

## **Section 6.6 – MCM #6**

### **Good Housekeeping and Pollution Prevention for Permittee-Owned Operations and Procedures**

Permit Part 2.3.7

Year 1 & 2 Requirements

Addendum – Winter Road Maintenance Procedures

## **Town of North Hampton**

### **Prepared By:**

**FB Environmental, Adapted from plans developed by  
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### **Prepared For:**

**Town of North Hampton**

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**Introduction:** These procedures address the requirements of the New Hampshire MS4 General Permit (Permit) that fall under MCM #6, page 53 of 67, section 2.3.7.1.d.v, regarding Winter Road Maintenance Procedures. All NH MS4 permittees are required to establish and implement Winter Road Maintenance Procedures regardless of whether they fall under the requirements of Appendix F (TMDL) or Appendix H (Water Quality Limited Waterbodies) for chloride impaired surface waters. The goal of these procedures is to provide guidance to permittees and their employees on winter maintenance activities and procedures. If services are contracted, it is the responsibility of the permittee to relay all winter maintenance procedures and expectations to their contractor(s).

Permit Language (Page 53, section 2.3.7.1.d.v): *The permittee shall establish and implement procedures for winter road maintenance including the use and storage of salt and sand; minimize the use of sodium chloride and other salts, and evaluate opportunities for use of alternative materials; and ensure that snow disposal activities do not result in disposal of snow into waters of the United States. See NHDES, Fact Sheet WMB-3 Snow Disposal, for guidance as to selection and maintenance of snow disposal areas. For purposes of this MS4 Permit, salt shall mean any chloride-containing material used to treat paved surfaces for deicing, including sodium chloride, calcium chloride, magnesium chloride, and brine solutions.*

## **Winter Road Maintenance Procedures**

- **Description:** The Town of North Hampton will implement the following winter maintenance procedures to reduce the discharge of pollutants from the MS4 while maintaining public safety:

### **Use and Storage of Salt and Sand**

- Prevents exposure of deicing product(s) (salt, sand, or alternative products) storage piles to precipitation by enclosing or covering the storage piles. Implements good housekeeping, diversions, containment or other measures to minimize exposure resulting from adding to or removing materials from the pile. Piles of salt and/or sand are stored in such a manner as not to impact surface water resources, groundwater resources, recharge areas, and wells. Storage and management of deicing materials adhere to guidance in NHDES factsheets WD-WMB-4 located at: <https://www.des.nh.gov/organization/commissioner/pip/factsheets/wmb/documents/wmb-4.pdf> and WD-DWGB-22-30 located at: <https://www.des.nh.gov/organization/commissioner/pip/factsheets/dwgb/documents/dwgb-22-30.pdf>.
- Materials are stored under cover or enclosed areas are located on impervious surfaces.
- Trucks are not overfilled with deicing materials to prevent spills.
- Perform unloading/loading of trucks on impervious surfaces whenever possible. These areas are frequently cleaned and swept to reduce the tracking and runoff of salt and to capture any spills.
- Adequate drainage controls in storage areas to prevent runoff from entering the stormwater system.
- Follow appropriate loading and unloading procedures.
- Frequently sweep near the storage/loading areas to reduce the amount of salt, sand, or other materials that is tracked out.
- Do not store salt near drinking water supplies, surface water resources, groundwater resources, recharge areas, and/or wells.

### **Minimize the use of Sodium Chloride and Other Salts**

- Calibrate equipment to reduce and optimize salt use and ensure deicing agents are being used efficiently. Provide employee training on proper calibration procedures. See this page for more information about calibration <https://www4.des.state.nh.us/nh-ms4/wp-content/uploads/2020/11/Calibration.pdf>

- Vehicles are retrofitted to include temperature sensors for air and pavement. The Town is considering and investigating the feasibility of anti-icing and pre-wetting equipment. The town's effective snow removal strategy, achieved by consistent plowing and treatment plan, has resulted in minimal demand for the retrofit.
- Regularly inspect and maintain equipment to reduce the potential for leaks. See North Hampton's SWMP for procedures on equipment inspections and maintenance.
- Only apply enough deicer so that plows can remove the snow and ice. Adjust the application rate of deicers based on the type of storm, type of agent used, and anti-icing and pre-wetting techniques used.
- Remove as much snow as possible using mechanical means like plowing, blowing, or shoveling before deicing to reduce the need for road salt or other deicing chemicals.
- Use anti-icing practices to prevent ice formation and reduce the need for deicers.
- Apply anti-icing agents 1-2 hours before winter weather events to ensure optimal performance (can be applied up to 24 prior).
- Only apply road salt when the pavement temperature is above 15° F.

### **Evaluate Opportunities for use of Alternative Materials**

- The Town of North Hampton has evaluated and/or implemented the following alternatives to salt:

The town has considered utilizing Calcium chloride stored at NH Department of Transportation facility located in Rye on an as needed basis. The town and NH DOT have had preliminary conversations about the feasibility of this option. Additionally, the town is considering alternative pre-treatment options. These treatment adjustments must coincide with fleet replacement in order to be successful. The distribution of these pre-treatment materials would need to be facilitated by the Town's larger fleet vehicles, which operate on a 20 to 25 year cycle and have not yet necessitated replacement.

### **Snow Disposal Activities**

- Snow disposal and storage activities, including selection of appropriate snow disposal sites, adhere to the NHDES Snow Disposal Guidelines in NHDES Factsheet WMB-3 located here <https://www.des.nh.gov/organization/commissioner/pip/factsheets/wmb/documents/wmb-3.pdf>
- Snow is not pushed or dumped into waterbodies or wetlands, into stormwater drainage swales or ditches, or on top of catch basins.
- Snow is not stored near drinking water areas, waterbodies, or wetlands.

- Snow is not stored in areas that are unstable, areas of potential erosion, or high points where snow may melt and collect debris as runoff before it enters the stormwater system.
- Snow is stored in areas with higher sun exposure.
- Snow fences are used to contain snow piles and reduce snow drifting.
- When snow disposal is needed, the Town of North Hampton currently disposes of snow at 14 Cherry Rd, North Hampton (The town Recycling Center) in compliance with NH MS4 Permit regulations.

## **Employee Training**

The Town of North Hampton **employees** are trained using the following methods.

- Employees who perform winter road maintenance meet prior to the winter season to discuss maintenance protocol.
- Employees received training as part of an overall employee training in conjunction with stormwater pollution prevention, illicit discharge detection and elimination (IDDE) procedures, and spill and response procedures.
- The town is considering sending several employees attended Green SnowPro trainings.
- The town is considering attending the Annual New Hampshire Salt Symposium.