

Operations and Maintenance (O&M) Plan for Facilities in the MS4 Area



June 2020

Revision 1



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1.0 INTRODUCTION

This Operations and Maintenance (O&M) Plan describes the Department's programs and procedures to address the Good Housekeeping and Pollution Prevention requirements of Minimum Control Measure No. 6 (MCM 6) of the 2017 New Hampshire Small Municipal Separate Storm Sewer Systems (MS4) General Permit that became effective on July 1, 2018.

The 2017 MS4 Permit (Sec. 2.3.7) requires an O&M Plan to be completed within 2 years of the effective date, or by July 2020, and include an inventory of facilities (e.g., roadways, park and rides, rest areas, service centers, maintenance sheds and office buildings) in the urbanized area (see map in Attachment 1). The Department has instituted good housekeeping and pollution prevention measures at its facilities to minimize pollutant exposure to stormwater as well as maintain the roadway related stormwater infrastructure within the regulated urbanized area.

This O&M Plan describes the Department's good housekeeping and pollution prevention measures consistent with the MS4 Permit for maintaining its roadways and related stormwater infrastructure as well as its facilities that perform material storage and vehicle and equipment maintenance within the Urbanized Area subject to the MS4 Permit (see Attachment 1). The O&M Plan describes an employee training component and a process to review and assess operations and report on progress in each future annual report. The employee training will be incorporated into the Environmental Management System (EMS) Environment and Safety Training, managed by the Bureau of Environment. This training is currently required for all highway maintenance personnel.

1.1 Related Department Policies and Programs

The Department has developed specific work instructions and guidance manuals that describe best practices and policies to perform good housekeeping and pollution prevention measures at its facilities (see Attachment 2). The work instructions are included in its Environmental Management System (EMS); which includes an ongoing employee training program. The work instructions are referenced in this Draft O&M Plan to maintain consistency with established practices and implementation tools while meeting the good housekeeping activities required by the MS4 permit.

In 2017, the Department updated its Environmental Policy-Procedure (EIP-1) to consolidate, coordinate and better communicate its environmental review and protection policies and procedures across its various divisions, bureaus and districts. The Department revised its Maintenance Manual in August 2018 to update the work instructions and work activity classification codes to enhance tracking of various routine, preventative and emergency maintenance activities.

In 2018, the Department developed a new guidance manual for routine roadway maintenance activities entitled "Best Management Practices for Routine Roadway Maintenance Activities in New Hampshire." This manual describes methods to perform routine roadway maintenance activities in an environmentally-sensitive manner and serves as a resource not only for the Department but for municipalities in maintaining road infrastructure in this state. The principles behind these practices are included in the various inspection and maintenance activities

described below in this document.

The MCM6 requirements pertain to the following facilities:

- Department-owned facilities and properties including maintenance facilities, material storage locations, park and rides, service-centers, rest areas and other miscellaneous facilities.
- Stormwater infrastructure within the regulated urban area including catch basins, drainage infrastructure and stormwater BMPs.

1.3 Facility Inventory

Section 2.3.7.1 of the Permit identifies four (4) principal types of permittee-owned facilities or activities that must be addressed in the O&M Plan:

- a) Buildings and Facilities
- b) Vehicle/Equipment Storage and Maintenance Facilities
- c) Parks and Open Spaces
- d) Stormwater Infrastructure Operations and Maintenance

The Department owns and operates facilities including maintenance facilities, park and ride facilities, rest areas and service centers, and parks or open space areas. The maintenance activities conducted at these facilities varies and are described in greater detail in the next section. Only facilities located in Districts 5 and 6 and the Patrol Section 414 of District 4 are located in the Urbanized Area and are, thus, subject to the MS4 Permit. Facilities maintained by the Bureau of Turnpikes in these same areas are also subject to the Permit.

The Department has established its own environmental policies that involve similar good housekeeping and maintenance practices for its facilities that lie outside of the urbanized area. The Bureau of Turnpikes is responsible for maintaining facilities along the designated toll roads including the F.E. Everett Turnpike, Interstate 95, and the Spaulding Turnpike.

Table 1.1 provides an inventory of Department facilities that are within the Urbanized Area and have a regulated discharge (i.e., point source discharge to a waters of the United States). Facilities are listed by District, municipality, associated outdoor activity and receiving water body. The table also indicates whether the facility has a vehicle fueling station and/or outdoor storage of bulk materials.



Table 1.1 Inventory of Department Facilities within the MS4 Urbanized Area, Associate Outdoor Activities and Receiving Water Body

Facilities	Municipality	Bulk Fuel Storage and Handling	Salt Storage and Handling	Brine Storage and Handling	Winter Sand Storage and Handling	Limited Reuse Soil Storage and Handling	Receiving Water Body
District 5							
Administration Bldg	Bedford	No	No	No	No	No	NHRIV700060804-01, SEBBINS BROOK - POINTER CLUB BROOK
PS 511	Bedford	Yes	Yes	Yes	Yes	No	NHRIV700060804-01, SEBBINS BROOK - POINTER CLUB BROOK
PS 512	Londonderry	No	Yes	Yes	Yes	Yes	NHRIV700060804-04, L. COHAS BROOK
PS 514	Salem	No	Yes	Yes	Yes	Yes	NHRIV700061102-32, HITTITYTITY BROOK - UNNAMED BROOK
PS 527	Manchester	Yes	Yes	Yes	Yes	No	NHRIV700060702-04, UNNAMED BROOKS - TO MASSABESIC LAKE
PS 528	Derry	Yes	Yes	Yes	Yes	No	NHRIV700061203-16, BEAVER BROOK
Salem Welcome Center	Salem	No	No	No	No	No	UNNAMED WETLAND NHRIV700061102-18, POLICY BROOK
I-93 Exit 2 Transportation Center ¹	Salem	No	No	No	No	No	UNNAMED WETLAND NHRIV700061102-16, POLICY BROOK
I-93 Exit 5 Transportation Center ¹	Londonderry	No	No	No	No	No	UNNAMED WETLAND NHRIV700060804-04, L. COHAS BRK
I-93 Exit 4 Transportation Center ¹	Londonderry	No	No	No	No	No	UNNAMED WETLAND
I-93 Exit 3 Park & Ride	Windham	No	No	No	No	No	NHRIV700061204-01, DINSMORE BRK
District 6							
PS 608	Epping	Yes	Yes	No	Yes	Yes	UNNAMED WETLAND
PS 611N	Kingston	No	Yes	No	Yes	No	UNNAMED WETLAND NHRIV700061401-01, LITTLE RIVER
PS 612	N. Hampton	No	Yes	Yes	Yes	No	NHRIV600030901-07, WINNICUT RIVER - UNNAMED BROOK
Hampstead Park & Ride	Hampstead	No	No	No	No	No	UNNAMED WETLAND NHRIV700061102-04, HOG HILL BROOK

Facilities	Municipality	Bulk Fuel Storage and Handling	Salt Storage and Handling	Brine Storage and Handling	Winter Sand Storage and Handling	Limited Reuse Soil Storage and Handling	Regulated Discharge
Route 125 Park & Ride	Plaistow	No	No	No	No	No	UNNAMED WETLAND NHRIV700061401-04, KELLY BROOK – SEAVER BROOK
Route 101 Exit 7 Park & Ride	Epping	No	No	No	No	No	UNNAMED WETLAND NHRIV600030708-02, PISCASSIC RIVER - UNNAMED BROOK
I-95 Exit 3A, Portsmouth Transportation Center ¹	Portsmouth	No	No	No	No	No	UNNAMED WETLAND NHRIV600030904-07, UNNAMED BROOK- TO UNNAMED MARSH
Turnpikes							
Administration and Hooksett Tolls	Hooksett	No	No	No	No	No	NHRIV700060802-14-02, MERRIMACK R.
PS 820	Merrimack	Yes	Yes	Yes	No	No	UNNAMED WETLAND
PS 825	Hooksett	Yes	Yes	Yes	No	No	NHRIV700060802-14-02, MERRIMACK R.
PS 835	Dover	Yes	Yes	Yes	No	No	UNNAMED WETLAND
PS 840	Rochester	Yes	Yes	Yes	No	No	UNNAMED WETLAND
Bedford Tolls	Bedford	No	No	No	No	No	NHRIV700060804-01, SEBBINS BROOK - POINTER CLUB BROOK
Dover Toll	Dover	No	No	No	No	No	UNNAMED WETLAND NHEST600030903-01-03, BELLAMY RIVER SOUTH CLEMENT POINT
Hampton Tolls	Hampton	No	No	No	No	No	UNNAMED WETLAND NHRIV600030901-07, WINNICUT RIVER - UNNAMED BROOK
Merrimack Tolls, Exit 10	Merrimack	No	No	No	No	No	UNNAMED WETLAND NHRIV700061001-19, UNNAMED BRK
Merrimack Tolls, Exit 11	Merrimack	No	No	No	No	No	UNNAMED WETLAND
Exit 9 Park & Ride	Dover	No	No	No	No	No	UNNAMED WETLAND NHRIV600030405-13, TATES BROOK

Facilities	Municipality	Bulk Fuel Storage and Handling	Salt Storage and Handling	Brine Storage and Handling	Winter Sand Storage and Handling	Limited Reuse Soil Storage and Handling	Regulated Discharge
I-95 Seabrook Rest Area/ Welcome Center ¹	Seabrook	No	No	No	No	No	NHRIV600031004-10, CAINS BROOK - UNNAMED BROOK
Exit 13 Park and Ride	Rochester	No	No	No	No	No	UNNAMED WETLAND NHIMP600031003-04, CAR BARN POND
Exit 6 Park and Ride / DMV / EZ Pass	Nashua	No	No	No	No	No	UNNAMED WETLAND NHRIV700040402-08, NASHUA RIVER
I-93 NB Hooksett Rest Area ¹	Hooksett	Yes	No	No	No	No	UNNAMED WETLAND NHLAK700060802-06, UNNAMED POND
I-93 SB Hooksett Rest Area ¹	Hooksett	Yes	No	No	No	No	NHRIV700060802-23, UNNAMED BRK
Bridge Maintenance							
711	Epping	Yes	No	No	No	No	UNNAMED WETLAND NHRIV600030703-19, UNNAMED BROOK – TO LAMPREY RIVER

Notes: ¹These facilities are maintained and operated by third party entities through lease agreements with the Department. The maintenance activities associated with these facilities include snow removal, deicing applications, sweeping and catch basin cleaning, which are handled by the 3rd Party leasee and their contractors.

2.0 Facility Operations and Maintenance

2.1 Maintenance Facilities

Activities potentially exposed to stormwater at patrol sheds or maintenance facilities include storage and handling of bulk materials (e.g., sand, deicing salt, etc.) and vehicle maintenance including vehicle fueling, replacement of vehicle fluids and washing. Spill prevention and containment measures associated with vehicle fueling, maintenance and wash water are described herein. In addition to this O&M Plan, separate Stormwater Pollution Prevention Plans (SWPPPs) were prepared for eleven (11) patrol sheds that are located in the urbanized area and were identified by the Department as both having material storage or activities outdoors that are potentially exposed to stormwater and a direct discharge to waters of the United States. The SWPPPs were prepared in June 2020. As part of the SWPPP implementation, routine facility inspections will be conducted to assess the activities and material storage potentially exposed to stormwater and applicable stormwater infrastructure.

The Department has existing Work Instructions for many of its vehicle and facility maintenance activities that describe various pollution prevention and good housekeeping measures that are consistent, and in many cases, go beyond the requirements included in the MS4 Permit (see Attachment 2). For instance, Department personnel already conduct monthly inspections at maintenance facilities and vehicle storage locations, which are more frequent than what is required by the MS4 permit. An amendment to the Department's Monthly Facility Inspection Form will be used to document inspection results for MS4 purposes. The Monthly Facility Inspection Form is currently being revised to be consistent with MS4 Permit requirements.

2.2 Vehicles and Equipment

2.2.1 Vehicle Maintenance / Fueling

Best practices for vehicle maintenance particularly for draining, replacement and handling of fluids are currently described in the following Work Instructions (planned future updates);

- **Wastewater Handling and Disposal (BHM-EMS-WI-001)**
- **Storage of Used Oil and Oil Filters (GN-EMS-WI-001)**

Per BHM-EMS-WI-001, oil/water separators are inspected monthly with observations documented on the Facility Monthly Inspection Form. Vehicle maintenance involving draining and replacement of fluids is done indoors using appropriate collection and containment equipment. Waste oil and used oil filters are stored in appropriate containers that limit spill potential according to the Work Instructions. Used Oil stored for Recycling in containers of 5 gallons or more are inspected as part of the facility weekly inspection.

Fueling stations and areas where vehicles are parked outdoors are inspected weekly by the patrol shed foreman to detect any fluid spills or leaks. **Facility inspection sheets are submitted to the Safety and Environmental Coordinator for filing (per current Department Policy)**. If a leak is



detected, a corrective action form will be completed and submitted.

2.2.2 Vehicle Washing

Both the Division of Highway Operations and Bureau of Turnpikes have established Vehicle Washing Work Instructions to establish pollution prevention measures associated with vehicle washing. Department personnel should be familiar with the provisions included in the work instructions and proper vehicle washing operations either through initial new employee training or through annual refresher training.

- **Vehicle Washing (BHM-EMS-WI-007)**
- **Turnpikes (TURN-EMS-004- Vehicle Washing)**

The provisions included in these Work Instructions are consistent with the MS4 permit requirements. Vehicle washing is done in designated areas at each facility where rinse water will drain to existing vegetated areas and are located at least 50 feet from a catch basin, ditch, wetland or water body. The vehicle washing locations are registered with NHDES and are inspected as part of the facility inspections to ensure that vehicle wash waters are not discharged to the municipal storm sewer system or to surface waters.

2.3 Wastewater Handling and Disposal

2.3.1 Floor Drains / Holding Tanks

Floor drains, sumps, and holding tanks are **inspected monthly**. Inspections look for leaks, and evaluate the storage capacity, solids amount, and environmental conditions to determine if cleaning is necessary.

- **Wastewater Handling and Disposal (BHM-EMS-WI-001)**

2.3.2 Oil/Water Separators

Oil/water **separators shall be inspected monthly** to determine the presence of leaks, oil absorbent material levels, and other maintenance issues. Inspections will be conducted and documented in an inspection log, completed by the facility foreman.

- **Wastewater Handling and Disposal (BHM-EMS-WI-001)**

2.3.3 Septic Tanks

Facilities serviced by an onsite septic system are also routine inspected and maintained based on a pumping schedule established by the Patrol Shed Foreman.

2.4 Material Storage

The Department handles and stores certain materials outdoors that may be exposed to stormwater. Materials such as road salt, winter sand mixed with salt, excavated soils and asphalt grindings may be stored and handled in designated storage locations. Road salt is stored inside under cover but the loading and unloading may occur outside.



The Department storage and handling practices of these materials are described in the following Work Instructions;

- **Salt & Anti-icing Chemical, Storage & Handling Work Instructions (BHM-EMS-WI-006)**
- **Fuel & Chemical, Storage and Handling Work Instructions (BHM-EMS-WI-006)**

Spill prevention, response planning and procedures for petroleum storage and handling include the equipment, facilities, operating procedures, control measures and response procedures to prevent and minimize effects of petroleum releases and to minimize impacts in the event of a release. The following Work Instruction outlines the procedures in detail:

- **Spill Prevention and Cleanup Work Instructions (BHM-EMS-WI-006)**

3.0 Stormwater Infrastructure O&M Protocols

This section describes the Department's practices to maintain and operate its stormwater infrastructure along roadways and other facilities within the regulated urbanized area to meet the MS4 permit requirements. The practices include catch basin cleaning, street sweeping, trash and litter cleanup, ditch maintenance, winter maintenance / deicing activities and inspection and maintenance of stormwater treatment best management practices (BMPs).

It is worth noting that some of these same activities are conducted in conjunction with of the Department's routine facility maintenance discussed in Section 2 of this document.

3.1 Catch Basin Cleaning

The Department has approximately 16,000 catch basins located within the MS4 regulated area along its roadways and at other Department facilities. Catch basin cleaning will be conducted in Routine and High Priority Areas to reduce discharge of pollutants from the MS4.

Routine Cleaning

- Catch basins are cleaned every year at various locations on a rotating basis. The Department seeks to clean catch basins often enough so that no more than 50% of the sump is full¹ at any time. Maintenance personnel will inspect each catch basin at least once every five (5) years.

Targeted Cleaning in Impaired Watersheds and near Construction Activity

- The Department will prioritize catch basin cleaning activity in watershed areas listed as impaired due to sedimentation/siltation, total nitrogen or total phosphorus as well as catch basins located near construction activities. ***If a catch basin sump is more than 50% full during two consecutive routine cleaning events, the Department will investigate sources and other factors that may contribute to excessive sediment loading, and to the extent practicable, abate contributing sources and/or factors.*** The results of this effort will be summarized in the next subsequent annual report.

Data Tracking and Annual Reporting

District personnel will report the following information to the internal Stormwater Committee to allow reporting in each Annual Report:

- Number of catch basins inspected
- Total number of catch basins cleaned in the urbanized area
- Total volume or mass of material removed from all catch basins

The Department will update its catch basin inspection/cleaning prioritization procedures as additional information becomes available with respect to water quality impairment data and past cleaning / inspection results.

¹ A catch basin sump is more than 50% full if the contents within the sump are greater than one half the distance between the bottom of the catch basin to the invert of the deepest outlet of the catch basin.

Catch Basin Cleanings Storage and Reuse

The Department stores catch basin cleaning material in catch basin cleaning residual storage areas at various designated locations that are registered with NHDES and include containment measures that prevents the discharge of any liquid contained in these materials to nearby receiving waters. The storage and potential reuse of material recovered by catch basin cleaning is governed by the Department’s following work instruction:

- **Limited Reuse Soils (LRS) Management Work Instructions (DOPS-EMS-WI-008)**

3.2 Street Sweeping

The Department has developed Sweeping Route Maps for each of the Patrol Sheds located in the MS4/Urbanized area that identify roadway segments with curbed shoulders and/or catch basins that are required to be swept at least once per year or twice per year if within a watershed of waterbody listed as impaired for nutrient, sediment, metals or oil and grease (referred to as Enhanced Sweeping). The Department utilizes vacuum-broom sweepers that are in District and contracts with commercial vendors to provide street sweeping services in select areas. The Department is pilot testing the use of AVL/GPS devices on one of its own sweepers to evaluate its usefulness in tracking roadway areas swept and to quantify the amount of material collected. Typically, street sweeping is targeted for major multi-lane roadways where curb and gutter drainage systems are needed. During 2019, the Department reported to have swept approximately 1,500 curb-miles of roadway, however, the amount of roadway swept annually is highly dependent on equipment availability.

Routine Street Sweeping

Consistent with the 2017 MS4 Stormwater Permit, the Department will sweep streets and parking lots with curbing and/or catch basins located in the regulated urbanized area at least once per year in the spring (following winter activities such as sanding).

Higher Priority Areas for Sweeping

- Roadway areas will be swept more frequently in watersheds identified as impaired nitrogen, phosphorus, metals and total suspended solids.

Data Tracking and Annual Reporting

- District personnel will report the following information to the internal Stormwater Committee to allow reporting in each Annual Report:
 - Frequency and number of road miles cleaned
 - Total volume or mass of material removed

This information will be compiled by the Stormwater Committee to be included in the Annual Reports due at the end of each September.

3.3 Stormwater Treatment BMP Inspection and Maintenance (I&M) Plan

The Department has developed a statewide Stormwater BMP Inspection and Maintenance (I&M) Manual that describes inspection and maintenance protocols to maintain the more than 600 stormwater treatment BMPs that the Department has around the state. The inspection protocols include criteria to apply an assessment rating for key aspects or features that are indicative of the relative condition and functionality of the BMP. The relative assessment rating assigned to these BMP features informs district personnel on the potential maintenance needs. The inspection findings are included into a GIS database using a mobile data collection tools which allows for real-time monitoring on BMP inspection status, conditions and maintenance needs through an electronic data dashboard.

The Stormwater BMP I&M Manual can be found as an attachment to the Department's Stormwater Management Plan at the following link:

<https://www.nh.gov/dot/org/projectdevelopment/environment/units/program-management/water-quality.htm>

3.4 Trash/ Litter/ Pet Waste Control

Roadside cleanups of litter and trash are routinely performed by maintenance personnel as well as by volunteer groups as part of the Sponsor-a-Highway Program. Roadside cleanup is occasionally supplemented by crews who are involved with work release programs that are under the jurisdiction and supervised by the Department of Corrections.

In the last three years, approximately 60 to 90 trash bags of roadside litter, on average, have been collected from the Department roadways. This information will be reported in the Annual Reports.

Pet waste stations and trash collection receptacles are also provided at most rest areas and service centers. Certain rest area facilities such as the Salem rest area are maintained by other state agencies or 3rd party service providers and are responsible for maintenance and upkeep. As these leases are renewed, the Department plans to increase awareness and encourage the lessees to provide similar postings at these rest areas and service centers. The signs postings will encourage proper disposal of pet waste using the available trash receptacles provided.

Trash is also collected at the various District Maintenance facilities and offices using commercially provided dumpsters. The trash collection and disposal are contracted out to a licensed waste disposal company.

4.0 Winter Road Maintenance

The Department has developed a statewide Salt Management Plan (see Attachment 4) that describes the various BMPs, efficiency measures and weather forecasting tools that are used or plans to adopt to optimize the use of deicing materials and achieve the following objectives:

- Minimize the use and optimize the application of sodium chloride and other salt² (while maintaining public safety) and consider opportunities for use of alternative materials.
- Utilize application equipment that promotes efficiency including zero velocity spreaders, anti-icing and pre-wetting techniques. Maintain records of the application of sand, anti-icing and/or de-icing chemicals to maintain reasonably safe travel conditions in the most efficient and environmentally sensitive manner.
- Prevent exposure of deicing product (salt, sand, or alternative products) storage piles to precipitation by enclosing or covering the storage piles. Implement good housekeeping, diversions, containment or other measures to minimize exposure resulting from adding to or removing materials from the pile. Store piles in such a manner as not to impact surface water resources, groundwater resources, recharge areas, and wells.
- Provide training to Department employees on winter roadway maintenance procedures.

Some frequently asked questions on the Winter Management Policy can be found at the link below: <https://www.nh.gov/dot/org/operations/highwaymaintenance/faqs.htm>

² The MS4 Permit defines salt as any chloride-containing material used to treat paved surfaces for deicing, including sodium chloride, calcium chloride, magnesium chloride, and brine solutions.

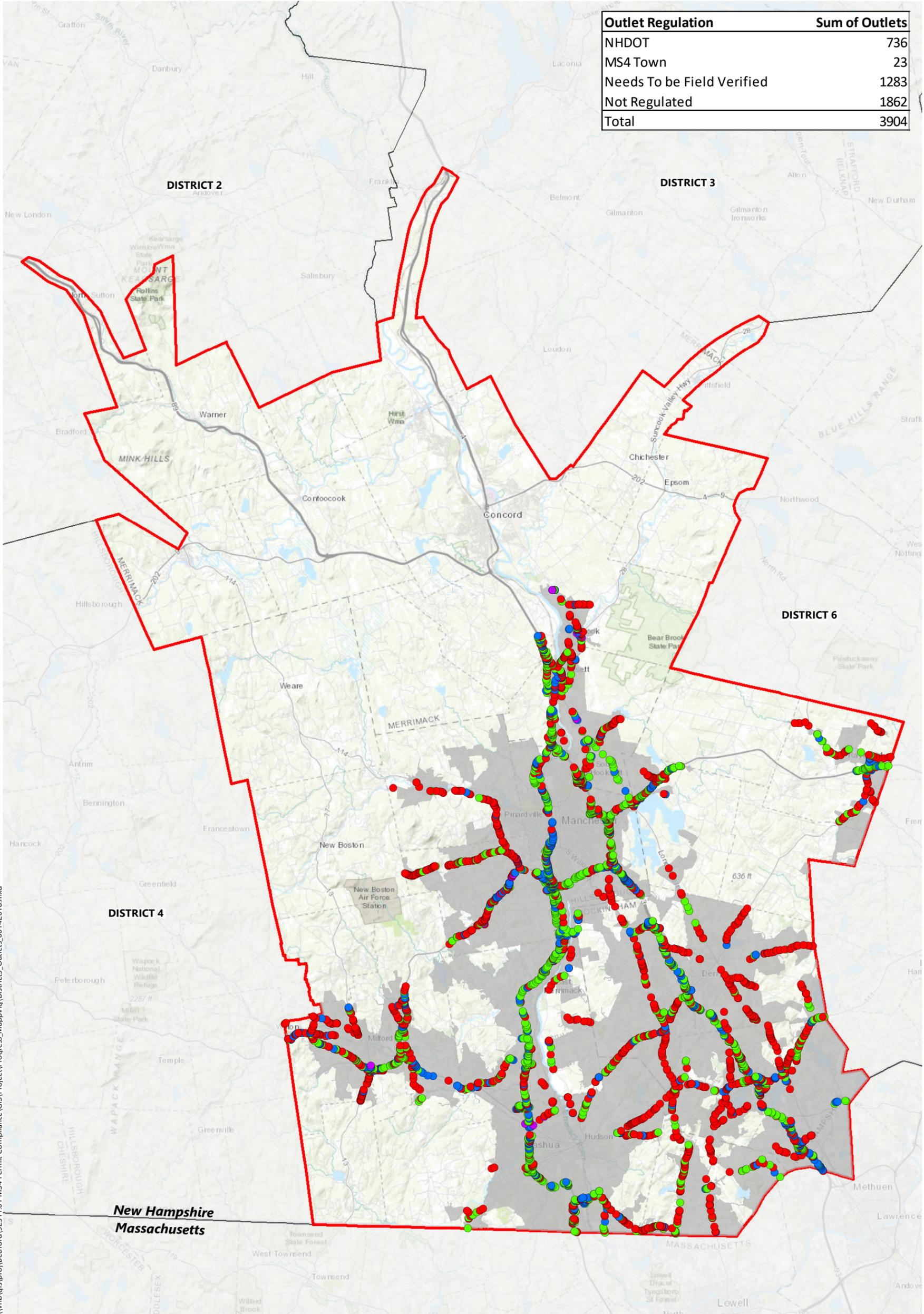
ATTACHMENTS

Attachment 1: MS4 Area Map

Attachment 2: NHDOT Material Storage and Facility Work Instructions

Attachment 1: Maps of Mapped Outfalls in MS4 Urbanized Area

Outlet Regulation	Sum of Outlets
NHDOT	736
MS4 Town	23
Needs To be Field Verified	1283
Not Regulated	1862
Total	3904



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MS4 Permit Compliance

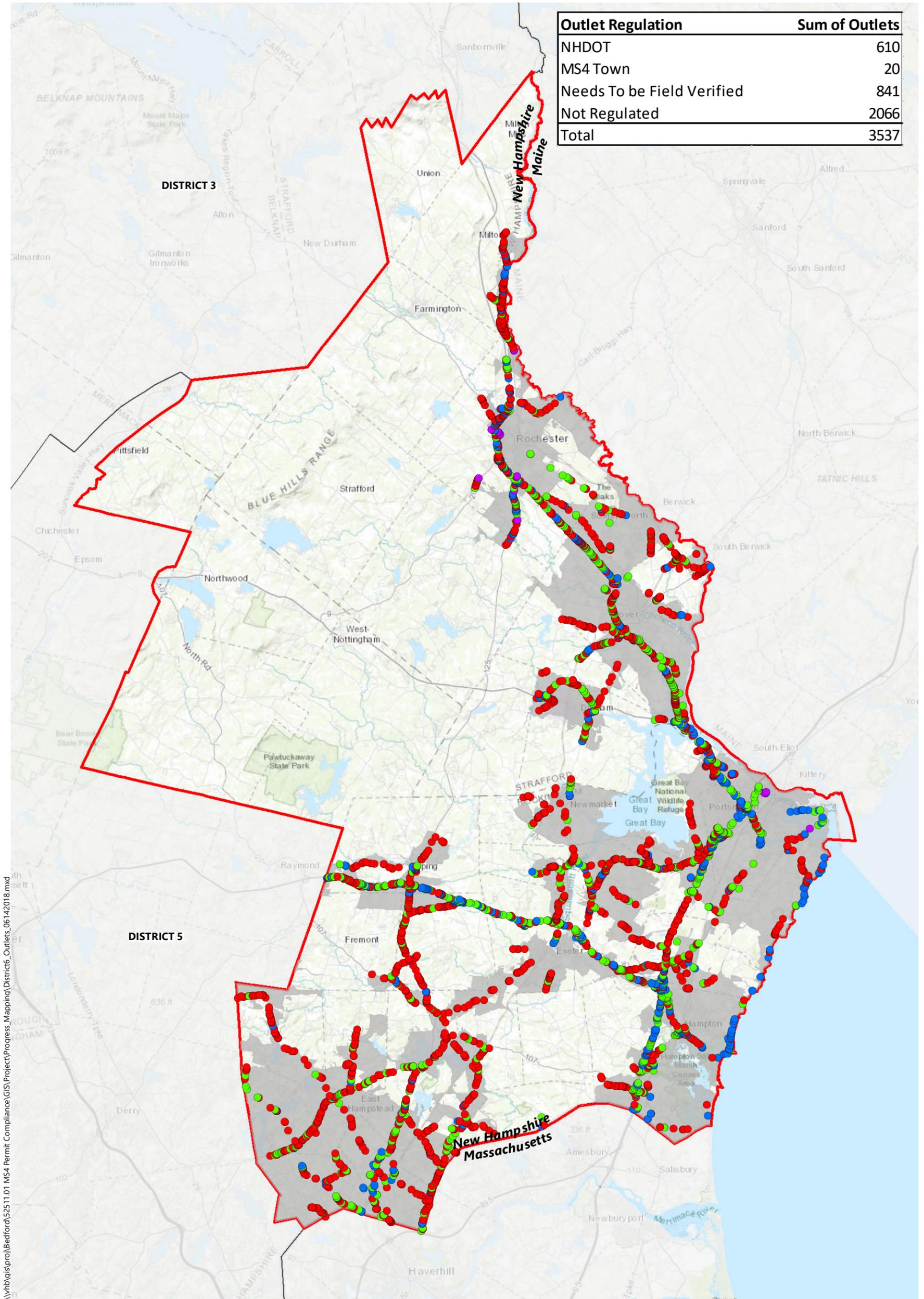
New Hampshire

- NHDOT Regulated Outlet
- Non-Regulated Outlet¹
- MS4 Town Regulated Outlet
- Needs To be Field Verified
- MS4 Urban Areas
- NHDOT Highway District 5
- NHDOT Highway District

MS4 Outlet Data Collection Progress District 5

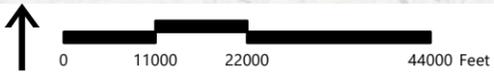
Source: NHDOT, VHB, NHGRANIT, ESRI

¹Non-regulated outlets consist primarily of mapped culvert outlets and interim outlets in the drainage system or into BMPs



Outlet Regulation	Sum of Outlets
NHDOT	610
MS4 Town	20
Needs To be Field Verified	841
Not Regulated	2066
Total	3537

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MS4 Permit Compliance

New Hampshire

- NHDOT Regulated Outlet
- Non-Regulated Outlet¹
- MS4 Town Regulated Outlet
- Needs To be Field Verified
- MS4 Urban Areas
- NHDOT Highway District 6
- NHDOT Highway District

MS4 Outlet Data Collection Progress District 6

¹Non-regulated outfalls consist primarily of mapped culverts and interim outlets in the drainage system or into a treatment BMP

Source: NHDOT, VHB, NHGRANIT,



Attachment 2: Department Work Instructions for Material Storage and Facility Maintenance

Title: Wastewater Handling and Disposal

Document #: BHM-EMS-WI-001

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1.0 PURPOSE: To provide guidance to improve waste water handling and disposal at NHDOT Bureau of Highway Maintenance facilities in an effort to improve and reduce costs, prevent environmental impacts, and maintain compliance with local, state, and federal wastewater handling, storage, and disposal requirements.

2.0 SCOPE: This document is intended to assist all employees within the Bureau of Highway Maintenance concerning proper wastewater handling, storage, and disposal practices at NHDOT facilities.

3.0 RESPONSIBILITIES:

3.1 All Employees:

3.1.1 Should comply with the provisions outlined in this work instruction.

3.2 Maintenance Supervisor:

3.2.1 Understand all aspects of this work instruction and provide technical assistance to Highway Patrol Foreman as necessary.

3.3 Foreman:

3.3.1 Review wastewater handling, storage, and disposal procedures with employees annually.

3.3.2 Perform and document inspections of the oil water separator (as appropriate) on a monthly basis.

3.3.3 Correct deficiencies within the means of the position

3.3.4 Report deficiencies outside means of the position.

3.4 Crew Members:

3.4.2 Comply with all parts of this work instruction as appropriate.

3.5 Safety & Environmental Coordinator:

3.5.1 Understand all aspects of this work instruction and provide technical assistance to the Maintenance District as necessary.

3.5.2 Propose revisions to this work instruction to the Bureau EMS Team when handling, storage, and disposal rules and regulations change.

3.6 Office of Stewardship and Compliance:

3.6.1 Provide technical assistance to the Bureau as needed.

3.6.2 Inform the Bureau of all new rule changes.

3.6.3 Provide relevant Best Management Practices to the Bureau as they are released to the industry.

3.6.4 Advocate for a funding source for compliance issues.

4.0 REFERENCES

NHDES Rules, Chapter Env. Wq 400 Ground Water Protection
NHDES Fact sheet WD-DWGB-22-4

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NHDES Fact sheet WD-DWGB-22-8
NHDES Fact sheet WD-DWGB-22-9
NHDOT Vehicle Washing Procedural Guideline (June 23,2003)

5.0 RECORDS

- 5.1 Each equipped facility should visually inspect the oil/water separator monthly and document the inspection on the NHDOT Monthly Oil/Water Separator inspection log.

6.0 PROCEDURE

- 6.1 **Best Management Practices (BMP's) for Blind sumps:** The purpose of this BMP is to provide guidance to limit the fluids that enter the blind sumps to snowmelt (water) from our vehicles and equipment.

6.1.1 Vehicle Washing in the Patrol Shed buildings is not allowed.

6.1.2 Floor Cleaning:

6.1.2.1 Facility floors, blind sumps, and adjacent floors around the sump should be clean and free of oil or other known contaminants. Floors sumps and the area adjacent to the sumps should be thoroughly cleaned monthly or as needed.

6.1.3 Monthly cleaning includes:

6.1.3.1 Clean grease, oil spills, incidental leaks, and speedi dry off the floor as soon as possible after the spill or at least monthly.

6.1.3.2 Sweep all floor spaces and properly dispose of materials before it enters the drain or sump

6.1.3.1 Shovel out solids that may collect in the sumps of the drains.

6.1.4 Control material that enters the Blind Sumps

6.1.4.1 Vehicle washing in the Patrol Shed building is not allowed.

6.1.4.2 Vehicle and equipment leaks should be reported to Bureau of Mechanical Services and fixed as soon as possible.

6.1.4.3 Incidental leaks from vehicles should be contained in drip pans as soon as they are found.

6.1.4.4 Vehicle maintenance over the sumps/ drains is not allowed.

6.1.4.5 Whenever possible, do not park vehicles with uncontained leaks over the sumps or drains.

6.1.5 Procedures for oils entering the Blind Sump

6.1.5.1 Incidental spills are reported to District Safety and Environmental Coordinator and Maintenance Supervisor.

6.1.5.2 Absorbent pads and socks should be used to clean up oil.

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6.1.5.3 All wastes should be properly disposed of in accordance with applicable rules and regulations.

6.2 BMP's for Floor Drains and Holding Tanks: The purpose of this BMP is to provide guidance to limit the fluids that enter the Floor drains and Holding tanks to snowmelt (water) from our vehicles and equipment.

6.2.1 Limit the amount of waste water generated

6.2.1.1 Vehicle Washing within the Patrol shed buildings is not allowed except when authorized by the District Engineer.

6.2.1.2 When possible, remove large collections of snow off trucks and equipment prior to entering the building

6.2.2 Floor Cleaning:

6.2.2.1 Facility floors and floor sumps should be clean and free of oil, grease, or other known contaminants. Floors and floor sumps should be thoroughly cleaned monthly or as needed.

6.2.3 Monthly cleaning includes:

6.2.3.1 Clean grease, incidental oil spills, leaks, and speedi dry off the floor as soon as possible after a spill or at least monthly.

6.2.3.2 Sweep all floor spaces and properly disposing of materials before it enters the drain or sump.

6.2.3.3 Shovel out solids that may collect in the sumps of the drains.

6.2.3.4 Inspect oil water separator.

6.2.3.5 Document oil water separator inspection.

6.2.4 Control Material that enters the Floor Sumps and Holding tanks:

6.2.4.1 State vehicle and equipment leaks should be reported to the Bureau of Mechanical Services and fixed as soon as possible.

6.2.4.2 Incidental leaks from vehicles shall be contained in drip pans as soon as they are observed.

6.2.4.3 Vehicle maintenance over the sumps/drains is not allowed.

6.2.4.4 When possible, do not park vehicles with uncontained leaks over the sumps/ drains.

6.2.4.5 Place oil absorbent pads at the outlet of the floor sump/drain to collect any oils that may enter the sump.

6.2.4.6 Place absorbent pads or socks in the oil/water separator of the holding tank to collect any oils that may enter the tank.

6.2.5 Monthly Oil Water Separator Inspections:

6.2.5.1 A visual inspect the oil/water separator should be performed monthly in conjunction with the Monthly Facility Inspection.

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6.2.5.2 Oil absorbent materials in the floor sumps and oil/water separators should be checked monthly and replaced as needed.

6.2.5.3 Complete the monthly Oil/Water Separator Inspection log.

6.2.6 Procedures for oils entering the Holding tank:

6.2.6.1 Report spills to District Safety and Environmental Coordinator and Maintenance Supervisor.

6.2.6.2 Absorbent pads and socks should be used to clean up the oil.

6.2.6.3 All wastes shall be properly disposed of in accordance with applicable rules and regulations.

6.2.7 Procedures for pumping oil / water separators:

6.2.7.1 Notify District Safety and Environmental Coordinator and Maintenance Supervisor that the tank needs to be pumped.

6.2.7.2 Safety and Environmental Coordinator will make arrangements to properly dispose of wastewater in accordance with applicable rules and regulations.

6.3 BMPs for Facilities with Drains and Oil/Water Separators Connected to Municipal Waste Water Systems: The purpose of this BMP is to provide guidance to limit the fluids that enter the Floor drains and Holding tanks to snowmelt (water) from our vehicles and equipment for facilities connected to municipal waste water systems.

6.3.1 Vehicle washing in the Patrol Shed buildings is not allowed except when authorized by the District Engineer.

6.3.2 Floor Cleaning:

6.3.2.1 Facility floors, floor drains, and sumps should be clean and free of oil or other known contaminants.

6.3.2.2 Floors, floor drains, and sumps and the area adjacent to the sumps should be thoroughly cleaned monthly or as needed.

6.3.3 Monthly cleaning and inspection includes:

6.3.3.1 Clean grease, incidental oil spills, leaks, and speedi dry off the floor as soon as possible after a spill or at least monthly.

6.3.3.2 Sweep all floor spaces and properly dispose of materials before it enters the drain or sump.

6.3.3.3 Shovel out solids that may collect in the sumps of the drains.

6.3.3.4 Inspect oil water separator.

6.3.3.5 Document the inspection.

6.3.4 Controlling material that enters the floor drains and holding tanks:

6.3.4.1 State vehicle and equipment leaks should be reported to Bureau of Mechanical Services and fixed as soon as possible.



Title: Wastewater Handling and Disposal

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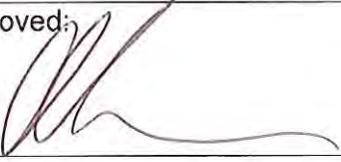
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- 6.3.4.2 Incidental leaks from vehicles should be contained in drip pans as soon as they are found.
 - 6.3.4.3 Vehicle maintenance over the sumps/drains is not allowed.
 - 6.3.4.5 When possible, do not park vehicles with uncontained leaks over the sumps/ drains.
 - 6.3.4.6 Place oil absorbent pads at the outlet of the floor sump to collect any oils that may enter the sump.
 - 6.3.4.7 Place absorbent pads or socks in the oil/water separator of the holding tank to collect any oils that may enter the tank.
- 6.3.5 Procedures for oils entering the oil/water separator & holding tanks:
- 6.3.5.1 Report spills to District Safety and Environmental Coordinator and Maintenance Supervisor
 - 6.3.5.2 Absorbent pads and socks should be used to clean up the oil.
 - 6.3.5.3 All wastes should be properly disposed of in accordance with applicable rule and regulations.
- 6.3.6 Procedures for pumping oil / water separators:
- 6.3.6.1 Notify District Safety and Environmental Coordinator and Maintenance Supervisor that the tank needs to be pumped.
 - 6.3.6.2 District Safety and Environmental Coordinator will make arrangements to have wastewater properly disposed of in accordance with applicable rules and regulations.

7.0 DOCUMENT CONTROL

Approved: 		REVISION NO.:	1.1
Name _____		DATE:	2/10/2011
Title _____	Date 2/25/11	SUPERSEDES EDITION:	1.0

Title: Chemical Storage

Document #: BHM-EMS-WI-003

Revision #: 1.0

Page 1 of 4
Date: 3/05/2012

1.0 PURPOSE

- 1.1 To provide guidance for the proper storage of chemicals on NHDOT Bureau of Highway Maintenance facilities and jobsites in an effort to prevent environmental damage, maintain compliance with local, state, and federal chemical storage requirements, and reduce liability.

2.0 SCOPE

- 2.1 This document is intended to assist all employees within the Bureau of Highway Maintenance concerning all chemicals stored on NHDOT property or jobsites.

3.0 RESPONSIBILITIES

3.1 Bureau Administrator or District Engineer

- 3.1.1 Develop work instructions and provide training to all appropriate personnel. Provide the equipment and PPE necessary to perform work in a safe and environmentally correct manner.

3.2 Maintenance Supervisor:

- 3.2.1 Provide technical assistance to the Highway Patrol Foreman as necessary.

3.3 Patrol Foreman:

- 3.3.1 Review chemical storage requirements with employees annually.
3.3.2 Inspect chemical storage areas monthly and document.
3.3.3 Inspect regulated substance storage areas weekly.
3.3.4 Correct deficiencies within the means of the position.
3.3.5 Report deficiencies outside of the means of the position to the Maintenance Supervisor or Safety and Environmental Coordinator.

3.4 Crew Members:

- 3.4.1 Comply with all aspects of this work instruction.

3.5 Safety and Environmental Coordinator:

- 3.5.1 Provide technical assistance and training to District personnel as needed.
3.5.2 Propose revisions to this work instruction to the Bureau EMS Team when storage requirements change.
3.5.3 Inspect all chemical storage areas at least annually.
3.5.4 Maintain the District's MSDS inventory
3.5.5 Maintain records related to employee training.

3.6 Office of Stewardship and Compliance:

- 3.6.1 Provide technical assistance to the Bureau as needed.
3.6.2 Provide relevant Best Management Practices to the Bureau as they are released to the industry.
3.6.3 Communicate changes in State and Federal chemical storage requirements to the Bureau.
3.6.4 Develop department wide training programs.

Title: Chemical Storage

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Document #: BHM-EMS-WI-003

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Date: 3/05/2012

4.0 REFERENCES

- 4.1 Env-Wq 401 (NHDES)
- 4.2 29 CFR 1910.1200 (OSHA)
- 4.3 EHS-CH300-SAFE-001 (NHDOT)
- 4.4 EHS-CH300-SAFE-003 (NHDOT)
- 4.5 NFPA Code 30

5.0 RECORDS

- 5.1 Maintain training records at the District Office.
- 5.2 MSDSs shall be maintained in accordance with 29 CFR 1910.1200.

6.0 PROCEDURE

- 6.1 Review all container labels and/or MSDS prior to storage.
- 6.2 All chemical storage areas with regulated substances shall be inspected weekly and documented on the Monthly Safety and Hazardous Materials Report Form.
- 6.3 All other chemical storage areas shall be inspected at least monthly and documented on the Monthly Safety and Hazardous Materials Report Form.
- 6.4 Inspections of chemical storage areas shall include: identification of labels, sealed containers, leaking containers, incompatible materials, secondary containment structures, and emergency response equipment.
- 6.5 All chemicals stored shall be in the original packaging or a properly labeled sound container with a closable lid and the contents clearly identified.
- 6.6 All chemicals labeled "flammable" shall be stored in a flammable materials storage cabinet. Exceptions to this procedure are all aerosol canisters used for *routine* cleaning, painting, lubricating, (i.e., Lysol, WD-40). Bulk storage of these aerosols shall be contained to the flammable storage cabinet.
- 6.7 All regulated substances shall be stored on an impervious surface.

7.0 TRAINING

- 7.1 Initial New Employee training for EHS-CH300-SAFE-001 and 003 (NHDOT)
- 7.2 Annual refresher training for EHS-CH300-SAFE-001 (NHDOT)
- 7.3 Initial EMS Work Instruction for all employees
- 7.4 As determined by the Maintenance Supervisor, Foreman, or Safety and Environmental Coordinator



Title: Chemical Storage

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8.0 FORMS

- 8.1 EHS-CH300-SAFE-003 Appendix A and B (Safety and Hazardous Materials Survey and Report Form).
- 8.2 District Safety and Hazardous Materials Report Form.

9.0 ENVIRONMENTAL, HEALTH & SAFETY

- 9.1 Flammable materials cabinets shall be located at least 25 feet from any source of ignition.
- 9.2 Flammable materials cabinets shall have the bungs installed at all times or be direct vented to the outside per NFPA Code 30, 4-3.2

10.0 DOCUMENT CONTROL

<p>Approved:</p>  <p>_____ Name Title STATE MAINT ENGINEER</p>	<p>REVISION NO.: 1.0</p> <p>DATE: 3/05/12</p> <p>SUPERSEDES EDITION: _____</p>
<p>3/13/12</p> <p>_____ Date</p>	

Title: Chemical Disposal

Document #: BHM-EMS-WI-004

Revision #: 1.0

Page 1 of 4
Date: 3/05/2012

1.0 PURPOSE

- 1.1 To provide guidance for the proper disposal of chemicals that have been used on NHDOT Bureau of Highway Maintenance facilities and jobsites in an effort to prevent environmental damage, maintain compliance with local, state, and federal disposal requirements, and reduce liability.

2.0 SCOPE

- 2.1 This document is intended to assist all employees within the Bureau of Highway Maintenance concerning all chemicals to be disposed of after use on NHDOT property or jobsites.

3.0 RESPONSIBILITIES

3.1 Bureau Administrator or District Engineer:

- 3.1.1 Develop work instructions and provide training to all appropriate personnel. Provide the equipment and PPE necessary to perform work in a safe and environmentally correct manner.

3.2 Maintenance Supervisor:

- 3.2.1 Provide technical assistance to the Highway Patrol Foreman as necessary.

3.3 Patrol Foreman:

- 3.3.1 Review chemical disposal requirements with employees annually.
3.3.2 Inspect chemical disposal areas monthly and document.
3.3.3 Correct deficiencies within the means of the position.
3.3.4 Report deficiencies outside of the means of the position to the Maintenance Supervisor or Safety and Environmental Coordinator.

3.4 Crew Members:

- 3.4.1 Comply with all parts of this work instruction.

3.5 Safety and Environmental Coordinator:

- 3.5.1 Provide technical assistance and training to District personnel as needed.
3.5.2 Propose revisions to this work instruction to the Bureau EMS Team when disposal requirements change.
3.5.3 Inspect chemical disposal areas at least annually.
3.5.4 Maintain the Maintenance District's MSDS inventory.
3.5.5 Maintain records related to employee training.

3.6 Office of Stewardship and Compliance:

- 3.6.1 Provide technical assistance to the Bureau as needed.
3.6.2 Provide relevant Best Management Practices to the Bureau as they are released to the industry.
3.6.3 Communicate changes in State and Federal chemical disposal requirements to the Bureau.
3.6.4 Develop department wide training programs.



Title: Chemical Disposal

Document #: BHM-EMS-WI-004

Revision #: 1.0

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Date: 3/05/2012

4.0 REFERENCES

- 4.1 EHS-CH300-SAFE-001 (NHDOT)
- 4.2 EHS-CH300-SAFE-003 (NHDOT)
- 4.3 29 CFR 1910.1200 (OSHA)

5.0 RECORDS

- 5.1 Maintain training records at the District Office.
- 5.2 MSDSs shall be maintained in accordance with 29 CFR 1910.1200.

6.0 PROCEDURE

- 6.1 Review all container labels and/or MSDS prior to disposal.
- 6.2 All chemical disposal areas shall be inspected at least monthly and documented on the Monthly Safety and Hazardous Materials Report Form.
- 6.3 Inspections of chemical disposal areas shall include: identification of labels, sealed containers, leaking containers, incompatible materials, secondary containment structures, and emergency response equipment.
- 6.4 All chemicals to be disposed of shall be in the original packaging or a properly labeled sound container with a closable lid and the contents clearly identified.

7.0 TRAINING

- 7.1 Initial New Employee training for EHS-CH300-SAFE-001 and 003 (NHDOT)
- 7.2 Annual refresher training for EHS-CH300-SAFE-001 (NHDOT)
- 7.3 Initial EMS Work Instruction training for all employees.
- 7.4 As determined by the Maintenance Supervisor, Foreman, or Safety and Environmental Coordinator.

8.0 FORMS

- 8.1 EHS-CH300-SAFE-003 Appendix A and B (Safety and Hazardous Materials Survey and Report Form).
- 8.2 District Safety and Hazardous Materials Report Form.

9.0 ENVIRONMENTAL, HEALTH & SAFETY

- 9.1 All chemicals shall be disposed of in accordance with Federal, State, and local laws.



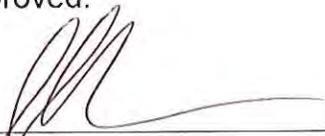
Title: Chemical Disposal

Document #: BHM-EMS-WI-004

Revision #: 1.0

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Date: 3/05/2012

10.0 DOCUMENT CONTROL

<p>Approved:</p>  _____ Name Title STATE MAINT ENGINEER	<p>REVISION NO.: <u>1.0</u> DATE: <u>3/05/2012</u> SUPERSEDES EDITION: _____</p>
<p><u>3/13/12</u> Date</p>	

Title: Salt & Anti-Icing Chemicals, Storage & Handling Page 1 of 4

Document #: BHM-EMS-WI-006

Revision #: 1.0

Date: 3/05/2012

1.0 PURPOSE

- 1.1 To provide guidance for the proper storage and handling of road salt and other anti-icing and deicing chemicals including, but not limited to, sodium chloride (solid & brine), calcium chloride (solid & liquid), magnesium chloride, potassium acetate [all hereinafter referred to as "salt"] on NHDOT Bureau of Highway Maintenance (BHM) facilities.
- 1.2 To prevent the intrusion of salt into the environment as a result of leaching, runoff or erosion of NHDOT-owned stockpiles of salt in an effort to prevent environmental damage, maintain compliance with local, state and federal requirements, and reduce liability.

2.0 SCOPE

- 2.1 This document is intended to assist all employees within the BHM concerning all salt and anti-icing material handled and stored on NHDOT property.

3.0 RESPONSIBILITIES

3.1 Bureau Administrator or District Engineer:

- 3.1.1 Develop work instructions and provide training to all appropriate personnel. Provide the equipment and PPE necessary to perform work in a safe and environmentally correct manner.

3.2 Maintenance Supervisor:

- 3.2.1 Provide technical assistance to the Highway Patrol Foreman as necessary.
- 3.2.2 Inspect salt storage areas at least annually.

3.3 Patrol Foreman:

- 3.3.1 Review salt storage and handling requirements with employees annually.
- 3.3.2 Inspect salt storage areas monthly and document on facility's inspection report.
- 3.3.3 Correct deficiencies within the means of the position.
- 3.3.4 Report deficiencies outside of the means of the position to the Maintenance Supervisor or Safety and Environmental Coordinator.

3.4 Crew Members:

- 3.4.1 Comply with all parts of this work instruction.

3.5 Safety and Environmental Coordinator:

- 3.5.1 Provide technical assistance and training to all District personnel.
- 3.5.2 Propose revisions to this work instruction to the Bureau EMS Team when handling and storage requirements change.
- 3.5.3 Maintain the Maintenance District's MSDS inventory.
- 3.5.4 Maintain records related to employee training.

3.6 Office of Stewardship and Compliance:

- 3.6.1 Provide technical assistance to the Bureau as needed.
- 3.6.2 Provide relevant Best Management Practices to the Bureau as they are released to the industry.
- 3.6.3 Communicate changes in State and Federal requirements to the Bureau.



Title: Salt & Anti-Icing Chemicals, Storage & Handling Page 2 of 4

Document #: BHM-EMS-WI-006

Revision #: 1.0

Date: 3/05/2012

4.0 REFERENCES

- 4.1 NH DOT Salt Management Plan (in development).
- 4.2 WD-DWGB-22-30 Storage and Management of Salt Deicing Materials (NH DES).
- 4.3 NH DOT Winter Maintenance Snow Removal and Ice Control Policy.
- 4.4 EHS-CH300-SAFE-003 (NHDOT).
- 4.5 Vehicle Washing and Rinsing Procedural Guideline.

4.0 RECORDS

- 5.1 Maintain training records at District Office.
- 5.2 MSDSs shall be maintained in accordance with 29 CFR 1910.1200

6.0 PROCEDURE

- 6.1 Storage facilities shall be properly maintained to ensure that roofs are weather-tight and that storm water is kept off the stockpile. Site grading shall provide for positive drainage away from the storage building to prevent the intrusion of storm water into the stockpiled salt. Salt stored under tarps shall be regularly inspected to confirm that tarps are free of holes and deterioration that allows water to penetrate through the tarp. Tarps that have holes or deterioration that allows water penetration shall be replaced. Tarps shall be sufficiently anchored to prevent displacement by wind.
- 6.2 Impervious surface shall be provided within the salt storage building and loading areas for all material loading and transfer. This provides for easier clean up of spillage and inhibits infiltration of chemicals into the surface and ground waters.
- 6.3 Stockpiles shall be uniform in shape and maintained in a safe condition at all times. Excess salt off-loaded from plow trucks shall be pushed back into the main pile in a timely manner and kept within the building. Steep or vertical faces shall be knocked down to prevent collapse.
- 6.4 Summer fill-up salt orders shall be placed as early in the fiscal year as possible to receive the fall fill-ups during periods of good weather, reducing the exposure of salt to the elements. This early delivery should result in drier salt and fewer delivery problems. An additional benefit to early deliveries is that salt supplies are usually more plentiful as opposed to winter deliveries when demand can outstrip inventory.
- 6.5 Do not order salt quantities in excess of the inside rated storage capacity of the storage facility. Overstressing of buildings or storage of salt beyond the protection of the building is unacceptable. On-site personnel shall coordinate with office personnel to halt deliveries before the building capacity is exceeded.

- 6.6 When loading vehicles, care shall be taken to avoid overloading the plow truck's body or spreader. Spillage can occur at the loading site or as the truck is traveling along the highway. Either situation wastes salt and money, as well as being environmentally



Title: Salt & Anti-Icing Chemicals, Storage & Handling Page 3 of 4

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unacceptable. A chart of application rates and corresponding tonnage and lane mile can be found in the Salt Management Plan.

- 6.7 Loading ramps shall be of sufficient height to permit the loader to safely place salt in the spreader without spilling material.
- 6.8 Loading ramps, shed yards, and storage areas shall be cleaned of any spilled material following each storm event and at other times as necessary. Any spillages shall be placed back in the stockpile.
- 6.9 The operators shall keep an accurate record of the tons of salt loaded on the truck during a storm as well as the quantity returned to the stockpile unused. Accurate material usage records shall be kept and weekly inspections made to confirm that reported usage is consistent with the material remaining in the storage pile.
- 6.10 Salt shall be added to sand piles in sufficient quantity to prevent freeze up of the covered sand stockpiles. Generally that quantity would be about 100 pounds per cubic yard of sand.
- 6.11 Sand stockpiles shall be covered to prevent leaching of the salt into surface and groundwater.
- 6.12 Storage tanks containing liquid deicers such as calcium chloride, sodium chloride brine, and potassium chloride shall be protected from physical damage.
- 6.13 Tanks and associated piping shall be inspected monthly for leaks and deterioration and documented.
- 6.14 Equipment shall be cleaned in accordance to the NHDOT Vehicle Washing and Rinsing Procedural Guideline.

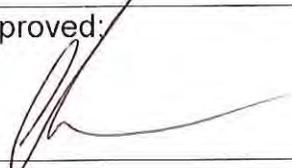
7.0 TRAINING

- 7.1 Initial New Employee training for all employees except office clerical and administrative staff.
- 7.2 As determined by the Maintenance Supervisor, Foreman, or Safety and Environmental Coordinator.

8.0 FORMS

- 8.1 Inspection Form

9.0 DOCUMENT CONTROL

<p>Approved: </p> <hr/> <p>Name _____ Title STATE MAINT ENGINEER</p>	<p>REVISION NO.: 1.0</p> <p>DATE: 3/05/2012</p> <p>SUPERSEDES EDITION: _____</p>
<p>3/13/12</p> <hr/> <p>Date</p>	

Title: Vehicle Washing

Document #: BHM-EMS-WI-007

Revision #: 2.0

Page 1 of 4
Date: 1/30/15

1.0 PURPOSE:

- 1.1 To provide guidance for the proper washing of NHDOT fleet vehicles at NHDOT Bureau of Highway Maintenance (BHM) facilities in an effort to maintain compliance with local, state, and federal requirements. This work instruction implements restrictions on methods and locations of outside vehicle and equipment washing.

2.0 SCOPE

- 2.1 This work instruction is intended to assist all BHM employees with the proper vehicle and equipment washing procedures to reduce potential negative environmental impacts. Proper vehicle and equipment washing includes washing of the exterior portion of the vehicle body and vehicle frame, tires, and wheels that do not contain excessive accumulations of oil, grease, and road salt that could have a negative environmental impact. Proper vehicle washing does not include washing of the engine compartment, transmission, or vehicle interior.

3.0 RESPONSIBILITIES

3.1 Bureau Administrator or District Engineer:

- 3.1.1 Develop work instructions and provide training to all appropriate personnel.
- 3.1.2 Register vehicle washing locations with New Hampshire Department of Environmental Services (NHDES).
- 3.1.3 Comply with NHDES registration conditions, if any.
- 3.1.4 Provide the equipment necessary to perform vehicle washing in a safe and environmentally correct manner.

3.2 Safety and Environmental Coordinator:

- 3.2.1 Provide technical assistance and training to District personnel as needed.
- 3.2.2 Propose revisions to the work instruction, as appropriate, to the BHM EMS Team.
- 3.2.3 Maintain records related to employee training.

3.3 Maintenance Supervisor:

- 3.3.1 Provide technical assistance to the Highway Patrol Foreman as necessary.

3.4 Patrol Foreman:

- 3.4.1 Provide guidance to all Crew Members and hired equipment operators pertaining to vehicle washing.
- 3.4.2 Correct deficiencies within the means of the position.
- 3.4.3 Report deficiencies outside of the means of the position to the Maintenance Supervisor or Safety Environmental Coordinator.

3.5 Crew Members and Hired Equipment Operators:

- 3.5.1 Comply with all parts of this work instruction.

3.6 Office of Stewardship and Compliance:

- 3.6.1 Provide technical assistance to the BHM as needed.
- 3.6.2 Provide relevant Best Management Practices to the BHM as they are released to the industry.
- 3.6.3 Communicate changes in local, state, or federal requirements to the BHM.

Title: Vehicle Washing

Document #: BHM-EMS-WI-007

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Date: 1/30/15

4.0 REFERENCES

- 4.1 NHDES WD-DWGB-22-10 Wastewater Discharges from Vehicle Washing.
- 4.2 NHDES WD-DWGB-12-10 Wellhead Protection for Small Public Water Supply Systems.
- 4.3 NHDES Env-Wq 401 Best Management Practices for Groundwater Protection.
- 4.4 NHDES Code of Administrative Rules Env-Wq 402 Groundwater Discharge Permit and Registration.

5.0 RECORDS:

- 5.1 NHDOT Registration and Notification Form for Floor Drains and Discharges to Groundwater.
- 5.2 Maintain training records at District Office.
- 5.3 MSDSs for all approved vehicle washing soaps.
- 5.4 NHDES Approved Soaps for Vehicle Washing, latest version.

6.0 PROCEDURE

- 6.1 Do follow NHDES Env-Wq 401 Best Management Practices for Groundwater Protection.
- 6.2 Review site specific NHDOT Registration and Notification Form for Floor Drains and Discharges to Groundwater.
- 6.3 Do not wash vehicles within any of the following setbacks:
 - 6.3.1 50 feet of surface water;
 - 6.3.2 75 feet of private water supply wells;
 - 6.3.3 75 feet of onsite water supply wells;
 - 6.3.4 50 feet of storm drains; or
 - 6.3.5 Protective radius of any public water supply well
- 6.4 Wash less than 30 vehicles per week at any registered vehicle washing location.
- 6.5 Remove and properly dispose of, or recycle, gross accumulation of oil, grease, road salt, gasoline, diesel fuel, or other materials that could negatively impact the environment using a rag or other absorbent material (not wash water) prior to washing.
- 6.6 Sweep truck beds with broom prior to washing. Collect and properly dispose of, or recycle sweepings.
- 6.7 Wash vehicle exterior, frame, fuel tanks, and body only.
- 6.8 Do not wash engine compartment, transmission, or vehicle interior.
- 6.9 Wash with low pressure or power washer, with hot or cold water, including brush and hose. Do not use a steam cleaner.
- 6.10 Wash in the NHDES approved vehicle washing location only as shown on the NHDES Registration Form.
- 6.11 Discharge to onsite infiltration including gravel and vegetated areas in accordance with NHDES registration requirements.



Title: Vehicle Washing

Document #: BHM-EMS-WI-007

Revision #: 2.0

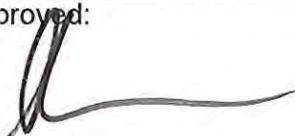
Page 3 of 4
Date: 1/30/15

- 6.12 Wash responsibly. For example, if you would not wash the vehicle next to your private water supply well due to contaminants on the vehicle do not wash the vehicle until the contaminants have been properly removed and disposed of or recycled.
- 6.13 Do not discharge directly into septic systems or within 50 feet of dry wells.
- 6.14 Wash using only washing materials approved by NHDES for use at NHDOT facilities. No other chemicals or acids should be used.
- 6.15 Do not discharge directly into or within 50 feet of catch basins, wetlands, or surface waters.
- 6.16 Do not wash out gross accumulations of salt. Remove the salt and recycle to onsite salt storage facility.
- 6.17 Wash only NHDOT owned, leased, hired, or rented vehicles and equipment.

7.0 TRAINING

- 7.1 Initial New Employee training for all employees.
- 7.2 Refresher training as determined by the Maintenance Supervisor, Patrol Foreman, Safety and Environmental Coordinator, Assistant District Engineer, or District Engineer.

8.0 DOCUMENT CONTROL

Approved:  Name Title STATE MAINT ENG	Date 1/30/15	REVISION NO.: 2.0 DATE: 1/30/15 SUPERSEDES EDITION:
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WORK INSTRUCTION NUMBER: <i>DOPS-WI-001</i>	WORK INSTRUCTION NAME: <i>Management of Limited Reuse Soil</i>
ADOPTION DATE: <i>November 8, 2018</i>	LAST UPDATED: <i>November 8, 2018</i>
APPROVED BY: <i>David Rodrigue, Director</i>	SIGNATURE: 
RESPONSIBLE OFFICE: <i>Division of Operations Office of Director</i>	CONTACT PERSON: <i>Mark Kirouac</i>
RELATED <POLICY/PROGRAM>: <ul style="list-style-type: none"> • NHDOT Environmental Policy • NHDES Waiver Request Approval No. DES-SW-WV16-003 Approved by NHDES Assistant Director of Waste Management Division • Division of Operations Limited Reuse Soils Memo, January 13, 2017 Approved by NHDOT Assistant Commissioner • Limited Reuse Soils Project Development Policy Directive, January 26, 2017 Approved by NHDOT Assistant Commissioner 	PROCEDURES AND RESOURCES: <ul style="list-style-type: none"> • Limited Reuse Soils (LRS) Issues/Clarification, May 22, 2017 from Administrator of NHDOT Bureau of Highway Maintenance to NHDOT Director of Operations • Limited Reuse Soils Clarifications, April 4, 2018 Approved by NHDOT Assistant Commissioner • NHDOT Division of Operations Catch Basin Solids Drying Bin Details, dated June 22, 2018

1.0 PURPOSE

To provide guidance for proper management of Limited Reuse Soil (LRS) generated during routine maintenance activities. LRS materials are defined in section 3 of this document. The reuse, management and disposal of LRS is limited in order to maintain compliance with local, state, and federal requirements and the intent of NHDES Waiver Approval # DES-SW-WV-16-003.

2.0 SCOPE

This work instruction is intended to provide all Division of Operations (Operations) employees with the proper procedures for performing activities/tasks that have the potential to generate LRS, and provide guidelines for the management of these materials during specified activities.

Projects that do not meet the definition of routine maintenance may require additional environmental review, permitting, and/or a soils management plan and will not be managed by this work instruction. Contact Bureau Administration for further direction when working on non-routine maintenance activities.



3.0 GENERAL PROVISIONS

3.1 Regulatory

3.1.1 NHDES Waiver Approval No. DES-SW-WV-16-003

3.1.1.1 NH Solid Waste Rules. Env-Sw 100 – Env-Sw 2000 shall not apply to the management of certain wastes generated by the Department when managed by NHDOT in accordance to the waiver provisions.

3.2 Internal Direction

3.2.1 Limited Reuse Soils Project Development Policy Directive, January 26, 2017 Approved by NHDOT Assistant Commissioner

3.2.2 Division of Operations Limited Reuse Soils Memo, January 13, 2017 Approved by NHDOT Assistant Commissioner

3.2.3 Limited Reuse Soils (LRS) Issues/Clarification, May 22, 2017 from Administrator of NHDOT Bureau of Highway Maintenance to NHDOT Director of Operations

3.2.4 Limited Reuse Soils Clarifications, April 4, 2018 Approved by NHDOT Assistant Commissioner

3.3 Specification/Detail

3.3.1 NHDOT Division of Operations approved Catch Basin Material Drying Bins Details, dated June 22, 2018

4.0 DEFINITIONS

4.1 **Limited Reuse Soils (LRS):** Surplus material from within the NHDOT rights-of-way (ROW) generated during routine maintenance activities that requires removal or relocation, and that are likely (based on generator knowledge) and/or demonstrated (through field screening or laboratory analyses) to contain contaminants with levels between naturally occurring background concentrations and NHDOT-specific Acceptable Reuse Concentrations (ARCs). LRS is associated with the topsoil within the roadway network due to the presence and breakdown of asphalt pavement, the normal operation of motor vehicles, and other “non-point sources” of pollution in these areas.

4.1.1 Unless obviously contaminated, street wastes (e.g., soils generated through various activities, such as street sweeping, ditch maintenance, catch basin cleanout, and stormwater management infrastructure maintenance) shall be considered LRS. This assumption is based on generator knowledge of the presence of contamination in these materials. The topsoil layer within the entire NHDOT ROW shall be considered LRS. In instances where topsoil is not present, LRS is assumed to be present in soil from the top of ground to a depth of six (6) inches.

- 4.1.2 Soil excavated from beyond and/or below the specified LRS limits, and which does not exhibit visual or olfactory evidence of potential contamination, or was under pavement shall not be considered LRS and shall not require the special handling and treatment that is outlined for LRS material in this work instruction.
- 4.2 **Street Waste:** A type of LRS Material collected through various routine maintenance activities, including street sweeping, ditch cleaning (ditching), and cleaning out catch basins and other stormwater management infrastructure, such as hydrodynamic separators and detention pond fore bays.
- 4.3 **Routine Maintenance:** Routine maintenance activities are generally considered those which are budgeted for and performed on a scheduled basis. These activities are intended to preserve and/or restore the highway facility/elements so that they substantially retain their original intended use and function. Tasks that are performed to preserve or restore the transportation systems to their original design or function including street sweeping, ditch and catch basin cleaning, and side slope repairs as well as reconstructing drainage features to original line and grade, hydraulic capacity, or drainage purpose.
- 4.4 **Obviously Contaminated Materials:** Materials containing liquids other than water, such as oils, non-organic sheens, gasoline, paints, and colored liquids; and materials that have petroleum, chemical, acrid, or noxious odors.
- 4.5 **Topsoil:** The surface layer of soil consisting of mineral soil mixed with organic matter and vegetative debris that is suitable for plant growth, and is typically darker in color than the underlying soil.

Any additional definitions related to this work instruction may be viewed on **EX 1-1 Form 1, Approved Definitions List**, located on the **SOS Index**.

5.0 RESPONSIBILITY

5.1 Director of Operations:

- 5.1.1 Approve work instructions and procedures for implementation by Bureau staff within the Division of Operations.
- 5.1.2 Approve and communicate Best Management Practices (BMPs) to be implemented by the Operations Bureau staff for the management of LRS, as they are released to the industry.
- 5.1.3 Provide equipment, materials, and resources necessary to appropriately manage or dispose of LRS.
- 5.1.4 Review and approve LRS reuse proposals that do not meet the definition of routine maintenance activities, and locations that do not meet the reuse or storage criteria outlined in this work instruction.

5.2 Bureau Administrator and/or District Engineer:

- 5.2.1 Implement approved work instruction and identify training requirements for appropriate personnel within their Bureau or District.
- 5.2.2 Facilitate the development and management of training materials, approved by the Director of Operations, in coordination with appropriate Bureaus within the Division of Operations
- 5.2.3 Disseminate relevant Best Management Practices approved by Director of Operations as they are released to the industry.
- 5.2.4 Request equipment, materials, and resources necessary to appropriately manage or dispose of LRS.
- 5.2.5 Review and approve proposed LRS reuse and storage locations as appropriate.

5.3 Safety and Environmental Coordinator (SEC)/ Environmental Program Specialist

- 5.3.1 Administer technical assistance and training to Bureau/District personnel as needed, with assistance from the Bureau of Environment staff where applicable.
- 5.3.2 Propose revisions to this work instruction, and associated training materials as appropriate.
- 5.3.3 Maintain records related to Bureau/District employee training.
- 5.3.4 Perform independent visual and olfactory evaluation of materials in the ROW if reported to be obviously contaminated.
- 5.3.5 Coordinate with the Bureau of Environment as necessary for contamination assessment.
- 5.3.6 Coordinate the assessment, and remediation and/or disposal of contaminated materials as necessary.
- 5.3.7 Coordinate with Bureau Administration to register approved Catch Basin Material Drying Bins with NHDES per Env-Wq 402.
- 5.3.8 Coordinate with the Bureau of Environment for technical questions related to LRS and other contamination as necessary and where applicable.

5.4 Maintenance Supervisor/Maintenance and Construction Engineer:

- 5.4.1 Provide technical assistance to maintenance crews as necessary.
- 5.4.2 Maintain and provide records related to LRS generation and storage as necessary.
- 5.4.3 Correct deficiencies within the scope of their position.
- 5.4.4 Report deficiencies outside scope of the position to appropriate Bureau/District personnel such as the Bureau Administrator/District Engineer or SEC, in a reasonable time frame.

5.4.5 Confirm and/or oversee that approved Catch Basin Material Drying Bins are constructed and maintained in accordance with design and construction criteria.

5.4.6 Confirm activities being performed comply with the definition of routine maintenance.

5.5 Highway Patrol Foreman/Bridge Superintendent:

5.5.1 Provide guidance to Crew Members and hired equipment operators pertaining to handling, storage, disposal, and reuse of LRS.

5.5.2 Correct deficiencies within the means of their position.

5.5.3 Report deficiencies outside means of the position to Maintenance Supervisor/Field Engineer or SEC.

5.5.4 Compile and Submit completed LRS Waste Summary Forms to Maintenance Supervisor/Field Engineer or maintain records as directed for maintenance activities.

5.6 Crew Members and Hired Equipment Operators:

5.6.1 Comply with all applicable parts of this work instruction.

5.6.2 Seek Highway Patrol Foreman/Bridge Superintendent or SEC for clarification and guidance.

5.7 Bureau of Environment:

5.7.1 Provide technical assistance to the Operations Bureau staff as needed and where applicable.

5.7.2 Communicate changes in local, state, or federal requirements to Bureau Administrators and Director of Operations.

6.0 WORK INSTRUCTION PROCEDURE

6.1 Inspection of work areas

6.1.1 Division of Operations staff shall perform visual and olfactory inspection of work areas prior to and during maintenance operations to determine if disturbed materials are obviously contaminated.

6.1.2 Observations/inspections shall be documented using the NHDOT LRS Waste Summary Form.

6.1.3 Obviously contaminated materials are considered to be: materials containing liquids other than water such as oils, non-organic sheens, gasoline, paints, and colored liquids; and materials that have petroleum, chemical, acid, or noxious odors.

6.1.4 Contact the SEC if visual or olfactory examination indicates that materials within the ROW are obviously contaminated. Do not handle or collect

obviously contaminated material, or material suspected to be contaminated.

6.1.5 The SEC will perform an independent visual and olfactory evaluation of material reported to be obviously contaminated by Division of Operations staff.

6.1.5.1 In situations where the independent observations do not indicate a condition of obviously contaminated materials, LRS material may be removed, reused, stored, or disposed of in accordance with this work instruction.

6.1.5.2 If visual or olfactory examination indicates that materials in the ROW are obviously contaminated, the SEC or their designated representative shall call NHDES Spill Response and Complaint Investigation Section (SRCIS, 603-271-3899) between the hours of 8:00 AM and 4:00 PM. Outside these hours the SEC or their designated representative shall contact the NH State Police Dispatch (603-223-4381). NH State Police will contact NHDES SRCIS and emergency response personnel.

6.1.6 Division of Operations staff shall perform a visual evaluation of work areas for invasive plant species prior to and during collection operations. They shall follow NHDOT Best Management Practices for Roadside Invasive Plants. In areas containing invasive plants that have the ability to sprout from stem and root fragments (Type II) such as: purple loosestrife, phragmites, and Japanese knotweed, use special care to be sure these plants are not spread. For assistance with plant species identification or BMP guidance please contact the BOE Operations Management Section or refer to the NH Department of Agriculture Guide to Upland Plant Species in NH, and NHDOT Best Management Practices for Roadside Invasive Plants documents.

6.2 Catch Basin Cleaning/Inspection

6.2.1 Division of Operations staff shall clean each catch basin at least once every five (5) years, or when sumps are more than 50% full during inspection.

6.2.1.1 Inspections shall be performed prior to cleaning.

6.2.1.2 Inspections should be performed prior to the eductor or clam shell arriving to clean them.

6.2.1.3 Catch basins to be cleaned shall be clearly and appropriately identified.

6.2.1.4 Catch basins that do not meet visual and olfactory examination shall be clearly identified.

- 6.2.2 Division of Operations staff shall accompany the eductor or clam shell during catch basin cleaning operations to observe operation and that the activity is carried out in accordance with this work instruction.

6.3 Catch Basin Clean Out Material Staging

- 6.3.1 Material removed from catch basins shall be deposited in approved Catch Basin Material Drying Bins (Bins) in a manner that limits potential for erosion or down gradient sedimentation by wind or water, and allowed to dry.
- 6.3.2 Bins shall be registered in accordance with NHDES Env-Wq 402. Registration shall be coordinated with Bureau Administration.
- 6.3.3 Bins shall be located in accordance with criteria below:
 - 6.3.3.1 On Department-owned property.
 - 6.3.3.2 Constructed in accordance with NHDOT Catch Basin Solids Storage Bin Typical Detail identified in section 3.3.1.
- 6.3.4 Bins shall be cleaned of filter media and catch basin solids when emptied. The filter media and catch basins solids shall be thoroughly mixed for storage.
- 6.3.5 Sufficiently dried catch basin solids can be removed from Bins and storage in accordance with 6.6 (Storage of LRS).

6.4 Street Sweeping Operations

- 6.4.1 In Municipal Separate Storm Sewer System (MS4) urbanized areas, street sweeping shall be performed at least annually in curbed areas, including concrete barriers. Street sweeping in areas outside of MS4 urbanized areas shall be performed at least every three (3) years.
- 6.4.2 When collected, street sweeping materials may be mixed with other LRS prior to reuse.
- 6.4.3 When collected, street sweeping materials shall be stored in accordance with section 6.6.
- 6.4.4 When collected, street sweeping materials may be reused in accordance with section 6.7.

6.5 Ditching & Slope Operations

- 6.5.1 Operations shall be performed in a manner to minimize the amount of surplus material generated. The primary goal of ditching and slope maintenance operations is to reestablish the original line and grade and/or hydraulic function of the ditch line.
- 6.5.2 Sediment and erosion control BMPs shall be implemented when reworking ditching material during maintenance ditching operations.
- 6.5.3 LRS that cannot be reused, and must be removed from the active maintenance operation site may be stored and/or reused in other locations in accordance with section 6.6 and 6.7.

6.6 Storage of LRS

- 6.6.1 Litter and significant debris shall be removed from LRS material and disposed of properly.
- 6.6.2 LRS materials shall be stockpiled on Department-owned property utilizing appropriate BMPs that limit potential for erosion by wind or water, or down gradient sedimentation, and will not adversely affect human health or the environment.
- 6.6.3 Materials shall not be stockpiled in areas of intensive public use (i.e., rest areas, weigh stations, park and ride facilities).
- 6.6.4 LRS shall not be stored within any jurisdictional wetland/surface water or 100 year flood plain.
- 6.6.5 Any material to be stockpiled within 250 ft. of surface water shall be reviewed by the Bureau of Environment.
- 6.6.6 LRS shall not be stored within 50 ft. of a drinking water well.

6.7 Reuse of LRS

- 6.7.1 LRS that is removed from one location within a NHDOT controlled ROW, may be reused within another section of NHDOT controlled ROW, in locations where the LRS is not expected to be eroded and discharged to surface waters with the following limitations:
 - 6.7.1.1 Not in drainage features that provide for stormwater infiltration, unless more than four vertical feet of separation to the seasonal high groundwater table is provided;
 - 6.7.1.2 Not within a 100-year floodplain or wetland;
 - 6.7.1.3 Not within 50 feet of a drinking water well;
 - 6.7.1.4 Not in areas of intensive public use (i.e., rest areas, weigh stations, park and ride facilities) unless two feet of clean cover soils are placed over LRS;
- 6.7.2 Reuse areas within 250 ft. of surface water shall be reviewed by the Bureau of Environment.
- 6.7.3 LRS shall not be reused in the following locations without Director of Operations approval:
 - 6.7.3.1 Other DOT-owned property outside the ROW.
 - 6.7.3.2 On any Public property with the exception of properly licensed disposal facilities; or
 - 6.7.3.3 On any Private property with the exception of properly licensed disposal facilities.
- 6.7.4 The NHDOT Operations Bureau staff shall not accept or allow any LRS collected by private contractors to be stored at Bureau operated properties or facilities. The only exception to this is for temporary storage of LRS material by private contractors, hired by the



Department/Bureau/District office, operating under the direct management and control of NHDOT staff.

- 6.7.5 Areas of proposed LRS reuse shall be reviewed and approved by District Engineer/Bureau Administrator or Director of Operations as appropriate.
- 6.7.6 Sediment and erosion control BMPs shall be implemented during placement or reworking of roadway materials.
- 6.7.7 Any exceptions to these reuse criteria must be reviewed and approved by the Director of Operations in advance of any work.

7.0 TRAINING

- 7.1 Initial training is required for all employees that oversee or perform maintenance activities that handle or collect LRS materials.
- 7.2 Refresher training is required, as determined by the appropriate District/Bureau management, but no less frequently than every three (3) years.

8.0 COMMUNICATION

The SOSC will coordinate and execute final record keeping, posting of approved documents to the *Index*, and implement communication protocols for Department-wide dissemination in coordination with Division of Operations Directors Office.

9.0 AMENDMENT RECORD

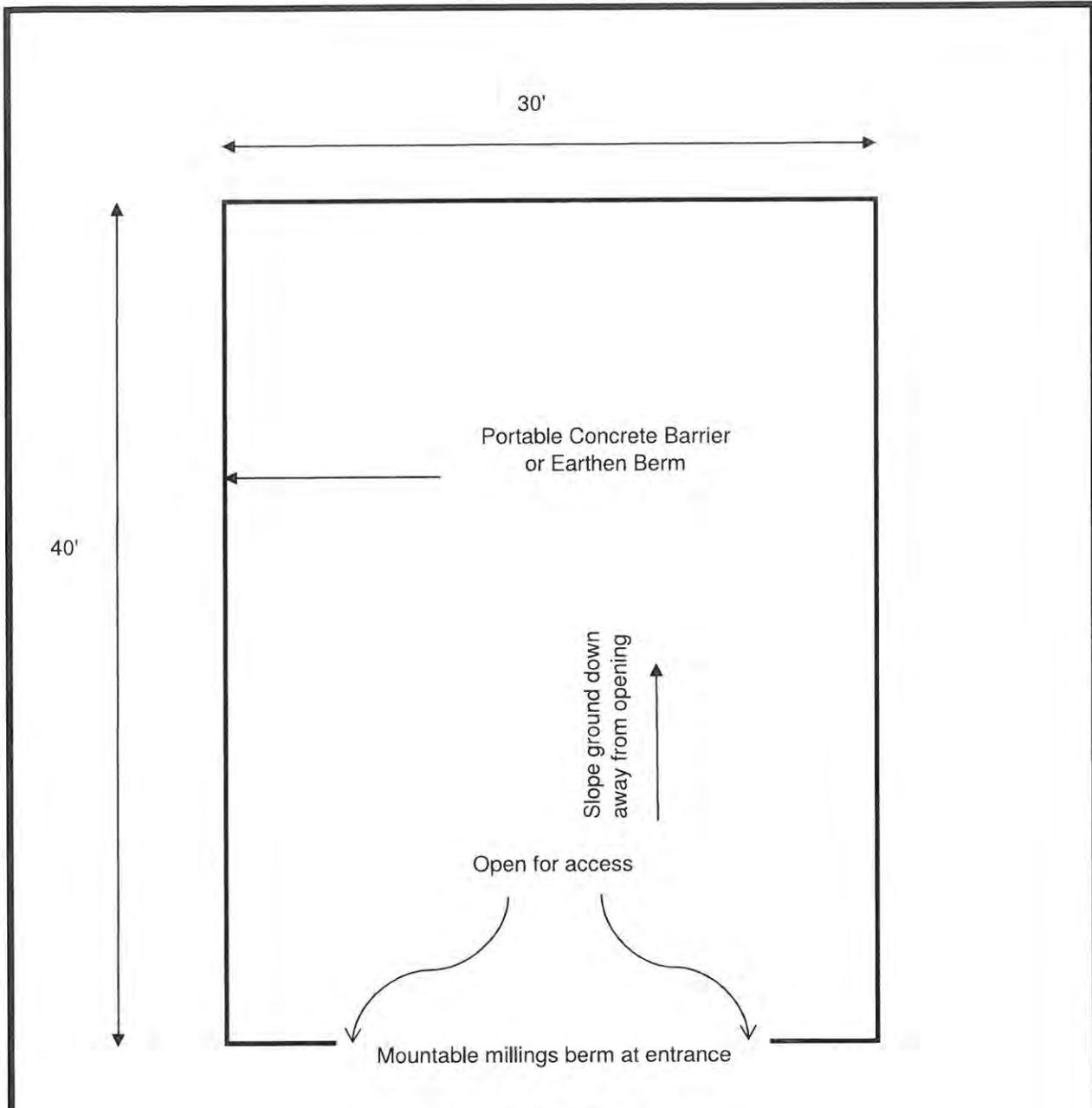
This work instruction and related policy shall be reviewed every two (2) years to ensure its continuing relevance and accuracy. The record of amendments is recorded below.

10.0 Forms

10.1 LRS Waste Summary Form

Date	Comments	Name	Authority
11/8/2018	Original Work Instruction Adopted	David Rodrigue	Director of Operations

Catch Basin Material Drying Bin Detail



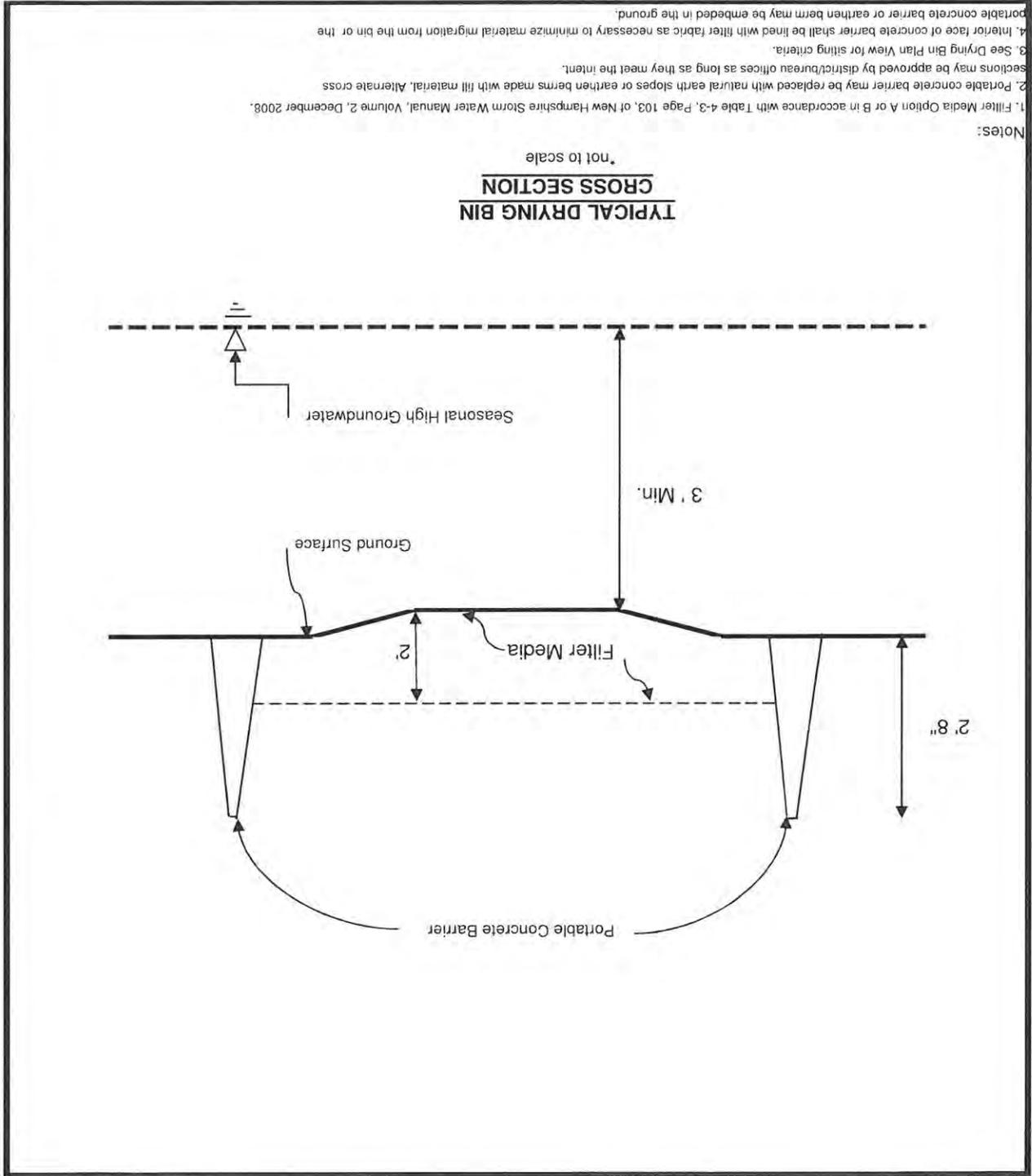
**TYPICAL DRYING BIN
PLAN VIEW**

*not to scale

Notes:

1. Actual dimensions to be determined based on site conditions and estimated storage requirements.
2. Catch Basin Material Drying Bin shall be registered with NHDES prior to use.
3. Siting criteria as follows:
 - a. Must be located on NHDOT Property.
 - b. Not located in wetlands, surface waters or 100 year flood plain.
 - c. Not within 50' of a drinking water well.

Catch Basin Material Drying Bin Detail



**TYPICAL DRYING BIN
CROSS SECTION**

not to scale

Notes:

1. Filter Media Option A or B in accordance with Table 4-3, Page 103, of New Hampshire Storm Water Manual, Volume 2, December 2008.
2. Portable concrete barrier may be replaced with natural earth slopes or earthen berms made with fill material. Alternate cross sections may be approved by district/bureau offices as long as they meet the intent.
3. See Drying Bin Plan View for siting criteria.
4. Interior face of concrete barrier shall be lined with filter fabric as necessary to minimize material migration from the bin or the portable concrete barrier or earthen berm may be embedded in the ground.

NH Division of Operations LRS Summary Form

Patrol Section: _____
 Inspector Name: _____
 Operator Name: _____

Date	Catch Basin	Street Sweeping	Ditching/Slope	Project	Accomplishment (each, lane mile)	Town/City Name	Roadway Name	Start and End Locations (MM, Street, GPS Coordinates)	Inspection (Pass-F or Fail-F)	Total Quantity Generated (CY)	Reuse/Storage Location	Comments
								Start End				
								Start End				
								Start End				
								Start End				
								Start End				

Last Updated:
6/21/2018

*Contact your Safety and Environmental Coordinator immediately if any locations Fail inspection.