

### **NPDES MS4 Basics**

## Massachusetts

# Illicit Discharge Detection & Elimination: IDDE Mapping Minimum Measure #3

Municipalities are required to implement an Illicit Discharge Detection and Elimination (IDDE) program to find and eliminate non-stormwater sources to its storm drain system. This is one of the more costly components of the MS4 permit, comprising between 18% and 28% of compliance costs, and is scheduled to occur over a number of years.

One of the first elements is preparation of a written IDDE Program Plan within the first year. This plan has three primary components:

### Written IDDE Program Plan Components

### 1. Legal Authority

Reference the authority (i.e., bylaw) used to implement all aspects of the program (prohibit, investigate, and eliminate illicit discharges)

## 2. Program Responsibilities

Identify departments responsible for implementing program components

#### 3. Program Procedures

Written procedures for implementation of all program components (screening, sampling, catchment investigations)

The first phase includes mapping outfalls and receiving waters which you may have done under the 2003 Permit. It also requires delineation of catchment areas that drain to each outfall, using any available system data and topographic information. These catchment delineations need to be refined as more detailed information is obtained from Phase II mapping and catchment investigations.

**System Mapping** – MS4 communities are required to develop a map of their separate storm sewer system in the permit area. There are two mapping phases.

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### Phase I Required Within 2 Years

- Outfalls and receiving waters
- •Open channel conveyances, such as swales, ditches, etc.
- Interconnections with other storm drain systems
- Municipally owned structural BMPs
- Receiving waters and impairments
- •Initial catchment delineations

# Phase II Required Within 10 Years

- Outfall GPS locations
- Pipes
- Manholes
- Catch basins
- •Sanitary sewer system, if available
- •Combined sewer system, if available

#### Resources

Much of the initial mapping phase was likely performed under the 2003 permit. As a cost savings option, communities may consider using interns to perform tasks such as GPS mapping. Additionally, some information required for initial catchment delineation, such as topography, may be available through online resources such as MassGIS. Note that outfalls will need to be revisited for other program requirements.

#### **Budgeting**

Total IDDE Program compliance costs will vary between communities depending on the size of the drainage network and associated factors that dictate dry weather and wet weather sampling. Total IDDE program costs are estimated at 18% and 28% of MS4 budgets, while items outlined in this publication are estimated at 8% to 17% of MS4 budgets.

### **Ongoing Activities**

Maps should be updated with new information as it is collected through program implementation. The progress of mapping must be reported in each annual report.

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Rural

\$7,000-\$16,000/year (entire IDDE program)

18% of total program budget

\$3,000-\$8,000/year (items in this eNews)

8% of total program budget

Suburban

\$17,500-\$53,500/year (entire IDDE program)

18% to 23% of total program budget

\$5,500-\$35,000/year

(items in this eNews) 11% to 13% of total program budget Urban

\$35,500-\$117,500/year (entire IDDE program)

22% to 28% of total program budget

\$9,000-\$82,000/year (items in this eNews)

13% to 17% of total program budget

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