



STANDARD OPERATING PROCEDURE

Document #

MS4-013

Effective Date:

01/08/16

Author(s)

NPDES

Supersedes Date:

09/10/15

Subsystem/Office

NPDES/Stormwater

Document Title

Illicit Discharge Detection and Elimination Investigation**1. PURPOSE:**

This standard will be utilized to assist personnel in the investigation, detection, and elimination of illicit discharges to the City of Deltona stormwater conveyance system, outfalls, area lakes & wetlands, and other surface waters of the State of Florida.

2. SCOPE:

Investigate areas based on complaints, known issues, issues discovered during inspections, and proximity to surface waters or other sensitive areas.

3. RESPONSIBILITIES:

Personnel assigned by the NPDES Office and trained in illicit discharge detection.

Other applicable departments may also be involved (Public Works, Wastewater, Fire, etc.).

4. DEFINITIONS:

IDDE: Illicit Discharge Detection and Elimination.

Illicit Discharge: The unlawful act of disposing, dumping, spilling, emitting, or other discharge of any substance other than stormwater into the stormwater drainage system. The stormwater drainage system includes streets, ditches, catch basins, yard inlets, lakes, streams, wetlands, and ponds.

MOT: Maintenance of Traffic, which may include a combination of permitting, devices (cones, signs, lights, etc.), and personnel, as required by the Florida State Department of Transportation.

NPDES: National Pollutant Discharge Elimination System.

5. PROCEDURE:**I. Response Timeline**

The city will respond on average within 48hrs. The response may include an investigation by the responsible jurisdiction or a referral of the violation to another appropriate agency such as the local code enforcement, County environmental department, or local emergency response team. Illicit connections and discharges to the storm sewer system involving hazardous materials must be investigated immediately from the time of the initial report or discovery.

Notify the City NPDES office of any verified or suspected discharge, dumping, or illicit connection as soon as possible, in a timely manner.

II. Field Investigation Steps

While conducting any field investigation, city staff is required to follow all safety procedures. Before entering private property, city staff will attempt to contact the property owner.

Revision:
002**Hard copies of this document are for REFERENCE ONLY and should not be considered the latest revision beyond the date of printing.**Printed Date:
2/8/16

1. Check surroundings for safety concerns, positioning of equipment, proximity to traffic, etc.
2. Check each storm grate, stormbox, or outfall for unusual conditions of flow, odor, color, turbidity, floatables, deposits/stains, vegetation conditions and document on inspection printed form MS4-013f, or directly into database if access is available.
3. When an unusual condition exists:
 - a. Determine the source, level of hazard, and if additional help may be needed. This can be done by surveying the immediate area, looking for physical characteristics including odor, color, staining of floatable material, or pulling samples for field testing such as pH, residual chlorine, turbidity or temperature.
 - i. If a hazardous material becomes a threat to public safety, immediately call 911 and request an emergency Spill Response Team. Hazardous materials take personnel trained to handle cleanup of known and unknown hazardous materials. A specialized cleanup contractor may need to be called in to respond.
 - ii. If known materials are not an immediate threat and are determined to be non-hazardous, look for the responsible party.
 - iii. If a responsible party is not present, cannot be determined, or is unable to handle the discharge, contact additional city staff as needed. City of Deltona Standard Operating Procedure MS4-004 Spill Response may be helpful in these situations.
 1. Non-hazardous Materials—Public works crews
 - a. Materials that have impacted surface waters may need to be handled by a contractor familiar with marine spill cleanup operations. Try to contain the spill using floating booms or similar, wherever possible.
 2. Potable water line or Raw sewage – Deltona Water/Wastewater/Public Works
 - b. If the source of the discharge is not clear, use one of the following methods for tracing:
 - i. Inspect area and storm drain system using the storm sewer system map, inventory, and/or visually following connections and flows to/from each structure.
 - ii. Proceed in direction from which flow is entering, repeating the previous step until you reach an inlet or manhole that does not have the unusual conditions.
 - iii. At this point it can be deduced that an illicit connection to the system is taking place somewhere between this point and the last structure downstream. Check surrounding areas for source of illicit connection to drainage box back to the last structure downstream, and attempt to terminate that connection. (Examples of illicit connections could be: sewer or water connections such as washing machine discharges, runoff from excessive irrigation, etc.)
 - iv. If flow still persists downstream after the first connection has been terminated, additional illicit connections may be the cause.
 - v. Repeat these steps, working your way downstream, until all illicit connections have been terminated to the outfall.
 - vi. Video inspection of storm sewer
 - vii. Dye testing
 - viii. Review aerial photographs
4. If the source of a discharge is believed to be on private property and access cannot be secured by the resident or property owner then enforcement services will need to be contacted to potentially open a case. Refer enforcement personnel to ordinance Chapter 38; Article VII.

III. Document field investigation

Documenting an incident of illicit discharge begins at the time the report is acknowledged and is not closed until the investigation, clean-up, and enforcement of the incident are final. Initially the incident is documented using Investigation Form MS4-013f and the stormwater complaint tracking method. If this is not done by the person receiving the phone call, it will be done by the NPDES person who receives and/or investigates the forwarded complaint.

Documentation of the field investigation not only includes written documentation, but also may include photographs of the spill location and any infrastructure or water bodies associated with the illicit discharge; ensure that the NPDES office receives these items as well. Sample collection for laboratory analysis may also occur at this time. If sampling is necessary they need to be pulled and analyzed within an appropriate timeframe to assure the data is valid. Proper sample preservation and Chain of Custody (COC) form requirements will also need to be followed for all samples.

V. Disposal of cleanup materials

The party responsible for the illicit discharge is also responsible for cleanup and proper disposal of any associated wastes. Hazardous waste will need to be disposed of by a licensed hazardous waste hauler.

VI. Equipment

Public Works stocks spill response equipment necessary to clean minor non-hazardous spills. Field testing and sampling equipment is also maintained by the NPDES office.

Additional equipment may be needed depending on the quantity and hazard of the discharge, particularly a large or hazardous spill that requires the street, utility, collection or professional clean-up crew.

VII. Enforcement

Enforcement actions for an illicit discharge will follow provisions of Chapter 38-160 of the City of Deltona Code of Ordinance. Actions may include verbal/written warnings, administrative action, fines and/or cost recovery, and legal action.

To report an environmental crime, wireless customers can dial #DEP. Callers can also report them to the State Warning Point by calling (877) 2-SAVE-FL (1.877.272.8335).

6. TOOLS and EQUIPMENT:

Personal Protective Equipment (goggles, impervious gloves, rubber boots, etc.)

1) Investigation form MS4-013f

1 Pry bar to remove grates or Crane Truck to remove lids for inspections

1 Grab sampler for investigations

1 Stormwater Atlas

Misc. Hand Tools (shovels, rake, etc.)

Required MOT devices

7. SAFETY INFORMATION:

Traffic Control will be a critical element of a safe inspection in some areas.

Wear protective equipment based on associated task Gloves, Safety Vest (traffic), Safety Glasses when there is a risk of and flying debris, Steel Toe Boots, Hard Hat (crane boom), Snake Chaps when working around wetlands and high brush.

Removing concrete lids

Revision:
002

Hard copies of this document are for REFERENCE ONLY and should not be considered the latest revision beyond the date of printing.

Printed Date:
2/8/16

- Position truck level and secure for stability during crane operation
- Boom should be used around 45°, if the boom extends out at a 90° angle, reposition truck
- Lifting cable should be close to 0° to prevent swinging when lid releases from base

8. SPECIAL INSTRUCTIONS/NOTES:

9. RELATED RECORDS:

Record ID	Owner	Location	Record Media

10. RELATED FORMS & PROCEDURES:

Record ID	Owner	Location	Record Media
MS4-013f	NPDES	Forms Binder / Permit Manager	Hardcopy/ MS4 - DB
MS4-004	NPDES	Forms Binder / Permit Manager	Hardcopy/ MS4 - DB

11. REASON FOR CHANGE:

Revision	Section Changed	Change Made	Retention- Disposition
001	9/10/15	All	Creation. Separated from Structure Inspection SOP
002	2/8/16	Section 5	Changed response time from "A few days" to "48hrs"

12. ELECTRONIC NOTIFICATION LIST:

13. APPROVALS

First Approver's Signature

Name:

Approved:

Title:

Second Approver's Signature

Name:

Approved:

Title:

Third Approver's Signature

Name:

Approved:

Title: