

Minutes
Quarterly Teleconference for Florida Phase II MS4
NPDES Coordinators
Wednesday, March 20, 2019

Next quarterly teleconference for Phase II NPDES Coordinators:

- June 26, 2019 @ 1:30 pm, same Call-in information:
- Submit agenda items at least 2 weeks prior of the teleconference to Robin.Starkie@floridadep.gov
- Sign up in GovDelivery for teleconference notifications.
https://public.govdelivery.com/accounts/FLDEP/subscriber/new?topic_id=FLDEP_439

NPDES Stormwater Contacts:

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Steve Cioccia	Phase I MS4 Coordinator	850-245-8568
Jonathan Turner	Phase I MS4 Coordinator	850-245-8482
NPDES Notices Center		850-245-7522

(toll-free) 866-336-6312

NOTES

Element Overview: Public Education and Outreach – Hector Rivera

Why Is Public Education and Outreach Necessary? An informed and knowledgeable community is crucial to the success of a stormwater management program since it helps to ensure the following:

- Greater support for the program as the public gains a greater understanding of the reasons why it is necessary and important. Public support is particularly beneficial when operators of small MS4s attempt to institute new funding initiatives for the program or seek volunteers to help implement the program; and
- Greater compliance with the program as the public becomes aware of the personal responsibilities expected of them and others in the community, including the individual actions they can take to protect or improve the quality of area waters.
- What Is Required?
To satisfy this minimum control measure, the operator of a regulated small MS4 needs to: Implement a public education program to distribute educational materials to the community, or conduct equivalent outreach activities about the impacts of stormwater

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discharges on local waterbodies and the steps that can be taken to reduce stormwater pollution; and ‘ Determine the appropriate best management practices (BMPs) and measurable goals for this minimum control measure. Some program implementation approaches, BMPs (i.e., the program actions/activities), and measurable goals are suggested below.

- Forming Partnerships
Operators of regulated small MS4s are encouraged to utilize partnerships with other governmental entities to fulfill this minimum control measure’s requirements. It is generally more cost-effective to use an existing program, or to develop a new regional or state-wide education program, than to have numerous operators developing their own local programs. Operators also are encouraged to seek assistance from nongovernmental organizations (e.g., environmental, civic, and industrial organizations), since many already have educational materials and perform outreach activities.
- Using Educational Materials and Strategies
Operators of regulated small MS4s may use stormwater educational information provided by their State, Tribe, EPA Region, or environmental, public interest, or trade organizations instead of developing their own materials. Operators should strive to make their materials and activities relevant to local situations and issues and incorporate a variety of strategies to ensure maximum coverage.
Some examples include:
 - Brochures or fact sheets for general public and specific audiences;
 - Recreational guides to educate groups such as golfers, hikers, paddlers, climbers, fishermen, and campers;
 - Alternative information sources, such as web sites, bumper stickers, refrigerator magnets, posters for bus and subway stops, and restaurant placemats;
 - A library of educational materials for community and school groups;
 - Volunteer citizen educators to staff a public education task force;
 - Event participation with educational displays at home shows and community festivals;
 - Educational programs for school-age children;
 - Storm drain stenciling of storm drains with messages such as “Do Not Dump - Drains Directly to Lake;”
- Reaching Diverse Audiences
The public education program should use a mix of appropriate local strategies to address the viewpoints and concerns of a variety of audiences and communities, including minority and disadvantaged communities, as well as children. Printing posters and brochures in more than one language or posting large warning signs (e.g., cautioning against fishing or swimming) near storm sewer outfalls are methods that can be used to reach audiences less likely to read standard materials. Directing materials or outreach programs toward specific groups of commercial, industrial, and institutional entities

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likely to have significant stormwater impacts is also recommended. For example, information could be provided to restaurants on the effects of grease clogging storm drains and to auto garages on the effects of dumping used oil into storm drains.

For more information contact:
U.S. EPA Office of Wastewater Management
<http://www.epa.gov/npdes/stormwater>
Phone: 202-564-9545

Source: EPA Fact Sheet 2.3; Stormwater Phase II Final Rule / Public Education and Outreach Minimum Control Measure (January 200. Revised December 2005).
www.epa.gov/sites/production/files/2015-11/documents/fact2-3.pdf

1) Carolina Alvarez (Brevard County): Is there a quantitative number of public outreach efforts that must occur?

Cierra Robinson: The stormwater program is more interested in the implementation of an effective program. There's not a minimum requirement of how many brochures an MS4 should distribute, for example. The standard is to implement each BMP to the "maximum extent practicable". So, in that example, if an MS4 only distributes ten brochures during the reporting period based on a population of 1000+, that could trigger a request from the department to increase efforts.

2) Sally Adkins (Gainesville): Shared an experience regarding tour buses that came to town which were discharging wastewater. The incident was reported, and they were able to stop the discharge before it reached waterways, but wanted to provide as a potential example of a target audience for educational materials

Carolina Alvarez: Were there storm drain marked?

Sally Adkins: Not entirely sure as the city has recently assumed that responsibility which was previously completed by volunteer groups.

Carolina Alvarez: FDOT has regulatory authority to approve tour bus drivers, so they may be able to help disseminate information.

Asking an MS4 (Titusville) – Jason Maron, Sandra Reller (Public Works Deputy Director)

1) Jason Maron (JM): How is your SWMP coordinated across departments?

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Sandra Reller (SR): We created a group of the key people from each department and educated them. Many people didn't really know why we were asking for the information or what the purpose was initially and once we educated them on why we have the permit and what the requirements were, they understood process and the importance of it. We also created an SOP for gathering the information needed at the end of each permit year that includes a template for what each department needs to send us.

2) JM: How do you train your employees on illicit discharges and do you think there are any improvements that can be made?

SR: Currently we train employees during their onboarding process with the City we try to combine off of another training that may be going on at the same time. We use a simple powerpoint presentation that goes over the stormwater basics and then tailor it to the specific audience we are educating. I definitely think improvements can be made, especially when employees are first starting and your teaching them so much information that most of the information gets lost. I think this year we are going to try what was mentioned during the last teleconference and email out materials to all of our employees. I think we will try to tailor the materials to the specific departments, the employees in the field will need different information than those who stay in the office all day. If we only send them information relevant to what they do, they may be more willing to read it.

JM: It's very important to tailor the information being used to educate your employees to their daily duties. Of course, educating everyone on everything would be ideal but would be impractical. For example, a person out in the field may require a more in-depth illicit discharge training than an employee in the office all day.

3) JM: What steps did the city take to prepare for Phase II MS4 audit?

SR: The biggest help to me was creating a binder that had tabs for each of the elements, then on each tab I put the summary of results from the year 4 annual report. This made it easier for me to see what backup documentation I was looking to find for each element. It also made it easier for me to flip through and see what elements needed more documentation. By the time I was done, it ended up being quite a big binder, but it made it easy for the auditors to find exactly what they were looking for and I think it sped up the audit process quite a bit.

JM: We highly recommend using a binder and love seeing them when going to an audit because it truly does expedite the auditing process. Another great way to organize your documents we've seen in past audits is by laying out all your documents in a Folder in your File Explorer in order of BMP and Measurable Goal to be presented during the audit and this works just as well.

4) JM: What methods does the city use to increase public involvement in participation events?

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SR: We put notices on our website, send them out in water bills and put them in local newspapers. But the one method that has worked the best was to target a specific audience and mail out flyers or postcards to them. For example, we were conducting a living shoreline workshop and we mailed postcards and educational material specifically to properties along the Lagoon. That specific targeted outreach seemed to give us the best turnout of any of the trainings that I've done here.

JM: Another great way to increase public involvement and participation specifically for clean-up events is to really promote the water body shore your cleaning up. You should really be promoting that this clean-up event can help the waterbody, whether it be the Indian River Lagoon, lake, river, or pond. All of the residents of your MS4 are connected by this waterbody. If you can apply the event to this waterbody and explain why it's important and what effect the clean-up will have it really resonates with the public on the importance of the event and why this program is so important.

Tammy Mayfield (City of Melbourne) - Question to Sandra: Are the city's standard operating procedures (SOPs) available online, specifically the process of gathering information across departments?

SR: I can provide documents to you.

Jeremy Buchanan (Osceola County) - Also interested in SOPs.

JM: We will provide Titusville's SOPs in the minutes.

Audit Schedule – Jason Maron

Tentative Phase II MS4 Audits for this Quarter (unless dated):

Panama City Beach	22-Mar
Springfield	21-Mar
Fruitland Park	9-Apr
Lake County	10-Apr
Mascotte	10-Apr
Montverde	11-Apr
Inverness	May
Citrus County	May
FDOT District 7 - Citrus County	May
FDOT District 1 - Highlands County	June

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Highlands County	June
Sebring	June
Avon Park	June

Master Template Update – Cierra Robinson

Cierra Robinson: Master Template is in the final stages of review and should be available as guidance soon.

Open Discussion

1. Sally Adkins: Will there be any updates to the PDF forms used for submission?

Cierra Robinson: We have Word Docs which we can provide with the minutes. (The E-Reporting Rule will require online submission of this information and will resolve the need for these forms all-together.)

2. Jeremy Buchanan (Osceola County): Sharing that he was informed that physical copies of the Florida Sediment and Erosion Control course manuals will no longer be available and will need to be obtained online.

3. Teayann Duclos (FDOT 5): Will the FDOT need to submit a Year 6 Annual Report since the permits have not yet been renewed?

Cierra Robinson: Unsure and will provide follow up.

(Borja Crane-Amores later confirmed that the permits are administratively continued, the FDOT should still be implementing their programs and a Year 6 Annual Report is required.)

4. Kurt Spitzer (Florida Stormwater Association): Looking forward to working with FDEP on the rule making process.

Cierra Robinson: The beginning stages are underway, and we will keep everyone updated as we make headway.

Example Standard Operating Procedures Provided by Titusville – Attached



CITY OF TITUSVILLE

NPDES Tracking

Standard Operating Procedures

July 2017

Definition: As part of the City's Phase II National Pollutant Discharge Elimination System Generic Permit for Discharge of Stormwater to its Municipal Separate Storm Sewer Systems the City is required to track certain elements throughout the year and report them annually. This SOP details the process needed to properly report these elements.

Departments & Employees Duties:

Department	Position	Duties
Public Works	Deputy Director	Lead the effort to compile the information and report to the FDEP; Track & compile information required from Public Works
Water Resources	Water Conservation & Public Outreach Manager	Track & compile information required from Water Resources and report back to Public Works
Community Development	Natural Resources Planner	Track & compile information required from Natural Resources and report back to Public Works
Community Development	Development Office Manager/Development Technical Manager	Track & compile information required from Development Services and report back to Public Works

Procedure:

1. Required information will be tracked annually within each department. The information that is required per department is listed in Attachment A-Email Templates and will be updated annually or as needed.
2. In January each year the Public Works Deputy Director will email each employee listed above with their applicable template.
3. Each department will run the proper reports needed to pull and compile the information. Tracking procedures and details will be determined within each respective department to ensure tracking procedures coincide with each department's policies and procedures. If tracking problems arise a group should be formed which includes the Public Works Deputy Director to determine the best tracking procedure for the element in question.
4. Information will be emailed directly back to the Public Works Deputy Director from each department employee listed above.
5. Public Works Deputy Director will compile all the information received in order to properly create the required report to send to the Florida Department of Environmental Protection.

6. After report is accepted by the FDEP, if any changes were made or added to the tracking elements, the Public Works Deputy Director will update the email templates, notify the appropriate department of the change and discuss tracking procedures if needed.
7. If duties are reassigned or a new employee takes over a position, the Public Works Deputy Director will be notified so they can review the procedures with the new employee and their supervisor.

Standard Operating Procedure Ownership: This SOP will be administered, reviewed and maintained by the Deputy Director within the Public Works Department.

The attachments in the SOP will need to be updated when updated to the permit are conducted.

NPDES Tracking SOP

Attachment A: Email Templates

Email Template – Community Development

Sent to: Development Office Manager/Development Technical Manager

Please fill out the following for the time period of December 1, 2016 – November 30, 2017

Number of business license renewals for Landscaper's & Lawn Maintenance	
Number of active construction sites	
Number of site clean-up inspections performed prior to CO (non-single family)	
Number of site plans reviewed	
Number of construction site stormwater inspections	
Number of enforcement actions taken for stormwater issues at construction sites	

Email Template – Water Resources

Sent to: Water Conservation & Public Outreach Manager

Please fill out the following for the time period of December 1, 2016 – November 30, 2017

Number of outreach materials mailed	
Number of handouts distributed at events and presentations	
Number of presentations made to local schools	
Number of attendees at presentations made to local schools	
Number of website updates	
Number of community presentations made	
Number of attendees at community presentations	
Number of presentations to Council relating to water conservation	
Number of Bag It! Trash it! Containers provided to area animal shelters and veterinarians	
Number of Bag It! Trash it! Containers provided during presentations and events	

Email Template – Natural Resources

Sent to: Natural Resources Planner

Please fill out the following for the time period of December 1, 2016 – November 30, 2017

Number of outreach materials mailed	
Number of handouts distributed at events and presentations	
Number of presentations made to local schools	
Number of attendees at presentations made to local schools	
Number of website updates	
Number of community presentations made	
Number of attendees at community presentations	
Number of presentations to Council relating to pollution control and stormwater management	
Number of meetings attended with any Brevard County & Indian River County Intergovernmental Working Group	



CITY OF TITUSVILLE
Public Education and Outreach Program
Public Involvement and Participation Program
Standard Operating Procedures
October 2016

Minimum Control Measures:

Public Education & Outreach: Implement a public education program to distribute educational materials to the community or conduct equivalent outreach activities about the impacts of stormwater discharges on water bodies and the steps the public can take to reduce pollutants in stormwater runoff.

Public Participation /Involvement: Comply with State and local public notice requirements when implementing a public/involvement participation program.

Target Audience: There are three main target audiences: businesses, homeowners, and residents. Each outreach topic has different target audiences. These are listed in table 1. The message of the outreach topics may change slightly depending on the target audience and particular attention should be paid to what target audience you are addresses while creating the outreach material.

Schedule and Implementation Strategy for Message Delivery: The schedule may vary year to year depending on what outreach topics are targeted that year. Topics that should be address each year include:

Irrigation Restrictions: Change of Daylight Savings Time (twice a year)

Fertilizer Ordinance: Before and after the summer ban (Jun. 1st-Sep. 30th) (twice a year)

Illicit Discharge: Landscape Professionals during BTR renewal (once a year)

All other topics should be addresses throughout the year through a variety of possible outreach activities, listed in Table 1.

There are three main departments within the City responsible for education and outreach, Public Works, Water Resources, and Natural Resources. Each department is responsible for various outreach topics. Some topics may have more than one responsible department, if so the departments will coordinate with each other prior to the outreach activity taking place.

Public Notification: The City will comply with State and local public notice requirements when implementing a public involvement and participation program. Public involvement and participation programs will include steps to foster and include public input in developing, implementing, and reviewing storm water management programs.

Soliciting Public Participation: The City will look for opportunities to solicit public participation in stormwater activities through: public hearings, stormdrain marking programs, and volunteering opportunities.

Methodology for Documenting and Tracking Public Education and Outreach Activities and Public Involvement and Participation:

Definition: As part of the City's Phase II National Pollutant Discharge Elimination System Generic Permit for Discharge of Stormwater to its Municipal Separate Storm Sewer Systems the City is required to track certain elements throughout the year and report them annually. This SOP details the process needed to properly report these elements.

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7. If duties are reassigned or a new employee takes over a position, the Public Works Deputy Director will be notified so they can review the procedures with the new employee and their supervisor.

Standard Operating Procedure Ownership: This SOP will be administered, reviewed and maintained by the Public Works Deputy Director within the Public Works Department. The attachments in the SOP will need to be updated when updated to the permit are conducted.

Rev: 12/2017

Table 1

Outreach Topics	Target Audience	Possible Outreach Activities	Responsible Department
Illicit Discharge	Businesses Homeowners Residents	Flyers, Website; Brochures; Direct Mailers; Utility Bill Inserts; Articles; Newsletters;	Public Works
Fertilizer	Businesses Homeowners	Flyers, Website; Brochures; Direct Mailers; Utility Bill Inserts; Articles; Newsletters; Workshops	Natural Resources
Irrigation	Businesses Homeowners	Flyers, Website; Brochures; Direct Mailers; Utility Bill Inserts; Articles; Newsletters;	Water Resources
Pollution Prevention	Businesses Homeowners Residents	Flyers, Website; Brochures; Direct Mailers; Utility Bill Inserts; Articles; Newsletters;	Public Works/Natural Resources
Florida Yards & Neighborhoods	Businesses Homeowners	Flyers, Website; Brochures; Direct Mailers; Utility Bill Inserts; Articles; Newsletters; Workshops	Public Works/Water Resources
Pet Waste	Residents	Flyers, Website; Brochures; Direct Mailers; Utility Bill Inserts; Articles; Newsletters; Signs	Natural Resources
Water Conservation	Businesses Homeowners	Flyers, Website; Brochures; Direct Mailers; Utility Bill Inserts; Articles; Newsletters; Workshops	Water Resources
Stormwater Runoff	Businesses Homeowners	Flyers, Website; Brochures; Direct Mailers; Utility Bill Inserts; Articles; Newsletters;	Public Works
Living Shoreline	Riverfront Property Owners	Flyers, Website; Brochures; Direct Mailers; Utility Bill Inserts; Articles; Newsletters; Workshops	Natural Resources/Public Works

NPDES Tracking SOP

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Email Templates

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CITY OF TITUSVILLE

Illicit Discharge Detection and Elimination Program

June 2015

The purpose of the Illicit Discharge Detection and Elimination (IDDE) Program is to detect and eliminate sources of pollution to the municipal separate storm sewer system (MS4) as required under the City of Titusville's Phase II MS4 Generic Permit Number FLR04E079. The goal of this plan is to identify and then eliminate illicit discharges.

IDDE program goals include, improving water quality in local waterways, increasing public awareness, educating and implementing best management practices, developing procedures to handle complaints and IDDE issues along with procedures and training of municipal staff.

The National Pollutant Discharge Elimination System (NPDES) permit sets forth the minimum elements of the plan which are listed below.

- Identification of priority areas for investigation
- Annual schedule for proactive inspections
- Employee training requirements
- Public Education
- SOPs for investigations, tracking and documentation

Municipal Storm System Mapping

The City has completed GIS mapping of the City's stormwater system, including outfall identification. Updating and maintenance of the GIS database is ongoing. The GIS system will be used to identify areas to be inspected and determine receiving waters if necessary.

City Ordinance

In 2004, the City adopted Ordinance 44-2004 concerning unlawful discharges to the stormwater system. See Appendix A for the full ordinance (Section 16-15, City of Titusville, Code of Ordinances).

Identification of Priority Areas for Investigation

For consistency with the City's MS4 NPDES permit, the following areas are considered a priority of the IDDE program:

- Industrial, commercial, or mixed use facilities that have a higher potential for illicit discharges
- Facilities or areas with history of past illicit discharges and/or illegal dumping
- Facilities or areas with direct connection to the Indian River Lagoon
- Facilities or areas of the City which were developed before regulations requiring stormwater treatment were in place

The City will utilize business license information and utility services information to target facilities that fall under a particular industry or commercial activity (e.g. concrete plants, automotive repair and body shops, etc.). The City will use historical references to identify potential areas where illicit discharges may be prevalent. These lists will be cross-referenced with the Florida Department of Environmental Protection (FDEP) list of facilities that have coverage under the Multi-Sector Generic Permit (MSGP).

The listing of facilities and updating of those priority listings/rankings will happen on a continuous basis.

Annual Schedule for Proactive Inspections

All priority areas and facilities will be inspected at minimum once within the five-year permit term. Inspections of priority areas and facilities will occur according to the potential risk factor associated with the area/facility. Priority facilities and areas within the City will be grouped into one of three categories of risk for potential illicit discharges: High Risk, Medium Risk and Low Risk, as a means to identify, group and evaluate those facilities and areas of the City with the greatest potential for illicit discharges. For example, if an industrial area of the City has been deemed a high risk area for potential illicit discharges (e.g. concrete mixing plants, auto repair warehouses, chemical storage warehouses, etc.); the facilities within that area will be evaluated and inspected every 12 months. If a facility is found to be a low or medium risk for potential illicit discharge, even though they may be physically located within an area deemed as a high risk area, those facilities will be evaluated and inspected less frequently.

Frequency of Inspections for Priority Areas and Facilities:

<u>High Risk</u>	<u>Medium Risk</u>	<u>Low Risk</u>
Once Every 12 Months	Twice Per Permit Term	Once Per Permit Term

In addition, inspections for signs of illicit discharges are part of the Standard Operating Procedure for all structural control inspections and maintenance activities within the City's Public Works Department. If a suspected illicit discharge/connection/dumping is identified, it is reported to the City's Stormwater Division for investigation under the Proactive IDDE program.

Finally, all appropriate field personnel receive IDDE identification and notification training. If a suspected illicit discharge is identified during the course of performing their regular activities, it is reported to the City's Stormwater Division for investigation under the Proactive IDDE program.

Public Education

The City's IDDE education and outreach program takes place at the staff and community level. Illicit discharge and stormwater educational materials can be found on the Stormwater Division webpage on the City's website. Educational materials are distributed at events and presentations throughout the year along with the annual stormwater newsletter that is mailed to all utility customers in the City. Informational brochures pertaining to illicit dumping and disposal of wastes are included in annual business license renewals for landscapers and lawn service professionals.

Employee Training Requirements

Public Works employees will be trained annually on IDDE policies and procedures.

Investigations, Tracking and Documentation

Standard Operating Procedure for Conducting Proactive Inspections

Proactive inspections will be conducted according to the schedule set based on high, medium, and low risk areas and facilities. The inspector shall monitor the prioritized area and search for indications of illicit discharges/connections/dumping into the City's MS4, in accordance with the training received. If any illicit connections are identified, the inspector will attempt to locate the source of the illicit discharge. The inspector shall conduct an IDDE inspection and record their findings on the City of Titusville IDDE Inspection Form (Appendix B) including photos if possible. If the source is identified and located, the inspector makes the decision to either approach the facility owner or refer the finding to his/her supervisor for further action.

In speaking with the facility owner or operator, the inspector advises the facility owner/operator of the findings and cites the ordinance (Section 16-15, City of Titusville, Code of Ordinances) which prohibits such discharges. The inspector may use photo documentation to support the inspection. The inspector will return to verify that the problem has been corrected, if it has not the finding will be turned over to the City's Code Enforcement Division. If no source is identified, the findings are reported to the inspector's supervisor the City's Code Enforcement Division for further investigation.

The City's Public Works Department regularly maintains and repairs the stormwater system. Proactive IDDE inspections may also take place during the inspection and maintenance of structural controls and other MS4 components by the City's Public Works Department personnel that are trained in illicit discharge identification and reporting.

Standard Operating Procedure for Conducting Reactive Inspections

Other methods of inspection for compliance come in the form of reactive inspections, which are initiated by a complaint or submittal from a citizen or outside party. These inspections are reactive and are specific to a location or entity. There is no prioritization or classification system associated the Reactive IDDE program. The Public Works Department maintains a hotline for citizens to report illicit discharge information, by calling (321) 383-5678.

The complaint or submittal is taken by the City's Streets and Stormwater staff. The complaints are entered into a database and a work order is generated. Public Works staff with appropriate training in IDDE will respond to the complaint.

The inspector will attempt to locate the source of the illicit discharge. The inspector shall conduct an IDDE inspection and record their findings on the City of Titusville IDDE Inspection Form (Appendix B) including photos if possible. If the source is identified and located, the inspector makes the decision to either approach the facility owner or refer the finding to his/her supervisor for further action.

In speaking with the facility owner or operator, the inspector advises the facility owner/operator of the findings and cites the ordinance (Section 16-15, City of Titusville, Code of Ordinances) which prohibits such discharges. The inspector may use photo documentation to support the inspection. The inspector will return to verify that the problem has been corrected, if it has not the finding will be turned over to the City's Code Enforcement Division. If no source is identified, the findings are reported to the inspector's supervisor the City's Code Enforcement Division for further investigation.

Tracking and Documentation

Inspection dates will be logged and copies of all inspections forms will be kept with the NPDES documentation maintained by the Public Works Department.

Important Contact Information

Stormwater Complaint Hotline: (321) 383-5798

Code Enforcement Department: (321) 567-3770 or (321) 264-7800

Public Works Department: (321) 567-3846

Code Enforcement Complaint Submittal:

<http://www.citizenserve.com/CAP/CitizenController?Action=ShowCodeEnforcementPage>

City of Titusville webpage: <http://www.titusville.com/index.asp>

Appendix A - City of Titusville Code of Ordinances

Sec. 16-15. - Depositing trash on streets or in gutters or in stormwater system.

- (a) It shall be unlawful for any person to drain, deposit, place or otherwise discharge onto any street, gutter, ditch, lake, river, body of water, or any natural outlet or stormwater system within the city, or to cause or permit to be drained, deposited, placed or otherwise discharged into such waters, any organic or inorganic matter which causes or tends to cause pollution. Polluting matter includes, but is not limited to, the following:

Acids or alkalis.

Animal carcasses.

Antifreeze, and other automotive products.

Chemicals.

Chemically treated cooling water.

Construction materials.

Degreasers, solvents.

Dyes (without prior written permission of the administrator).

Heated water.

Laundry waste.

Lawn clippings, leaves, branches, etc.

Paints.

Pesticides, herbicides or fertilizers.

Pet waste.

Petroleum products, including but not limited to oil, gasoline, and grease.

Recreational vehicle waste.

Refuse.

Sanitary sewage.

Silt.

Soaps.

Steam cleaning waste.

Any groundwater which contains phosphorous or nitrogen concentrations greater than the surface water into which the groundwater is discharged.

Any water which exceeds the state surface water standards.

Solids in such quantities or of such size, capable of causing interference or obstruction to the flow in the city's stormwater system.

Toxic or poisonous solids or liquids.

- (b) It shall be unlawful to wash any public or private streets, sidewalks or parking areas into a gutter, outlet or stormwater system, unless all visible debris and sediments have been removed prior to washing. If the removal of the debris and sediments is not feasible (as determined by the city manager or designee), then the street, etc. may only be washed with the designee's prior written approval, which may include requirements to clean the affected drainage pipelines or provide treatment of washwater runoff to prevent downstream pollution. Only water may be used for washing purposes.

(Ord. No. 35-1997, § 1, 10-28-97; Ord. No. 44-2004, § 1, 7-27-04)

Appendix B - City of Titusville IDDE Investigation Form

CITY OF TITUSVILLE Illicit Discharge Detection and Elimination Investigation Form



<u>Date:</u>	<u>Inspection Type</u> Proactive Reactive
<u>W.O. #:</u>	<u>Inspector:</u>
<u>Location/Address:</u>	
<u>Description of Violation:</u>	
<u>Onsite Contact:</u>	<u>Contact Phone Number:</u>
<u>Investigation Notes:</u>	
<u>Action Taken:</u>	
<u>Date Violation Resolved:</u>	<u>Referred to Code Enforcement:</u> Yes No



CITY OF TITUSVILLE

Construction Site Stormwater Program

Standard Operating Procedures

October 2016

I. PRIVATE CONSTRUCTION SITES

Private sites are inspected by the Development Services Department.

A. TIMING

Prior to Construction: The site is inspected once.

During Construction: The site is inspected at least once a week and following a rain event of 0.25" or more.

Post Construction: A final inspections is conducted prior to issuance of a Certificate of Occupancy or acceptance of infrastructure, as appropriate to the type of construction.

B. PRIORITIZATION

All sites are inspected at a minimum of once a week and after a rain event of 0.5" or more during active construction. If the inspector determines there is a high potential for erosion or if the site is in close proximity to water bodies or stormwater infrastructure the site will be generally be inspected at a greater frequency, usually 2-3 times per week.

C. PROCEDURE FOR CONDUCTING INSPECTIONS

Active construction sites are inspections based upon compliance with the SWPPP provided by the engineer and FDEP & EPA best management practices.

D. ENFORCEMENT PROCEDURES

When an erosion control issue is identified;

1. a verbal warning is provided to the developer/contractor to correct the issue. If compliance isn't obtained within a reasonable amount of time, then
2. a written non-compliance report is given to the developer/contractor and in an extreme case
3. the job may be shut down.

E. STAFF QUALIFICATIONS

Inspections are conducted by the Senior Site Inspector, Development Site Inspector, and Development Technical Manager. The Site Inspectors are all required to attend the Florida Stormwater, Erosion, and Sedimentation Control Training and Certification Program.

II. CONSTRUCTION OF CAPITAL IMPROVEMENT PROJECTS

Capital Improvement Projects are inspected by the Public Works Department, Water Resources Department, or the Development Services Department.

A. TIMING

Prior to Construction: A Pre-Construction meeting is held between the Department and the Contractor, where erosion & sediment control will be discussed.

During Construction: The site is visited by the Department multiple times a week, usually daily.

Post Construction: Both a substantial completion walkthrough and a final completion walkthrough will be completed prior to project turnover.

B. PRIORITIZATION

All sites are visited multiple times a week. The inspector may determine that the site needs to be visited more frequently due to:

1. Proximity to water bodies or stormwater infrastructure
2. Contractor Concerns
3. Challenging Construction

C. PROCEDURE FOR CONDUCTING INSPECTIONS

Active construction sites are inspections based upon compliance with the SWPPP provided by the engineer and FDEP & EPA best management practices.

D. ENFORCEMENT PROCEDURES

When an erosion control issue is identified;

1. a verbal warning is provided to the contractor to correct the issue. If compliance isn't obtained within a reasonable amount of time, then
2. a written non-compliance report is given to the contractor and in an extreme case
3. the job may be shut down.

E. STAFF QUALIFICATIONS

Inspections are conducted by the Water Resources Project Manager, Public Works Project Manager, Public Works Director, Environmental Compliance Program Manager, Senior Site Inspector, Development Site Inspector, or Development Technical Manager. The Site Inspectors are all required to attend the Florida Stormwater, Erosion, and Sedimentation Control Training and Certification Program or have similar training or education.



CITY OF TITUSVILLE

STANDARD OPERATING PROCEDURES FOR STREET SWEEPING

A. Purpose

To reduce stormwater pollution by sweeping and removing target pollutants from City streets that could be carried to the City's stormwater system and receiving waters during storm events and non-storm event discharges.

B. Prerequisites

Any employee operating the street sweeper must be employed by the City of Titusville in the Streets or Stormwater Divisions that meet the following criteria:

1. CDL Class B license classification
2. Equipment Operator III or higher
3. Received Street Sweeper Operations Training

C. Preparation

1. Complete the Daily Prestart Inspection Form prior to operating the street sweeper (Appendix 1).
2. Fill street sweeper fluids (water tank, fuel, hydraulics), if needed, prior to beginning route.
3. Prioritize street sweeping route based on scheduled areas by week and/or hotspots (areas identified as needing extra sweeping for flood prevention) depending on weather and season.
4. Hotspot areas will need to be swept more frequently:
 - a. During the wet season
 - b. If heavy rains are expected
 - c. If area is requested due to complaint or preventative flood preparation
5. Weekly schedule and maps, hotspot areas and approximate miles swept monthly are shown in Appendix 2.

D. Process

1. Operate all sweepers according to the manufacturer's recommendations (sweeping speed, throttle RPMs, etc.).
2. When full, empty the sweeper at the designated temporary storage area currently located at the Osprey Water Reclamation Facility, 1105 Buffalo Rd, Titusville, FL 32796.
3. Maintain debris piles separately by month collected for accurate monthly assessment of quantity of debris collected.
4. At the end of the day, complete the Elgin Air Street Sweeper Daily Post Trip Inspection Form (Appendix 1).

E. Debris Disposal

1. At the end of each month, collect debris for the month from the designated temporary storage area with a loader and dump truck.

2. Haul the debris to the Cocoa landfill.
3. At the landfill, the dump truck must be weighed and the driver must receive a landfill slip confirming the weight of the truck.
4. Submit the landfill slip to the Solid Waste Division. Subtract the weight of the dump truck from the landfill slip, to give the quantity of street sweeper debris collected for the month, in tons. Submit this number monthly to the Stormwater Division for record keeping, nutrient load calculation, and NPDES submittal.

F. Method for calculating the TN and TP load reductions from sweeping

The Stormwater Division will calculate and record total nitrogen (TN) and total phosphorus (TP) load reductions using the quantity of street sweeper debris weighed per month.

1. Conduct Street Sweeping using the procedures outlined above. Weigh and record each month's debris piles as outlined in Section E above.
2. The MS4 Load Reduction Tool spreadsheet will be used to calculate the mass of TN and TP removed. This spreadsheet, shown in Appendix 3, is provided by the FDEP and, along with guidance documents, can be accessed through the following link
http://www.dep.state.fl.us/water/stormwater/npdes/MS4_1.htm.
3. Use the MS4 Load Reduction Tool inputting the weight of solids removed as recorded for the month as outlined in Section E above. (Until samples are analyzed and approved by the FDEP, the default values for moisture content and bulk density will be used.) The calculation results in pounds of TP and TN removed. A sample calculation is shown in Appendix 4.
4. Track accumulated monthly removal values to use for Total Maximum Daily Load Basin Management Action Plan nutrient removal credits.

Appendix 4: Nutrient Load Reductions Calculation

Step 1: Calculate Equivalent Dry Weight

$$(\text{tons of street sweeper debris collected}) \times (2000 \text{ pounds/ton}) = (\text{pounds of wet solid collected})$$

$$(\text{pounds of wet solid collected}) \times (1 - \text{moisture content value for street sweepings}) = (\text{pounds of dry solid collected})$$

$$(\text{pounds of dry solid collected}) \times (0.4536 \text{ kilogram/pound}) = (\text{kilograms of dry solid collected})$$

Step 2: Calculate Nutrient Load Reductions

$$(\text{kilograms of dry solid collected}) \times (\text{nutrient value from final FSA report 2011} \div 1000000) = (\text{kilograms of nutrient removed})$$

$$(\text{kilograms of nutrient removed}) \times (2.205 \text{ pounds/kilogram}) = (\text{pounds of nutrient removed})$$

Example: 28.99 tons of street sweeper debris collected for the month

$$\left(\begin{array}{l} \text{Moisture content value for street sweepings: 0.6} \\ \text{TP nutrient value from final FSA report, 2011: 361} \\ \text{TN nutrient value from final FSA report, 2011: 563} \end{array} \right)$$

Dry weight:

$$\begin{aligned} 28.99 \text{ tons of wet solid} \times 2000 \text{ lbs.} &= 57980 \text{ lbs. of wet solid} \\ 57980 \text{ lbs. of wet solid} \times (1 - 0.06) &= 54501 \text{ lbs. of dry solid} \\ 54501 \text{ lbs. of dry solid} \times 0.4536 \text{ kg} &= 24722 \text{ kg of dry solid} \end{aligned}$$

TP removal:

$$\begin{aligned} 24722 \text{ kg dry solid collected} \times (361 \text{ mg/kg} \div 1000000) &= 9 \text{ kg TP removed} \\ 9 \text{ kg TP removed} \times 2.205 \text{ lbs.} &= \mathbf{20 \text{ lbs. of TP removed}} \end{aligned}$$

TN removal:

$$\begin{aligned} 24722 \text{ kg dry solid collected} \times (563 \text{ mg/kg} \div 1000000) &= 14 \text{ kg TN removed} \\ 14 \text{ kg TN removed} \times 2.205 \text{ lbs.} &= \mathbf{31 \text{ lbs. of TN removed}} \end{aligned}$$