



Storm Water Management Fact Sheet

Storm Water Contamination Assessment

DESCRIPTION

A Storm Water Contamination Assessment (SWCA) reviews a facility and/or a site to find materials or practices that may contaminate storm water. This assessment helps target the most important pollutant sources for correction or prevention.

A SWCA program is closely related to other BMPs, such as materials inventory, non-storm water discharges, record keeping, and visual inspections.

APPLICABILITY

An SWCA program is applicable to any industrial facility which contains areas, activities, or materials which may contribute pollutants to storm water runoff from the total site. An assessment for storm water purposes may also be applicable in situations where a formal site assessment for hazardous waste purposes is being performed.

ADVANTAGES AND DISADVANTAGES

A comprehensive SWCA program can eliminate pollution sources that can impair receiving water quality. However, there are limitations associated with a contamination assessment program, including:

- Assessments need to be performed by qualified personnel.
- Assessments are useful only if there is corporate commitment to reduce any contamination sources discovered.
- Assessments need to be periodically updated.

KEY PROGRAM COMPONENTS

A SWCA program should include:

- Assessing potential pollutant sources and associated high risk activities such as loading and unloading operations, outdoor storage activities, outdoor manufacturing or processing activities, dust- or particulate-generating activities, and on-site waste disposal practices.
- Determining which of these sources pose the greatest risks of polluting storm water runoff from the site.
- Selecting other cost-effective BMPs to prevent or control pollution from the high-risk sources at the site.

IMPLEMENTATION

In addition to identifying problems within the storm sewer system, it is even more important to prevent problems from developing at all, and to provide an environment in which future problems can be avoided. Thus, an effective storm water assessment program should include follow-up activities including:

- Educating the public about the consequences of misusing storm sewers.
- Pretreating industrial storm water or disconnecting commercial and industrial storm water entries into the storm drainage system.
- Tackling the problem of widespread septic system failure.

- Disconnecting direct sanitary sewerage connections from the storm sewer system.
- Rehabilitating storm or sanitary sewers to abate infiltration by contaminated water.
- Developing zoning and other ordinances.

In some communities that are assumed to have separate sanitary and storm sewer systems, the storm sewer system may actually act as a combined sewer system. In these cases, the community may consider designating the storm sewer system a combined sewer and treating the discharge.

A SWCA program and the related correction program need to be periodically updated, based on their effectiveness and on the introduction of new raw materials or changes in processes at the site.

Because the results and performance of a SWCA program depend on the severity of the risks uncovered and the corrective actions taken, it is difficult to quantify the water quality benefits of a risk assessment program. Clearly, however, a program that identifies potential pollution sources and corrects them will improve water quality.

COSTS

Costs for the initial assessment may be high. However, by pinpointing high risk areas, a risk assessment may reduce overall costs associated with a complete BMP implementation program. The costs associated with a risk assessment program for storm water are small when compared with those of an overall hazardous waste site assessment.

REFERENCES

1. Pitt, R., D. Barbe, D. Adrian, and R. Field, 1992. *Investigation of Inappropriate Pollutant Entries into Storm Drainage System - A User's Guide*, U.S. EPA, Edison, New Jersey.
2. U.S. EPA, 1981. *NPDES Best Management Practices Guidance Document*.

- 3 U.S. EPA, Pre-print, 1992. *Storm Water Management for Industrial Activities: Developing Pollution Prevention Plans and Best Management Practices*. EPA 832-R-92-006.

ADDITIONAL INFORMATION

Center for Watershed Protection
Tom Schueler
8391 Main Street
Ellicott City, MD 21043

Northern Virginia Planning District Commission
David Bulova
7535 Little River Turnpike, Suite 100
Annandale, VA 22003

Oklahoma Department of Environmental Quality
Don Mooney
Water Quality Division, Storm Water Unit
P.O. Box 1677
Oklahoma City, OK 73101-1677

Southeastern Wisconsin Regional Planning Commission
Bob Biebel
916 N. East Avenue, P.O. Box 1607
Waukesha, WI 53187

United States Postal Service
Charles Vidich
6 Griffin Road North
Windsor, CT 06006-7030

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For more information contact:

Municipal Technology Branch
U.S. EPA
Mail Code 4204
401 M St., S.W.
Washington, D.C., 20460