



MS4 Illicit Discharge Detection & Elimination Training

Upper Southampton Township
October 12, 2021

MS4 Training

Introduction

The Township's stormwater discharges are regulated under EPA's Phase II Small Municipal Separate Storm Sewer System (MS4) Permit Program

MS4 Training

Stormwater Management Components

Town must manage stormwater to reduce the discharge of pollutants from the MS4 through six Minimum Control Measures (MCMs):

- ▶ #1 Public Education and Outreach
- ▶ #2 Public Involvement and Participation
- ▶ **#3 Illicit Discharge Detection & Elimination**
- ▶ #4 Construction site Stormwater Runoff Control
- ▶ #5 Post construction Stormwater Management
- ▶ #6 Municipal Pollution Prevention and Good Housekeeping

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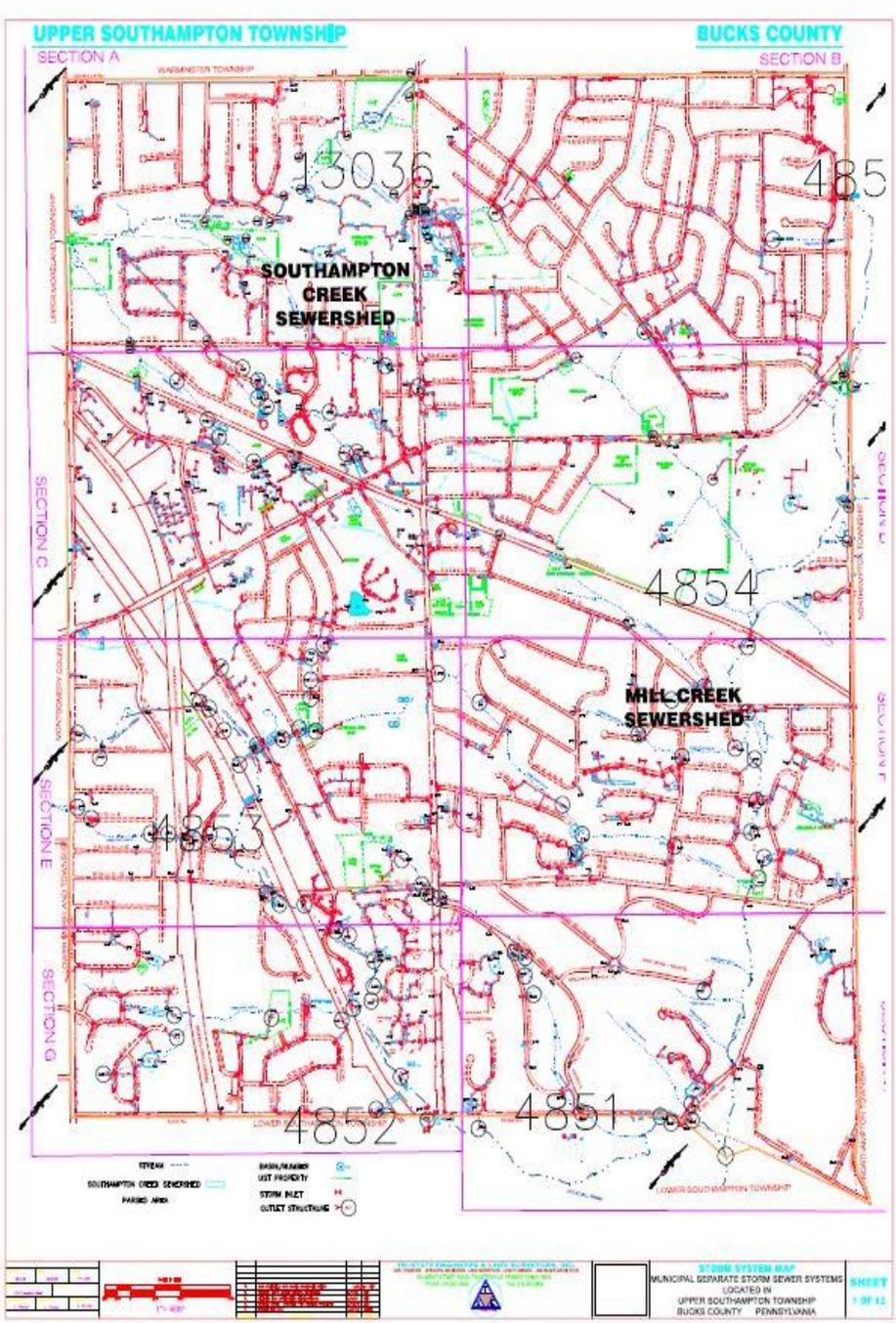
Today's Goals

- ▶ Goal #1: Basic Awareness of Town's Stormwater Program
- ▶ Goal #2: Recognize an Illicit Discharge to the MS4
- ▶ Goal #3: Know What to Do When Illicit Discharges are Found

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Illicit Discharge Detection & Elimination

- ▶ Map of drainage system
- ▶ GIS
- ▶ Ordinance to prohibit illicit discharges to MS4
- ▶ Plan to detect and address illicit discharges, including
 - ▶ illegal dumping
 - ▶ IDDE Plan
 - ▶ Annual employee training on illicit discharges
- ▶ This is why we're here!



UST MS4 STORMWATER SYSTEM

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What is the MS4?

- ▶ Municipally owned or operated
- ▶ Conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains)
- ▶ Includes cross-country drainage (>300 feet from water body)



Overland flow - non-point source

Assumed flow concentrates after 300 feet - point source

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What is an Illicit Discharge?

EPA says “any discharge to a MS4 that is not composed entirely of stormwater”

▶ Direct connection

- ▶ any non-stormwater pipe connected to the MS4
- ▶ Washing machine
- ▶ Floor drain
- ▶ Sewer line or septic system

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What is an Illicit Discharge?

EPA says “any discharge to a MS4 that is not composed entirely of stormwater”

Indirect discharge

- ▶ may come from a variety of sources
- ▶ Infiltration from failed septic system
- ▶ Hazardous waste spills
- ▶ Construction site runoff
- ▶ Grass clippings leaf litter or other solid material deposited into catch basin

What's Allowed in Upper Southampton?

- ▶ Flows from Fire Fighting Activities
- ▶ Waterline/hydrant flushing
- ▶ Dechlorinated swimming pool water
- ▶ Water from individual residential vehicle washing
- ▶ Landscape irrigation or lawn watering
- ▶ Uncontaminated pumped groundwater

What is Prohibited in Upper Southampton?

Obstruction of MS4

- ▶ No person shall obstruct or interfere with the normal flow of stormwater into or out of the MS4 without prior written approval from Health Department

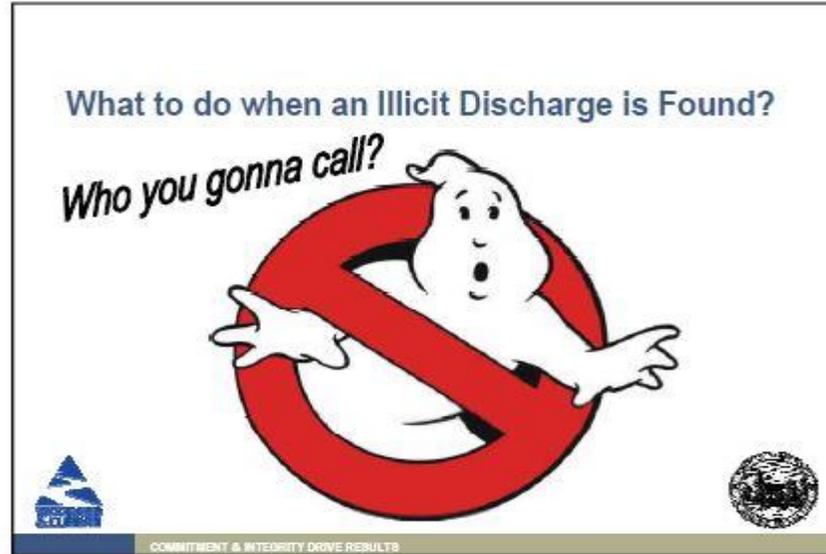
Direct connection

- ▶ Any non-stormwater pipe connected to the MS4
- ▶ Washing machine
- ▶ Floor drain
- ▶ Sewer line or septic system

Illicit Discharge - Not Allowed



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These guys will NOT respond!

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- ▶ **What to do when an Illicit Discharge is Found?**
- ▶ **In an Imminent Emergency Situation, call 911 or
Bucks County Health Department Emergency Number: 215-345-3318**
- ▶ **In an Urgent Situation, tell your Foreman or call the Fire Department's non-emergency line and ask for the Officer in Charge**
- ▶ **In any other situation, tell your Department Head, Foreman or call
Upper Southampton Township: 215-322-9700**

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- ▶ Always keep records! Standard Forms Available in Public Works
- ▶ Calls & complaints (name, date, time, complaint)
- ▶ Location of illicit discharge
- ▶ Actions taken by Town (phone calls made, visits to site, etc.)
- ▶ Public Works keeps records
- ▶ If updates to drainage system map are found, tell Department Head, Foreman or Township Engineer (Larry Young, Tri-State Engineers, (215) 357-5950)

**CITIZEN COMPLAINT
ILLICIT DISCHARGE REPORTING FORM**

Name: _____ Contact Phone Number: _____

Date: _____ Time Discharge Discovered: _____

Date of Last Rain Event: _____ Estimated Quantity of Rain: _____ in.

LOCATION OF DISCHARGE (indicate nearby street intersections, addresses, and/or landmarks for reference): _____

WHERE WAS DISCHARGE FOUND? OPEN DITCH _____ STREAM _____ PIPE OUTFALL _____ OTHER: _____

WAS WATER FLOW OBSERVED? NO _____ YES _____

WAS FLOW SOLID OR PULSING? SOLID _____ PULSING _____

WAS A PHOTO TAKEN? NO _____ YES _____ (Please attach a copy to form)

ODOR: NONE _____ MUSTY _____ SEWAGE _____ ROTTEN EGGS _____ SOUR MILK _____ OTHER: _____

COLOR: CLEAR _____ RED _____ YELLOW _____ BROWN _____ GREEN _____ GREY _____ OTHER: _____

CLARITY: CLEAR _____ CLOUDY _____ OPAQUE _____

WAS THERE AN: OILY SHEEN _____ YES _____ NO _____
GARBAGE/SEWAGE _____ YES _____ NO _____
OTHER: _____

ADDITIONAL INFORMATION TO ASSIST IN THE INVESTIGATION: _____

<i>Follow up Investigation (to be completed by CCD staff)</i>	
OUTFALL NO: _____	INSPECTOR NAME _____ PHONE _____
FIELD ANALYSIS:	
WATER TEMP: _____ °F / °C	CHLORINE (Total): _____ mg/l
pH: _____	COPPER: _____ mg/l
PHENOL: _____ mg/l	DETERGENTS: _____ mg/l
WAS A LABORATORY SAMPLE COLLECTED? NO _____ YES _____	
(if yes attach copy of chain-of-custody record)	
COMMENTS: _____ _____ _____	
DATA SHEET FILLED OUT BY: (signature): _____ DATE: _____	
Additional notes to file: _____ _____ _____	
Follow-up with Complainant: _____ _____ _____	

Customer Complaint Form

Construction Site Reporting Form

Name of Complainant: _____ Phone Number: _____

Municipality: _____ Address of Construction Site: _____

Date of Most Recent Rain Event: _____ Date/Time of Inspection: _____

County Conservation District w/Jurisdiction: _____

On-Site Observations	Description	Location
Inadequate BMPs		
Silt Fence		
Construction Entrance		
Straw Bales		
Seeding/Landscaping		
Sediment Traps		
Inlet Protection		
Outlet Protection		
Housekeeping		
Trash/Litter		
Construction Debris		
Spills of hazardous materials		
On-site erosion		
Off-Site Observations	Description	Location
Mud/dirt on roads		
Muddy ditch/stream		
Blowing dust		
Trash/Litter		
Oily sheen in stream		
Construction debris		

Compliance/Enforcement (to be completed by CCD staff)

Date of Inspection	Time	Inspector
Description of Inspection Findings		
Enforcement Action Y/N	Date(s):	
	Verbal Notice	Notice of Violation
	Administrative Action	Civil Penalty
	Other (describe)	

Additional notes to file: _____

Follow-up with Complainant: _____

Construction Site Form

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QUESTIONS

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Wesley Plaisted, P.E.
Tri-State Engineers
801 West Street Road
Feasterville, PA
215-357-5950