

# Section 5

## Control Measure 3: Illicit Discharge Detection and Elimination

### 5.1 Introduction

The Illicit Discharge Detection and Elimination measure includes developing a system map and informing the community about hazards associated with illegal discharges and improper disposal of waste to the drainage system. Control Measure 3 is designed to make the MS4 operator familiar with his/her system and eliminate non-stormwater discharges to the system.

“Illicit discharges” are contributions to the stormwater system that are not entirely composed of stormwater – however, fire-fighting discharges and NPDES permitted discharges are not considered illicit. Illicit discharges include residential sewer connections inadvertently, but illegally, connected to the stormwater system, non-permitted industrial discharges and accidental or intentional dumping into the stormwater system. Specifically, sanitary wastewater, septic tank effluent, commercial car wash waters, improperly disposed oil, radiator flush water, laundry wastewater, roadway accident spills, and improperly disposed auto/household toxics are not permitted in the storm drain system.

EPA studies have found pollutant levels from these types of non-stormwater flows to be high enough to degrade the quality of the receiving waters, and even to threaten human and aquatic health.<sup>1</sup> Accordingly, under this program, federal regulations now require development of programs to locate and eliminate the sources of these pollutants.

### 5.2 Requirements

To comply with Control Measure 3, the City must “develop, implement and enforce an illicit discharge detection and elimination program to detect and eliminate illicit discharges.”

The program for this control measure must include:

- Develop a stormwater system map showing the location of all outfalls and names of all waters that receive discharges from those outfalls,
- Develop ordinances or other regulatory mechanisms prohibiting illicit discharges into the separate stormwater system and implement appropriate enforcement procedures and actions,

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<sup>1</sup> USEPA. Storm Water Phase II Final Rule Fact Sheet Number 2-5. Washington, DC. 2001. ([www.epa.gov/npdes/pubs/fact2-5.pdf](http://www.epa.gov/npdes/pubs/fact2-5.pdf)).

- Develop and implement a plan to detect and address illicit discharges, including illegal dumping, to the stormwater system, and
- Inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper waste disposal (can be part of Control Measure 1).

### **5.3 Existing Best Management Practices**

The following illicit discharge detection and elimination best management practices (BMPs) are currently being performed by the City of Woburn and will be continued to fulfill the requirements of Control Measure 3:

#### **5.3.1 BMP #3-1: Continue Inspection of New Construction for Correct Connection to the Sanitary Sewer**

*Description:* The City of Woburn has a bylaw that requires the City to inspect all new construction (prior to occupation by residents) to ensure that the sanitary sewer was correctly connected to the City's sewer line.

*Measurable goal:* Continue inspection of new construction.

*Schedule:* Throughout entire Permit Term.

*Responsible department:* Engineering Department

*Cost:* No additional cost to the City.

#### **5.3.2 BMP #3-2: Complete Map of Outfalls and Receiving Waters**

*Description:* The City of Woburn is in the process of completing a Geographic Information Systems (GIS) map of the drainage outfalls and receiving waters.

*Measurable Goal:* Map completed.

*Schedule:* By the end of the second permit year, the map will be completed.

*Responsible department:* Engineering Department

*Cost:* The City has already budgeted monies to complete the GIS. Thus, work is underway and there should be no additional cost to the City.

### **5.3.3 BMP #3-3: Complete Dry Weather Screening of Outfalls**

*Description:* The City of Woburn is in the process of identifying all drainage outfalls along its receiving waters and noting the presence of dry weather flow. Where dry weather flow is noted during the system inspections, the City will collect samples of the flow to complete a screening of the stormwater system for illicit connections.

*Measurable Goal:* All outfalls screened once during permit period.

*Schedule:* During low groundwater period in late summer to early fall of permit term, years 1 through 5 (20 percent of the outfalls with dry weather flow per year).

*Responsible Department:* Public Works Department

*Cost:* The City has already budgeted monies to complete an initial dry weather outfall screening program. Based on the results of this program, future monies may be required for further screening field work.

## **5.4 Additional Best Management Practices**

To enhance the illicit discharge detection and elimination program, the City will perform the following additional BMPs to fulfill the requirements of Control Measure 3:

### **5.4.1 BMP #3-4: Develop and Present Draft Stormwater Ordinance**

*Description:* The City of Woburn will review existing ordinances and determine the needs for additional authority. If required, the City will develop a draft stormwater ordinance prohibiting illicit discharges to the stormwater system. The City Council must approve the draft stormwater ordinance for it to take effect.

*Measurable Goal:* Draft stormwater ordinance and present to the City Council.

*Schedule:* Review current ordinances during permit year 1. Draft language of new ordinance (if required) completed in permit year 2. Present draft ordinance to City Council in permit year 3, and each year thereafter until approved.

*Responsible department:* Engineering Department

*Cost:* City has already budgeted time to complete the review of existing ordinances and to develop new or modified ordinances. Some staff time (approximately 20 hours per year) may be required to obtain approval of any ordinances through City Council.

### **5.4.2 BMP #3-5: Develop and Implement System for Elimination of Illicit Discharges**

*Description:* The City of Woburn will develop a system for detection and elimination of illicit discharges based on prioritized results from BMP #3-4. The City will determine an approach for the identification of illicit connections in the drainage basins tributary to the suspect outfalls either by bottom-up or top-down inspections of storm drain lines. The City will also develop notification and funding procedures for removing illicit connections, and develop and maintain a database showing illicit connections identified, located, and removed. In addition, DPW employees will be trained to look for and notify supervisors of any illicit connections found during the course of normal work.

*Measurable Goal:* A draft and final illicit discharge identification/elimination system will be developed and then implemented during the permit term based on the results of the dry weather screening program. A schedule will be developed to implement the illicit connection elimination program based on the number of suspect connections. The City will note the number of illicit connections found and removed each year.

*Schedule:* By the end of the second permit year, the City will develop a program and schedule for the identification and removal of the illicit connections. The program will include a method to prioritize program implementation (for each outfall); field procedures to identify the locations of illicit connections within each outfall basin; identification of funding sources and approaches for the removal of the illicit connection; and development of a system for maintaining electronic records of the illicit connection program.

*Responsible department:* Engineering Department/Department of Public Works

*Cost:* It is not possible to estimate the cost of illicit connection removal at this time because the number of illicit connections is not known. The cost for the illicit connection program will be estimated after the dry weather screening program is implemented.