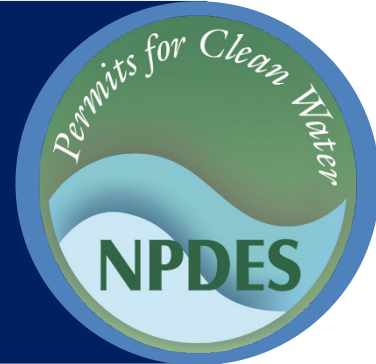




Stormwater Best Management Practice

Materials Management



Minimum Measure: Pollution Prevention/Good Housekeeping for Municipal Operations
Subcategory: Municipal Facilities

Description

Many municipal activities involve common chemicals such as fertilizers, solvents, paints, cleaners and automotive products. These materials, if improperly managed, can enter storm drains and lead to water quality impacts. Properly using, storing and disposing of them can limit the likelihood of these accidental spills or releases.

Applicability

Any municipal facility that might release harmful chemicals (through spills, leaks or otherwise) can use materials management practices to minimize or prevent releases. Such facilities or activities include:

- Municipal landscaping
- Municipal vehicle and equipment maintenance
- Municipal vehicle and equipment washing
- Municipal vehicle fueling
- Deicing material application and storage

(For more information on storing hazardous materials, refer to the [Hazardous Materials Storage](#) fact sheet.)

Implementation

In many cases, facilities can implement simple housekeeping practices to manage materials more effectively. Before establishing such a routine, however, municipal staff should generate a material inventory to familiarize employees with their presence and proper use. Some facilities—for example, facilities that use and store large quantities of chemicals—may need to implement structural and non-structural practices.

Material Inventory

Regular material inventories make hazardous material overstocking less likely, increase knowledge about what hazardous materials are present and what their storage requirements are, and document proper handling



Keeping materials stored indoors and using controls such as drip pans can reduce the risk of a potential stormwater contamination.

Photo Credit: Kevin Stockton, U.S. EPA, 2020

techniques. An inventory of hazardous materials has three major steps:

- Identify all hazardous and nonhazardous substances by reviewing all purchase orders and walking through the facility. Obtain a Safety Data Sheet (SDS) for each substance present, as applicable.
- Label each container with the name of the chemical, unit number, expiration date, handling instructions, and health or environmental hazards. (The SDS will be the source of much of this information). Insufficient labeling can lead to improper handling or disposal of hazardous substances.
- Make special note of hazardous chemicals that need special handling, storage or disposal.

Routine Housekeeping

Routine housekeeping practices, drawing on the now-complete material inventory, can reduce worker exposure to potentially harmful chemicals and limit the potential for spills and accidental discharges. These practices include:

- Implement routine cleaning and inspection of facilities or areas that store or process materials.
- Maintain clean, organized workplaces.
- Minimize the amounts of materials used and the wastes that municipal activities generate.
- Use environmentally friendly alternatives to toxic chemicals whenever possible.
- Store materials away from storm drains.

Employee education and training is critical to good materials management practices.

To learn more about how to implement training programs, see the [Municipal Employee Training and Education](#) fact sheet.

- Dispose of old or outdated chemicals at approved disposal locations.
- Educate employees about the benefits of proper materials management practices (see box to the right).

Structural Controls

For facilities that store or handle large quantities of potentially harmful materials, structural controls can add a layer of protection against stormwater contamination. Structural controls include:

- Cover outdoor storage and handling areas to reduce exposure to precipitation, stormwater and wind.
- Build a designated, enclosed storage area.
- Install secondary containment structures surrounding material handling areas.

Cost Considerations

Except for structural controls, costs associated with materials management practices are mostly labor costs. The necessary education of municipal employees, local businesses and the public will take up an amount of staff hours that depends on the program's extent. Producing items to encourage proper practices, such as posters and bulletin boards, may also incur minor material costs.

The cost of structural controls will depend on the size of the material handling or storage area.

Additional Information

Additional information on related practices and the Phase II MS4 program can be found at EPA's [National Menu of Best Management Practices \(BMPs\) for Stormwater](#) website

Disclaimer

This fact sheet is intended to be used for informational purposes only. These examples and references are not intended to be comprehensive and do not preclude the use of other technically sound practices. State or local requirements may apply.