



Section Three

Section 3

Control Measure 3: Illicit Discharge Detection and Elimination

Control Measure 3, Illicit Discharge Detection and Elimination, requires the City to map its storm drain outfalls and eliminate illicit connections into the storm drain system. The best management practices (BMPs) listed below will be implemented to fulfill the requirements of Control Measure 3. Certain activities are required by the regulations, and several activities currently underway by the City will meet the intent of the rule.

Haverhill's Stormwater Management plan includes activities the City is already doing to address Control Measure 3, such as mapping outfalls and receiving waters and development/implementation of an illicit connection detection and elimination program. In addition, the city is conducting dry weather screening of outfalls and reviewing a bylaw to allow City officials to search more effectively for illicit connections. Together these BMPs will provide Haverhill with the methods and means to track and eliminate illicit discharges to the stormwater system.

One of the requirements for Control Measure 3 is to develop and implement an information program describing the hazards associated with illegal discharges to public employees, businesses, and the general public. This requirement for Haverhill is covered under Control Measure 1, specifically BMP #1-4 (development of brochures). Therefore, no new BMP covering this requirement is listed here.

BMP #3-1: Map Outfalls and Receiving Waters

Description: The City of Haverhill is completing a Geographic Information System (GIS) electronic map of the storm drain system. System attributes will include outfall locations, pipe size and material, flow direction, manholes, and catch basins. Receiving waters will be shown.

Measurable Goal: Map completed.

Schedule: The map will be completed by the end of the first year of the permit term.

Responsible person: City Engineer and Stormwater Coordinator

Cost: Funding for the drainage GIS has already been appropriated and work is underway. Annual maintenance of the GIS will be required to keep the data and mapping up-to-date. The cost of annual maintenance for the stormwater GIS system is estimated to be approximately \$2,000 per year.

BMP #3-2: Review Existing and Develop, If Necessary, Storm Sewer Bylaw

Description: The Stormwater Coordinator will review existing ordinances and determine the needs for additional authority. Existing Conservation Commission and Planning Board regulations, and Watershed and Sewer Use Ordinances will be reviewed. If required, the Stormwater Coordinator will develop an effective storm sewer bylaw prohibiting illicit connections and allowing City staff to enter houses to inspect plumbing connections. The City Council must approve the storm sewer bylaw for it to take effect.

Measurable Goal: Review of existing bylaws and regulations. If necessary, prepare storm sewer bylaw and present to City Council.

Schedule: Review of existing bylaws and regulations in fall 2003. If needed, bylaw will be completed in late 2003. Present to City Council in spring of 2004, and each spring thereafter until approved.

Responsible person/department: Stormwater Coordinator

Cost: Minimal staff time to review existing authority and, if necessary formulate a new bylaw.

BMP #3-3: Continue Dry Weather Screening of Outfalls

Description: Haverhill is currently performing dry weather field screening of outfalls that discharge to the Merrimack River. There are estimated to be about 165 to the Merrimack River alone. During the permit term, Haverhill will continue its dry weather-screening program and expand the program to include outfalls into all rivers, streams, and wetlands.

Measurable Goal: Complete first round of dry weather field screening of as many outfalls as possible in the 5 years of the first permit term.

Schedule: Merrimack River dry weather screening is ongoing. The remaining outfalls on the Merrimack River will be screened in 2003. Outfalls into wetlands, tributary streams, and ponds will be screened once the stormwater mapping is complete, with as many as possible within the first permit period.

Responsible person/department: Stormwater Coordinator

Cost: Approximately twenty outfall inspections per day can be conducted, varying with access, proximity, etc. With a two-person inspection crew at \$175/hour, the cost is \$70/outfall. A trained municipal crew, if available, will be less expensive.

BMP #3-4: Develop System for Detection and Elimination of Illicit Discharges

Description: Haverhill is currently performing dry weather screening at Merrimack River outfalls, and will use the information to develop an illicit discharge detection program. Initially, 25 outfalls have been sampled – these outfalls will be investigated further during the first year of the permit. As additional screening is done (BMP #3-3), a site-specific detection/elimination program will be developed. In addition, City employees will be trained to look for and notify supervisors of any suspect illicit connections found.

Measurable Goal: Develop procedures for elimination of illicit connections. Work to remove illicit connections as they are found. Train public works employees to look for illicit connections during course of normal work.

Schedule: Train public works employees during the first permit year. Remove illicit connections as they are found, if remedy is easily implemented. Develop removal procedures for connections not easily identifiable or not easily removed as they are detected.

Responsible person/department: Stormwater Coordinator

Cost: Cost to remove illicit connections varies and will likely be passed on to property owner. Property owner costs to remove illicit connections must be approved by the City Council and is included with Control Measure #3-2.