

## OBJECTIVES

- Prevent or reduce polluted discharges associated with leaves and similar debris
  - Operational Protocols
  - General Practices
  - Training
  - Other Considerations

## DESCRIPTION

Leaves and similar materials can not only inhibit the proper function of a drainage system, but can also contribute pollutants to stormwater or snow melt runoff. Proper collection and disposal from municipal facilities including roads and streets will reduce the potential to inhibit system function and pollutants to receiving waters.

## CONSIDERATIONS

Leaf collection can be accomplished by several means. Mechanical collection is an efficient method to collect from municipal roads and streets in residential and commercial districts. A cost-effective approach may be to require the "bagging" of leaves in residential districts to reduce equipment costs. Collection at municipal facilities can be incorporated into a mechanical collection method or completed by municipal employees.

Particulates and similar pollution-causing chemicals—specifically metals and hydrocarbons—can attach to leaves, especially in highly travelled areas.

Consider a comprehensive street sweeping after leaf collection activities are completed.

## RECOMMENDATIONS AND PROTOCOLS

For the objectives listed, the following represent further recommendations and protocols for landscape

### **Prevent or reduce polluted discharges associated with leaves and similar debris**

#### *Operational Protocols*

- Consider a leaf collection activity in the spring as well
- Collection schedules should depend on canopy coverage (heavy canopy coverage will generally require more frequent collection activities)

#### *General Practices*

- Conduct street sweeping activities after completion of all scheduled leaf collection activities. Perform an inspection prior to scheduling street sweeping
- Provide notification to residents and businesses prior to collection activities
- Do not dump or store collected leaves at or adjacent to inlets or waterways
- Properly dispose of collected leaf waste
- Do not "push" leaves to inlets or waterways during collection.

#### *Training*

- Refer to BMP Fact Sheet GH-1 regarding training for more information

## BMP Fact Sheet: GH-39 Leaf Collection

- For mechanical methods of collection, consider equipment operator training
- Train employees regarding proper maintenance activities and recommendations outlined in this BMP fact sheet and related fact sheets

### *Other Considerations*

- Consider recycling collected leaves for compost
- A written leaf/debris collection and disposal program should be provided to not only municipal employees, but all residents and businesses in the municipality

## 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.

For leaf collection, templates are provided within the BMP manual to assist the municipality

- **Training Record:** This document is used to provide record of a training event or session relative to leaf collection.
- **Training and Education Log:** Enter a completed training record in the log.
- **Leaf/Debris Collection and Disposal Program:** a written program for the municipality outlining requirements and schedules (can be a section of the waste management plan)
- **Activity Record:** Complete when mechanical leaf collection activities are conducted. Note locations of activities.
- **Inspection Record:** Complete an inspection based on the recommendations in the section titled "INSPECTIONS AND MEASUREMENTS" or as outlined in your SWMP
- **Inspection, Event, and Activity Log:** Enter an inspection or activity record for leaf collection into the log as outlined within this BMP.

## INSPECTIONS AND MEASUREMENTS

Frequency of inspections for leaf collection is recommended as follows:

- *Regular Inspection:* Conduct inspections prior, during, and after scheduled leaf collection activities. Frequency will depend on schedule of activities.

Items that should be inspected, observed, and maintained:

*Mechanical Equipment:* in proper working condition; repair or correct as required

*Roads and Streets:* Observe leaf load before and after activities. Consider additional collections if developed schedule is ineffective

*Parks and Open Spaces:* leaves removed

Effectiveness is difficult to measure with leaf collection. However, removal of leaves and similar debris during the autumn months will provide a level of system functionality.

**SOURCES**

Live Science Online, *Pollution Turns Leaves Magnetic* , at <http://www.livescience.com/5805-pollution-turns-leaves-magnetic.html>

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>