
General Information for Traffic Control through Work Zone	Varies	600
Two-Lane, Two-Way, Work Outside the Shoulder (More than 2' away from curb or 15' away from travel lane)	0	601
Two-Lane, Two-Way, Work on Shoulder	0	602
Two-Lane, Two-Way, Work within the Travel Way	2	603
Two-Lane, Two-Way, Work in Intersection	2	604
Two-Lane, Two-Way, Work Near Intersection	2	605
Two-Lane, Two-Way, Work within the Travel Way - Signal Control	0	606
Two-Lane, Two-Way, Mobile Operation, Work on Shoulder and Work within the Travel Way	1	607
Two-Lane, Two-Way Temporary Diversion Connection	0	608
Multilane Work Outside Shoulder (More than 2' away from curb or 15' away from travel lane)	0	611
Multilane Work on Shoulder	0	612
Multilane, Work within Travel Way Median or Outside Lane	0	613
Multilane, Work within Travel Way, Center Lane	0	614
Multilane, Work in Intersection	0	615
Multilane, Work Near Intersection, Median or Outside Lane	0	616
Multilane, Work in Intersection, Center Lane	0	617
Multilane, Work in Intersection, Two or More Lanes Closed, Speed Limit Less than 45 mph	0	618
Multilane, Mobile Operations Work on Shoulder, Work within Travel Way	1-2	619
Multilane Divided, Temporary Diversion Connection	0	620
Multilane Undivided, Temporary Diversion Connection	0	621
Mulitlane Work Near Intersection, Temporary Diversion Connection, Speed Limit Less than 35 mph	0	622
Multilane, Work within Travel Way, Double Lane Closure	0	623
Temporary Road Closure, 5 Minutes or Less	2	625
Two Way Left Turn Lane Closure	0	628
Crossover for Paving Train Operations, Rural	0	630
Temporary Crossover	0	631
Work in Vicinity of Railroad Crossing	2	635
Converting Two Lanes to Four Lanes Divided, Rural	0	640
Converting Two Lanes to Four Lanes Divided, Urban	0	641
Two-Lane, Two-Way Rural Structure Replacement	0	650
Multilane Divided, Maintenance and Construction	0	651
Traffic Pacing	4	655
Pedestrian Control for Closure of Sidewalks	0	660
Limited Access Temporary Opening	0	665

3.2 SITE RESTORATION

Unless a plan is provided that instructs otherwise, all sites should be restored to the pre-work condition or better. Questions regarding restoration should be directed to the Maintenance Supervisor.

3.3 SOPS REQUIRED FOR NPDES PERMITTING

The following SOPs assist the Town with compliance related to NPDES permitting.

(These activities to be developed and coordinated with assigned NPDES/MS4 consultant)

3.3.1 HIGH RISK FACILITIES INSPECTION PROGRAM

This permit element requires a written plan for conducting inspections of high-risk facilities to determine compliance with all appropriate aspects of the stormwater program.

High Risk facilities have been defined as:

- Operating municipal landfills
- Hazardous waste treatment, storage, disposal and recovery facilities
- Facilities that are subject to EPCRS Title Ill, Section 313 (Toxics Release Inventory)
- 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

The Town will organize a proactive industrial users (IUs) program to self-inspect inspect high risk facilities. The Industrial pre-treatment assigned O&M staff regularly searches for potential facilities that belong within the IU program and conducts inspections to determine if facilities should be permitted by the program. The attached procedures are followed to ensure that all IUs are doing what's necessary to keep illegal waters from entering the Town's MS4.

1. All Industrial Users (IUs) need to complete a Spill Control Prevention Plan.

2. All" closed loop" Industrial Users are inspected on a monthly basis to make sure they are re- using their wastewater and not being discharged to the Town's sanitary sewer drain.

3. IUs with harmful chemicals stored are urged to build a berm around their chemicals or stored chemicals in an area far away from a storm drain, which is usually away from outside the building.

4. IUs are also urged to place their wastewater totes in a berm to give them time to clean up their wastewater before it gets to a storm or sewer drain.

3.3.2 REACTIVE INSPECTION PROGRAM

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

Illicit Discharges and/or Improper Disposal

Reactive Investigation Written Program Components

Code Officer observes or receives a complaint of an illicit discharge.

Officer should order the violator to take immediate action to mitigate the consequences of the violation including, but not limited to, containment and cleanup of such discharge.

Fill out an illicit Discharge Report and take photos of the violation. Contact Utilities (Storm Water) at (561) 881-3345 to report the violation. Utilities may collect samples and contact other agencies if warranted. Code Officer may open a case, citing Town Code section -------. Schedule the case for a hearing before the Special Magistrate.

Sec. ----- - Prohibited discharges; illicit connections.

a) *General prohibition.* Except as provided in section ----, and except pursuant to a valid NPDES permit, it shall be unlawful for any person to directly or indirectly deposit, discharge, spill, or dump into any of the public waters or municipal separate storm sewer system within the Town, any substance other than that composed entirely of stormwater.

a) *Site of industrial activity.* Except as provided in section -----, any direct or indirect discharge from a site of industrial activity to the separate storm sewer system owned by the Town which does not comply with, or is not pursuant to, a valid NPDES permit is prohibited.

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

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: _____

3.3.3 JOINT TRAINING PROGRAM

There are a number of permittee training requirements in the permit that are conducted jointly by the NPDES/MS4 Group Steering Committee. These include the topics:

- Identifying and reporting conditions that may indicate illicit discharge/connection/dumping to the MS4 (for permittee personnel and contractors)
- Spill prevention, containment and response techniques (for permittee personnel and 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 a state certified trainer.

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

3.3.4 TOWN OF LAKE PARK LITTER CONTROL PROGRAM

The litter Control Program for the Town of Lake Park consists of:

- 261 miles of street sweeping and litter collection along public streets, roadways, and rights-of-way within our jurisdiction. (Zero miles of these streets, roadways and right-of-ways are maintained by contract services.) A map of litter collection areas maintained by the Town of Lake Park is attached.

The frequency of collection is:

- Daily, but varies by location as shown on the map

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

All collected litter is properly disposed of at Solid Waste Authority.

In accordance with Town codes, litter control on many public streets, roadways, and rights-of- way is the responsibility of the adjacent property owner. If this activity is not carried out, Code Compliance officers follow routine procedures for notifying homeowners of their responsibility and follow-up to verify compliance.

The Town does not sustain an "Adopt-a-Road" program. Palm Beach County Solid Waste Authority (SWA) carries out an "Adopt-a-Spot'' program, which may occur at locations within the Town; however, the Town does not maintain information about that program. Information on this program is on the SWA website:

http://www.swa.org/site/illegaldumping/adoptaspot.htm

3.3.5 Maintenance/Equipment Yard Practices and Inspection

Fleet maintenance General Housekeeping:

- Adequate stockpiles of spill cleanup materials are to be placed where they are readily accessible.
- Work sites are to be kept clean and orderly and debris removed in a timely fashion.
- Spot clean leaks and drips routinely. Leaks are not cleaned up until the absorbent is picked up and disposed of properly.
- Leaks, drips, and other spills are to be cleaned with as little water as possible. Use rags for small spills, a damp mop for general cleanup, and dry absorbent material for larger spills. The following three-step method for cleaning floors is to be used:
    - Clean spills with rags or other absorbent materials
    - Sweep floor using dry absorbent material
    - Mop the floor. Mop water may be discharged to the sanitary sewer via a toilet or sink.
- Sweep the maintenance area weekly, if it is paved, to collect loose particles. Do not hose down the area to a storm drain.

Vehicle/Equipment Fueling:

- Maintain clean fuel-dispensing areas using dry cleanup methods such as sweeping for removal of litter and debris or use of rags and absorbents for leaks and spills. Do not wash down areas with water.
- Post signs at the fuel dispenser or fuel island warning vehicle owners/operators to shut-off engines and against "topping off' of vehicle fuel tanks.

Vehicle/Equipment Washing:

- Vehicle washing occurs on-site in an enclosed vehicle wash facility that has water storage capabilities, to control the targeted constituents by directing them to the sanitary sewer. The wash area properly collects and disposes of wash water, no chemical additives, solvents or degreasers are used. Biodegradable, phosphate-free detergents for washing vehicles are used and wash/rinse bays are time to automatically turn off.
- Equipment wash water is discharged to the sanitary sewer in conjunction to a -------gallon holding tank. Vehicle wash entails discharge vehicle wash water to (1) the sanitary sewer, (2) a holding tank and (3) an enclosed recycling system.

Vehicle/Equipment Repair:

- When possible, maintenance and repair activities are performed indoors.
- When performing outside temporary work, drip pans are used beneath the vehicle or equipment, to capture all spills and drips.
- Replacement motor oil, coolant, and other fluids are routed through a closed loop system Technicians are not to pour liquid waste to floor drains, sinks, outdoor storm drain inlets, or other storm drains or sewer connections.

- Waste materials are collected and disposed through Safety Kleen, according to applicable laws and regulations.
- Leaking or dripping fluids are collected in drip pans or containers and are promptly recycled to proper waste or recycling drums and store in an appropriately designed area that can contain spills. Drip pans or other open containers are not to be left lying around.
- Oil filters are drained, crushed and placed in properly identified dumpster to be collected and recycled by Safety Kleen.

Storage:

- Materials and wastes are to be stored under cover, whenever possible. Containers are raised off the ground by use of pallet or similar method.
- Material to be contained in such a manner that if the container leaks or spills, the contents will not discharge, flow, or be washed into the storm drainage system, surface waters or ground water.
- Cracked and/or dead batteries to be stored in a non-leaking covered secondary container and disposed of properly at recycling or household hazardous waste facilities.
- When possible, chemicals are to be stored in their original containers, and kept well labeled.

Inspections:

- The attached form is used for the inspection of each site on a monthly daily basis.

Equipment Yard/Maintenance Shop Inspection Form

Facility:_____ Date of Inspection:_____

_____

Address:

YES	NO	N/A	
☐	☐	☐	Materials/chemicals are stored, handled and discarded in a manner to reduce the potential risk of spills
☐	☐	☐	A spill kit is on site
☐	☐	☐	Storage tanks are clearly marked, properly contained and protected from potential damage
☐	☐	☐	Loading, unloading and transfer areas are neat and free of spills/debris/pollutants
☐	☐	☐	Outdoor manufacturing areas are properly maintained and free of spills or debris
☐	☐	☐	Outdoor stockpile/material handling areas are properly maintained, and the materials are properly contained (i.e., no potential to leak or leach pollutants)
☐	☐	☐	Trash and debris areas are conspicuous and properly protected from stormwater runoff
☐	☐	☐	Fueling stations are free of petroleum product spills/leaks
☐	☐	☐	Vehicle wash and rinse areas are draining to the treatment system or sanitary sewer line
☐	☐	☐	The site was free of any visual indication of potential illicit connection/illicit discharge to the M$4. If no, note type of

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

Use reverse side of form for comments.

3.3.6 MUNICIPAL WASTE TSD FACILITY PROCEDURES

Necessary control measures have been put in place to ensure that any potential pollution of stormwater runoff from this facility is minimized or prevented. Waste drains into a retention area in a separate sewer system.

Site inspections are conducted weekly using the attached inspection form.

Municipal Waste TSD Facility Inspection Form

Facility:_____ Date of Inspection:_____

Address:

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

Receiving water body:

YES	NO	N/A	
☐	☐	☐	All waste at site is inside appropriate receptacles
☐	☐	☐	Area around waste receptacles is neat and free of debris
☐	☐	☐	Waste receptacles are sturdy and in acceptable condition
☐	☐	☐	Waste receptacles are outdoors and away from storm inlets
☐	☐	☐	Waste receptacles are cleaned in areas that drain to sanitary system
☐	☐	☐	Waste collection area does not drain to stormwater system (MS4)
☐	☐	☐	Sediment and erosion controls are operating properly

3.3.7 PESTICIDE, HERBICIDE AND FERTILIZER MINIMIZATION PROCEDURES

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

- Only Town personnel and Contractors licensed by Florida Department of Agriculture and Consumer Services (FDACS) are permitted to apply these products
- Copies of current licensed applicators provided
- Florida Fish and Wildlife Conservation Commission, Aquatic Plant Management
- Permit, SF-10-17 (See Attachment)
- All licensed applicators comply with plant specific herbicide label rates, instructions, cautions, personal protective equipment
- All herbicides utilized are labeled for particular site use by the U.S. Environmental Protection Agency (EPA) and Florida Department of Agriculture and Consumer Services (FDACS)
- All herbicide applications are documented on Aquatic Plant Control, Herbicide Application Report
- Files maintained, Watershed Management Division

Public Works/O&M Division documents all aquatic, athlete fields and general park areas applications of granular or liquid which includes herbicides, pesticides, insecticides, fungicides and fertilization on FDACS form.

Fertilizers

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

Personnel will continue to receive annual training on the proper application practices for fertilizers.

Annually, or more often, training on the proper storage and handling of these products is provided to all relevant personnel. Typically, relevant personnel attend CEU classes for CORE, Aquatics, Right of Way and Lawn Ornamental Licenses.

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

- Fertilizer is applied in Recreation Athletic Fields by Parks Maintenance
- Compliance with DEP BMP, chapter 5, pages 25-39
- Turf in general is applied in compliance with label-specified rates based on Fertilizers Guidelines on page 29
- Applied by FDACS licensed and certified applicators
- Applied by certified DEP "BMP" applicators
- In compliance with Town of Lake Park, Town Ordinance No.4432-12 Friendly Fertilizer
- Storage of fertilizers or chemicals is kept in compliance with FDACS and BMP-DEP Manuel page 35, this includes soil testing and tissue testing for sufficiency levels.
- All MSD's, and Product Labels are on all service applicator vehicles.
- All records kept on all chemical applications and fertilization FDACS record keeping form.

Mechanical

- Aquatic vegetation mechanically removed pursuant to permit SF-10-17 is deposited on a self-contained upland site, located to prevent reintroduction of removed vegetation into waters of the state.
- Inspection of vehicles, trailer, watercraft and mechanical equipment for exotic and nuisance vegetation prior to entry and also upon exit of canals, lakes and waterways. Aquatic vegetation removed from all equipment prior to transport, entry, and completion of each work location.

Invasive Weed Management Parks Maintenance
Aquatic/Herbicide Application Report

Employee Name	Monday	Tuesday	Wednesday	Thursday	Friday	Hours	Date

Equipment Used	Equipment Type	Operating Time (Hours)

Weather Conditions	Sunny	Cloudy	Rain (Start Time)	High/Low Wind Speed	High/Low Temperatures (F)

Description of Work Performed	Location	Park	Row	Other	Waterbody

Name of Number	Treatment Date	Target Plan	Chemical Used	ACRES

Note:_____ Date:_____

Acres:_____ Hours:_____

Applicator:_____

Parks Maintenance
Fertilizer Application Report

Employee Name	Monday	Tuesday	Wednesday	Thursday	Friday	Hours	Date

Equipment Used	Equipment Type	Operating Time (Hours)

Weather Conditions	Sunny	Cloudy	Rain (Start Time)	High/Low Wind Speed	High/Low Temperatures (F)

Description of Work Performed	Location	Park	Row	Other	Waterbody

Name of Number	Treatment Date	Target Plan	Chemical Used	ACRES

Note:_____ Date:_____

Acres:_____ Hours:_____

Applicator:_____

Parks Maintenance
Pesticide Application Report

Employee Name	Monday	Tuesday	Wednesday	Thursday	Friday	Hours	Date

Equipment Used	Equipment Type	Operating Time (Hours)

Weather Conditions	Sunny	Cloudy	Rain (Start Time)	High/Low Wind Speed	High/Low Temperatures (F)

Description of Work Performed	Location	Park	Row	Other	Waterbody

Name of Number	Treatment Date	Target Plan	Chemical Used	ACRES

Note:_____ Date:_____

Acres:_____ Hours:_____

Applicator:_____

Watershed Management
Aquatic/Herbicide Application Report

Employee Name	Monday	Tuesday	Wednesday	Thursday	Friday	Hours	Date

Equipment Used	Equipment Type	Operating Time (Hours)

Weather Conditions	Sunny	Cloudy	Rain (Start Time)	High/Low Wind Speed	High/Low Temperatures (F)

Description of Work Performed	Location	Park	Row	Other	Waterbody

Name of Number	Treatment Date	Target Plan	Chemical Used	ACRES

Note:_____ Date:_____

Acres:_____ Hours:_____

Applicator:_____

3.3.8 PLAN TO REDUCE WASTEWATER CONTAMINATION IN THE TOWN'S STORMWATER SYSTEM

The Town of Lake Park's does not operate a wastewater collection and transmission system within. Service is provided by Seacoast Utilities for the Town's jurisdiction. Seacoast has a proactive Capital Improvement Plan that includes the lining and rehabilitation of the wastewater collection force mains, gravity mains, laterals, lift stations and manholes. The Town officials will alert Seacoast of a potential source of stormwater contamination from wastewater lines.

If Wastewater Contamination is discovered within the Town's Stormwater System, the following measures need to be taken by Seacoast.:

- Source is identified by CCTV truck and or dye testing
- Contamination is contained
- Source is eliminated
- Agencies are notified of violation (if applicable)
- Fines are issued (if applicable)
- Cleanup and disinfection of contamination is completed

The Towns Public Works Department O&M Stormwater Division will utilize a Sewer Overflow Response Plan SOP which is designed to ensure that every report of a sewage overflow incident is immediately dispatched to the appropriate personnel for confirmation and cleanup is handled accordingly.

The Town PW.O&M staff shall also institute an Industrial Pretreatment Program and Fats, Oils, and Grease (FOG) program. Personnel in both of these sections will work closely with the O&M stormwater personnel to help mitigate sewer overflows and wastewater contamination in the Town's Stormwater System.

Identified indications of wastewater contamination shall be documented in a Sewer Overflow Report Log. Follow-up with the Seacoast Utility Department shall also be conducted so that documentation of the response and resolution can also be made in the log.

3.3.9 PUBLIC EDUCATION PROGRAM

The Palm Beach County permittees have undertaken a jointly funded program to meet the public education requirements of the MS4 NPDES permit. In so doing, all permittees participate in conducting the program. The premise of a joint program is that a unified message, repeated throughout the County will have more of an impact than 40 separate messages. The Stormwater and Me (SAM) program, as it is called, kicked off in 2009.

Objective:

The objective of the public education program is to put relevant information in the hands of the residents of and visitors to the Palm Beach County geographic area so they can make better decisions with respect to pesticides, herbicides, fertilizers, illicit discharges, illegal dumping, and the disposal of household hazardous waste. The hope is that this will result in less of these items ending up in our stormwater systems and, in turn, our water bodies.

Topics:

As prescribed by the MS4 permit, the following topics are covered by the public education program:

1. Encourage citizens to reduce their use of pesticides, herbicides, and fertilizers. *[Part II/.A.6.]*
2. Promote, publicize and facilitate public reporting of the presence of illicit discharges and improper disposal of materials into the MS4. *[Part II/.A.7.e]*
3. Encourage the proper use and disposal of used motor vehicle fluids, leftover hazardous household products, and lead acid batteries. *[Part II/.A.7.f]*

Target Audience:

The target audience for the program is residents (children and adults) of and visitors to Palm Beach County, Florida.

Activities and Materials:

The program is described on the website (www.stormwaterandme.org).

Methods for Distribution:

The program is described on the website (www.stormwaterandme.org).

Annual Schedule:

The program is described on the website (www.stormwaterandme.org).

Documentation:

The events and activities are documented on the program website. In addition, the Public Education Sub-committee keeps a copy of the back-up information for all materials purchased and events attended.

Responsible Entities:

The program associated with topics 1 and 2 is carried out by a Public Education Sub-committee of the Palm Beach County MS4 permittee group. Topic 3 is carried out by the Palm Beach County Solid Waste Authority (SWA) for all permittees under the inter-local agreement with Palm Beach County.

3.3.10 ROADWAY MAINTENANCE PRACTICES TO REDUCE POLLUTANTS

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

Major repair work is typically done as a construction project by a contractor. These projects most often required a Notice of Intent under the State's Generic Construction Permit *(NO/only required if the disturbed land is 1 acre or more or is part of a larger common plan of development that will disturb one acre or more or land),* which requires a Stormwater Pollution Protection Plan. Routine inspections are done as part of the construction site inspection program.

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

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

3.3.11 SITE DEVELOPMENT PRECONSTRUCTION CONFERENCE AGENDA AND CHECKLIST

Site Development
Preconstruction Conference Agenda

Date/ Time: _____

Project Title/Location: _____

ESD Permit Number: _____

Project Coordinator: _____

Construct. Coordinator: _____

Meeting Location: _____

PRECONSTRUCTION MEETINGS MAY BE RECORDED. START RECORDING AND IMMEDIATELY ANNOUNCE THAT THE MEETING IS BEING RECORDED.

INDEX:

SECTION A - GENERAL CONDITIONS AND REQUIREMENTS

1. **INTRODUCTIONS:** Introduce everyone attending including their name, organization, title, and role on the project.

   A. FUNCTION & AUTHORITY:
      (1) Public Works/Building Department/O&M Stormwater Division
         a. Manages Site Development and Construction Administration.
         b. Authorizes permit issuance and bond releases.
         c. Arbitrator of technical and procedural standards.

      (2) Representatives of the Construction Supervisor:
         a. Project Coordinator (PC) - Individual who serves as the primary contact for the owner/engineering of record during the site development permitting and project plan review.
         b. Senior Construction Coordinator (SCC)- Supervises construction administration staff during site development construction.
         c. Construction Coordinator (CC)- Individual who serves as the primary contact for the construction contractor and performs day-to-day coordination and inspection.

B. CONTRACTOR PERSONNEL:
   (1) Project Manager
   (2) Construction Superintendent
   (3) After hours/emergency contact the following individual(s):
   (4) Subcontractors: (Name/Contact Number)

C. ENGINEER OF RECORD:
   (1) Engineer of Record
   (2) Engineer Site Representative

2. COMMUNICATIONS:

A. COMMUNICATIONS between the Town and the Contractor shall be conducted through the Construction Coordinator (CC), unless otherwise directed.

B. REQUEST FOR INFORMATION (RFIs): All Requests for information shall be in written form to the Project Coordinator. All responses from the Town shall be in writing and addressed to the Contractor's Project Manager.

C. DAILY CONSTRUCTION REPORTS (Daily Reports):
   (1) Town format. Include daily activities, potential delays, stoppages, problems, accidents, significant decisions, meetings, requests by Town of local authorities, etc.
   (2) Completed Daily.

D. CONSTRUCTION INSPECTION REPORTS (Inspection Reports):
   (1) Town format. Include activities, participants, testing location, materials inspected, inspection results, corrective action, reinspection, mitigation, etc.
   (2) Completed as warranted.

E. CORRESPONDENCE:
   (1) Mail:
   Town of Lake Park
   Public Works Department
   Stormwater Division
   640 Old Dixie Highway
   Lake Park, Florida 33403
   (2) Courier Drop-off:
   Town of Lake Park
   Public Works Department
   Stormwater Division
   640 Old Dixie Highway
   Lake Park, Florida 33403
   (3) All faxed correspondence to 561-881-3349
   (4) Include Project Title and ESD Permit Number on ALL correspondence.

3. CONSTRUCTION SCHEDULE:

A. BAR-CHART CONSTRUCTION SCHEDULE: Submit a fully developed. bar-chart type construction schedule with an "S" curve overlay. The S-curve shall represent the planned percent complete for the project versus time.

(1) Provide a separate bar for each construction activity or "work element."
(2) Provide a separate column or vertical line to identify the "work element," the"% of total" for each work element and the "week starting" date. Submission of Construction Schedule is a condition of Notice to Proceed.
(3) Submit a revised/updated schedule upon Town request.
(4) Construction time___calendar days.
(5) Notice to proceed anticipated:
(6) Proposed start dates:
a. Mobilization on-site date:
b. Construction start:

B. WORKING HOURS:

(1) Working hours for this project will be from_____a.m. to____p.m. during the workday, except for weekends and established Town holidays.
(2) Work outside the normal working hours must be requested in writing no less than 5 business days prior to anticipated work.
(3) Emergency work hours will be authorized by the Engineering Construction Supervisor, or designee.

C. CRITICAL WORK SEQUENCING/PHASING ISSUES:

(1) Hazardous materials abatement.
(2) Time constraint issues.
(3) Coordination with local authorities.

D. COORDINATION OF THE WORK:

(1) The Contractor is responsible for coordination of all elements of the work and every aspect of the coordination of the subcontractor's work.
(2) The Contractor is required to have a competent construction supervisor, fluent in speaking and writing English, in charge of the work at all times. Construction supervisor may be a Working Foreman.

4. SITE ISSUES:

A. PRE-MOBILIZATION REQUIREMENTS

(1) Building Department development permit issued.
(2) Public Works/Building Dept. notice to proceed issued.
(3) Construction schedule submitted.
(4) Review Contractor's plan for mobilizing on site, including phasing, timing elements, crane operations, dumpster locations, and coordination.
(5) Construction Administration fees submitted.
(6) Right-of-Way Acquisition.

B. ABANDONMENT OF UTILITIES:

TOWN /COUNTY	PRIVATE
(1) Water/Sewer	(1) Water/Sewer
(2) Stormwater	(2) Stormwater
(3) Gas	(3) Gas
(4) Electric	(4) Electric
(5) Street Lights	(5) Street Lights
(6) Other	(6) Other

C. TEMPORARY FACILITIES:

(1) Utilities

a. Temporary connections/water, gas, electric.

(2) Parking for Contractor Personnel:

a. Is parking available at the site during normal working hours?
b. Contractor responsible for traffic/parking violations.
c. Parking space(s) to be designated for the Contractor?

(3) Entry and Exit (Site ingress and egress) for equipment and materials.

(4) Locations and marking of underground utilities.

D. UTILITY SERVICE INTERRUPTIONS:

(1) Public water and sanitary sewer service interruptions shall be submitted to the Town/Seacoast Utilities in writing, at least 5 business days in advance of the day of proposed interruption.

(2) A fee is required for Town/Seacoast Utilities support of utility service interruptions.

(3) A two (2) business day notice shall be given for the CANCELLATION of approved service interruptions. Service fees are non-refundable without sufficient notice.

(4) Fire Protection Systems (alarms, sprinkler systems, fire mains) and Security Systems.

a. The Project Manager shall notify the Town/County Fire Marshal at least three (3) business days prior to the Contractor deactivating or performing any work on any fire alarm or fire protection system for an occupied building. Project Manager and/or contractor shall be responsible for notifying any fire protection monitoring systems.

b. When a fire alarm and/or security system is deactivated, it must be reactivated the same day, before the contractor leaves the site, to ensure that the systems are functioning properly. If not functioning, the Contractor will restore the systems to working order prior to leaving the site, or he shall provide a round-the-clock fire watch/security protection until the systems are functioning properly. The Contractor shall be responsible for any costs incurred by the Town for providing a fire-watch, security protection and/or alarm response.

E. ACCIDENT PREVENTION/SAFETY:
   (1) Safeguard personnel and property.
   (2) Barricades, warning tape/signs.
   (3) Protection of Existing Vegetation, Structures, Equipment, Utilities, and Improvements.
   (4) Notification of injuries - dial 911. Inform the Town immediately if an accident occurs on Town property or right-of-way. Submit an accident report to the Town no later than 3 calendar days after the incident.
   (5) Notification of Fires - dial 911
   (6) Safe Work Practices: Comply with OSHA Standards 29 CFR 1910 general standards, and 29CFR 1926 construction standards.
   (7) Hazardous Materials locations. (Asbestos pipe, fuel storage, chemicals storage, etc.)

F. HOUSEKEEPING AND CLEAN UP:
   (1) Daily clean-up of the work area in public right-of-way.
   (2) Final Cleaning - leave work area in a neat, clean and orderly condition.
   (3) Clean up in accordance with Town emergency procedures, relative to storm events or other emergencies, will be mandated.
   (4) Maintain site in conformance with NPDES requirements.

G. AGENCIES HAVING JURISDICTION: Include, but is not limited to Town, County, State - health and environmental offices; OSHA; local fire marshal, utilities, etc.

H. SPECIAL SITE CONDITIONS: Include, but is not limited to, pollution control, adjacent property, bus stops, utility availability, wetlands, approved site plan conditions, etc.

5. SUBMITTALS:

A. GENERAL:
   (1) Shop Drawings- Town /County Approved Materials List.
   (2) Shop Drawings – Nonstandard Materials.
   (3) Construction schedule.
   (4) Contact information.
   (5) Storm Water Pollution Prevention Plan (SWPPP)
   (6) Copies of all regulatory agency permits. (SFWMD, FDEP, FDOT, etc)

B. SCHEDULE OF SUBMITTALS:
   (1) Submit the Schedule of Submittals at, or prior to, the preconstruction conference.

6. PERMITS:

A. PERMIT TYPES:
   (1) Construction Services
   (2) Tow Right-of-Way
   (3) PBC Right-of-Way
   (4) FDOT Right-of-Way/Easement
   (5) FDEP ERP
   (6) PBCHD

(7) SFWMD
(8) Other

7. MISCELLANEOUS ADMINISTRATIVE ISSUES:

A. CONSTRUCTION PLANS AND SPECIFICATIONS
(1) Contractor responsible for all subcontractor construction plan amendments.
(2) Any discrepancies in the plans and specifications must be brought to the attention of the Construction Coordinator prior to installation of the work. Considerable deviation to the plans and specifications will require submission of revised construction drawings by the engineer of record. Considerable deviation is considered the modification of public infrastructure component type, size, material, location, addition, deletion, or inoperability from design.
(3) Overlapping/conflicting requirements between specifications and drawings will be arbitrated by the Engineering Construction Supervisor, or designee.

B. PROJECT RECORD DOCUMENTS
(1) Record Drawings ("Red-line Drawings") Keep on job site, updated and current. Use erasable, colored pencil in RED for additions, GREEN for deletions. Submission and acceptance of Final Record Drawings will be required upon completion of work and is a condition of surety release.

C. MEETINGS/TELECONFERENCES:
(1) Pre-Construction Conference.
(2) Construction Coordination Meetings: Discuss frequency, agenda, etc.

D. SEVERE WEATHER ADVISORY PROCEDURES
(1) Mandatory Compliance
(2) Review schedule if project will be active between June 1 – November 30.

8. TESTING, INSPECTION, FINAL INSPECTION, AND FINAL ACCEPTANCE:

A. TESTS:
(1) Review what testing is required and when; notification; test reports. (2) Submit copies of all test reports.

B. FINAL INSPECTION:
(1) Final Inspection date must be coordinated far enough in advance to allow for correction of deficiencies prior to issuance of Certificate of Construction Completion. The Final Inspection must be requested in writing to the Construction Coordinator.
(2) Pre-requisites:
a. Start-up testing (functional performance testing)
b. Operations and maintenance manuals must be given to the Town and approved before instructions to Town personnel can occur.
c. Training of Town personnel complete.

C. FINAL ACCEPTANCE: All permit requirements completed.
(1) Pre- requisites:
a. Satisfactorily completed.

b. Final clean-up, Record drawings, warranties, spare parts, all completed.

(2) Engineer of Record Certification.

(3) Submission of Conveyance Documents.

(4) Final acceptance letter sent from Project Coordinator to Contractor.

D. CERTIFICATE OF CONSTRUCTION COMPLETION

(1) Final Acceptance Issued by Town Departments.

(2) Closure of permits.

(3) Surety Release/Reduction Checklist.

9. WARRANTIES AND GUARANTEES: A written one-year (1) warranty must be provided immediately prior to acceptance and conveyance of public infrastructure. A warranty bond may be required to secure the warranty conditions for the duration of the warranty period.

SECTION B – OTHER TOPICS DISCUSSED

Preconstruction Conference Signature Sheet

Name (Print)	Signature	Agency/Firm	Phone

END OF PRECONSTRUCTION CONFERENCE

Public Works Department Plan Submittal Checklist

	YES	NO	N/A
COVER SHEET			
Date			
Project Plan Title			
Title Vertical			
Legal Description			
Vicinity Map			
Engineer, Surveyor, Owner Information			
Town Approval Signature Block			
Sheet Index			
TITLE BLOCK ON ALL SHEETS			
Date			
Legal Description			
Project Title			
Sheet Title			
Sheet Number of			
Engineer's Information			
Engineer's Seal, Signature & Date			
Town Approval Signature Block			
Revisions Block			
CONSTRUCTION PLANS CONTENT			
All Plan Sheets 24" x 36"			
Cover Sheet			
Final Plat Map			
Site Plan			
Demolition Plan			
Utility Plan and Profiles			
Drainage Area Map and Calculations			
Paving Plan and Profiles			
Storm Drain Plan & Profiles			

	YES	NO	N/A
Grading Plan			
Water & Sanitary Sewer Plan and Profiles			
Details Sheets			
General Notes			
Stormwater Pollution Prevention Plan			
Traffic Control Plan			
Landscape Plan			
Lighting Plan			
Summary of Quantities			
PLAT I EASEMENTS			
Proposed Plat or Plat of Record			
Proposed Easements or Recorded Easements (Existing and New)			
Proposed Right-of-way Abandonment/Creation			
SITE PLAN (Show all site plan elements for both existing and proposed)			
North Arrow and Scale			
Project Parcel Size (Acres to Nearest Tenth}			
Setbacks			
Contours			
Buildings/Structural Elements			
Location of Walls and Fences			
Curb			
Edge of Pavement			
Driveways			
Streets			
Alleys			
Parking Stall/Area/Lot			
Sidewalk			
Signage			
Easements			
Public Right-of-Way			

	YES	NO	N/A
Water Bodies			
Open Space or Public Park Area			
Landscape Buffers			
Natural Area and Wetlands			
Benchmark			
Property Lines			
Site Phasing			
Temporary Site Access Points			
Location and Screening of All Trash Receptacles			
Tree Relocation Schedule and Tree Protection			
Public Transportation Facilities (Bus Stops, Shelters, Etc.)			
UTILITY PLAN (Show all utility plan elements for both existing and proposed)			
North Arrow and Scale			
Utility Easements (Existing and Proposed)			
Property Lines			
Proposed Material Quantity Legend and Tabulation			
Water: (Plan and Profile) (Includes Fire Line)			
Water Main Locations, Materials, and Sizes			
Water Main Stationing (Proposed Only)			
Water Main Fittings (Proposed Only)			
Water Services and Sizes			
Water Construction Sample Points (Proposed Only)			
Water Shutoff Valves Backflow Preventer(s)			
Water ARV's			
Fire Hydrants			
Wells {Irrigation and Potable)			
Booster Pumps {Irrigation and Potable)			
Sanitary Sewer: (Plan and Profile)			
Sewer Main Locations, Materials, and Sizes			
Sewer Main Stationing (Proposed Only)			
Sewer Lines Fittings (Proposed Only)			

	YES	NO	N/A
Sewer Service Laterals and Sizes			
Backwater Valves			
Grease/Sand/Oil Separator			
Manholes			
Cleanouts			
Sewer ARV's			
Lift Station			
Other Utilities: (Plan and Profile)			
Main, Conduit, Lines			
Service Lines and Sizes			
Manholes			
Control Valves			
Handholds			
Poles			
Cabinets			
Duct Banks			
Profile View:			
Top and Bottom of Pipe or Conduit			
Existing and Proposed Finished Grade Elevations (Centerline)			
Pipe Size and Material			
Stationing			
Vertical Alignment Data			
Utility Connects (Palm Beach County Health Department Criteria)			
Rim Elevations			
Flowline Elevations (50' Intervals)			
Manhole Invert Elevations			
Pipe Length			
Pipe Slope (Sanitary Sewer)			
Utility Service Lines			
Utility Valves			

	YES	NO	N/A
DRAINAGE AREA MAP			
Area Map:			
North Arrow and Scale			
Drainage Easements (Existing and Proposed)			
Proposed Material Quantity Legend and Tabulation			
Property Lines			
Drainage Area (Acres)			
Existing and Proposed Contours			
Proposed Spot Elevations			
Flow Arrows (Perpendicular to Contours)			
Drainage Area Designation			
Storm Drainpipes (Existing and Proposed)			
Storm Drain Manholes and Structures (Existing and Proposed)			
Buildings (Existing and Proposed)			
Water Bodies (Existing and Proposed)			
Drainage Easement (Existing and Proposed)			
All Paved or Impervious Areas			
Storm Drain Discharge Location			
Storm Drainpipe Materials and Sizes			
Area Map Calculations:			
Watershed Calculations for 5, 1 0, 25, 50, and 100 Year Storms			
(Design Criteria and Cumulative)			
Drainage Area (Acres)			
Times of Concentration (Minutes)			
Runoff Coefficients			
Intensities (Inches I Hour)			
Runoff Quantities (Cfs)			
Total Pervious to Impervious Area			
Profile View:			
Top and Bottom of Pipe			

	YES	NO	N/A
Existing and Proposed Finished Grade Elevations (Centerline)			
Pipe Size and Material			
Stationing			
Vertical Alignment Data			
Utility Conflicts (Palm Beach County Health Department Criteria)			
Rim Elevations			
Flowline Elevations (50' Intervals)			
Manhole Invert Elevations			
Pipe Length			
Pipe Slope			
HYDRAULIC CALCULATIONS			
Pipe Lengths and Sizes			
Drainage Area (Acres)			
Runoff Coefficients			
Times of Concentration (Minutes)			
Design Discharges Intensities (Inches I Hour)			
Design Storm Frequency			
Head Losses			
Loss Coefficients			
Frictional Gradients			
Inlet Calculations for Design Storm Events			
Gutter Capacities			
Inlet Type and Size			
Approach Slope			
Runoff Intercepted (Cfs)			
Bypass Flow			
Street and Right-of-Way Capacities			
GRADING PLAN			
North Arrow and Scale			
Contours			

	YES	NO	N/A
Property Lines			
Proposed Material Quantity Legend and Tabulation			
Existing and Proposed Contours			
Proposed Spot Elevations			
Proposed Finished Floor Elevations			
Benchmarks			
Show All Existing Above Ground Elements			
PAVING PLAN			
North Arrow & Scale			
Property Lines			
Proposed Material Quantity Legend and Tabulation			
Plan View:			
Back of Curb and Right-of-Way Lines			
Right-of-Way I Pavement Widths			
Driveways/Median Islands			
Centerlines			
Stationing			
Alignment Data (Bearing, Distance, Curve Data, etc.)			
Intersections/Curb Return Radii			
Easements			
Sidewalk			
Curb Inlets			
Manholes and Structures			
Benchmarks			
Utility Valves			
Rim Elevations			
Curb Cuts			
Profile View:			
Existing Right-of-Way Elevations			

	YES	NO	N/A
Existing Centerline Elevation			
Proposed Top of Curb Elevation (50' Intervals) Curb Return and Pl Elevations			
Proposed Top of Roadway Elevation (50' Intervals)			
Stationing			
Vertical Alignment Data			
Rim Elevations			
DETAILS			
Town of Lake Park Standard Details			
TRAFFIC CONTROL			
Traffic Study (As Required by the Town Traffic Engineer)			
Traffic Control Plan (Required MOT for All Work Proposed to Impact Traffic)			
LANDSCAPE PLAN			
Plans Prepared and Sealed by Registered Landscape Architect			
North Arrow & Scale			
Property Lines			
Proposed Material Quantity Legend and Tabulation			
Designate Landscape Material by Botanical and Common Names (Must include height, spread, spacing, caliper, etc.)			
Easements			
Right-of-Way Lines			
Location of All Overhead Utility Lines			
Existing Structures Locations			
Location of Existing Trees and Landscape Material			
Indicate Landscape Material Plan (Remove, Relocate, Proposed, Etc.)			
Indicate All Landscape Material with Adjacent Overhang of the Site			
Location of Existing Trees and Landscape Material			
Location and Screening Landscape Material of All Trash Receptacles			
Tree Preservation Plan			
Proposed Plant Material Not Listed as Invasive Species			

	YES	NO	N/A
(Florida Exotic Pest Plant Council - PBC Invasive Species Listing)			
Vehicular I Pedestrian Sight Triangles			
DEMOLITION PLAN			
Site Plan Layout Depicting Demolition and Clearing Work Limits			
Identify Existing Structures, Utilities, and Vegetation to be Cleared			
Identify Temporary Demolition Work Site Access			
Identify Utility Disconnects Associated with Demolition Work			
Identify Possible Hazardous Waste Material Exposed During Work			
STORM WATER POLLUTION PREVENTION PLAN			
North Arrow & Scale			
Property Lines			
Proposed Material Quantity Legend and Tabulation			
Site Plan Layout			
Identify Temporary Site Access Points			
Identify On-Site and Immediately Adjacent Water-Bodies			
Identify Proposed Erosion Control BMP's			
Indicate Phasing			
LIGHTING PLAN			
North Arrow & Scale			
Property Lines			
Proposed Material Quantity Legend and Tabulation			
Plan View:			
Pole Location			
Handhold Location			
Electrical Service Panel Location			
Conduit (Size and Material)			
Wiring			
Photometric Layout			

	YES	NO	N/A
Profile View:			
Pole Location			
Handhold Location			
Electrical Service Panel Location			
Conduit (Size and Material)			
IRRIGATION PLAN (Plan and Profile)			
Irrigation Main Locations and Sizes			
Irrigation Main Stationing (Proposed Only)			
Irrigation Main Fittings (Proposed Only)			
Irrigation Branch Lines and Sizes			
Irrigation Shutoff Valves			
Irrigation Conduit (Size and Material)			
Irrigation Handholds and Valve Boxes			
Irrigation Backflow Preventer			
Irrigation Controller			
Wiring			
Electrical Service Panel			
Wells (Irrigation and Potable)			
Booster Pumps (Irrigation and Potable)			

3.3.12 SPILL PREVENTION & RESPONSE TRAINING PLAN

Following is the Town of Lake Park plan for training the appropriate personnel in preventing and responding to spills within our jurisdictional area.

Who
All appropriate personnel will receive annual training on spill prevention and response.

Topics
The information covered by the training includes:

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

Method
The training is presented via employee training videos. The primary videos for spill prevention & response include "Spills & Skills" and "Controlling Oil: Spill Prevention, Control & Countermeasure." Open floor discussions and comments are shared after the videos are viewed.

Presenter
The training is presented by the supervisor of each work group.

Schedule
The training is presented annually

Training Documentation
Attendance at the training session is documented by sign-in sheets and logged into the Public Works Department computers.

3.3.13 SPILL PREVENTION & RESPONSE PROCEDURES

Following is the Town of Lake Park procedures for preventing and responding to spills within our jurisdictional area.

Procedure

1. 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 our authority, clean up the spill. 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 Public Works computer records management System. The work order shows the following:

- Time of arrival
- Authorities notified and their findings
- Clean up procedure- (the three C's of Spill Response; Contain, Control, Clean Information)
- Disposal Information
- Time of departure

3.3.14 STREET SWEEPING PROGRAM

A map of the street sweeping routes is attached. 261 miles of public roadway are in the program. Roadways without curb and gutter, and roadways not owned/maintained by the Department of Transportation (DOT} and Palm Beach County, are not included in the program.

The frequency of sweeping is Monday- Friday (daily} according to routes, schedules as shown on the map (because it varies by location).

Frequency has been established based on historical information about collected amounts of streets that are maintained within the Town of Lake Park. The areas swept most frequently are the priority areas.

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

An estimate of the total phosphorus and total nitrogen collected by the street sweeping is performed based on the Florida Stormwater Association's determinations of street sweeping removal rates project.

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

The street sweeping standard operating procedure utilized by the Town of Lake Park is found on the following pages.

TOWN OF LAKE PARK STREET SWEEPING PROTOCOL & MAP

(To be inserted by PW/O&M Staff)

3.3.15 CONTROL STRUCTURES – STRUCTURAL CONTROL INSPECTION

Standard Operational/Maintenance/Documentation Protocol

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

Control structures that are associated with pipe networks and/or canals (weirs, operable gates, etc.) are inspected as stand-alone facilities. There are 4 stand-alone control structures that are part of our MS4. They are located on the following map.

1. Control# 1, Flow control structure, located--- N ---W
2. Control# 2, Flow control structure, located ---N --W
3. Control#3, Flow control structure, located ----N---W
4. Control#4, Flow control structure, located ----N---W

Inspections:
Because these structures are each unique, their inspection protocol is specific to each structure. The current inspection schedule is as follows:

1. Control# --Monthly, Inspection at end of each Month
2. Control# --Monthly, Inspection at end of each Month
3. Control# --Monthly, Inspection at end of each Month
4. Control# --Monthly, Inspection at end of each Month

Maintenance:
There are several maintenance activities that may be associated with control structures. Because these structures are each unique, their maintenance needs are specific to each structure. The appropriate activity is chosen to correspond to the reported condition or required action. The following activities may be required:

1. Remove trash and debris and dispose of properly.
2. Remove accumulated vegetative matter and dispose of properly.
3. Remove accumulated sediment and dispose of properly.
4. Check station over for vandalism of fence enclosures, battery boxes, actuators, solar panels etc.
5. Repair/replace mechanical components and parts as needed.
6. Repair/replace structure, if needed.

Documentation:
The documentation for the inspection and maintenance activities related to control structures is recorded on Stormwaters Division computers system and on the Control Structure Inspection/Checklist form.

Control Structure #____ Inspection Procedure/Checklist/Form

Facility ID: _____ **Date:** _____

Function:

Operation of manual gates if applicable:	**YES**	**NO**
Operation of automated gates via local:	**YES**	**NO**
Operation of automated gates via remote:	**YES**	**NO**

TOWN OF LAKE PARK – MAP OF CONTROL STRUCTURES

(To be inserted by PW/O&M staff)

3.3.16 CONVEYANCE (DITCH & CANAL) SYSTEM -STRUCTURAL INTEGRITY INSPECTION

Standard Operational/Maintenance/Documentation Protocol

There are 1.27 miles (6,731 linear feet) of ditches and/or swales that are part of the Town's MS4; the segments are located as shown on the following map.

Inspections:
At least 10% of the total length of conveyance system (ditches and/or swales) is inspected each year, using the following Structural Control Inspection Form. In addition, they are observed for problems that may impact their functionality whenever the banks are maintained.

The minimum inspection schedule of the swales/ditches within our system is annually; however, the primary task of Stormwater Maintenance Division is to maintain areas within the Town's conveyances daily.

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

1. Mow/cut vegetative cover above normal water line.
2. Remove trash and debris from system and dispose of properly.
3. Remove accumulated sediment from the bottom to restore design conveyance capacity and storage volume.
4. Repair and re-establish any eroded areas on the bottom, side slopes, and/or top of bank.

Documentation:
The documentation for the inspection and maintenance activities related to control structures is recorded on the Stormwater Division computer system and on the attached inspection form.

Conveyance (Ditch & Canal) System -Structural Control Inspection

Facility ID: _____ **Date:** _____

Function:

Debris or Trash Present:	**YES**	**NO**
Sediment Accumulation:	**YES**	**NO**
Grading Issues:	**YES**	**NO**

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

Erosion:

Vegetation on top or side of slopes falling:	**YES**	**NO**
Any signs of erosion at outfall:	**YES**	**NO**
Erosion due to Vandalism	**YES**	**NO**

If YES, describe and schedule for maintenance.

General:

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

If YES, describe and report to supervisor for proper response.

TOWN OF LAKE PARK CONVEYANCE SYSTEM MAP

(To be inserted by PW/O&M staff)

3.3.17 DRY DETENTION AND/OR RETENTION SYSTEM –STRUCTURAL CONTROL INSPECTION

Standard Operational/Maintenance/Documentation Protocol

There are --- dry detention systems and ----dry retention systems that are part of our MS4; they are located as shown on the following map.

Dry Detention Systems
Name-----N ----W , Name-----N ----W , Name-----N ----W ,

Dry Retention Systems
Name-----N ----W , Name-----N ----W , Name-----N ----W

Inspections:
Established dry detention or retention systems are inspected once every three years, using the following Structural Control Inspection Form. In addition, they are observed for problems that may impact their functionality whenever they are mowed. New dry detention or retention systems are inspected annually for the first two years of operation. If chronic problems are identified with a dry detention or retention system, it is inspected annually until the problem is resolved (two consecutive annual inspections without an issue). Inspections are conducted close to the storage recovery time of that dry detention or retention system (generally 72 hours after a significant rainfall event) to verify that the system still functions as intended.

The anticipated inspection schedule follows.
All 6 (six) dry areas are inspected annually between the months of August and November, during the rainy season.

Maintenance:
There are several maintenance activities that may be associated with a dry detention or 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. Include soil testing, as needed, to verify that the infiltration capacity has been restored. Re-established the surface to its final condition (seed, sod, etc...)

Documentation:
The documentation for the inspection and maintenance activities related to the dry detention or retention systems is recorded on the Stormwater Division computer system and on the attached inspection form.

Dry Detention/Retention System-Structural Control Inspection

Facility ID: _____ Compute W0# _____ Date: _____

Inspection conducted_____days/hours after significant rainfall event.

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
YES, describe and schedule for maintenance:		
INFLOW STRUCTURE:		
Any signs of erosion?	YES	NO
Any signs of structure settling?	YES	NO
Any signs of physical damage?	YES	NO
Any signs of accumulated sediment?	YES	NO
If YES to any of the above, schedule the structure for maintenance.		
Any debris present?	YES	NO
If YES, remove debris or schedule for maintenance.		
OUTFLOW STRUCTURE (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.		

TOWN OF LAKE PARK DETENTION/RETENTION STRUCTURES MAP

(To be inserted by PW/O&M staff)

3.3.18 EXFILTRATION TRENCH- STRUCTURAL CONTROL INSPECTION

Standard Operational/Maintenance/Documentation Protocol

There are --- linear feet of exfiltration trench that are part of our MS4; the systems are located as shown on the following map.

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

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

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

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

The anticipated inspection schedule will be every three (3) years for :

(see attached map of zones to be inspected).

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

1. Remove sediment in pipe(s) and/or upstream and downstream structures. This may be done by flushing or vacuuming.
2. Remove trash and debris from the system and dispose of properly.
3. Total rehabilitation (removal and replacement) of the exfiltration trench system may be required when the system fails to function at the design capacity.

Documentation:
The documentation for the inspection and maintenance activities related to exfiltration trench is the Stormwater Division / Exfiltration Trench-Structural Control Inspection Form.

Exfiltration Trench -Structural Control Inspection

Facility ID: _____ **Date:** _____

Inspection conducted____days/hours after significant rainfall event.

Function:

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

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

General:

Sediment amount less than one foot below pipe invert in up or downstream structure.	**YES**	**NO**
Sediment visible in pipe?	**YES**	**NO**
Debris accumulation at weir?	**YES**	**NO**

If YES, describe and schedule for maintenance.

General:

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

If YES, describe and report to supervisor for proper response.

TOWN OF LAKE PARK MAJOR OUTFALLS MAP

(To be inserted by PW/O&M staff)

TOWN OF LAKE PARK EXFILTRATION TRENCH MAP

(To be inserted by PW/O&M staff)

3.3.19 MAJOR STORMWATER OUTFALLS- STRUCTURAL CONTROL INSPECTION

Standard Operational/Maintenance/Documentation Protocol

There are 11 major stormwater outfalls {MSWOs} that are part of our MS4. A MSWO is defined as: an outfall pipe larger than 36-inch inside diameter (or its equivalent), OR discharge from a single conveyance other than a pipe that serves a drainage area of 50 acres or more, OR an outfall pipe larger than 12-inches inside diameter (or its equivalent) that serves a drainage area containing industrial land uses, OR discharge from a single conveyance other than a pipe that serves a drainage area of 2 acres or more than include industrial land uses.

The MSOWs within our MS4 are located on the following map. (see attached)

Inspections:

MSWOs are inspected annually or more frequently if historic operations indicate that it's needed for a particular MSWO. Inspections are conducted in accordance with the following Structural Control Inspection Form.

The anticipated inspection schedule follows.

EAST ZONE (Earman River, Lake Worth Lagoon Outfall Inspections) ----- 2020
WEST ZONE (C-17 CANAL Outfall Inspections) ---- 2020

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:

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

Documentation:

The documentation for the inspection and maintenance activities related to major stormwater outfalls is the Stormwater Division computer system/Structural Controls Inspection Form.

Major Stormwater Outfalls – Structural Control Inspection

Facility ID: _____ **Date:** _____

Inspection conducted____days/hours after significant rainfall event.

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:

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

If YES, describe and schedule for maintenance.

General:

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

If YES, describe and report to supervisor for proper response.

TOWN OF LAKE PARK MAJOR OUTFALLS MAP

(To be inserted by PW/O&M staff)

3.3.20 STORMWATER DRAINAGE POLLUTION CONTROL DEVICE-STRUCTURAL CONTROL INSPECTION

Standard Operational/Maintenance/Documentation Protocol

There are ---- pollution control devices (PCDs) that are part of our MS4; they are located as shown on the following map.

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

Inspections:
PCDs are inspected quarterly unless historic operations indicate that a less or more frequent inspection schedule is needed for particular PCDs. Inspections are conducted in accordance with the PCD manufacturer's recommendations. In general, inspections will include the items listed on the following Structural Control Inspection Form. (see attachment)

The anticipated inspection schedule follows. (see attachment)

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

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

Documentation:
The documentation for the inspection and maintenance activities related to pollution control devices is the Stormwater Division computer system.

Major Stormwater Outfalls – Structural Control Inspection

Facility ID: _____ **Date:** _____

Inspection conducted____days/hours after significant rainfall event.

Function:

Sediment accumulation?	**YES**	**NO**
Absorbent materials need replacement?	**YES**	**NO**

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

General:

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

If YES, schedule for maintenance.

General:

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

If YES, describe and report to supervisor for proper response.

Stormwater Drainage
PCD - Structural Control Inspection Schedule

Facility	Frequency	Planned Date
(Name)	Quarterly	(M/YEAR)
	Quarterly	
	Quarterly	
	Quarterly	
	Quarterly	
	Quarterly	
	Quarterly	
	Quarterly	
	Quarterly	
.	Quarterly	
	Quarterly	
	Quarterly	
	Quarterly	

TOWN OF LAKE PARK POLLUTION CONTROL DEVICES MAP

(To be inserted by PW/O&M staff)

3.3.21 PIPES/CULVERTS AND INLETS/MANHOLES- STRUCTURAL CONTROL INSPECTION

Standard Operational/Maintenance/Documentation Protocol

There are 10.65 miles of pipe/culvert that are part of our MS4. The locations are shown on the following map. This value and the locations on the map do NOT include exfiltration trench, which is catalogued separately. Each pipe segment (between two structures or between a structure and an outfall) has a unique identification. This information is stored in a geographic information system (GIS).

There are 589 inlets/catch basins/manholes that are part of our MS4. Their locations are also shown on the following map. Each structure has a unique identification. This information is stored in a geographic information system (GIS).

Inspection:

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

Maintenance:

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

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

TOWN OF LAKE PARK STORMWATER ATLAS MAP

(To be inserted by PW/O&M staff)

3.3.22 SWALE SYSTEM -STRUCTURAL CONTROL INSPECTION

Standard Operational/Maintenance/Documentation Protocol

There are ---- linear feet of swales that are part of our MS4; the swale segments are located as shown on the following map.

Name Street ---N -----W

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

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

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

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.

The anticipated inspection schedule for the swale areas will be done annually between the months of August & November during the rainy season.

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

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

Documentation:
The documentation for the inspection and maintenance activities related to swales is recorded on the Stormwater Division computer sSystem and on the form Grass Swale Inspection form.

Grass Swale Inspection form

Facility ID: _____ **Date:** _____

Inspection conducted_____days/hours after significant rainfall event.

Function:

Wet Bottom?	**YES**	**NO**
Aquatic vegetation present?	**YES**	**NO**
Dead or dying grass on bottom?	**YES**	**NO**
Sediment accumulation?	**YES**	**NO**
Grading Issue?	**YES**	**NO**

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

Erosion:

Vegetation on bottom or side slopes failing?	**YES**	**NO**
Any signs of erosion?	**YES**	**NO**

If YES, describe and schedule for maintenance.

General:

Any signs of damage from parking in swale?	**YES**	**NO**
Any fences or other objects that could obstruct flow into/through the swale?	**YES**	**NO**
Any indications of illicit discharge or illegal dumping?	**YES**	**NO**

If YES, describe and schedule for maintenance.

General:

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

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

TOWN OF LAKE PARK SWALE SYSTEM MAP

To be inserted by PW/O&M staff)

3.3.23 STORMWATER PUMP STATION- STRUCTURAL CONTROL INSPECTION

Standard Operational/Maintenance/Documentation Protocol

There are ---- stormwater pump stations (SWPSs) and ---- structures that are part of our MS4; they are located as shown on the attached map.

Inspections:
SWPSs are inspected based on a prescribed preventative maintenance program, or if historic operations indicate that it's needed for a particular SWPS. Because these structures are each unique, their inspection protocol is specific to each structure. The anticipated inspection schedule is attached.

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

1. Remove trash and debris and dispose of properly.
2. Remove accumulated vegetative matter and dispose of properly.
3. Remove accumulated sediment and dispose of properly.
4. Maintain pumps, generators and gates in accordance with pump manufacturer's recommendations.

Documentation:
The documentation for the inspection and maintenance activities related to stormwater pump stations and structures is located in the Computerized Management Maintenance Software (CMMS) Program on the HiperWeb Work Management System.

Stormwater Pump Station and Structure Inspections

Locations with Task	3 Times a Week	7 Day	15 Day	30 Day	90 Day	180 Day	1Year	5 Year
Boyd Street Structure								
Electrical					x			
Mechanical			x				x	
PM- SCADA (RTU)			x					
Gates Operate from Computer			x					
Transducer: Calibrate with Staff Gauge					x			
Gates Grease Screw Gear							x	
PM- General Maintenance			x					
Haverhill Pump Station								
Electrical			x					
Mechanical				x		x	x	x
PM- SCADA (RTU)				x				
PM- General-Run Generator			x					
PM- Clean Floats Operate Station				x				
PM- Clean Wetwell						x		
PM- Pull Pump & Check Clean and check Valves							x	
PM- Pull Pumps and take to shop								x
PM- Pull Pump and Inspect							x	
PM- Electrical Clean Switch Gear, Tighten Lugs, Clean Control Panel						x		
PM- General Maintenance					x			
Dreher Park Pump Station								
Electrical								
Mechanical								

Frequency of Inspections

Locations with Task	3 Times a Week	7 Day	15 Day	30 Day	90 Day	180 Day	1Year	5 Year
PM- SCADA (RTU)				x				
PM- Check Station and Pumps			x					
PM- Check Generator and Run Generator			x					
PM- Check Tranducer and Gilter					x			
PM- Check Pump. Check Oil in Pump							x	
PM- Pull Pump, Send out for manufacture inspection								x
PM- General Maintenance				x				
Foxhall Pump Station								
Electrical			x		x	x		
Mechanical				x		x	x	x
PM- SCADA (RTU)				x				
PM- Pull Pump & Take to Shop for Repairs								x
PM- Check Wetwell for Grease, Clean Floats				x				
PM- Check Wetwell, Clean Grease from Wetwell						x		
PM- Pull & Check Pumps, Clean & Check Valves							x	
PM- Run Generator			x					
PM- Level Control System					x			
PM- Clean & Inspect Switches Gear						x		
PM- General Maintenance				x				
Renaissance Pump Station								
Electrical			x			x		
Mechanical	x			x				
PM- SCADA (RTU)				x				
PM- Check Generator / Run Pump			x					

Frequency of Inspections

Locations with Task	3 Times a Week	7 Day	15 Day	30 Day	90 Day	180 Day	1Year	5 Year
PM- Check Station I Run Pump	x							
Check Alum Tanks	x							
Check Polymer Tanks	x							
Check Bar Screen	x							
PM- Electrical Switchgear						x		
PM- Pumps				x				
PM- Check I Run				x				
PM- General Maintenance				x				
Baywinds Pump Station								
Electrical			x	x				
Mechanical				x	x	x	x	
PM- SCADA (RTU)				x				
PM- Check Generator I Run Pump			x	x	x			
PM- Rain Gauge Calibration				x				
PM- General Maintenance				x				
Ironhorse Pump Stations (2)								
Electrical			x	x	x	x	x	
Mechanical			x	x	x	x	x	
PM- SCADA (RTU)				x				
PM- Check Generator I Run Pump			x	x	x	x	x	
PM- General Maintenance				x				
Control# 7								
Currently Out of Service								

Frequency of Inspections

Locations with Task	3 Times a Week	7 Day	15 Day	30 Day	90 Day	180 Day	1Year	5 Year
Carver Canal Structure								
Electrical			x	x	x	x	x	
Mechanical			x	x	x	x	x	
PM- SCADA (RTU)				x				
Gates Operate from Computer				x				
Transducer: Calibrate with Staff Gauge					x			
Gates Grease Screw Gear							x	
PM- General Maintenance				x				
Control # 8 Structure								
Electrical	x							
Mechanical						x		
PM- SCADA (RTU)								
Gates Operate from Computer		x						
Gates Grease Screw Gear							x	
PM- General Maintenance				x				

TOWN OF LAKE PARK CONTROL STRUCTURES MAP

To be inserted by PW/O&M staff)

3.3.24 WET DETENTION SYSTEM -STRUCTURAL CONTROL INSPECTION

Standard Operational/Maintenance/Documentation Protocol

There are --- wet detention systems that are part of our MS4; they are located as shown on the following map.

1. Location
2. Location

Located ---- N ----- W
Located ---- N ----- W

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

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

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

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

The anticipated inspection schedule follows.
(Name -------) wet retention inspections are done in --------- (annually)

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

1. Maintain and re-establish any eroded areas on side slopes.
2. Repair any undercutting or piping around inflow and/or outflow structure(s).
3. Remove trash and debris from system and dispose of properly.
4. Remove accumulated sediment from the inflow and/or outflow pipe and dispose of properly.

Wet Detention System- Structural Control Inspection

Facility ID: _____ **Date:** _____

Inspection conducted____days/hours after significant rainfall event.

Function:

Pond/Lake level above control elevation longer than recovery time?	**YES**	**NO**

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

Erosion:

Vegetation on side slopes failing?	**YES**	**NO**
Any signs of erosion?	**YES**	**NO**

If YES, describe and schedule for maintenance.

Inflow Structure:

Any signs of erosion?	**YES**	**NO**
Any signs of structure settling?	**YES**	**NO**
Any signs of physical damage?	**YES**	**NO**
Any signs of accumulated sediment?		

If YES, describe and schedule for maintenance.

General:

Any debris present?	**YES**	**NO**

If YES, remove debris or 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?		

If YES, describe and schedule for maintenance.

General:

Any debris present?	**YES**	**NO**

If YES, remove debris or schedule for maintenance:

General:

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

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

TOWN OF LAKE PARK WET DETENTION STRUCTURAL CONTROL LOCATIONS MAP

To be inserted by PW/O&M staff)

3.3.25 PLAN FOR TRAINING TOWN STAFF ON IDENTIFYING AND REPORTING CONDITIONS THAT MAY INDICATE ILLICIT DISCHARGE, CONNECTION, DUMPING TO THE MS4

The Town of Lake Park will train the appropriate staff on how to identify and report conditions that may indicate illicit discharge, connection and dumping to the MS4.

The training will be presented via employee training videos by the supervisor of each work group in ----- of each year.

Some of the topics covered by the training include:

- Identifying what is an illicit discharge
- Detect and address non-stormwater discharges, including illegal dumping
- Hazards associated with illegal discharges and improper disposal of waste
- Non-stormwater discharges or flows, contributors of pollutants to your small MS4

Attendance at the training session will be documented by sign-in sheets and logged into our Hiperweb Work Management System.

3.3.26 PLAN FOR TRAINING TOWN STAFF ON STORMWATER MANAGEMENT, EROSION AND SEDIMENTATION CONTROLS

The Town of Lake Park will have appropriate staff trained on stormwater management, erosion and sedimentation controls.

The training will be hosted by Palm Beach County NPDES and presented by Palm Beach County Steering Committee annually in March.

Some of the topics covered by the training include:

- Stormwater Management Inspector Training Program and Construction BMPs
- Best Management Practices
- Types of Erosion
- What is runoff & what it impacts?
- Record Keeping
- TMDLs

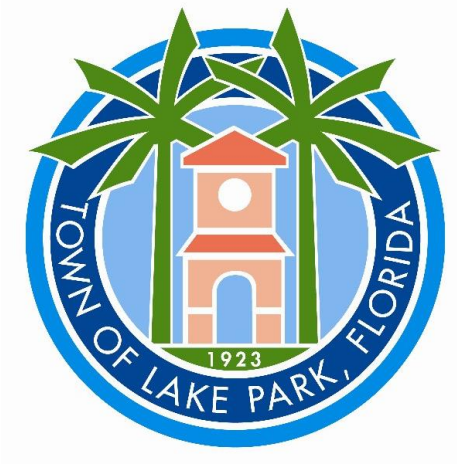
Attendance at the training session will be documented by sign-in sheets Palm Beach County NPDES Committee and logged into the Stormwater Division computer system under Training.

APPENDIX A

FDOT
Standard
Index Sheets
For
Maintenance
of Traffic

APPENDIX B

Checklists



APPENDIX C

Easment
Grid
Map