Ohio EPA Storm Water Program
MS4 Program Overview

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Michelle Flanagan and Jason Fyffe
Ohio EPA, Division of Surface Water
Agenda

• NPDES Storm Water Introduction

• STREAMS (online applications)

• MS4 Audit Findings
Storm Water Pollution

- Oil, grease and toxic chemicals
- Pesticides and nutrients
- Viruses and bacteria
- Road salts
- Heavy metals
- Trash and litter
- Thermal pollution
Natural Ground Cover

- 40% evapotranspiration
- 10% runoff
- 25% shallow infiltration
- 25% deep infiltration

Impervious Surface

- 30% evapotranspiration
- 55% runoff
- 10% shallow infiltration
- 5% deep infiltration
- 75%-100% Impervious Surface
Ohio EPA Storm Water Program

Construction Activities

Industrial Activities

Municipal Separate Storm Sewer Systems
Construction Storm Water

Construction NOIs Issued

Big Darby Creek
Olentangy River

Ohio Environmental Protection Agency
Construction Storm Water

Key differences

• Big Darby Creek GP
  – Statewide permit with
    • Approval of SWP3
    • Riparian setback and mitigation requirements
    • Groundwater recharge and mitigation requirements

• Olentangy River GP
  – Statewide permit with
    • Approval of SWP3
    • Riparian setback and mitigation requirements
Industrial Storm Water

Industrial Facilities

- Industrial SW GP: 2,709
- Marina SW GP: 66
- No Exposure Certifications: 1,591
11 Categories of Industrial Activity

http://cfpub1.epa.gov/npdes/stormwater/swsectors.cfm

i. Facilities with Effluent Limitations for SW

ii. Manufacturing

iii. Mineral, Metal, Oil & Gas Mining or Drilling

iv. Hazardous Waste Treatment, Storage or Disposal Facilities

v. Industrial Waste Landfills

vi. Recycling Facilities

vii. Steam Electric Plants

viii. Transportation Facilities with Vehicle Maintenance

ix. Wastewater Treatment Plants (> 1 MGD)

x. Construction Activity

xi. Light Industrial Activity

Check below to determine if you need coverage:

NPDES Small MS4 Storm Water Program

Phase I MS4s
“Medium & Large MS4s
Akron, Columbus, Dayton & Toledo

Phase II MS4s
“Small MS4s”
539 Small MS4s covered under 284 general permits

Based off 2000 Census Data
Small MS4 Program
What’s Required?

• Submittal
  – Notice of Intent (NOI)
  – Storm Water Management Program (SWMP)
    • Take Credit for activities already in place
  – Lonesome or Co-Permittee

• Develop/Implement
  – SWMP

• Recordkeeping/Reporting
  – Annual Reports to Ohio EPA
SWMP

- Best Management Practices (BMPs) which address 6 Minimum Control Measures
- Legal Authority?
- Measurable Goals
- Timeframes for BMP implementation
- Responsible Person
- How evaluate the success of minimum control measures and BMPs
Six Minimum Control Measures

Public Education & Outreach
Public Involvement & Participation
Illicit Discharge Detection & Elimination

Construction Site Runoff Control
Post-Construction Storm Water Management
Pollution Prevention / Good Housekeeping
Public Education & Outreach

Public Involvement/Participation
Public Education Performance Standard:

Storm Water Public education and outreach program shall include more than one mechanism and target at least five different storm water themes or message over the permit term. At a minimum, one theme or message shall target the development community. Program must reach 50 percent of your population of permit term.

Public Involvement/participation Performance Standard:

Public involvement / participation program shall include, at a minimum, five public involvement activities over the permit term.
Illicit Discharge Detection & Elimination

What is an illicit discharge?

“…any discharge to an MS4 that is not composed entirely of storm water, except for fire-fighting activities and NPDES permitted discharges.”

Model Illicit Discharge and Connection Stormwater Ordinance

SECTION 1. PURPOSE/INTENT.

The purpose of this ordinance is to provide for the health, safety, and general welfare of the citizens of (City) through the regulation of non-storm water discharges to the storm drainage system to the maximum extent practicable as required by federal and state law. This ordinance establishes methods for controlling the introduction of pollutants into the municipal separate storm sewer system (MS4) in order to comply with requirements of the National Pollutant Discharge Elimination System (NPDES) permit process. The objectives of this ordinance are:

1. To regulate the contribution of pollutants to the municipal separate storm sewer system (MS4) by stormwater discharge by any user.
2. To prohibit Illicit Connections and Discharges to the municipal separate storm sewer system
3. To establish legal authority to carry out all inspection, surveillance and monitoring procedures necessary to ensure compliance with this ordinance.

SECTION 2. DEFINITIONS.

For the purposes of this ordinance, the following shall mean:

Authorizing Enforcing Agency: employees or designee of the director of the municipal agency designated to enforce this ordinance.

Best Management Practices (BMPs): activities, prohibitions of practices, or general good housekeeping practices, pollution prevention, and educational practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants directly or indirectly to stormwater, receiving water, or stormwater conveyance systems. BMPs also include treatment practices, operating procedures, and practices to control site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw materials storage.


Construction Activity: Activities subject to NPDES Construction Permits. These include construction projects resulting in land disturbance of 3 acres or more. Such activities include but are not limited to clearing and grading, grading, excavating, and demolition.

Hazardous Materials: Any material, including any substance, waste, or combination thereof which because of its quantity, concentration, or physical, chemical, or infectious characteristics may cause, or significantly contribute to, a substantial present or potential hazard to human health, safety, property, or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.
Illicit Discharge Detection & Elimination

• Performance Standard:
  – Your storm water illicit discharge detection and elimination program shall include or have included an initial dry-weather screening of all your storm water outfalls over the permit term.

  – Your program shall establish priorities and specific goals for long-term system-wide surveillance of your MS4, as well as for specific investigations of outfalls and their tributary area where previous surveillance demonstrates a high likelihood of illicit discharges.

  – Data collected each year shall be evaluated and priorities and goals shall be revised annually based on this evaluation.

  – Your comprehensive storm sewer system map shall be updated annually as needed.
Construction Site Runoff Control

Post-Construction Runoff Control

Dry Extended Detention Pond

Ohio Environmental Protection Agency

Authorization for storm water discharges associated with construction activity under the National Pollutant Discharge Elimination System

In compliance with the provisions of the Federal Water Pollution Control Act, as amended, (33 U.S.C. Section 1251 et seq., hereinafter referred to as "the Act") and the Ohio Water Pollution Control Act (Ohio Revised Code ("ORC"), Chapter 6111), discharges of storm water from sites where construction activities are being conducted, as defined in Part II of this permit, are authorized by the Ohio Environmental Protection Agency, hereinafter referred to as "Ohio EPA," to discharge from the outlets of the sites and to the receiving surface waters of the state identified in their Notice of Intent ("NOI") application form in the Ohio EPA in accordance with the conditions specified in Parts I through IV of this permit.

This permit is conditioned upon payment of applicable fees, submission of a complete NOI application form and written approval of consents from the director of Ohio EPA in accordance with Ohio Administrative Code ("OAC") Rule 3745-01-06.

Christopher Jones
Director
Construction Site & Post-Construction Runoff Control

• Construction Performance Standard:
  – Pre-construction SWP3 review of all applicable projects
  – Applicable sites shall be inspected initially then on at least a monthly basis

• Post-Construction Performance Standard:
  – Pre-construction SWP3 review of all applicable projects
  – Applicable sites shall be inspected to ensure that controls are installed per requirements
  – Ensure that long-term O&M plans are developed and agreements in place
Pollution Prevention/Good Housekeeping for Municipal Operations
Pollution Prevention/Good Housekeeping for Municipal Operations

• Performance Standard:
  – Include an annual employee training program
  – Your maintenance program shall include appropriate documented procedures, controls, maintenance schedules and recordkeeping
For additional information

- Storm Water Program Web Page:  
  http://epa.ohio.gov/dsw/storm/index.aspx

- Storm Water Program Archived Webinars and Resources:  
  http://epa.ohio.gov/dsw/storm/index.aspx#108452497-outreach

- Ohio EPA eBusiness Center:  
  https://ebiz.epa.ohio.gov/login.html

- STREAMS Guidance Documents:  
  http://epa.ohio.gov/dsw/ebs.aspx#170645014-guidance

- Jason Fyffe  
  (614) 728-1793  
  Jason.Fyffe@epa.ohio.gov