Infrastructure Operations and Maintenance Plan

FOR

Town of Danville, NH

VERSION 1.0 PREPARED: MARCH 2009
VERSION 2.0 PREPARED: DECEMBER 2014

Prepared For:

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1.0 INTRODUCTION

Stormwater runoff contains pollutants such as hydrocarbons (oil, gas), heavy metals (iron, lead), fine sediment, chemicals and bacteria (fecal coliform, E.coli) that can be harmful to humans and the surrounding environment. **Table 1** shows some common stormwater pollutants, the source of these pollutants, and the impacts they have on the surrounding environment.

Reducing the possible harmful impacts of stormwater runoff is possible with the implementation of some preventative steps. Standard Operating Procedures (SOPs) are useful in outlining a uniform approach to stormwater management and maintenance for all of those involved to follow.

Table 1 – Typical Stormwater Pollutants, Sources and Impacts

Pollutant	Source(s)	Impact(s)
Sediment	Construction sites; eroding streambanks and lakeshores; winter sand and salt applications; vehicle /boat washing; agricultural sites.	Destruction of plant and fish habitat; transportation of attached oils, nutrients and other pollutants; increased maintenance costs.
Nutrients (phosphorus, nitrogen)	Fertilizers; malfunctioning septic systems; livestock, bird & pet waste; vehicle/boat washing; grey water; decaying grass and leaves; sewer overflows; leaking trash containers; vehicle/equipment exhaust.	Increased potential for nuisance or toxic algal blooms; increased potential of hypoxia/anoxia (low levels of dissolved oxygen that can kill aquatic organisms.)
Petroleum Hydrocarbons (PAHs, VOCs, etc.)	Vehicle and equipment leaks; vehicle and equipment emissions; pesticides; fuel spills; equipment cleaning; improper fuel storage & disposal.	Toxic at low levels.
Heavy Metals	Vehicle, brake & tire wear; vehicle/equipment exhaust; batteries; galvanized metal; paint and wood preservatives; fuels; pesticides; cleaners.	Toxic at low levels; drinking water contamination.
Pathogens	Livestock, bird & pest wastes; malfunctioning septic systems; sewer overflows or improper connections.	Risk to human health leading to closure of shellfish areas and swimming areas; drinking water contamination.
Toxic Chemicals	Pesticide use; spills; illegal discharges; leaks; manufacturing.	Toxic at low levels.
Debris/ Litter	Improper waste disposal and storage; fishing gear; leaking rubbish containers; littering.	Potential risk to human and aquatic life.

2.0 OPERATION AND MAINTENANCE PROGRAM

Current and proposed maintenance programs for Town activities that may impact stormwater runoff and water quality are provided below, with Standard Operating Procedures (SOPs) provided as separate appendices. A map of the Town's drainage system is provided in **Appendix A**.

2.1 Street Sweeping

Purpose of SOP:
Coarse sand particles on roadways are ground down by traffic, becoming rounded and reduced in size. These finer particles typically contain higher concentrations of pollution and are more difficult to remove/settle from stormwater runoff. Timely sweeping will reduce the volume of sediment in catch basins and drainage systems and reduce the amount of pollutants entering the Town's water resources.

Current Program:

- The Town does not currently perform street sweeping, however, there is very little curbing and any salt or sand that is applied is eventually pushed off the road onto the adjacent shoulder. Only a few road networks contain drainage infrastructure. The Town also has a number of roadside ditches and swales which trap and hold sediment until it is removed by the department.
- Evaluation of sweeping needs will be based on future inspection of outfalls and other area BMPs to determine if additional control measures should be implemented.
- See **Appendix B** for street sweeping standard operating procedures.

Proposed Program Changes:
Based on the 2014 Draft MS4 General Permit, all permittees must establish and implement procedures for sweeping and/or cleaning streets and permittee-owned parking lots. Pending release of the final permit, the following measures would be appropriate:

- All streets, with the exception of rural uncurbed roads with no catch basins or high speed limited access highways, shall be swept and/or cleaned a minimum of once per year in the spring (following winter activities such as sanding).
- Danville has 26 catch basins, of which 18 are located on streets within the regulated Urbanized Area. As required by the permit, catchment areas on roadways contributing to catch basins should be swept once per year. The recently updated 2014 Stormwater Illicit Discharge Detection and Elimination (IDDE) Plan mapped all catchments, and the following catchment areas should be swept once per year in the spring following winter activities such as sanding:
    - Beach Plain Road: 1 CB
    - Colby Road: 4 CBs
    - Fyre Road: 1 CB
    - G H Carter Drive: 1 CB
    - Gerry Drive: 1 CB
    - Hersey Road: 1 CB
    - Kingston Road: 2 CBs

    - Lollypop Lane: 2 CBs
    - Long Pond Road: 2 CBs
    - Main Street: 3 CBs
- Danville has no town-owned high speed limited access highways.
- Remaining roadways are all rural, uncurbed without catch basins. The town has no high-pollutant land uses, and as such remaining roadways do not need to be swept.
- The Town does not currently have any roadways within regulated areas that discharge to a waterbody with an approved TMDL.
- Per permit requirements, the Town will develop and implement an inspection, documentation and targeted sweeping plan within one year of the effective permit date. Items will likely include:
    - Procedures to track sediment quantities collected by road to identify areas that may need more frequent sweeping (e.g., areas with higher accumulation rates).
    - After tracking sediment quantities applied/collected for one year, prioritize the sweeping program to target areas with higher sediment loads. For example, areas that are sanded more frequently or with greater quantities of sand and that contain a drainage network should be swept more often.
    - Sweep in locations that generate debris and pollutants, such as construction entrances, sand/salt loading areas, vehicle fueling areas, and vehicle and equipment storage areas as needed.
    - Sediment loads in catch basins and outfalls should also be reviewed while considering future sweeping.
    - Street sweeping efforts should be tracked using the Street Sweeping Log in Appendix B.

2.2 Catch Basin Cleaning

Purpose of SOP:
The proposed MS4 draft permit catch basin cleaning program requires cleaning of structures to maintain a minimum 50% capacity in the sumps and is designed to identify and prioritize drainage systems that require more frequent cleaning. Spring and/or fall is the ideal time to clean catch basins to remove sand, leaves and other debris collected during the fall and winter months. Catch basins should be cleaned immediately or shortly following street sweeping operations.

Current Program:
- The Town has approximately 26 catch basin structures, of which 18 are located within the regulated Urbanized Area.
- Although there is no formal written procedure, Highway Department personnel have informally prioritized basins for cleaning based on sump depth and known sediment accumulation.
- Basins which historically have high sediment accumulation and small sump depths are cleaned at least once a year and/or when problems are reported or observed, while other basins are cleaned less frequently
- See **Appendix C** for catch basin inspection and cleaning standard operating procedures.

Proposed Program Changes:
Based on the 2014 Draft MS4 General Permit, all permittees must optimize routine inspections, cleaning and maintenance of catch basins. Pending release of the final permit, the following measures would be appropriate:

- Perform catch basin cleaning once a year during the first two years of implementation to establish accumulation rates by area and for future prioritization of cleaning efforts, preferably immediately after street sweeping occurs.
- Since there is minimal development within town, generally limited to low-density residential areas, prioritization of catch basin cleaning for areas near construction areas is unlikely to be required.
- For each year, document which catch basin structures are more than 50% full based on visual observations immediately before and after cleaning.
- If a catch basin sump is more than 50 percent full during two consecutive routine inspections/cleaning events, document findings, investigate the catchment area for sources of excessive sediment loading, and remove or eliminate sources if possible.
- Track sediment quantities collected by basin to identify areas that may need more frequent catch basin cleaning (e.g., areas with higher accumulation rates). Materials can be weighed and tracked as they are brought to the Highway Garage.
- Basins should be inspected for structural integrity and evidence of illicit discharges during cleaning. See Catch Basin Cleaning Log in Appendix C.
- Catch basin cleanings should be free of liquids for transportation and reuse. If necessary, decant liquids into catch basins during cleaning operations.
- Combine this analysis with a review of street sweeping sediment accumulations and surrounding land use to further prioritize streets and catch basins for cleaning if required.
- The annual report should identify the total number of catch basins, number inspected, number cleaned, and approximate volume or mass of material removed from each catch basin.

2.3 Street Wastes Storage

Purpose of SOP:
Proper storage of street sweepings, roadside ditch cleanup soils, and catch basin cleanings, collectively referred to as "street wastes" is vital, as soils have the potential to be contaminated with petroleum hydrocarbons, road salt, trash, litter, animal waste, or other solid waste. As such, materials must be managed appropriately to prevent contact with stormwater runoff and potential environmental contamination.

Current Program:

- Danville does not currently perform street sweeping. As such, there are no street sweepings to store.
- Catch basin cleanings meeting NHDES Risk Characterization and Management Policy (RCMP) S-1 standards are stockpiled at the highway garage. Cleanings are screened and mixed with material removed from roadside ditches. The mix is then used as fill for town applications.

- If not reused immediately, catch basin residuals are stored in areas where stormwater could not transport wastes into the storm drain system, waterbodies or wetlands. Stockpiles are covered to reduce leaching during rain events.
- Every three years, the Town collects one representative composite soil sample from the catch basin residuals stockpile and performs a laboratory analysis to measure compliance with S-1 and S-3 soil standards as outlined in fact sheet WMD-SW-32 on Management of Street Wastes by NHDES provided in **Appendix G**. As long as test results are below concentrations identified in the included fact sheet, one representative composite sample is collected every three years to verify reuse criteria.
- Catch basin residuals that do not exceed S-1 soil standards are reused without restriction. Those that do not exceed S-3 are reused as parts of base and sub-base aggregates below paved surfaces. Should S-3 be exceeded, street wastes are disposed of at a landfill.
- Catch basin residuals that are obviously contaminated with wastewater, animal wastes, oil, gasoline, or other petroleum products must be tested pursuant to the hazardous waste determination requirements.
- See Appendix C for disposal of drainage system cleaning and residuals standard operating procedures.

Proposed Program Changes:
It is not anticipated that the current program will require substantial changes, however should changes to the storage of catch basin and/or street sweeping residuals change, then the program will be reviewed and revised if necessary.

- As outlined in Section 2.1, Danville will need to perform street sweeping under the upcoming Phase II permit. Since the Town will be contracting with an outside organization, it is likely that the contracted company will be responsible for properly storing and disposing of street sweepings.
- Should the Town be responsible for sweepings, either via agreement reached with the contractor or after purchase of their own street sweeper, uncontaminated street sweepings may be reused during typical Highway Department operations.
- Alternatively, street wastes that are not obviously contaminated with wastewater, animal wastes, oil, gasoline, or other petroleum products based on visual and/or olfactory examination may be taken without testing directly to any permitted solid waste landfill for disposal or deposited for use as daily cover.
- Street sweeps that are obviously contaminated with wastewater, animal wastes, oil, gasoline, or other petroleum products must be tested pursuant to the hazardous waste determination requirements.
- If not reused immediately, street sweeps should be stored in areas where stormwater could not transport wastes into the storm drain system, waterbodies or wetlands. Stockpiles should be covered to reduce leaching during rain events.

2.4 Catch Basin Inspection, Maintenance, and Repair

Purpose of SOP:
Regular inspection and maintenance of catch basins helps prevent failure, such as collapse or inadequate stormwater flow, to ensure proper function during storm events.

Current Program:

- Danville has approximately 26 catch basins, of which 18 are located within the regulated area.
- Although there is no formal written inspection procedures or schedule, Highway Department personnel perform informal inspections during cleaning operations to observe for potential failures such as settlement or collapse.
- Structural maintenance activities are performed as needed when drainage issues arise or when damage is discovered during cleaning activities.
- See Appendix C for catch basin maintenance and repair standard operating procedures.

Proposed Program Changes:

- Identify structures/equipment in need of repair during catch basin cleaning operations and prioritize need. Repair structures/equipment as soon as possible in order of prioritization.
- Keep a record of the date of inspection, the date the repair was performed, the need for the repair, and what was done to repair the issue. Use the Catch Basin Maintenance/Repair Log in Appendix C.

2.5 Outfall Inspection, Maintenance, and Repair

Purpose of SOP:
Regular inspection and maintenance of outfalls helps prevent failure, such as collapse or inadequate stormwater flow, to ensure proper function during storm events.

Current Program:

- Danville has approximately 84 outfalls, of which 65 are located within the regulated area, many of which have swales or a sump associated with them to help with sediment collection.
- Although there is no formal written inspection procedures or schedule, Highway Department personnel perform informal inspections and maintenance activities as needed when drainage issues arise or when damage is discovered during cleaning activities.
- See **Appendix D** for outfall inspection and maintenance standard operating procedures.

Proposed Program Changes:

- Inspect outfalls and perform preventative maintenance at least annually. Use the Stormwater Outfall Inspection Checklist in Appendix D to record inspection results.
- Identify structures/equipment in need of repair and prioritize need. Repair structures/equipment as soon as possible in order of prioritization.
- Keep a record of the date of inspection, the date the repair was performed, the need for the repair, and what was done to repair the issue. Use the Outfall Inspection and Maintenance Log in Appendix D.

2.6 Structural Stormwater Treatment BMP Inspection, Maintenance, and Repair

Purpose of SOP:
Regular maintenance of BMP structures (e.g. vegetated detention ponds, treatment swales, forebays, etc.) improves the performance of stormwater BMPs and preserves their design capacity to infiltrate or detain stormwater and remove pollutants. Routine cleaning and

inspections will improve stormwater quality and reduce runoff impacts to surface waters by minimizing the amount of sediment, debris and other pollutants that may be transported to nearby waterbodies and wetlands.

Current Program:

- The Town does not own any structural stormwater BMPs. As such, no inspections or maintenance currently take place.
- Informal inspection of drainage system and conveyances, such as drainage swales, occur during routine highway operations.
- See **Appendix E** for structural BMP maintenance standard operating procedures.

Proposed Program and Schedule:

It is not anticipated that the Town will be taking ownership of any BMPs, however should this change, the following items should be implemented.

- At a minimum, BMPs should be inspected annually during the spring, following the conclusion of winter sanding operations.
- Identify structures/equipment in need of repair and prioritize need. Repair structures/equipment as soon as possible in order of prioritization.
- Keep a record of the date of inspection, the date the repair was performed, the need for the repair, and what was done to repair the issue. Use the Structural Stormwater BMP Inspection Checklist, Structural Stormwater BMP Maintenance/Repair Log, and individualized BMP maintenance logs in Appendix E.

2.7 Snow Plowing

Purpose of SOP:

To protect water quality by minimizing stormwater contact with snow piles which can contain sand, salt and/or trash and which generate concentrated pollutants during snowmelt conditions.

Current Program:

- When a storm approaches during daylight hours, the procedure is to sand/salt all the main thru roads within the Town excluding Route 111-A (a state highway) until enough snow has accumulated to plow and remove snow from all streets.
- When plowing operations commence the highway department does not sand/salt until the storm is over and bare pavement exposed within 48 hours unless extreme cold temperature conditions or ice exist.
- If a snow storm approaches during late night hours (9 PM or after) the highway department will not start with a sand/salt procedure, but will wait until the snow is plowable. At worst case, the department will begin to sand/salt and plow at 3 AM for the morning commute.
- See **Appendix F** for winter operations standard operating procedures.

Proposed Program Changes:

It is not anticipated that the current program will require substantial changes, however winter operations are always undergoing review and revisions to continually improve performance.

2.8 Snow Removal and Stockpiling

Purpose of SOP:
To protect water quality by minimizing stormwater contact with snow piles which can contain sand, salt and/or trash and which generate concentrated pollutants during snowmelt conditions.

Current Program:

- Due to the relatively undeveloped and rural nature of Danville, the Town does not currently use a dedicated snow dump or stockpile location. Snow is plowed from roadways to the sides of the road where it is left to melt in roadside ditches or other pervious, vacant locations.
- See Appendix F for winter operations standard operating procedures.

Potential Program Changes:
If it is determined that a snow dump or stockpile location is needed, the following program changes may be undertaken:

- Identify sensitive ecosystem prior to disposal and avoid snow disposal in these areas.
- Store snow on areas above groundwater level, on a flat, vegetate slope. Securely place a silt fence or equivalent barrier on the down gradient side of a snow disposal site. A vegetated earthen berm is a suitable alternative.
- Maintain a 100-foot vegetative or wooded buffer strip during the growth season between the disposal site and adjacent water bodies to filter pollutants out of the melt water.
- Do not dump snow into any water body, including rivers, streams, ponds, or wetlands. In addition to water quality impacts and flooding, snow disposed in open water can cause navigational hazards when it freezes into ice blocks.
- Do not dump snow on top of storm drain catch basins or in stormwater drainage swales or ditches. Snow combined with sand and debris may block a storm drainage system, cause localized flooding and can also be transported through the system into surface water.
- Do not dump snow within a Zone II or Interim Wellhead Protection Area (IWPA) of a public water supply well or within 75 feet of a private well, where road salt may contaminate water supplies.

2.9 Sand and Salt Storage

Purpose of SOP:
To protect stormwater by properly storing deicing materials. Sand, salt and other deicing materials used during winter can be transported by runoff into the storm drain system and eventually into waterbodies if not stored properly.

Current Program:

- Salt and sand are stored in a two-bay lean-to structure with separate bays for each, along with storage of 55-gallon drums of ACTIV-8 deicer product.
- The parking lot is pitched away from the lean-to such that parking lot runoff will drain away from the salt storage, minimizing contact with stormwater runoff. The entrance and loading area at the front of the salt shed is a paved parking area, and after loading, excess salt is cleaned and deposited back under the lean-to.

- If needed, an additional pile containing sand mixed with some salt for winter operations may be stored in a large pile covered with an impervious membrane in the paved parking lot situated at the top of a gentle slope, with runoff flowing away from the pile.
- The Highway Department does not currently use liquid calcium chloride (CaCl), however does use ACTIV-8 as a means to help prevent icing. ACTIV-8 is a product that lessens the need for salt and CaCl, is non-corrosive, non-polluting, and will not injure vegetation.
- In general, the Highway Department applies sand/salt mixes to roadways as necessary. The timing and duration of sand/salt applications is based on the current and forecasted weather conditions.
- The Road Agent is in charge of winter road operations during storms and instructs drivers on what to apply (i.e., sand, sand/salt mix), how much to apply according to the weather conditions, and where it should be applied in town.
- Sand/salt spreaders can be adjusted to vary the rate of application and width of the application path to meet changing weather conditions and differing road characteristics.
- See Appendix F for winter operations standard operating procedures.

Potential Program Changes:

The Town is currently contributing capital funds on an annual basis towards a Highway Sand/Salt Storage Building Capital Reserve Fund, with a goal of constructing a building capable of storing all sand and salt, as well as cover vehicle loading operations.

- Once constructed, the salt and sand piles will be stored indoors, virtually eliminating potential environmental impacts from these materials.
- Loading may also be conducted indoors, further reducing potential stormwater contact from these pollutant sources.
- Other aspects of the program are anticipated to continue as per above.

3.0 SPILL PREVENTION, RESPONSE AND REPORTING

Purpose of SOP:
To protect stormwater by minimizing the potential for leaks, spills, and other releases that may be exposed to stormwater.

3.1 Spill Prevention Procedures

To protect against contaminant release, adhere to the following general guidelines:

1. Ensure all employees are properly trained to respond in the case of a spill, understand the nature and properties of the contaminant and understand the spill control materials and personnel safety equipment. Maintain training records of current personnel on site and retain training records of former personnel for at least three years from the date last worked at the facility;
2. Provide yearly maintenance and inspection at all facilities where product is stored. Maintain maintenance and inspection records on site for at least 3 years;
3. Implement good management practices where chemicals, hazardous wastes, and/or oil products are stored:
    a. Ensure storage in closed containers inside a building and on an impervious surface;
    b. If storage cannot be provided inside, ensure secondary containment for 110% of the maximum volume of the storage container;
    c. Locate storage areas near maintenance areas to decrease the distance required for transfer;
    d. Provide accurate labels, MSDS information and warnings for all stored materials;
    e. Regularly inspect storage areas for leaks; and
    f. Ensure secure storage locations, preventing access by untrained or unauthorized persons.
4. Maintain accurate records of stored materials;
5. If possible, replace traditional hazardous materials such as pesticides and cleansers with non-hazardous products such as bio-lubricants which can reduce response costs in the case of a spill; and
6. Maintain an oil response spill response kit at each facility where products are stored.

3.2 Spill Response Procedures

Although spill response procedures may vary substantially depending on the site, size of spill, type of material release, etc., the following general steps should be followed in the event of a release. Separate action items are provided for a non-emergency (small) spill and emergency (large) spill.

Non-Emergency Spill (Small Spill)
In general, a non-emergency spill is a spill that personnel can respond to with spill response equipment without endangering themselves or the environment, and involves materials that the personnel directly work with during routine duties. Examples include a small leak or spill involving typical materials encountered during daily operation (e.g. oil, gas).

General response procedures to be followed in the event of a non-emergency spill are as follows:

Step 1. Remove unnecessary people from hazard area.

Step 2. Assess the spill area for safety concerns and direction of flow.

Step 3. Put on at least the following personal protective equipment (PPE):

- Safety glasses or goggles;
- Gloves;
- Apron;
- Rubber Boots; and
- Other PPE as per the Material Safety Data Sheet (MSDS).

Step 4. Stop the spill:

- Approach the spill with the wind at your back;
- Turn off all sources of ignition;
- Remove surrounding materials that could interfere with cleanup or could be contaminated by the spill without placing yourself or others at risk of injury
- Cover nearby floor drains and catch basins;
- Stop the flow by up-righting containers or plugging holes in containers using non-sparking tools; and
- If necessary, place leaking containers into compatible larger containers.

Step 5. Clean up the spill:

- Obtain absorbent material from the nearest spill kit such as absorbent pads, booms, sandbags and other inert materials and instruments and place a berm of absorbent material around the edge of the spill to keep it from spreading;
- Confine the spilled material into the smallest area possible; and
- Soak up the remainder of the spill with additional absorbent material.

Step 6. Collect, label, store, and properly dispose of used absorbent in accordance with applicable federal, state and local regulation:

- Remove as much free-flowing oil as possible from products used to clean or soak up spills;
- Typically, used oil may be mixed with hydraulic, power steering, transmission, and/or brake fluid, however do not mix with gasoline, antifreeze, solvents, or other hazardous wastes;
- Products saturated with petroleum products or other hazardous chemicals require special handling and disposal by licensed transporters. Licensed transporters will pick up spill contaminated materials for recycling or disposal. Save the shipping records for at least three years; and
- Products that no longer have free-flowing oil and do not exhibit a hazardous waste characteristic may be managed as standard solid waste for disposal.

Step 7. If you need assistance containing and/or cleaning up the spill, or preventing it from discharging to a surface water, contact the Fire Department per the contact information in Section 4.

Emergency Spill (Large Spill)
In general, an emergency spill is a spill that personnel cannot respond to without endangering personnel or the environment. Examples include a large spill, a spill that enters a waterbody, or spill involving an unfamiliar material.

Step 1. Evacuate the area.

Step 2. Immediately notify the Fire Department at 911.

3.3 Spill Reporting

Spill Reporting Information
The following information will be needed in order to properly report a spill:

1. Date and time of spill reported to NHDES;
2. Person reporting the spill name, address and contact information;
3. Company or person responsible for spill, address, and contact information;
4. Spill site property owner, if different from any of the above;
5. Spill location (site name, address, etc.);
6. Type of substance spilled and estimated amount (e.g. diesel fuel, 5 gallons);
7. Date and time of spill;
8. Cause of spill and how detected (e.g. fueling overfill observed by site personnel);
9. Impacted or potentially impacted areas and distance from spill (e.g. wetland, 500' away);
10. Environmental response company, address, and contact information;
11. Response actions taken to remediate the spill; and
12. List of other agencies, people or parties notified (see contact information provided in Section 4).

Additional information may be required, should notification of federal authorities be required.

13. Any danger or threat posed by the discharge
14. Number and type of injuries, if any
15. Weather conditions at the incident location
16. Whether a leak or spill is equal to or in excess of a reportable quantity
17. Whether an Evacuation may be Needed

NHDES Spill Reporting Requirements
NHDES has established the following reporting requirements, should a release of petroleum or a hazardous substance occur.

Requirements for Petroleum / Oil Spills
Any person or party responsible for the operation of any oil facility, carrier, or vessel that discharges oil or has knowledge of a discharge of oil must report to state officials, unless the following conditions are met:

- The discharge is less than 25 gallons;
- The discharge is immediately contained;
- The discharge and/or contamination is completely removed within 24 hours;
- There is no impact or potential impact to groundwater or surface water; and
- There are no potential vapors which pose an imminent threat to human health.

Should one or more of the above not be true, notification requirements are as follows:

- NHDES Waste Management Division (Emergency Response Group) – Immediately, if spill occurs during business hours (Monday through Friday, 8 AM to 4 PM); or
- NH Department of Safety – Immediately, if spill occurs outside business hours.

See contact information in Section 4. A spill reporting fact sheet WMD-REM-13 on Reporting Oil Spills, Hazardous Waste Spills and Groundwater Contamination by NHDES is provided in **Appendix H**. Additionally, the NHDES Waste Management Division Spill Reporting Form is provided in Appendix H.

Requirements for Hazardous Waste Generators

Any generator, operator, transporter or employee of a hazardous waste facility who becomes aware of any storage, treatment or disposal of hazardous waste that poses a threat to human health or the environment (e.g. into storm or sanitary sewers, onto the land or into the air, groundwater or surface waters) must report to local and state officials. Additional reporting to federal officials may also be required, depending on the spill size and frequency of occurrence.

Notification requirements are as follows:

- Fire Department – Immediately, not to exceed 1 hour from discharge discovery; and
- NHDES Emergency Response Group – Immediately, not to exceed 1 hour from discharge discovery.

See contact information in Section 4. Additionally, the NHDES Waste Management Division Spill Reporting Form is provided in Appendix H.

EPA Spill Reporting Requirements

In addition to the above state reporting requirements, the EPA has established the following federal reporting requirements, should a release of petroleum or a hazardous substance occur.

Petroleum / Oil Spills

Any person who discharges oil that violates water quality standards, causes a film or sheen on a surface waterbody or shoreline, or causes a sludge to be deposited beneath the surface of the water must report the spill to federal authorities. An Oil Discharge Reporting Requirements fact sheet by EPA is provided in Appendix H.

Notification requirements are as follows:

- National Response Center – Immediately.

See contact information in the following section.

Hazardous Substances

For release of hazardous substances, EPA has established Superfund Reportable Quantities (RQs), which established reportable quantities for approximately 800 substances, as well as 360 extremely hazardous substances. Reportable quantities and conditions vary by substance, and it is out of the scope and intent of this document to quantify these substances.

If a person or organization encounters a hazardous substance or has any doubts or questions concerning a potential release, they are encouraged to contact the National Response Center per the contact information in Section 4.

4.0 EMERGENCY CONTACT LIST

Local Emergency Contacts

Fire Department / Ambulance	
Emergency	911
Office	(603) 382-5133
Police Department	
Emergency	911 or (603) 382-4443
Office	(603) 382-9403
Highway Department, Road Agent	(603)-382-0703

State and Federal Agencies

NHDES Emergency Response Group (Waste Management Division)	
M-F, 8 AM to 4 PM	(603)-271-3899
Weekends and evenings (state police)	(603)-223-4381
National Response Center	(800) 424-8802
Region I EPA	(888) 372-7341

Hospitals

Exeter Hospital	
5 Alumni Drive, Exeter NH	(603) 778-7311
Parkland Medical Center	
1 Parkland Drive, Derry NH	(603) 432-1500
Elliot Hospital	
1 Elliot Way, Manchester NH	(603) 663-1111

Environmental Consultant

Comprehensive Environmental Inc.	
21 Depot Street, Merrimack NH	(603) 424-8444

Spill Response and Cleanup

Clean Harbors	
20 Dunklee Road, Bow NH	(800) 645-8265

Appendix A – Drainage System Map

Appendix B – Street Sweeping Maintenance

B1 – Standard Operating Procedure for Street Sweeping

B2 – Street Sweeping Form

B1 – Standard Operating Procedure for Street Sweeping

Equipment and Materials

- Maintenance report forms to document observations (Street Sweeping Log, next page).
- Digital camera to help document unique observations that can be reviewed at a later date.

General Procedures

- If necessary, notify residents and businesses of street sweeping schedule and requirements such as restricted parking and removal of objects that could obstruct sweeping operations.
- Print maps and instructions for street sweeping routes and maintenance assignments.
- Print Street Sweeping Log on next page and complete as the sweeping is performed, tracking information for each route.
- During sweeping operations, lightly spray water on streets before sweeping to minimize airborne dust. The preferred method for removing sand and debris from roadways is the use of a vacuum/regenerative air sweeper.
- Avoid pushing materials into or around storm drains and catch basins.
- Bring collected sediment to the Highway Garage for tracking and storage.
- Maintain street sweeping equipment for maximum effectiveness.

Documentation (Street Sweeping Log on next page)

- Record the date, weather conditions, street names and miles of roadways swept where sweeping operations have been completed.
- Identify potential sources of sediment/contaminants such as construction activities, erosion and material or equipment storage.
- Document issues that hindered street sweeping progress (i.e. parked cars, obstructions damaged roadway).

B2 - Street Sweeping Log

Date:__________________ **Precipitation in the last three days?** **Yes** **No**

Weather Today:____

Supervisor/Crew Leader:____

Street Swept (Name)	Miles	Observed Potential Sources of Pollution	Comments
		__ None __ Material Storage __ Construction Activity __ Equipment Storage __ Erosion __ Other*	
		__ None __ Material Storage __ Construction Activity __ Equipment Storage __ Erosion __ Other*	
		__ None __ Material Storage __ Construction Activity __ Equipment Storage __ Erosion __ Other*	
		__ None __ Material Storage __ Construction Activity __ Equipment Storage __ Erosion __ Other*	
		__ None __ Material Storage __ Construction Activity __ Equipment Storage __ Erosion __ Other*	
		__ None __ Material Storage __ Construction Activity __ Equipment Storage __ Erosion __ Other*	
		__ None __ Material Storage __ Construction Activity __ Equipment Storage __ Erosion __ Other*	
		__ None __ Material Storage __ Construction Activity __ Equipment Storage __ Erosion __ Other*	
		__ None __ Material Storage __ Construction Activity __ Equipment Storage __ Erosion __ Other*	
		__ None __ Material Storage __ Construction Activity __ Equipment Storage __ Erosion __ Other*	
		__ None __ Material Storage __ Construction Activity __ Equipment Storage __ Erosion __ Other*	
		__ None __ Material Storage __ Construction Activity __ Equipment Storage __ Erosion __ Other*	

Total Sediment Accumulated from Route (as weighed at landfill):________________ tons

* Provide additional comments to describe the observations made for the category.

Appendix C – Catch Basin Cleaning and Maintenance

C1 – Standard Operating Procedure for Catch Basin Inspection and Cleaning
C2 – Catch Basin Cleaning Form
C3 – Standard Operating Procedure Catch Basin Maintenance and Repair
C4 – Catch Basin Maintenance/Repair Log
C5 – Standard Operating Procedure for Disposal of Drainage System Cleaning Residuals

C1 – Standard Operating Procedure for Catch Basin Cleaning

Equipment and Materials

- Hand tools for accessing structures (manhole hook, pick, shovel, etc.).
- Measuring device (preferably a solid rod or stick) with one-inch increments.
- Maintenance report forms to document observations (Catch Basin Cleaning Log, next page).
- Digital camera to help document unique observations that can be reviewed at a later date.

General Procedures

- If necessary, notify residents and businesses of catch basin cleaning schedule to restrict parking and other requirements that could obstruct catch basin cleaning operations.
- Print maps and instructions for catch basin cleaning routes and maintenance assignments.
- Print Catch Basin Cleaning Log on next page and complete as the catch basin cleaning is performed, tracking information for each route.
- Work upstream to downstream.
- Clean sediment and trash off grate and visually inspect the outside of the grate.
- Clean catch basins, either manually with a shovel or bucket loader if necessary.
- If necessary, remove sediment that might have entered downstream pipe.
- Document which basins are more than 50% full based on visual observations of sediment levels before and after cleaning. This should be based on the depth of sediment in relation to the invert of the outlet pipe. Use the measuring device if needed.
- Inspect catch basin for structural integrity.
- If contamination is observed or suspected, do not remove and combine sediments with other catch basin cleanings. Make a note of the catch basin identification number and report to the Road Agent for separate removal and testing for proper disposal.
- Bring collected sediment to the Highway Garage for tracking and storage (see SOP).

Documentation (Catch Basin Cleaning Log on next page)

- For each load brought to the Highway Garage, document the date, weather conditions, street names, number of catch basins cleaned, and amount of sediment collected.
- Document any maintenance required (i.e. new grates, corrosion, erosion around structure, obstructions damaged roadway, etc.).
- Record potential sources of sediment/contaminants such as construction activities, erosion, excessive amounts of pet waste and material or equipment storage, if observed.
- Record catch basins that are 50% or more full with sediment and/or structures in need of repair.

C2 - Catch Basin Cleaning Log

Date:_________________ Precipitation in the last three days? Yes No

Weather Today:____

Supervisor/Crew Leader:_______________________________________

ID / Street Name	Required Maintenance/Problems? (Check all that apply)		Observed Potential Sources of Pollution	More than 50% Full?	Comments
	__ Tree Work Required __ New Grate Required __ Pipe is Blocked __ Frame Maintenance Required __ Basin Undermined or Bypassed __ Cannot Remove Cover	__ Evidence of Dumping* __ Ditch Work __ Corrosion at Structure __ Erosion Around Structure __ Need Cement Around Grate __ Other*	__ None __ Construction Activity __ Erosion __ Material Storage __ Equipment Storage __ Other*	Yes No	
	__ Tree Work Required __ New Grate Required __ Pipe is Blocked __ Frame Maintenance Required __ Basin Undermined or Bypassed __ Cannot Remove Cover	__ Evidence of Dumping* __ Ditch Work __ Corrosion at Structure __ Erosion Around Structure __ Need Cement Around Grate __ Other*	__ None __ Construction Activity __ Erosion __ Material Storage __ Equipment Storage __ Other*	Yes No	
	__ Tree Work Required __ New Grate Required __ Pipe is Blocked __ Frame Maintenance Required __ Basin Undermined or Bypassed __ Cannot Remove Cover	__ Evidence of Dumping* __ Ditch Work __ Corrosion at Structure __ Erosion Around Structure __ Need Cement Around Grate __ Other*	__ None __ Construction Activity __ Erosion __ Material Storage __ Equipment Storage __ Other*	Yes No	
	__ Tree Work Required __ New Grate Required __ Pipe is Blocked __ Frame Maintenance Required __ Basin Undermined or Bypassed __ Cannot Remove Cover	__ Evidence of Dumping* __ Ditch Work __ Corrosion at Structure __ Erosion Around Structure __ Need Cement Around Grate __ Other*	__ None __ Construction Activity __ Erosion __ Material Storage __ Equipment Storage __ Other*	Yes No	
	__ Tree Work Required __ New Grate Required __ Pipe is Blocked __ Frame Maintenance Required __ Basin Undermined or Bypassed __ Cannot Remove Cover	__ Evidence of Dumping* __ Ditch Work __ Corrosion at Structure __ Erosion Around Structure __ Need Cement Around Grate __ Other*	__ None __ Construction Activity __ Erosion __ Material Storage __ Equipment Storage __ Other*	Yes No	
	__ Tree Work Required __ New Grate Required __ Pipe is Blocked __ Frame Maintenance Required __ Basin Undermined or Bypassed __ Cannot Remove Cover	__ Evidence of Dumping* __ Ditch Work __ Corrosion at Structure __ Erosion Around Structure __ Need Cement Around Grate __ Other*	__ None __ Construction Activity __ Erosion __ Material Storage __ Equipment Storage __ Other*	Yes No	
	__ Tree Work Required __ New Grate Required __ Pipe is Blocked __ Frame Maintenance Required __ Basin Undermined or Bypassed __ Cannot Remove Cover	__ Evidence of Dumping* __ Ditch Work __ Corrosion at Structure __ Erosion Around Structure __ Need Cement Around Grate __ Other*	__ None __ Construction Activity __ Erosion __ Material Storage __ Equipment Storage __ Other*	Yes No	
	__ Tree Work Required __ New Grate Required __ Pipe is Blocked __ Frame Maintenance Required __ Basin Undermined or Bypassed __ Cannot Remove Cover	__ Evidence of Dumping* __ Ditch Work __ Corrosion at Structure __ Erosion Around Structure __ Need Cement Around Grate __ Other*	__ None __ Construction Activity __ Erosion __ Material Storage __ Equipment Storage __ Other*	Yes No	

* Provide additional comments to describe the observations made for the category.

C3 – Standard Operating Procedure for Disposal of Drainage System Cleaning Residuals

Equipment and Materials

- Hand tools for moving and mixing soils (shovel, rake, etc.)
- Sampling containers if performing periodic soil sampling.

General Procedures

- Bring collected sediment to the Highway Garage for tracking and storage. Catch basin cleanings meeting NHDES Risk Characterization and Management Policy (RCMP) S-1 standards are stockpiled at the highway garage (see next section).
- Screen catch basin cleanings and mix with material removed from roadside ditches. If "clean", mix is then used as fill for town applications.
- If not reused immediately, catch basin residuals are stored in areas where stormwater could not transport wastes into the storm drain system, waterbodies or wetlands.
- Stockpiles are covered to reduce leaching during rain events.

Sampling and Documentation

- Every three years, the Town collects one representative composite soil sample from the catch basin residuals stockpile and performs a laboratory analysis to measure compliance with S-1 and S-3 soil standards as outlined in fact sheet WMD-SW-32 on Management of Street Wastes by NHDES provided in **Appendix F**.
- As long as test results are below concentrations identified in the included fact sheet, one representative composite sample is collected every three years to verify reuse criteria.
- Catch basin residuals that do not exceed S-1 soil standards are reused without restriction. Those that do not exceed S-3 are reused as parts of base and sub-base aggregates below paved surfaces. Should S-3 be exceeded, street wastes are disposed of at a landfill.
- Catch basin residuals that are obviously contaminated with wastewater, animal wastes, oil, gasoline, or other petroleum products must be tested pursuant to the hazardous waste determination requirements.

C4 – Standard Operating Procedure for Catch Basin Maintenance and Repair

Equipment and Materials

- Hand tools for accessing structures (manhole hook, pick, shovel, etc.).
- Measuring device (preferably a solid rod or stick) with one-inch increments.
- Maintenance report forms to document observations (Catch Maintenance/Repair Log, next page).
- Digital camera to help document unique observations that can be reviewed at a later date.

General Procedures

- Identify structures/equipment in need of repair during catch basin cleaning operations and prioritize need.
- Repair structures/equipment as soon as possible in order of prioritization.
- Never allow defective structures to go unrepaired.
- If necessary, notify residents and businesses of catch basin cleaning schedule to restrict parking and other requirements that could obstruct catch basin cleaning operations.
- Print Catch Maintenance/Repair Log on next page and complete as the catch basin maintenance is performed.
- Use appropriate erosion and sediment control practices when performing repairs.
- If necessary, remove sediment that might have entered downstream pipe.
- Bring collected sediment to the Highway Garage for tracking and storage (see SOP).

Documentation (Catch Maintenance/Repair Log on next page)

- Document any maintenance required (i.e. new grates, corrosion, erosion around structure, obstructions damaged roadway, etc.).
- Keep a record of the date the repair was performed and what was done to repair the issue. Use the Catch Basin Maintenance/Repair Log in Appendix C.

C5 - Catch Basin Maintenance/Repair Log

Structure ID	Location (Street Name, Approximate Address)	Inspection Date	Problem(s) Identified, Comments	Date of Maint/Repair	Type of Maintenance/Repair, Comments

Appendix D – Outfall Maintenance

D1 – Standard Operating Procedure for Outfall Inspection and Maintenance

D2 – Outfall Inspection Checklist

D3 – Outfall Maintenance/Repair Log

D1 – Standard Operating Procedure for Outfall Inspection & Maintenance

Equipment and Materials

- Measuring device (preferably a solid rod or stick) with one-inch increments.
- Maintenance report forms to document observations (Stormwater Outfall Inspection Checklist and Outfall Maintenance/Repair Log on following pages).
- Digital camera to help document unique observations that can be reviewed at a later date.

General Procedures

- Print maps and instructions for outfall maintenance assignments on the following pages.
- Conduct visual inspection of outfalls to evaluate the amount of sediment to be removed and determine the equipment that will be required to perform the work. Visual inspection will also help identify safety hazards or other issues that may hinder the cleaning operations.
- Measure depth from the top of accumulated sediment.
- Use a vactor truck, backhoe loader and/or hand tools to remove sand and debris where accumulation has occurred.
- Bring collected sediments to the Highway Garage.

Documentation

- Use Stormwater Outfall Inspection Checklist form to document all field observations, including date, weather conditions, location, sediment depth, sediment removed, deposits, structural condition, erodibility, vegetation, and algae growth.
- Document location and observations of hazardous materials. Report to the Road Agent so the materials can be properly tested and removed.
- Record potential sources of sediment or contaminants such as construction activities, erosion, excessive amounts of pet waste and material or equipment storage, if observed.
- Report areas where vegetation has been impacted so a follow-up visit can be scheduled to seed and/or restore the impacted area.
- Record observations for dry weather flow and document which pipe is the contributing source so follow-up observations and sampling can be completed.
- Use Outfall Maintenance/Repair Log to document all maintenance and repair activities.

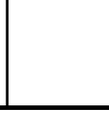
D2 - Outfall Inspection Checklist

Outfall ID# _____ Location Aid _____

Date:_____ Time:_____ Weather Today:_____

Surveyor/Observer:_____ Weather over past 72 hours:_____

Flow Observed (circle): YES NO

1. Flow Observations (fill out this section only if flow is observed)	**Pipe Flow Depth (inches) Note: measure from pipe invert**	**Channel, Ditch or Swale Flow Depth (inches) Note: measure from center of conveyance**	**Flow Appearance / Color**	**Flow Odor**	**Field Monitoring Data (note: fill in units for each parameter)**				**Comments and Notes**
					Turbidity	**Temperature**	**pH**	**Conductivity**	
	 _____ Depth	_____ Depth	__ Clear __ Cloudy/Milky __ Dark (Tea) __ Sheen __ Suspended sediment (opaque) __ Other *	__ None __ Chemical __ Petroleum __ Sewage __ Other *					

2. Structure Details (pipe or other conveyance info.)	**Pipe Material**	**Pipe Condition**	**Channel, Ditch or Swale Condition**	**Diameter or Width (specify distance units)**	**Slope (degrees)**	**Outlet Structure**	**GPS Coordinates**	**Discharge directly to surface water?****	**Comments and Notes**
	__ Clay __ Concrete __ Corrugated Steel __ PVC __ Cast Iron __ HDPE __ Steel (DI)	__ Good __ Cracked __ Exposed Steel __ Corroded __ Other*	__ Good __ Clogged __ Debris __ Scoured or Eroded __ Other*		__ Flat __ Moderate __ Steep	__ Headwall __ Riprap __ Flared End __ No Outlet Protection __ Other*	_____Lat. _____Lon.	__ Yes __ No If Yes, Provide Receiving Water Name	

3. Outfall Observations (general conditions at outfall)	**Deposits**	**Surrounding Vegetation**	**Erodibility**	**Land Use at Outfall**	**Land Use Upstream of Outfall**	**Appearance / Color**	**Odor**	**Sediment Depth (inches) (if present)**	**Comments and Notes**
	__ None __ Grease/Oil __ Paper/Trash __ Foam __ Heavy sediment deposits __ Other *	__ Little or No Distress __ Moderate Distress __ High Distress	__ Little or No Erosion __ Small Areas of Erosion __ Many Eroded Areas	__ Forest __ Agriculture __ Residential __ Commercial __ Industrial __ Waterbody __ Detention Pond/Basin	__ Forest __ Agriculture __ Residential __ Commercial __ Industrial	__ Clear __ Cloudy/Milky __ Dark (Tea) __ Sheen __ Suspended sediment (opaque) __ Other *	__ None __ Chemical __ Petroleum __ Sewage __ Other *		

4. Laboratory Analysis (check if submitted)	**Surfactant**	**Ammonia Concentration**	**E. coli**	**Oil & Grease (if oil or sheen is observed)**	**VOCs (if solvent odor is present)**	**Additional Field Comments and Notes**

Notes:

* Provide additional comments to describe the observations made for the category.

** Discharges directly to surface waters are defined as: any conveyance or discernable concentrated flow (i.e., pipe, swale, ditch) other than overland sheet flow that enters a body of water.

D3 - Outfall Maintenance/Repair Log

Structure ID	Location (Street Name, Approximate Address)	Inspection Date	Problem(s) Identified, Comments	Date of Maint/Repair	Type of Maintenance/Repair, Comments

Appendix E – Structural BMP Maintenance

E1 – Standard Operating Procedure for BMP Inspection and Maintenance
E2 – Structural Stormwater BMP Inspection Checklist
E3 – Structural Stormwater BMP Maintenance/Repair Log
E4 – Swale Inspection and Maintenance Log
E5 – Raingarden Inspection and Maintenance Log
E6 – Forebay/Sediment Trap Inspection and Maintenance Log
E7 – Dry Detention Pond / Infiltration Basin Inspection and Maintenance Log
E8 – Wet Pond Inspection and Maintenance Log
E9 – Sub-Surface Infiltration System Inspection and Maintenance Log
E10 – Proprietary Unit Inspection and Maintenance Log
E11 – Leaching Catch Basin / Drywell Inspection and Maintenance Log

E1 – Standard Operating Procedure for BMP Inspection & Maintenance

Equipment and Materials

- Measuring device (preferably a solid rod or stick) with one-inch increments.
- Maintenance report forms to document observations (Structural Stormwater BMP Inspection Checklist and Structural Stormwater BMP Maintenance/Repair Log on following pages).
- Digital camera to help document unique observations that can be reviewed at a later date.

General Procedures

- Print maps and instructions for BMP maintenance assignments on the following pages.
- Conduct visual inspection of BMPs to evaluate the amount of sediment to be removed and determine the equipment that will be required to perform the work. Visual inspection will also help identify safety hazards or other issues that may hinder the cleaning operations.
- Measure depth from the top of accumulated sediment.
- Use a vactor truck, backhoe loader and/or hand tools to remove sand and debris where accumulation has occurred.
- Bring collected sediments to the Highway Garage.
- Perform other maintenance specific to BMP type and maintenance instructions. This may include removal of invasive species, removal of dead vegetation, pruning, mowing, mulching, replacement of media and vegetation.

Documentation

- Use Structural Stormwater BMP Inspection Checklist and BMP-specific inspection and maintenance logs to document all field observations, including date, weather conditions, location, sediment depth, sediment removed, deposits, structural condition, erodibility, vegetation, and algae growth.
- Document location and observations of hazardous materials. Report to the Road Agent so the materials can be properly tested and removed.
- Record potential sources of sediment or contaminants such as construction activities, erosion, excessive amounts of pet waste and material or equipment storage, if observed.
- Report areas where vegetation has been impacted so a follow-up visit can be scheduled to seed and/or restore the impacted area.
- Use Structural Stormwater BMP Maintenance/Repair Log to document all maintenance and repair activities.

E2 - Structural Stormwater BMP Inspection Checklist

BMP ID #	Type of BMP	Does BMP appear to be working properly?	Is maintenance required?	Maintenance Access	Sediment Accumulation	Sediment Depth	Deposits	Structural Condition	Erodibility	Vegetation	Comments
	__ Leaching Catch Basin __ Proprietary Unit __ Swale __ Detention Pond __ Forebay __ Other*	__ Yes __ No*	__ Yes __ No	__ Easy __ Moderate __Difficult	__ None __ Slight build up __ Heavy build up	______ inches	__ None __ Grease/Oil __ Grass Clippings/Compost __ Trash/Debris __ Other*	__ N/A __ Good __ Corroded __ Cracked __ Exposed Steel __ Other*	__ N/A __ None __ Channeling/Depressions __ Bank Erosion __ Displaced Riprap __ Other*	__ N/A __ No Distress __ Distressed __ Sparse __ Undesirable Woody	
	__ Leaching Catch Basin __ Proprietary Unit __ Swale __ Detention Pond __ Forebay __ Other*	__ Yes __ No*	__ Yes __ No	__ Easy __ Moderate __Difficult	__ None __ Slight build up __ Heavy build up	______ inches	__ None __ Grease/Oil __ Grass Clippings/Compost __ Trash __ Other*	__ N/A __ Good __ Corroded __ Cracked __ Exposed Steel __ Other*	__ N/A __ None __ Channeling/Depressions __ Bank Erosion __ Displaced Riprap __ Other*	__ N/A __ No Distress __ Distressed __ Sparse __ Undesirable Woody	
	__ Leaching Catch Basin __ Proprietary Unit __ Swale __ Detention Pond __ Forebay __ Other*	__ Yes __ No*	__ Yes __ No	__ Easy __ Moderate __Difficult	__ None __ Slight build up __ Heavy build up	______ inches	__ None __ Grease/Oil __ Grass Clippings/Compost __ Trash __ Other*	__ N/A __ Good __ Corroded __ Cracked __ Exposed Steel __ Other*	__ N/A __ None __ Channeling/Depressions __ Bank Erosion __ Displaced Riprap __ Other*	__ N/A __ No Distress __ Distressed __ Sparse __ Undesirable Woody	
	__ Leaching Catch Basin __ Proprietary Unit __ Swale __ Detention Pond __ Forebay __ Other*	__ Yes __ No*	__ Yes __ No	__ Easy __ Moderate __Difficult	__ None __ Slight build up __ Heavy build up	______ inches	__ None __ Grease/Oil __ Grass Clippings/Compost __ Trash __ Other*	__ N/A __ Good __ Corroded __ Cracked __ Exposed Steel __ Other*	__ N/A __ None __ Channeling/Depressions __ Bank Erosion __ Displaced Riprap __ Other*	__ N/A __ No Distress __ Distressed __ Sparse __ Undesirable Woody	
	__ Leaching Catch Basin __ Proprietary Unit __ Swale __ Detention Pond __ Forebay __ Other*	__ Yes __ No*	__ Yes __ No	__ Easy __ Moderate __Difficult	__ None __ Slight build up __ Heavy build up	______ inches	__ None __ Grease/Oil __ Grass Clippings/Compost __ Trash __ Other*	__ N/A __ Good __ Corroded __ Cracked __ Exposed Steel __ Other*	__ N/A __ None __ Channeling/Depressions __ Bank Erosion __ Displaced Riprap __ Other*	__ N/A __ No Distress __ Distressed __ Sparse __ Undesirable Woody	
	__ Leaching Catch Basin __ Proprietary Unit __ Swale __ Detention Pond __ Forebay __ Other*	__ Yes __ No*	__ Yes __ No	__ Easy __ Moderate __Difficult	__ None __ Slight build up __ Heavy build up	______ inches	__ None __ Grease/Oil __ Grass Clippings/Compost __ Trash __ Other*	__ N/A __ Good __ Corroded __ Cracked __ Exposed Steel __ Other*	__ N/A __ None __ Channeling/Depressions __ Bank Erosion __ Displaced Riprap __ Other*	__ N/A __ No Distress __ Distressed __ Sparse __ Undesirable Woody	
	__ Leaching Catch Basin __ Proprietary Unit __ Swale __ Detention Pond __ Forebay __ Other*	__ Yes __ No*	__ Yes __ No	__ Easy __ Moderate __Difficult	__ None __ Slight build up __ Heavy build up	______ inches	__ None __ Grease/Oil __ Grass Clippings/Compost __ Trash __ Other*	__ N/A __ Good __ Corroded __ Cracked __ Exposed Steel __ Other*	__ N/A __ None __ Channeling/Depressions __ Bank Erosion __ Displaced Riprap __ Other*	__ N/A __ No Distress __ Distressed __ Sparse __ Undesirable Woody	
	__ Leaching Catch Basin __ Proprietary Unit __ Swale __ Detention Pond __ Forebay __ Other*	__ Yes __ No*	__ Yes __ No	__ Easy __ Moderate __Difficult	__ None __ Slight build up __ Heavy build up	______ inches	__ None __ Grease/Oil __ Grass Clippings/Compost __ Trash __ Other*	__ N/A __ Good __ Corroded __ Cracked __ Exposed Steel __ Other*	__ N/A __ None __ Channeling/Depressions __ Bank Erosion __ Displaced Riprap __ Other*	__ N/A __ No Distress __ Distressed __ Sparse __ Undesirable Woody	

* Provide additional comments to describe the observations made for the category.

E3 - Structural Stormwater BMP Maintenance/Repair Log

BMP ID	Location	BMP Type	Date of Maint/ Repair	Type of Maint/ Repair	Depth of Material Removed (inches)	Volume of Material Removed (cubic yards)	Disposal Location	Maintained By:	Comments

BMP Types: 1) bioretention/rain garden; 2) constructed wetland; 3) detention basin; 4) media filter; 5) wet basin; 6) dry well; 7) infiltration basin; 8) vegetated swale; 9) proprietary BMP; 10) underground chamber

Type of Maintenance/Repair: 1) Sediment removal 2) Debris and litter removal 3) Mowing/landscaping care 4) Replace or replenish saturated soils and/or bark mulch and/or filter materials 5) Structural integrity repair 6) Aquatic plant management; 7) Other

E4 - Swale Inspection and Maintenance Log

Unique ID: _____ Location: _____

Inspection and Maintenance Requirements of a Swale BMP			
Procedure	**Objective**	**Time of Year**	**Frequency**
Mowing and Vegetation	Minimize woody vegetation establishment/ takeover.	Spring through Fall	Mow yearly: remove mowed material/clippings every other year.
Debris and Litter	Remove for aesthetics and contribution of downstream floatables problem.	Year round	As needed by inspection. Not less than twice per year (Spring and Fall).
Sediment Removal	Maintain flow capacity. Inspect and remove sediment, particularly at pipe discharge.	Year round	Inspect quarterly for the first year. Establish a specific schedule based on first year accumulations.
Structural Integrity	Minimize erosion and channelization of stormwater. Inspect swale for signs of scouring, particularly near high	Year round	After large storms (2.5 inches of rainfall), but not less than twice per year.

(See Reverse Side)

Swale Inspection and Maintenance Log

Unique ID: _____

Inspection Record for Swale at Site:									
Date of Inspection	Inspected By	Does BMP appear to be working properly?	Is maintenance required?	Maximum Sediment Depth (inches)	Deposits	Erodibilty	Vegetation	Inlet Pipes	Outlet Pipes
		Yes No	Yes No		- None - Grease/Oil - Grass Clippings/ Compost - Trash/Debris - Other	- None - Channeling/ Depressions - Bank Erosion - Displaced Riprap - Other	- No Distress - Distressed - Sparse - Undesirable Woody Plants	- Good Condition - Cracked - Exposed Steel - Corroded	- Good Condition - Cracked - Exposed Steel - Corroded
Comments									

Maintenance Record			
Date(s) of Maintenance		Maintained By	
Date of Previous Maintenance		Material Hauled Away By	
Types of Maintenance*		Material Sent To	
Depth of Material Removed		Comments	
Volume of Material			
Material Description			

*Types of Maintenance: 1) Mowing and Vegetation 2) Landscaping and Vegetation 3) Debris and Litter Removal 4) Sediment Removal 5) Structural Integrity 6) Aquatic Plant Management 7) Water Level Inspection

E5 - Raingarden Inspection and Maintenance Log

Unique ID: _____ Location: _____

Inspection and Maintenance Requirements of a Raingarden BMP			
Procedure	**Objective**	**Time of Year**	**Frequency**
Landscaping and Vegetation	Minimize weedy vegetation establishment/ takeover. Trim vegetation and remove weeds. Maintain mulch layer to retain soil moisture. Divide plants as needed to avoid	Year round	At least twice per year (Spring and Fall). Apply mulch layer in Spring and as needed.
Invasive Species	Inspect for invasive species and remove if present	Year round	Inspect quarterly for the first year. Not less than twice per year (Spring and Fall).
Debris and Litter Removal	Remove for aesthetics and contribution of downstream floatables problem.	Year round	As needed by inspection. Not less than twice per year (Spring and Fall).
Sediment Removal	Maintain flow capacity. Inspect and remove sediment, particularly at pipe discharge.	Year round	Inspect quarterly for the first year. Establish a specific schedule based on first year accumulations.
Structural Integrity	Minimize erosion and channelization of stormwater. Inspect for signs of scouring, particularly near high	Year round	After large storms (2.5 inches of rainfall), but not less than twice per year.

(See Reverse Side)

Raingarden Inspection and Maintenance Log

Unique ID: _____

Inspection Record for the Raingarden at Site:									
Date of Inspection	Inspected By	Does BMP appear to be working properly?	Is maintenance required?	Maximum Sediment Depth (inches)	Deposits	Erodibilty	Vegetation	Inlet Pipes	Outlet Pipes
		Yes No	Yes No		- None - Grease/Oil - Grass Clippings/ Compost - Trash/Debris - Other	- None - Channeling/ Depressions - Bank Erosion - Displaced Riprap - Other	- No Distress - Distressed - Sparse - Undesirable Woody Plants	- Good Condition - Cracked - Exposed Steel - Corroded	- Good Condition - Cracked - Exposed Steel - Corroded
Comments									

Maintenance Record			
Date(s) of Maintenance		Maintained By	
Date of Previous Maintenance		Material Hauled Away By	
Type of Maintenance*		Material Sent To	
Depth of Material Removed		Comments	
Volume of Material Removed			
Material Description			

*Types of Maintenance: 1) Mowing and Vegetation 2) Landscaping and Vegetation 3) Debris and Litter Removal 4) Sediment Removal 5) Structural Integrity 6) Aquatic Plant Management 7) Water Level Inspection

E6 - Forebay/Sediment Trap Inspection and Maintenance Log

Unique ID: _____ Location: _____

Inspection and Maintenance Requirements of a Forebay/Sediment Trap BMP			
Procedure	**Objective**	**Time of Year**	**Frequency**
Inspect Basin	Inspect for problems	Spring and Fall	Bi-annually, and during and after major storms
Mowing and Vegetation	Minimize woody vegetation establishment/ takeover.	Spring and Fall	Mow yearly: remove mowed material/clippings every other year.
Debris and Litter	Remove for aesthetics and contribution of downstream floatables problem.	Spring and Fall	As needed by inspection. Not less than twice per year (Spring and Fall).
Sediment Removal	Maintain flow capacity. Inspect and remove sediment, particularly at pipe discharge.	Year round	Inspect quarterly for the first year. Establish a specific schedule based on first year accumulations. At least once every 5 years.
Structural Integrity	Minimize erosion and channelization of stormwater. Inspect for signs of scouring, particularly near high	Year round	After large storms (2.5 inches of rainfall), but not less than twice per year.

(See Reverse Side)

Forebay/Sediment Trap Inspection and Maintenance Log

Unique ID: _____

Inspection Record for Forebay Sediment Trap at Site:									
Date of Inspection	Inspected By	Does BMP appear to be working properly?	Is maintenance required?	Maximum Sediment Depth (inches)	Deposits	Erodibilty	Vegetation	Inlet Pipes	Outlet Pipes
		Yes No	Yes No		- None - Grease/Oil - Grass Clippings/ Compost - Trash/Debris - Other	- None - Channeling/ Depressions - Bank Erosion - Displaced Riprap - Other	- No Distress - Distressed - Sparse - Undesirable Woody Plants	- Good Condition - Cracked - Exposed Steel - Corroded	- Good Condition - Cracked - Exposed Steel - Corroded
Comments									

Maintenance Record			
Date(s) of Maintenance		Maintained By	
Date of Previous Maintenance		Material Hauled Away By	
Type of Maintenance*		Material Sent To	
Depth of Material Removed		Comments	
Volume of Material			
Material Description			

*Types of Maintenance: 1) Mowing and Vegetation 2) Landscaping and Vegetation 3) Debris and Litter Removal 4) Sediment Removal 5) Structural Integrity 6) Aquatic Plant Management 7) Water Level Inspection

E7 - Dry Detention Pond / Infiltration Basin Inspection and Maintenance Log

Unique ID: _____ Location: _____

Inspection and Maintenance Requirements of a Dry Detention Pond BMP			
Procedure	**Objective**	**Time of Year**	**Frequency**
Inspect Basin	Inspect for problems	Spring and Fall	Bi-annually, and during and after major storms
Mowing and Vegetation	Minimize woody vegetation establishment/ takeover.	Spring and Fall	Mow yearly: remove mowed material/clippings every other year.
Debris and Litter Removal	Remove for aesthetics and contribution of downstream floatables problem.	Spring and Fall	As needed by inspection. Not less than twice per year (Spring and Fall).
Sediment Removal	Maintain flow capacity. Inspect and remove sediment, particularly at pipe discharge.	Year round	Inspect quarterly for the first year. Establish a specific schedule based on first year accumulations.
Structural Integrity	Minimize erosion and channelization of stormwater. Inspect for signs of scouring, particularly near high	Year round	After large storms (2.5 inches of rainfall), but not less than twice per year.

(See Reverse Side)

Dry Detention Pond Inspection and Maintenance Log

Unique ID: _____

Inspection Record for Dry Detention Pond at Site:									
Date of Inspection	Inspected By	Does BMP appear to be working properly?	Is maintenance required?	Maximum Sediment Depth (inches)	Deposits	Erodibilty	Vegetation	Inlet Pipes	Outlet Pipes
		Yes No	Yes No		- None - Grease/Oil - Grass Clippings/ Compost - Trash/Debris - Other	- None - Channeling/ Depressions - Bank Erosion - Displaced Riprap - Other	- No Distress - Distressed - Sparse - Undesirable Woody Plants	- Good Condition - Cracked - Exposed Steel - Corroded	- Good Condition - Cracked - Exposed Steel - Corroded
Comments									

Maintenance Record			
Date(s) of Maintenance		Maintained By	
Date of Previous Maintenance		Material Hauled Away By	
Type of Maintenance*		Material Sent To	
Depth of Material Removed		Comments	
Volume of Material			
Material Description			

*Types of Maintenance: 1) Mowing and Vegetation 2) Landscaping and Vegetation 3) Debris and Litter Removal 4) Sediment Removal 5) Structural Integrity 6) Aquatic Plant Management 7) Water Level Inspection

E8 - Wet Detention Pond Inspection and Maintenance Log

Unique ID: _____ Location: _____

Inspection and Maintenance Requirements of a Wet Detention Pond BMP			
Procedure	**Objective**	**Time of Year**	**Frequency**
Inspect Basin	Inspect for problems	Spring and Fall	Bi-annually, and during and after major storms
Mowing and Vegetation	Minimize woody vegetation establishment/ takeover.	Spring and Fall	Mow yearly: remove mowed material/clippings every other year.
Debris and Litter Removal	Remove for aesthetics and contribution of downstream floatables problem.	Spring and Fall	As needed by inspection. Not less than twice per year (Spring and Fall).
Sediment Removal	Maintain flow capacity. Inspect and remove sediment particularly at pipe discharge.	Year round	Inspect quarterly for the first year. Establish a specific schedule based on first year accumulations.
Structural Integrity	Minimize erosion and channelization of stormwater. Inspect wet detention pond for signs of scouring particularly near	Year round	After large storms (2.5 inches of rainfall), but not less than twice per year.
Aquatic Plant Management	Removal of nuisance species. Thin and transport plants to maintain good vegative cover. Monitor for mosquitoes.	Spring	Once per year. Monitor mosquitoes as needed.

(See Reverse Side)

Wet Detention Pond Inspection and Maintenance Log

Unique ID: _____

Inspection Record for Wet Detention Pond at Site:									
Date of Inspection	Inspected By	Does BMP appear to be working properly?	Is maintenance required?	Maximum Sediment Depth (inches)	Deposits	Erodibilty	Vegetation	Inlet Pipes	Outlet Pipes
		Yes No	Yes No		- None - Grease/Oil - Grass Clippings/ Compost - Trash/Debris - Other	- None - Channeling/ Depressions - Bank Erosion - Displaced Riprap - Other	- No Distress - Distressed - Sparse - Undesirable Woody Plants - Nuisance/Exotic Species	- Good Condition - Cracked - Exposed Steel - Corroded	- Good Condition - Cracked - Exposed Steel - Corroded
Comments									

Maintenance Record			
Date(s) of Maintenance		Maintained By	
Date of Previous Maintenance		Material Hauled Away By	
Type of Maintenance*		Material Sent To	
Depth of Material Removed		Comments	
Volume of Material Removed			
Material Description			

*Types of Maintenance: 1) Mowing and Vegetation 2) Landscaping and Vegetation 3) Debris and Litter Removal 4) Sediment Removal 5) Structural Integrity 6) Aquatic Plant Management 7) Water Level Inspection

E9 - Sub-Surface Infiltration System Inspection and Maintenance Log

Unique ID: _____ Location: _____

Inspection and Maintenance Requirements of a Sub-Surface Infiltration System BMP			
Procedure	**Objective**	**Time of Year**	**Frequency**
Sediment Removal	Maintain flow capacity. Inspect and remove sediment, particularly at inlet areas.	Year round	Inspect quarterly for the first year. Establish a specific schedule based on first year accumulations.
Structural Integrity	Inspect unit for signs of deteriorationg construction. Inspect filters if present.	Year round	Inspect annually.
Water Level Inspection	Inspect water level in unit. System should be drained completely 72 hours after a storm event.	Spring and Fall	At a minimum inspect twice a year at least 72 hours after storm events.

(See Reverse Side)

Sub-Surface Infiltration System Inspection and Maintenance Log

Unique ID: _____

Inspection Record for Sub-Surface Infiltration System at Site:								
Date of Inspection	Inspected By	Does BMP appear to be working properly?	Is maintenance required?	Maximum Sediment Depth (inches)	Deposits	Inlet Pipes	Outlet Pipes	Odor
		Yes No	Yes No		- None - Grease/Oil - Trash/ Debris - Other	- Good Condition - Cracked - Exposed Steel - Corroded	- Good Condition - Cracked - Exposed Steel - Corroded	- None - Chemical - Petroleum - Sewage - Other
Comments								

Maintenance Record			
Date(s) of Maintenance		Maintained By	
Date of Previous Maintenance		Material Hauled Away By	
Type of Maintenance*		Material Sent To	
Depth of Material Removed		Comments	
Volume of Material			
Material Description			

*Types of Maintenance: 1) Mowing and Vegetation 2) Landscaping and Vegetation 3) Debris and Litter Removal 4) Sediment Removal 5) Structural Integrity 6) Aquatic Plant Management 7) Water Level Inspection

E10 - Proprietary Unit Inspection and Maintenance Log

Unique ID: _____ Location: _____

Inspection and Maintenance Requirements of a Proprietary Unit BMP			
Procedure	**Objective**	**Time of Year**	**Frequency**
Sediment Removal	Maintain flow capacity. Inspect and remove sediment, particularly at pipe discharge.	Year round	Inspect quarterly for the first year. Establish a specific schedule based on first year accumulations.
Structural Integrity	Inspect unit for signs of deteriorating masonry. Inspect filters if present.	Year round	Inspect annually.

(See Reverse Side)

Proprietary Unit Inspection and Maintenance Log

Unique ID: _____

Inspection Record for Proprietary Unit at Site:								
Date of Inspection	Inspected By	Does BMP appear to be working properly?	Is maintenance required?	Maximum Sediment Depth (inches)	Deposits	Inlet Pipes	Outlet Pipes	Odor
		Yes No	Yes No		- None - Grease/Oil - Trash/ Debris - Other	- Good Condition - Cracked - Exposed Steel - Corroded	- Good Condition - Cracked - Exposed Steel - Corroded	- None - Chemical - Petroleum - Sewage - Other
Comments								

Maintenance Record			
Date(s) of Maintenance		Maintained By	
Date of Previous Maintenance		Material Hauled Away By	
Types of Maintenance*		Material Sent To	
Depth of Material Removed		Comments	
Volume of Material			
Material Description			

*Types of Maintenance: 1) Mowing and Vegetation 2) Landscaping and Vegetation 3) Debris and Litter Removal 4) Sediment Removal 5) Structural Integrity 6) Aquatic Plant Management 7) Water Level Inspection

E11 - Leaching Catch Basin / Drywell Inspection and Maintenance Log

Unique ID: _____ Location: _____

Inspection and Maintenance Requirements of a Leaching Catch Basin BMP			
Procedure	**Objective**	**Time of Year**	**Frequency**
Sediment Removal	Maintain flow capacity. Inspect and remove sediment, particularly at pipe discharge.	Year round	Inspect quarterly for the first year. Establish a specific schedule based on first year
Structural Integrity	Inspect leaching catch basin for signs of deterioration of masonry.	Year round	Inspect annually.

(See Reverse Side)

Leaching Catch Basin Inspection and Maintenance Log

Unique ID: _____

Inspection Record for Leaching Catch Basin at Site:							
Date of Inspection	Inspected By	Does BMP appear to be working properly?	Is maintenance required?	Maximum Sediment Depth (inches)	Deposits	Inlet Pipes	Odor
		Yes No	Yes No		- None - Grease/Oil - Trash/ Debris - Other	- Good Condition - Cracked - Exposed Steel - Corroded	- None - Chemical - Petroleum - Sewage - Other
Comments							

Maintenance Record			
Date(s) of Maintenance		Maintained By	
Date of Previous Maintenance		Material Hauled Away By	
Types of Maintenance*		Material Sent To	
Depth of Material Removed		Comments	
Volume of Material			
Material Description			

*Types of Maintenance: 1) Mowing and Vegetation 2) Landscaping and Vegetation 3) Debris and Litter Removal 4) Sediment Removal 5) Structural Integrity 6) Aquatic Plant Management 7) Water Level Inspection

Appendix F – Winter Operations

F1 – Standard Operating Procedure for Snow Removal
F2 – Standard Operating Procedure for Snow Stockpiling
F3 – Standard Operating Procedure for Sand and Salt Storage

F1 – Standard Operating Procedure for Snow Plowing

Equipment and Materials

- Snow plows and trucks.

General Procedures

- Remove snow on an as-needed basis as dictated by weather patterns
- When a storm approaches during daylight hours, the procedure is to sand/salt all the main thru roads within the Town excluding Route 111-A (a state highway) until enough snow has accumulated to plow and remove snow from all streets.
- When plowing operations commence the highway department does not sand/salt until the storm is over and bare pavement exposed within 48 hours unless extreme cold temperature conditions or ice exist.
- If a snow storm approaches during late night hours (9 PM or after) the highway department will not start with a sand/salt procedure, but will wait until the snow is plowable. At worst case, the department will begin to sand/salt and plow at 3 AM for the morning commute.
- Remove trash/waste from snow disposal areas prior to using the site for snow disposal.
- Remove trash/waste from snow disposal areas as soon as possible after snow melt.

F2 – Standard Operating Procedure for Snow Stockpiling

Equipment and Materials

- Snow plows, trucks and loaders.

General Procedures

- Due to the relatively undeveloped and rural nature of Danville, the Town does not currently use a dedicated snow dump or stockpile location. Snow is plowed from roadways to the sides of the road where it is left to melt in roadside ditches or other pervious, vacant locations.
- If it is determined that a snow dump or stockpile location is needed, the following program changes may be undertaken:
    - Identify sensitive ecosystem prior to disposal and avoid snow disposal in these areas.
    - Remove trash/waste from snow disposal areas prior to using the site for snow disposal.
    - Remove trash/waste from snow disposal areas as soon as possible after snow melt.
    - Store snow on areas above groundwater level, on a flat, vegetate slope.
    - Securely place a silt fence or equivalent barrier on the down gradient side of a snow disposal site. A vegetated earthen berm is a suitable alternative.
    - Maintain a 100-foot vegetative or wooded buffer strip during the growth season between the disposal site and adjacent water bodies to filter pollutants out of the melt water.
    - Do not dump snow into any water body, including rivers, streams, ponds, or wetlands. In addition to water quality impacts and flooding, snow disposed in open water can cause navigational hazards when it freezes into ice blocks.
    - Do not dump snow on top of storm drain catch basins or in stormwater drainage swales or ditches. Snow combined with sand and debris may block a storm drainage system, cause localized flooding and can also be transported through the system into surface water.
    - Do not dump snow within a Zone II or Interim Wellhead Protection Area (IWPA) of a public water supply well or within 75 feet of a private well, where road salt may contaminate water supplies.

F3 – Standard Operating Procedure for Sand and Salt Storage

Equipment and Materials

- Snow plows, trucks and loaders.

General Procedures

- Apply sand/salt mixes to roadways as necessary. The timing and duration of sand/salt applications is based on the current and forecasted weather conditions.
- The Road Agent is in charge of winter road operations during storms and instructs drivers on what and how to apply mixes in town.
- Sand/salt spreaders can be adjusted to vary the rate of application and width of the application path to meet changing weather conditions and differing road characteristics.
- Salt and sand are stored in a two-bay lean-to structure with separate bays for each.
- ACTIV-8 used to prevent icing is also stored in a separate lean-to bay.
- Cover sand/salt and salt piles with a tarp (polyethylene) when not actively in use.
- Locate piles on an impervious surface away from areas subject to flooding.
- Contain stormwater runoff from areas where salt is stored by using buffers to diffuse runoff before entering waterbodies. Use diversion berms to minimize run-on to storage areas.
- Cleanup "track out" after storm events.
- Never dispose of wash water from sanding and salting trucks into the storm drain system, a waterbody or septic system drain fields.
- The Town is currently contributing capital funds on an annual basis towards a Highway Sand/Salt Storage Building Capital Reserve Fund, with a goal of constructing a building capable of storing all sand and salt, as well as cover vehicle loading operations.
- Register all new sand/salt storage areas with the NHDES.
- Have the NHDES review your snow storage/disposal location(s).

Appendix G – NHDES Fact Sheet WMD-SW-32, Management of Street Wastes

ENVIRONMENTAL
Fact Sheet

NEW HAMPSHIRE DEPARTMENT OF Environmental Services

29 Hazen Drive, Concord, New Hampshire 03301 • (603) 271-3503 • www.des.nh.gov

WMD-SW-32 2009

Management of Street Wastes

This fact sheet describes the requirements applicable to the disposal or reuse of street sweepings, roadside ditch cleanup soils, and catch basin cleanings, collectively referred to as "street wastes." RSA 149-M requires that solid waste be disposed of at a facility permitted to accept the material. These soils have the potential to be contaminated with petroleum hydrocarbons, road salt, trash, litter, animal waste, or other solid waste, and therefore need to be managed appropriately. Waiver Approval DES-SW-WV-06-001, attached, allows for the disposal or utilization of street wastes in accordance with this fact sheet.

DISPOSAL

Street wastes that **are** obviously contaminated with wastewater, animal wastes, oil, gasoline, or other petroleum products must be tested pursuant to the hazardous waste determination requirements in Env-Hw 502 of the NH Hazardous Waste Rules. Contamination is determined by visual and/or olfactory examination.

- If determined to be non-hazardous, these soils may be disposed of at any permitted, lined solid waste landfill or other solid waste treatment facility permitted to accept the material.
- If determined to be hazardous, these soils must be disposed of in accordance with NH Hazardous Waste Rules, Env-Hw 100-1000.

Street wastes that **are not** obviously contaminated with wastewater, animal wastes, oil, gasoline or other petroleum products may be taken without testing directly to any permitted solid waste landfill for disposal or deposited for use as daily cover. Contamination is determined by visual and/or olfactory examination. Any material used for daily cover must meet the performance objectives found in Env-Sw 806.03 of the New Hampshire Solid Waste Rules.

REUSE

Street wastes that **are not** obviously contaminated with wastewater, animal wastes, oil, gasoline, or other petroleum products may be reused as described below. Contamination is determined by visual and/or olfactory examination. Prior to reuse, trash, leaves, and other debris should be removed. This is often accomplished by screening, but other methods may also be used.

Street Sweepings and Roadside Ditch Cleanup Soils

Street sweepings and roadside ditch cleanup soils may be reused without restriction.

Catch Basin Cleanings

Catch basin cleanings may be reused in any of the following ways if they are tested and any contaminants do not exceed the concentrations listed on the attached table:

- Cleanings may be reused in the production of base and sub-base aggregate for the construction of a paved roadways and parking lots, if they do not exceed Department of Environmental Services Risk Characterization and Management Policy (RCMP) S-3 soil standards as listed in the attached table.

- Cleanings may be reused without restriction if they do not exceed RCMP S-1 soil standards as listed in the attached table.

Catch basin cleanings must be stockpiled in a manner to prevent erosion and release to the environment until test results are known. Annual testing of one representative, composite sample for an initial period of two years shall be required. The composite sample must be representative of the soils being tested. At least five to 10 samples should be taken from different locations around the pile and at varying depths between 25 cm and 1 meter. Composite samples must be thoroughly mixed in a large container to provide a representative sample of the pile. Laboratory staff should be consulted to determine the amount of soil required to carry out the analyses.

For as long as test results are below the concentrations identified in the attached table, sample frequency may be reduced to one representative, composite sample, every three years.

For More Information

For more information, contact the N.H. Department of Environmental Services Waste Management Division, PO Box 95, 29 Hazen Drive, Concord, NH 03302-0095; (603) 271-2925.

NEW HAMPSHIRE DEPARTMENT OF
Environmental Services

WAIVER APPROVAL

as authorized by the
NH Department of Environmental Services, Waste Management Division (Department)
pursuant to RSA 149-M and Part Env-Sw 202 of the New Hampshire Solid Waste Rules (Rules)

I. APPLICABILITY:
Waiver Approval No.: DES-SW-WV-06-001
This waiver applies to the Management of Street Wastes in the State of New Hampshire
Related Regulatory Activity: Management of Street Wastes

II. FILE REFERENCE/RECORD OF APPLICATION:
Date(s) Received: N/A
WMD Log #(s): N/A

III. SECTION OF RULES BEING WAIVED:
Env-Sw 903.05(d)

IV. TERMS AND CONDITIONS:
Management of Street Wastes Fact Sheet

V. EFFECTIVE DATE/DURATION OF WAIVER: Effective from the date of signature below.

VI. AUTHORIZATION: This approval shall grant a waiver to the requirements set forth in the rule cited in Section III above, as it would relate to the facility or activity specified in Section I above. Such waiver shall be valid for the period of time set forth in Section V above. This waiver is subject to any terms and conditions which may be specified in Section IV above.

BY EXERCISING ANY RIGHTS UNDER THIS AUTHORIZATION, THE APPLICANT HAS AGREED TO ALL TERMS AND CONDITIONS. Failure to comply with the terms and conditions could result in civil or criminal penalties, suspension or revocation of this approval or any permit to which it may apply. No liability is incurred by the State of New Hampshire by reason of any approval of this waiver or the facility to which it may relate. Approval by the Department is based on information supplied by the applicant. No warranty/guarantee is intended or implied by reason of any advice given by the Department or its staff.

This approval shall not eliminate the applicant's obligation to obtain all requisite federal, state or local permits, licenses or approvals, or to comply with all other applicable federal, state, district and local permits, ordinances, laws, approvals or conditions relating to the approved activity.

Anthony P. Giunta, P.G., Director
Waste Management Division

May 23, 2006
Date

Contact the Waste Management Division, 29 Hazen Drive, Concord, N.H. 03301 [telephone (603)-271-2900] if there are questions.

Catch Basin Cleanings
Reuse Guidance

Maximum Contaminant Concentrations			
Regulated Contaminant	S-1 Standards (mg/kg)	S-3 Standards (mg/kg)	USEPA SW-846 Test Method
Metals			
Arsenic	11	11	6010B
Barium	750	3,400	6010B
Cadmium	32	230	6010B
Chromium	1,000	5,000	6010B
Lead	400	400	6010B
Mercury	13	13	7471A
Selenium	260	260	6010B
Silver	45	200	6010B
VOCs			
Benzene	0.3	0.3	8260B
Dichloroethane, 1,2-	0.1	0.1	8260B
Isopropyl benzene	123	123	8260B
Methyl-t-butyl ether	0.13	0.13	8260B
Toluene	100	100	8260B
Xylene	500	1,100	8260B
Alkylbenzenes Butylbenzene, n- Butylbenzene, sec- Butylbenzene, tert- Isopropyl toluene, 4- Propylbenzene, n- Trimethylbenzene, 1,2,4- Trimethylbenzene, 1,3,5-	59 (Total)	59 (Total)	8260B
PAHs – Carcinogenic			
Benzo(a)anthracene	0.7	40	8270C
Benzo(a)pyrene	0.7	4	8270C
Benzo(b)fluoranthene	7	400	8270C
Benzo(k)fluoranthene	7	400	8270C
Chrysene	70	4,000	8270C
Dibenzo(a,h)anthracene	0.7	4	8270C
Indeno(1,2,3-cd)pyrene	0.7	40	8270C
PAHs – Noncarcinogenic			
Acenaphthene	270	270	8270C
Acenaphthylene	300	300	8270C
Anthracene	1,000	1,700	8270C
Fluoranthene	810	5,000	8270C
Fluorene	510	510	8270C
Methylnaphthalene, 2-	150	150	8270C
Napthalene	5	5	8270C
Benzo(g,h,i)perylene Phenanthrene Pyrene	480 (Total)	5,000 (Total)	8270C

Appendix H – Spill Reporting

H1 – NHDES fact sheet WMD-REM-13, Reporting Oil Spills, Hazardous Waste Spills and Groundwater Contamination

H2 – NHDES Waste Management Division Spill Reporting Form

H3 – EPA fact sheet, Oil Discharge Reporting Requirements

ENVIRONMENTAL
Fact Sheet

NEW HAMPSHIRE DEPARTMENT OF Environmental Services

29 Hazen Drive, Concord, New Hampshire 03301 • (603) 271-3503 • www.des.nh.gov

WMD-REM-13 2011

Reporting Oil Spills, Hazardous Waste Spills and Groundwater Contamination

The State of New Hampshire has statutory and regulatory requirements regarding the reporting of discharges of both petroleum products and hazardous wastes. To promote compliance with these "duty to report" requirements, the following excerpts are presented from the appropriate laws and regulations.

IN THE EVENT OF A HAZARDOUS WASTE SPILL

Duty To Report, N.H. Hazardous Waste Management Act RSA 147-A:11,

1. Any generator, operator, transporter, or employee of a hazardous waste facility who becomes aware of any storage, treatment, or disposal of hazardous waste in violation of this chapter shall immediately report the violation to the NH Department of Environmental Services Waste Management Division.

2. Any person who fails to give notice as required by RSA 147-A:11,1, shall be guilty of a misdemeanor if a natural person, or guilty of a felony if any other person.

3. Each day of a continuing violation shall constitute a separate offense.

Immediate Action, "Requirements for Hazardous Waste Generators" Env-Wm 500,

The generator shall report any discharge of hazardous waste or discharge of any material which when discharged becomes a hazardous waste that poses a threat to human health or the environment, for example, into storm or sanitary sewers, onto the land or into the air, groundwater or surface waters. Notification shall be both:

1. Immediately, not to exceed one hour from discharge discovery, to local fire department

2. Immediately, not to exceed one hour from discharge discovery, to the DES Emergency Response group at (603) 271-3899 (Monday through Friday, 8 a.m. to 4 p.m.), or to the New Hampshire Department of Safety at (603) 223-4381, 24 hours/day).

IN THE EVENT OF A PETROLEUM (OIL) SPILL

Duty To Report , N.H. Oil Spillage In Public Waters Act RSA 146-A:5,

1. The person/party responsible for the operation of any oil facility, carrier, or vessel that discharges oil in violation of this chapter shall immediately notify the DES Waste Management Division. Any person who fails to give such notice shall be guilty of a misdemeanor if a natural person, or guilty of a felony if any other person.

2. Each day of a continuing violation shall constitute a separate offense.

3. Any person who becomes aware of an oil discharge in violation of this chapter shall immediately notify the DES Waste Management Division.

Notification, "Contaminated Sites Management" Env-Or 600

Any responsible party or other person having knowledge of a discharge of oil shall report such discharge to the DES Waste Management Division immediately (603)271-3899 (Monday through Friday, 8 a.m. to 4 p.m.), or to the New Hampshire Department of Safety at (603)223-4381, 24 hours/day), unless all of the following conditions are met:

1. The discharge is less than 25 gallons.
2. The discharge is immediately contained.
3. The discharge and/or contamination is completely removed within 24 hours.
4. There is no impact or potential impact to groundwater or surface water.
5. There is no potential for vapors which pose an imminent threat to human health.

IN THE EVENT OF GROUNDWATER QUALITY VIOLATIONS

"Contaminated Sites Management" Env-Or 600

The responsible party shall notify the DES Waste Management Division within 60 days of discovery of a violation of the ambient groundwater quality standards of Env-Or 603.01.

WMD Site No: _____
Project No: _____
Project Type: _____

DEPARTMENT OF ENVIRONMENTAL SERVICES
WASTE MANAGEMENT DIVISION
Hazardous Waste or Petroleum
Spill Reporting Form

GUIDELINES FOR REPORTING A SPILL

1. Report the spill to your local 911responder or fire department.
2. Call DES Spill Response & Complaint Section and provide as much of information listed below as possible.
   Monday – Friday, 8 am to 4 pm (603) 271-3899
   Weekend and Evenings (603) 223-4381 State Police Dispatch
3. Follow up the call to DES by submitting a completed spill reporting form. Email the completed form to orcb.wmd@des.nh.gov by highlighting, copying and paste the information onto the email.

Date Spill Reported to DES: _____ Time:_____

Your Name:_____

Mailing Address:_____

Town: _____State: _____Zip:_____

Home Telephone #:_____Work Telephone #:_____Email :_____

Company or Person Responsible

Business or Individual Name:_____

Mailing Address:_____

Town: _____State:_____ Zip:_____ Telephone #:_____

Spiller Contact Information - Name:_____ Title:_____

Telephone #:_____ Email:_____

Spill Location

Site Name: _____

Town:_____

Street Address:_____

Directions to Site:_____

Spill Information

Substance spilled : _____ Amount:_____ Units:(gallons):_____

Date of Spill:_____ Time of Spill:_____

Cause of Spill:_____

How was Spill Detected:_____

Areas Impacted or Will Be Impacted
(Soil, Surface Water, Wetlands, Drinking Water Well)

Impacted Areas: _____ Distance from Spill: _____

_____ _____

Potentially Impacted Areas: _____ Distance from Spill_____

_____ _____

Attached sampling results, if any.

Response Company

Company Name:_____

Mailing Address:_____

Town: _____State:_____ Zip:_____ Telephone #:_____

Contact Information – Name: _____ Title:_____

Telephone #:_____ Email:_____

Response Action

_____

_____

_____

Attach response reports, if any.

Others Notified

Have you notified the person or party you believe is responsible? Yes ___ No ___

Have you reported this spill to local officials? Yes ___ No ___

If Yes, Town:_____ Department:_____

Representative's Name:_____

Spill Site Property Owner Information (Optional)

Property Owner Name:_____

Mailing Address:_____

Town: _____State: _____Zip:_____

Telephone #:_____

United States Environmental Protection Agency
Office of Emergency Management (5104A)
EPA-550-F-06-006
December 2006
www.epa.gov/emergencies

Oil Discharge Reporting Requirements

How to Report Oil Discharges to the National Response Center and EPA

If a facility or vessel discharges oil to navigable waters or adjoining shorelines, waters of the contiguous zone, or in connection with activities under the Outer Continental Shelf Lands Act or Deepwater Port Act of 1974, or which may affect natural resources under exclusive U.S. authority, the owner/operator is required to follow certain federal reporting requirements. These requirements are found in two EPA regulations – 40 CFR part 110, Discharge of Oil regulation, and 40 CFR part 112, Oil Pollution Prevention regulation. The Discharge of Oil regulation provides the framework for determining whether an oil discharge to inland and coastal waters or adjoining shorelines should be reported to the National Response Center. The Oil Pollution Prevention regulation, part of which is commonly referred to as the "SPCC rule," identifies certain types of discharges from regulated facilities that also need to be reported to EPA. Although these reporting requirements were not changed by EPA's recent modifications of the SPCC rule, this Fact Sheet will help facilities with the Reportable Discharge History criterion associated with the qualified facility option and the oil-filled operational equipment option offered in the recent SPCC modifications.

Who is subject to the Discharge of Oil regulation?

Any person in charge of a vessel or of an onshore or offshore facility is subject to the reporting requirements of the Discharge of Oil regulation if it discharges a harmful quantity of oil to U.S. navigable waters, adjoining shorelines, or the contiguous zone, or in connection with activities under the Outer Continental Shelf Lands Act or Deepwater Port Act of 1974, or which may affect natural resources under exclusive U.S. authority.

What is a "harmful quantity" of discharged oil?

A harmful quantity is any quantity of discharged oil that violates state water quality standards, causes a film or sheen on the water's surface, or leaves sludge or emulsion beneath the surface. For this reason, the Discharge of Oil regulation is commonly known as the "sheen" rule. Note that a floating sheen alone is not the only quantity that triggers the reporting requirements (e.g., sludge or emulsion deposited below the surface of the water may also be reportable).

Under this regulation, reporting oil discharges does not depend on the specific amount of oil discharged, but instead can be triggered by the presence of a visible sheen created by the discharged oil or the other criteria described above.

To whom do I report an oil discharge?

A facility should report discharges to the National Response Center (NRC) at 1-800-424-8802 or 1-202-426-2675. The NRC is the federal government's centralized reporting center, which is staffed 24 hours per day by U.S. Coast Guard personnel.

If reporting directly to NRC is not practicable, reports also can be made to the EPA regional office or the U.S. Coast Guard Marine Safety Office (MSO) in the area where the incident occurred.

When must I report to NRC?

Any person in charge of a vessel or an onshore or offshore facility must notify NRC immediately after he or she has knowledge of the discharge.

What information do I need to report?

NRC will ask a caller to provide as much information about the incident as possible including:

- Name, organization, and telephone number
- Name and address of the party responsible for the incident
- Date and time of the incident
- Location of the incident
- Source and cause of the discharge
- Types of material(s) discharged
- Quantity of materials discharged
- Danger or threat posed by the discharge

- Number and types of injuries (if any)
- Weather conditions at the incident location
- Other information to help emergency personnel respond to the incident

How are reports to NRC handled?

NRC relays information to an EPA or U.S. Coast Guard On Scene Coordinator (OSC), depending on the location of the incident. After receiving a report, the OSC evaluates the situation and decides if federal emergency response action is necessary.

If I report a discharge to NRC, do I also report to EPA?

If a facility is regulated under the SPCC rule and has a reportable discharge according to EPA regulations (see below), it must be reported to both NRC and EPA.

What are the oil discharge reporting requirements in the SPCC rule?

Any facility owner/operator who is subject to the SPCC rule must comply with the reporting requirements found in §112.4.

A discharge must be reported to the EPA Regional Administrator (RA) when there is a discharge of:

- More than 1,000 U.S. gallons of oil in a single discharge to navigable waters or adjoining shorelines
- More than 42 U.S. gallons of oil in each of two discharges to navigable waters or adjoining shorelines occurring within any twelve-month period

When determining the applicability of this SPCC reporting requirement, the gallon amount(s) specified (either 1,000 or 42) refers to the amount of oil that actually reaches navigable waters or adjoining shorelines, not the total amount of oil spilled.

What do I need to submit to EPA?

The owner/operator must provide the following:

- Name and location of the facility
- Owner/operator name
- Maximum storage/handling capacity of the facility and normal daily throughput
- Corrective actions and countermeasures taken, including descriptions of equipment repairs and replacements
- Adequate description of the facility, including maps, flow diagrams, and topographical maps, as necessary
- Cause of the discharge to navigable waters, including a failure analysis
- Failure analysis of the system where the discharge occurred
- Additional preventive measures taken or planned to take to minimize discharge reoccurrence
- Other information the RA may reasonably require

An owner/operator must also send a copy of this information to the agency or agencies in charge of oil pollution control activities in the state in which the facility is located.

What happens after a facility submits this information to EPA?

The EPA Regional Administrator will review the information submitted by the facility and may require a facility to submit and amend its SPCC Plan. Facilities and equipment that qualified for the new streamlined requirements may lose eligibility for those options as determined by the Regional Administrator. A state agency may also make recommendations to EPA for a facility to amend its Plan to prevent or control oil discharges.

For More Information

Review the Discharge of Oil regulation (40 CFR part 110)
http://www.gpoaccess.gov/cfr/

Review the Oil Pollution Prevention regulation (40 CFR part 112)
http://www.gpoaccess.gov/cfr/

Visit the EPA Office of Emergency Management Web site
www.epa.gov/emergencies

Call the Superfund, TRI, EPCRA, RMP, and Oil Information Center
(800) 424-9346 or (703) 412-9810
TDD (800) 553-7672 or (703) 412-3323
www.epa.gov/superfund/resources/infocenter

To Report an Oil or Chemical Discharge

Contact the National Response Center
(800) 424-8802 or (202) 267-2675
TDD (202) 267-4477
http://www.nrc.uscg.mil/index.html