



# **STORMWATER MANAGEMENT ON INDUSTRIAL AND COMMERCIAL PROPERTIES**

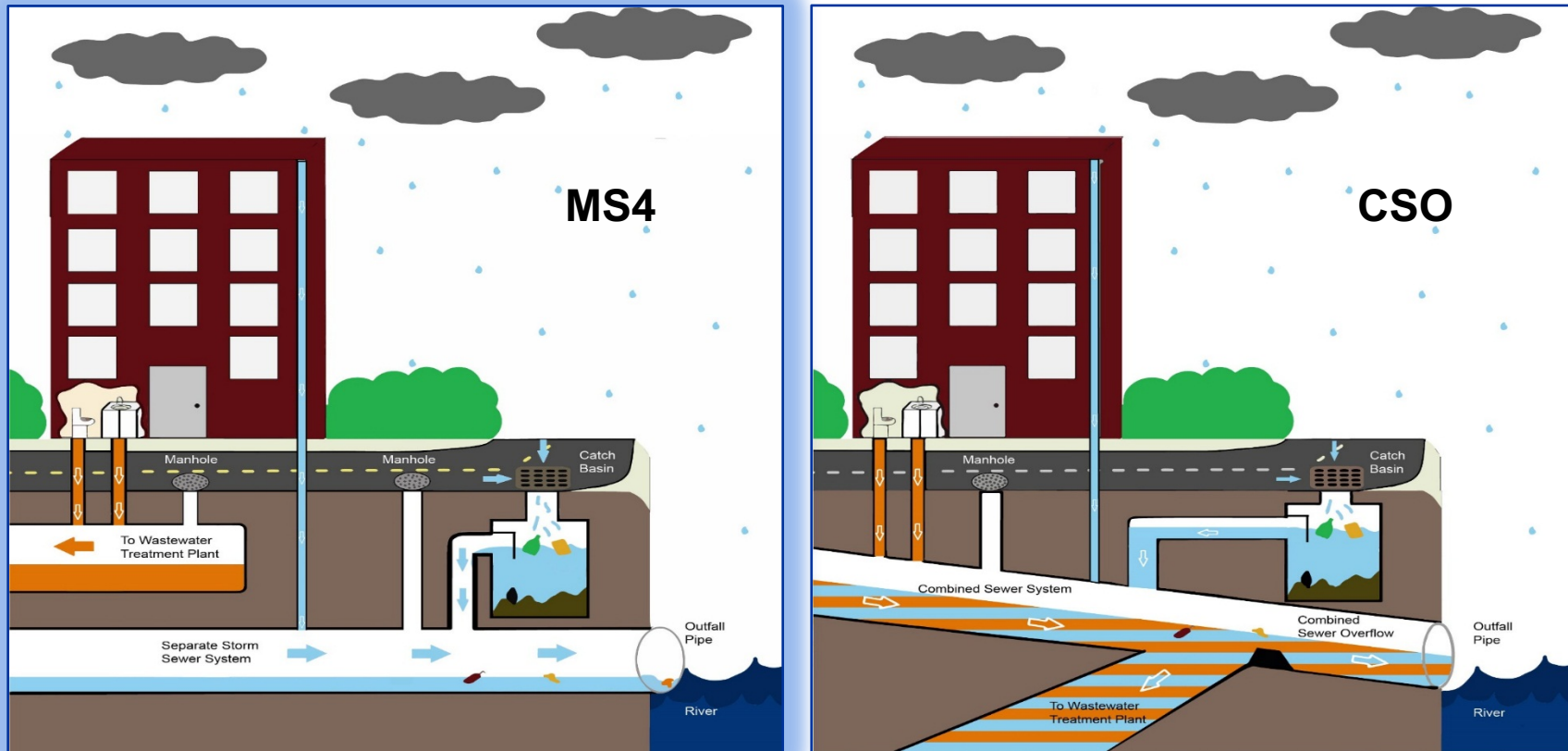
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Stakeholder Outreach Meeting

1. Introductions
2. Municipal Separate Storm Sewer System (MS4) Permit Overview
3. Legal Authority/Local Laws
4. Stormwater Management Plan (SWMP)
  - a) Industrial and Commercial Stormwater Sources**
    - i. Facility Inventory
    - ii. Inspections of SPDES MSGP-Permitted and Unpermitted Industrial/Commercial facilities
    - iii. Recap and Next Steps
5. Questions

## What is an MS4?

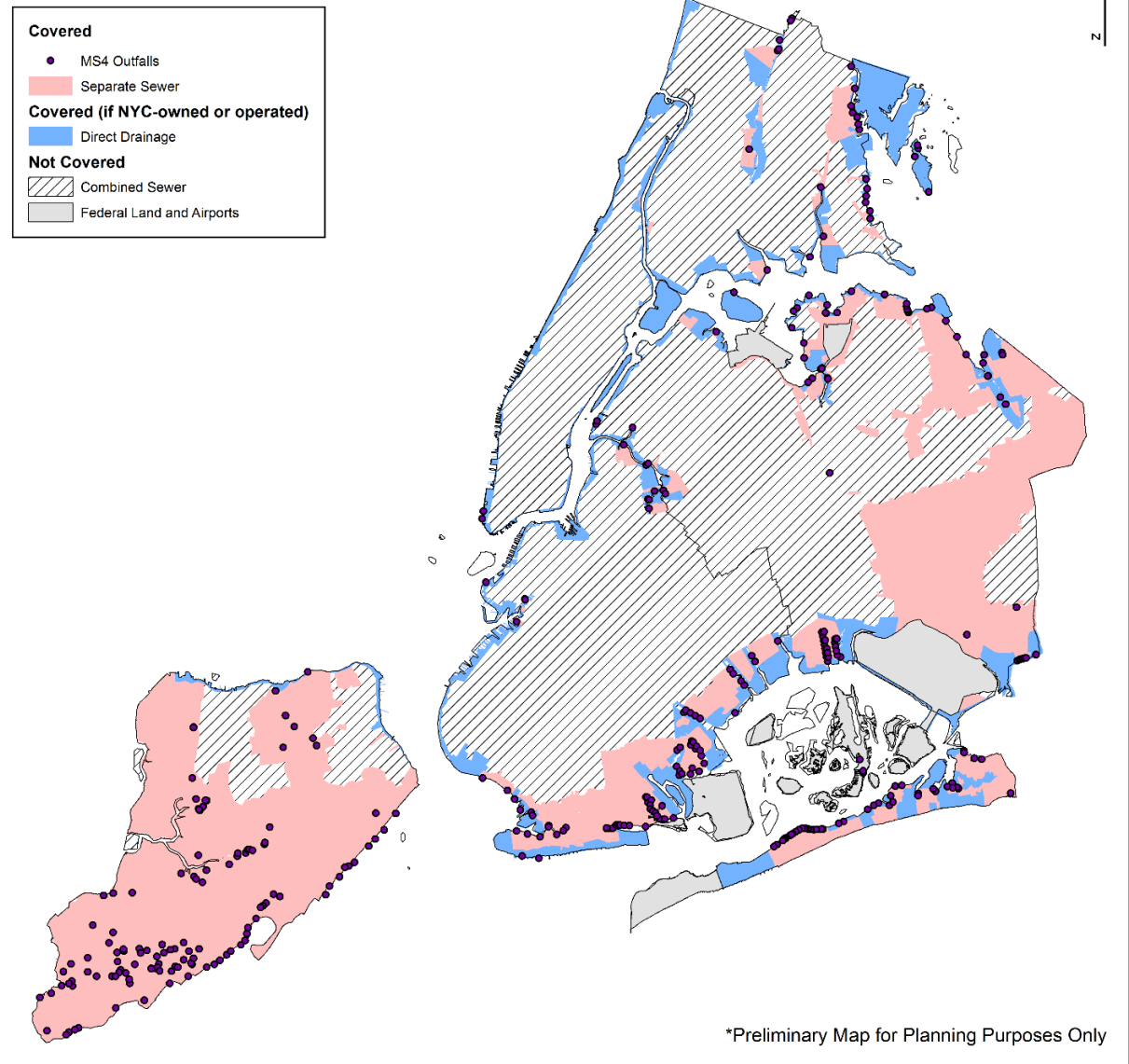
- a conveyance or system of conveyances
- system that is owned by a state, city, town, village, or other public entity that discharges to waters of the US
- designed or used to collect or convey stormwater (including storm drains, pipes, ditches, etc.)
- not a combined sewer
- not part of a Publicly Owned Treatment Works (sewage treatment plant)



In August 2015 the State issued the City an MS4 Permit which seeks to manage urban sources of stormwater runoff to protect overall water quality and improve water quality in impaired waters

As required by the permit, the City is developing a **Stormwater Management Plan (SWMP)**

Draft NYC Municipal Separate Storm Sewer System (MS4) Map\*



## **New York City MS4 Legislation**

- Local Law 97 of 2017, the New York City Stormwater Law, was enacted by the City Council on May 10, 2017

## **Rulemaking:**

- The local law authorizes DEP to establish a program to inspect commercial and industrial sites and to enforce the existing state permit for stormwater discharges from industrial sources (State Pollutant Discharge Elimination System (SPDES) Multi-Sector General Permit or MSGP)
- The City expects to propose draft rules in Spring 2018 and finalize those rules by the end of 2018

**Permit intent:** the management of urban sources of stormwater runoff to protect overall water quality and improve water quality in impaired waters.

## **SWMP Chapters**

1. Introduction
2. Program Overview
3. Public Education and Outreach
4. Public Involvement / Participation
5. Mapping
6. Illicit Discharge Detection and Elimination (IDDE)
7. Construction Site Stormwater Run-off Control
8. Post-Construction Stormwater Management
9. Pollution Prevention / Good Housekeeping for Municipal Operations and Facilities
- 10. Industrial and Commercial Stormwater Sources**
11. Control of Floatable and Settable Trash and Debris
12. Monitoring and Assessment of Controls
13. Reliance on Third Parties
14. Recordkeeping
15. Annual Reporting and Certification

**Stormwater** is water from rain or melting snow that doesn't soak into the ground but runs into the sewer system and/or local waterways

**What's the Problem?** In MS4 Areas, stormwater runoff collects and transports pollutants into local waterways.

To comply with the Clean Water Act the State Department of Environmental Conservation (DEC) manages **Multi-Sector General Permit (MSGP)** which addresses the potential problems associated with stormwater runoff from industrial and commercial sites.

***New York City is now working with the State to implement this program.***

For more information see NYSDEC links below:

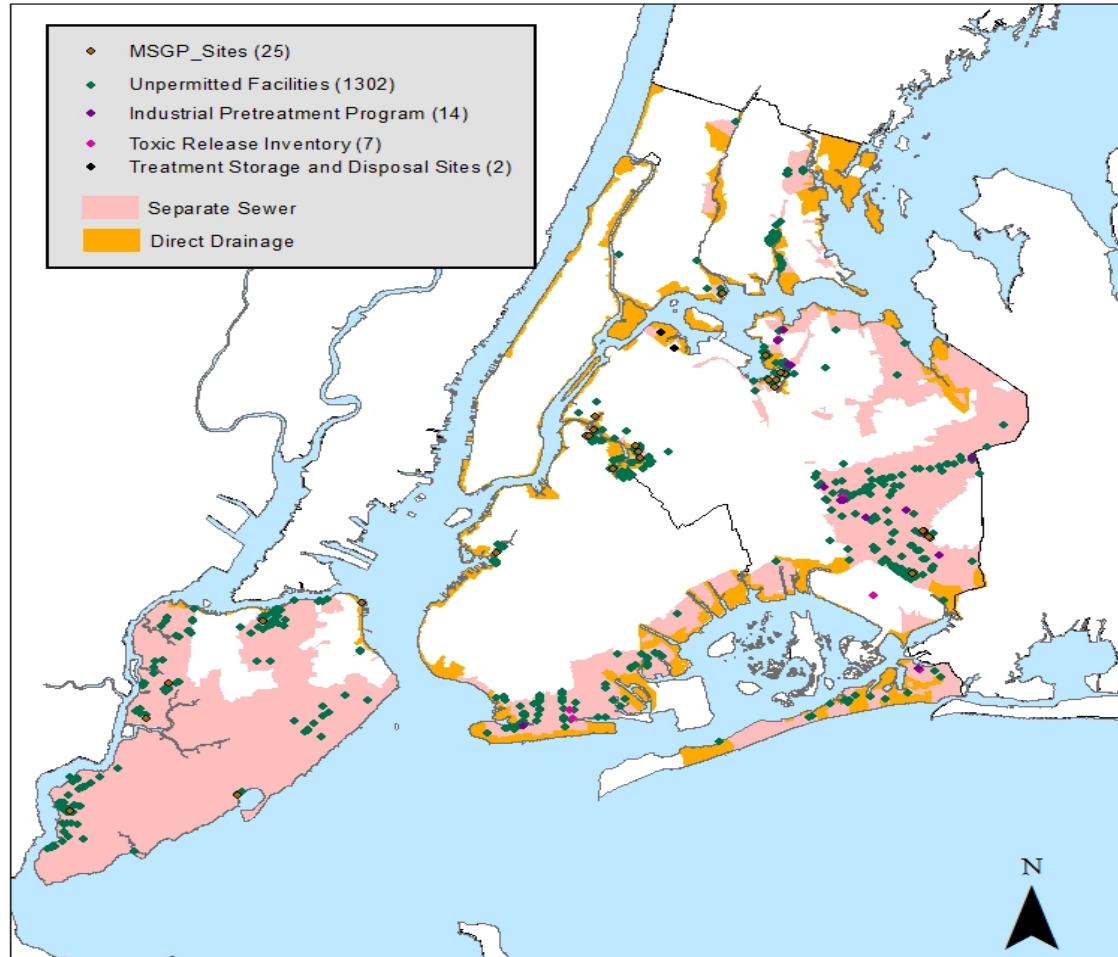
***<http://www.dec.ny.gov/chemical/8468.html>***

***<http://www.dec.ny.gov/chemical/9009.html>***

# New York City Is Required To:

- Develop a plan to inspect and prioritize facilities that are already covered under the State's Multi-Sector General Permit (MSGP)
- Prepare an inventory of industrial/commercial facilities that could discharge Pollutants of Concern
  - This inventory includes permitted and unpermitted sites.
  - DEP used private and public databases to develop the inventory
- Develop a plan to inspect the facilities not currently covered under the State's MSGP
  - Will be inspected to determine if they might require the State's MSGP
  - If the City determines the facility needs coverage, that facility will be referred to the State
  - **Currently this inventory includes approximately 1300 facilities (all of these facilities will receive meeting invitations)**





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Sector A - Timber Products .....	66
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## SECTORS OF INDUSTRIAL ACTIVITY COVERED BY THIS PERMIT (Continued)

Activities Consistent with Descriptions and SIC Code or Activity Code	Activity Represented
<b>Sector D: Asphalt Paving and Roofing Materials and Lubricants</b>	
2951, 2952	Asphalt Paving and Roofing Materials
2992, 2999	Miscellaneous Products of Petroleum and Coal
<b>Sector E: Glass Clay, Cement, Concrete, and Gypsum Products</b>	
3211	Flat Glass
3221, 3229	Glass and Glassware, Pressed or Blown
3231	Glass Products Made of Purchased Glass
3241	Hydraulic Cement
3251-3259	Structural Clay Products
3261-3269	Pottery and Related Products
3271-3275	Concrete, Gypsum and Plaster Products
3281	Cut Stone and Stone Products
3291-3299	Abrasive, Asbestos, and Miscellaneous Non-metallic Mineral Products

# Example of potential facility to be inspected

Facility which also has SIC code listed under Sector E with potential to impact stormwater.



## Primary Industrial Activity: Storage and Recycling

Opened dumpsters not properly maintained could be a source of pollutants.



For the most part Inspector will look at:

1. The level of precipitation exposure for materials and operations that take place outdoors.
2. Are there material residuals on the ground or near catch basin inlets

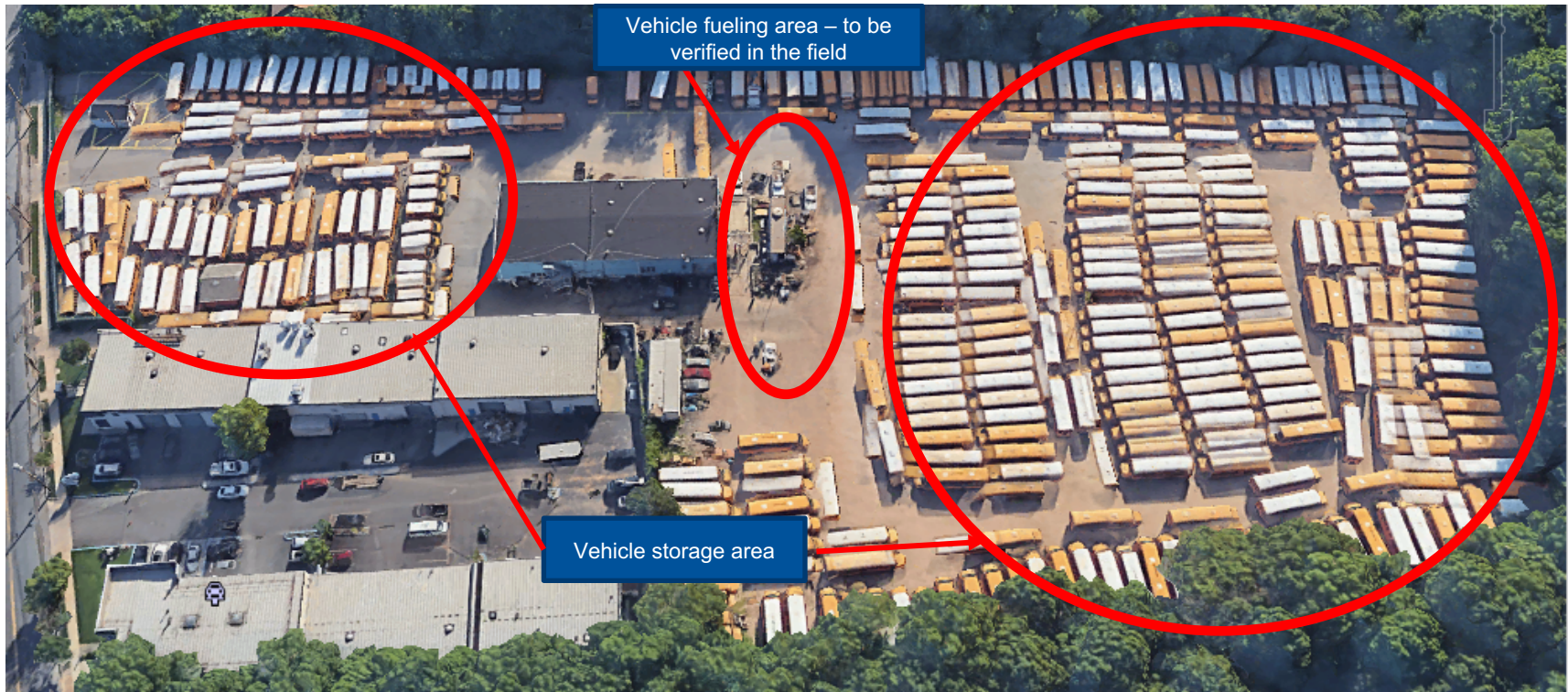
**Potential sector this facility might be subject to:** Sector N: Scrap Recycling

**Typical parameters that require monitoring under this sector:** TSS, COD, Oil & Grease, Aluminum, Cadmium, Copper, Chromium, Iron, Lead, Zinc

**Site Specific SWPPP should identify locations where the following activities or sources may be exposed to precipitation/surface runoff:**

- Locations of haul and access roads
- Scrap and waste material storage areas
- Outdoor scrap and waste processing equipment
- Areas where materials are sorted, transferred, stockpiled
- Containment areas

## Primary Industrial Activity: Land Transportation



**Potential sector this facility might be subject to:** Sector P: Land Transportation and/or Warehousing

**Typical parameters that require monitoring under this sector:** Oil and Grease, COD, BTEX

**Site Specific SWPPP should identify locations where the following activities or sources may be exposed to precipitation/surface runoff:**

- Fueling stations
- Vehicle/equipment maintenance or cleaning areas
- Storage areas for vehicle/equipment with actual or potential fluid leaks
- Loading/unloading areas
- Areas where treatment, storage or disposal of wastes occur; liquid storage tanks
- Processing areas, storage areas, and all monitoring areas

# Example 4: Potential facility to be inspected



**Potential sector this facility might be subject to:** Sector E: Glass, Clay, Cement, Concrete, and Gypsum Products

**Typical parameters that require monitoring under this sector:** Aluminum, TSS, pH, Iron

**Site Specific SWPPP should identify locations where the following activities or sources may be exposed to precipitation/surface runoff:**

- Bag house or other dust control device
- Recycle/sedimentation pond, clarifier or other device used for the treatment of process wastewater and the areas that drain to the treatment device

## Primary Industrial Activity: Auto Salvage Yard



**Potential sector this facility might be subject to:** Sector M: Auto Salvage Yard

**Typical parameters that require monitoring under this sector:** TSS, Oil & Grease, Iron, Aluminum, Lead, BTEX

**Site Specific SWPPP should identify locations where the following activities or sources may be exposed to precipitation/surface runoff:**

- Vehicle storage areas
- Dismantling areas
- Parts storage areas (e.g., engine blocks, tires, hub caps, batteries, hoods, mufflers)
- Liquid storage lands and drums for fuel and other fluids
- Location of each discharge and monitoring point



## Primary Industrial Activity: Scrap and Waste Materials



**Potential sector this facility might be subject to:** Sector N: Scrap Recycling

**Typical parameters that require monitoring under this sector:** TSS, COD, Oil & Grease, Aluminum, Cadmium, Copper, Chromium, Iron, Lead, Zinc

**Site Specific SWPPP should identify locations where the following activities or sources may be exposed to precipitation/surface runoff:**

- Locations of haul and access roads
- Scrap and waste material storage areas
- Outdoor scrap and waste processing equipment
- Areas where materials are sorted, transferred, stockpiled
- Containment areas

## Vehicle/Equipment Storage



**Exhibit A:** High risk for stormwater run-off Open Vehicle Storage (Outside with Fluids Not Drained)



**Exhibit B:** Lower Risk for Stormwater Impact: Covered Vehicle Storage

## Drum Storage/Management



**Exhibit A:** Higher Risk for Stormwater Impact: Drums stored without spill containment



**Exhibit B:** Lower Risk for Stormwater Impact: Drums stored indoors on spill pallets

## Spill Response



**Exhibit A:** Higher Risk for Stormwater Impact: Unattended spill



**Exhibit B:** Lower Risk for Stormwater Impact: Quick spill response

## Waste Management and Disposal



**Exhibit A:** Higher Risk for Stormwater Impact: Leaking dumpster



**Exhibit B:** Lower Risk for Stormwater Impact: Well-managed dumpster

# So What Happens Now?

- DEP will send formal notifications to all of the facilities that are on the inventory:
  - Facilities that currently have MSGP (August 1 – November 1, 2018)
  - Facilities that might need MSGP (Starting November 2018)
- Inspections may begin as early as January 2019 and will focus on:
  - For those that have MSGP already – are you complying with the permit?
  - If you don't have MSGP – does this facility need coverage?
  - Findings will then be referred to NYSDEC
  - Due to the large number of sites, DEP will be supported by a third-party contractor to conduct inspections for the first five years

- Notify business
- Assemble background
- On-site inspections
  - Characterize applicability
  - Characterize exposure
- Post-inspection reporting
  - Notify business of findings
  - Notify DEC of findings
  - Revise inventory, as necessary

## **Quarterly Pre-Planning**

- Maintain I/C inventory and priorities
- Quarterly identification of businesses to inspect per priorities



## **Pre-Inspection Activities**

- Notify business of inspection
- Review available data about business
- Assemble inspection equipment, information



## **On-Site Inspection Procedures**

- Introductions
- Facility walkthrough
- Wrap-up Meeting to review findings



## **Post-Inspection Activities**

- Complete inspection report
- Notify facility of findings
- Log findings in database
- Update inventory, prioritization
- Refer findings to DEC for SPDES coverage determination

An inspector will look at:

- The level of precipitation exposure for materials and operations that take place outdoors.
- If there are material residuals on the ground or near catch basin inlets.



**Stormwater Pollution Prevention Plan (SWPPP) is a site specific document which identifies potential sources of stormwater pollution and control measures to eliminate impacts to stormwater runoff.**

- **Having a site specific SWPPP will help a facility to meet the requirements under the MSGP**

Elements of a SWPPP:

- General site description, facility information
- Site map, including outfalls, drainage areas, and direction of stormwater flow
- Potential sources of pollution
- History of spills and releases
- Best management practices to control impacts to runoff (structural & non-structural)
- Permit-Required Controls (inspection procedures, spill response plans, etc.)
- Monitoring and Sampling Data

1. ADMINISTRATIVE
  - 1.1. Facility Information and Location
  - 1.2. Contact Information and Responsible Parties
  - 1.3. Stormwater Pollution Prevention Team
  - 1.4. SWPPP Implementation and Revision
  - 1.5. Coverage Under SPDES General Permit
  - 1.6. Activities at the Facility
2. POTENTIAL POLLUTANT SOURCES
  - 2.1. Industrial Activity and Associated Pollutants
  - 2.2. Spills and Leaks
  - 2.3. Non-Storm Water Discharges
3. CONTROL MEASURES FOR STORM WATER RELATED DISCHARGES
  - 3.1. Minimize Exposure
  - 3.2. Good Housekeeping
  - 3.3. Maintenance
  - 3.4. Spill Prevention and Response
  - 3.5. Erosion and Sediment Controls
  - 3.6. Management of Runoff
  - 3.7. Multi-Sector General Permit Sector Specific Effluent Limits
  - 3.8. Employee Training
  - 3.9. Non-Storm Water Related Discharges
4. SCHEDULES AND PROCEDURES FOR MONITORING
  - 4.1. General
  - 4.2. Quarterly Visual Monitoring
  - 4.3. Annual Dry Weather Flow Monitoring
  - 4.4. Benchmark Monitoring
5. INSPECTION AND MAINTENANCE PROCEDURES
  - 5.1. Inspection and Maintenance Schedule
  - 5.2. Record Keeping Requirements

## APPENDICES

- A. Notice of Intent
- B. SPDES General Permit
- C. Calculations

# Questions?



For more information, visit our website: [nyc.gov/dep/ms4](https://nyc.gov/dep/ms4)  
If you have questions or feedback, please contact the MS4 Team at:  
[ms4@dep.nyc.gov](mailto:ms4@dep.nyc.gov)