

OBJECTIVES

- Reduce or prevent polluted discharges associated with winter activities
 - Road Salt Application
 - Roadway Repairs
- Implement and conduct activities aimed at pollution prevention
 - Training
- General Practices
- Spill Response and Control
- Other Considerations

DESCRIPTION

Application of deicing materials and roadway maintenance activities during the winter season can result in increased pollutant loads in surrounding waterways. Proper planning and practices will help reduce or prevent polluted runoff from snow melt and rainwater or direct discharges.

CONSIDERATIONS

Due to costs associated with alternative deicing materials, better management and full implementation of salt management practices can be a more attractive option.

Toxic substances or chemicals (including metals, oils, and so on) can easily bind to sediment or gravel. Protecting inlets from sediment-rich runoff will reduce the potential of pollutant loads to receiving waterways.

RECOMMENDATIONS AND PROTOCOLS

For the objectives listed, the following represent further recommendations and protocols for winter road maintenance:

Reduce or prevent polluted discharges associated with winter activities

Road Salt Application

- Calibrate salt spreaders to ensure proper application.
- Only apply the amount of salt needed to get the job done.
- Follow the proper application guidelines.
- Consider temperature when determining volume of salt to apply.
- Contain wash water from trucks used for salting and sanding in a holding tank for disposal or discharge into sanitary sewers.
- Consider alternative materials such as calcium chloride and magnesium chloride

Roadway Repairs

- Follow guidelines outlined in BMP Fact Sheet GH-30 for Road and Street Maintenance
- Debris and sediment can be carried by snowmelt as well as stormwater

General Practices

- Use the least toxic materials available for any practices associated with road and street maintenance

BMP Fact Sheet: GH-32 Winter Road Maintenance

- Thoroughly clean up areas of repair and maintenance at the end of the work day or the end of maintenance/repair activities
- Complete general observations of road and street areas (including areas where repairs are being conducted) for sediment build-up, and so on

Spill Response and Control

- Have spill clean-up materials readily available
- Refer to BMP Fact Sheet GH-10, Spill Prevention and Control for more information

Implement and conduct activities aimed at pollution prevention

Training

- Refer to BMP Fact Sheet GH-1 regarding training for more information
- Train employees regarding proper winter maintenance activities outlined in this BMP fact sheet and related fact sheets

Other Considerations

- Ensure inlets or drains are protected near repair or construction activity sites, including activities by others
- Alternative materials are generally more environmentally friendly
- Refer to BMP Fact Sheet GH-23 for storing salt

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 winter road maintenance, templates are provided within the BMP manual to assist the municipality with documentation compliance. The templates can be used for compliance; however, the following documents are recommended as a minimum for compliance:

- **Training Record:** This document is used to provide record of a training event or session relative to winter road maintenance—specifically with road salt applications.
- **Training and Education Log:** Enter a completed training record into the log.
- **Activity Record:** Complete when road salt applications (or alternative materials) are completed.
- **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, activity, or event record for winter road maintenance into the log as outlined within this BMP.

Road and street maintenance activities (even during winter months) can be documented through the guidelines and recommendations outlined in BMP Fact Sheet GH-30 for road and street maintenance.

INSPECTIONS AND MEASUREMENTS

Frequency of inspections for winter road maintenance should follow recommendations outlined in BMP Fact Sheet GH-30 for roads and streets.

Items that should be inspected and maintained (and recommended maintenance actions):

Application Equipment: Ensure proper function and cleanliness

Effectiveness can be demonstrated through a combination of appropriate documentation practices and in conjunction with a monitoring program. Analytical monitoring conducted under the requirements of Minimum Control Measure (MCM) #3 can be used to measure effectiveness of this BMP. Improved analytical results can be attributed to proper implementation and maintenance of the practices recommended in this fact sheet.

SOURCES

U.S. Environmental Protection Agency Road and Salt Application and Storage at <http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=browse&Rbutton=detail&bmp=106&minmeasure=6>

Monroe County Winter Road Maintenance BMP Summary Sheet at www.monroecounty.gov