

OBJECTIVES

- Increase municipal employee awareness
 - Illicit Discharges and Detection
 - Construction Site BMPs
 - General stormwater management
 - Good Housekeeping BMPs and Measures
 - Structural BMP Operation and Maintenance
- Prepare municipal employees
 - Spill Prevention and Response
 - Identifying point source discharges
 - Implementing and maintaining BMPs

DESCRIPTION

Municipal employee training activities provide the applicable knowledge and awareness necessary to facilitate a stormwater management program within a municipality. Education and training of employees provides a municipality with an additional level of preparedness with not only properly implementing and maintaining BMPs, but also reacting to situations that require timely attention including spill response and control. A primary goal of this BMP is to increase the knowledge and capabilities of municipal staff with proper stormwater management practices as it relates to the selection of all BMPs in the municipal SWMP.

CONSIDERATIONS

Training and education programs should be developed and reviewed/modified on an annual basis. All municipal employees including public works staff, administrative staff, elected officials, engineering staff, inspection staff, and zoning officials should be considered during development of an annual program.

Training and education pursuits can be administered in a number of ways including in-house training, in-house presentations, joint training sessions, distribution of relevant printed materials, certification programs, informal "round-table" discussions, and seminars.

The training and education BMP is one of the few within an entire SWMP where the overall measurement of effectiveness is dependent on the success or effectiveness of the other BMPs selected and made a part of the overall municipal program.

Materials for training events and sessions conducted in-house can be downloaded from the U.S. EPA and Pennsylvania DEP websites. Attendance at workshops provided by the Lancaster County Clean Water Consortium will aid in achieving training and education goals. The LIMC will provide materials and topics for use by the municipalities annually as well.

As a general guideline, training activities should be conducted annually as outlined within this BMP. However, additional focus should be afforded to specific items within the municipal SWMP (i.e. selected BMPs in the SWMP, and so on) during the first two years of the permit cycle.

RECOMMENDATIONS AND PROTOCOLS

The templates provided within this manual can be used to establish your annual employee training and education program along with documenting unplanned training events. Refer to the "Documentation" section of this fact sheet.

The following table provides training and education events should be included, at a minimum, in the annual program. Further descriptions are provided after the table.

EVENT DESCRIPTION	TARGETED AUDIENCE	FREQUENCY
"Tail-Gate" training	Public Works Staff	Monthly
SWMP Review	All Staff	Annually
Targeted BMP Training	Varies (by department)	Annually
Illicit Discharge and Detection	Public Works Staff	Annually
Spill Response and Prevention	Public Works Staff	Bi-Annually
SWMP Updates	All Staff	Bi-Annually

"Tail-Gate" Training

"Tail-Gate" training involves on-site, or in the field, training and reviews of specific topics relative to the municipal Good Housekeeping Program and the municipal stormwater management program. Primary focus for this type of event is for maintaining installed structural and non-structural BMPs. Essentially, topics of "tail-gate" training sessions should focus on the selected Good Housekeeping BMPs and related BMPs within the SWMP. These training sessions will provide reviews of the operation and maintenance of the SWMP selected BMPs. Specific items recommended for review, but not limited to, during a "tail-gate" training session:

- General stormwater awareness
- Vehicle & equipment fueling, cleaning, and repairs
- Illicit discharge and detection
- Storage of materials
- Basin/inlet cleaning and maintenance
- General housekeeping
- Hazardous materials
- Municipal yard maintenance

SWMP Review

Annually, the entire staff should be educated on general stormwater awareness and changes or updates to the municipal SWMP. This type of event can be completed in-house.

Targeted BMP Training

It is important to note that targeted BMP training should focus on items of issue affecting the municipal SWMP.

A specific structural or non-structural BMP should be identified for training purposes. Targeted BMPs should encompass the entire municipal SWMP. A guide to choosing relevant BMPs can be internally identified items that have been determined require additional focus. Forums for training, as well staff to be trained, will vary. It is important to document the training exercise. This training is specific to departments within the municipal organization (i.e. illicit discharge and detection training for the police/fire departments, construction BMPs for the inspection department, and so on).

Recommended target BMPs (with target audience) include, but are not limited to:

- Public education planning workshops (administrative staff)
- Innovative BMP design (planning staff, zoning officials)
- General stormwater management awareness (all staff)
- Construction site BMPs (public works staff, inspectors, planning staff)
- Good Housekeeping BMPs (public works staff)
- Basin and outfall cleaning & maintenance (public works staff)
- Ordinance review (elected officials, administrative staff)

Training forums will vary from advertised workshops to in-house presentations.

Illicit Discharge and Detection

These training events are designed to increase the knowledge and response capabilities of the public works staff. Training events are recommended bi-annually at a minimum. One of the training sessions should be an in-house, in-the-field "mock" review or exercise to outline recognizing illicit discharges and reporting requirements. One of the training sessions should include a review of all the outfalls within the municipality where an illicit discharge will affect the MS4. This type of training event can be a combined in-the-field review of actual outfalls and an in-house review of the outfall map. Types of point source discharges and identifying potential point source discharge locations should be reviewed at this time.

Spill Response and Prevention

This training event follows the same ideal as for Illicit Discharge and Detection Training for public works staff. An in-house, in-the-field training session should occur with "hands-on" training for identifying a spill and proper procedures for control and containment. This training session would prepare municipal employees to for implementation and maintenance of proper BMPs. A comprehensive review should be completed during this training session to outline prevention techniques. More detail and information is provided within BMP Fact Sheet GH-10 regarding Spill Prevention and Control.

SWMP Updates

Updates for changes or events of note (i.e. illicit discharges, flooding, ordinance changes, and so on) should be reviewed bi-annually with all staff. These events can be an in-house review or information could be provided in an internal newsletter or "paycheck envelope stuffer." Other information could include changes to the municipal program or regulation changes that will affect the SWMP.

DOCUMENTATION

Proper documentation practices are essential for any municipal SWMP to show compliance with the Clean Water Act, NPDES, and generally the requirements of the permit issued to allow discharges through the defined MS4. As with all sections of an MS4 permit, all documentation should be centralized.

BMP Fact Sheet: GH-1 Employee Training and Education

For municipal training and education, templates are provided within the BMP manual to assist the municipality with documentation compliance. The following templates can be used for compliance:

- **Annual Municipal Employee Training and Education plan:** This template is used to develop a training and education program on an annual basis. The plan is completed prior to the year's activities. The plan is a guidance document and does not need updated (unless absolutely necessary) through the year. Additional training events not outlined in this plan only needs to be documented through a training record and entered into the training and education log.
- **Training Record:** This document is used to provide record of a training event or session. An attendee's log is required to be attached to all records completed.
- **Training and Education Log:** The log provides a general summary of all training activities relative to the SWMP for municipal employees (or as outlined within a selected BMP). Logs can be "renewed" on an annual basis or become a comprehensive list over the life of the permit cycle. It is imperative the log is kept up-to-date and complete.

MEASUREMENT OF EFFECTIVENESS

As indicated, the overall measurement of effectiveness of this BMP is dependent on the success of the entire program. However, effectiveness can be established through properly conducting and documenting training activities as recommended in the fact sheet.

SOURCES

U.S. Environmental Protection Agency at

http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=min_measure&min_measure_id=6

Pennsylvania Department of Environmental Protection; final version of PAG-13 at

<http://files.dep.state.pa.us/Water/Watershed%20Management/WatershedPortalFiles/StormwaterManagement/PAG-13/FinalPAG-13.pdf>

Capitol District Regional Planning Commission (CDRPC) at

<http://www.cdrpc.org/NET/WQ/MS4.html#POLLPREV>