**Section 6.6 – MCM #6**

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

Permit Part 2.3.7

DRAFT

Year 2 Requirements

**Prepared By:**

**Seacoast Stormwater Coalition &**

**New Hampshire Lower Merrimack Valley Stormwater Coalition**

**PERMITTEE OWNED FACILITIES**

##### *BMP: Parks and Open Spaces Operations and Maintenance Procedures*

*Requirements Due by Year 2*

**Description: ##MUNICIPALITY** has established procedures to address the proper use, storage, and disposal of pesticides, herbicides, and fertilizers (PHF) including minimizing the use of these products in accordance with manufacturer’s instructions; trash management; pet waste disposal; waterfowl management; and erosion and poor vegetative cover and as outlined in Section 2.3.7.1 a. of the MS4 permit.

**Municipal Parks and Open Space Inventory**

The following is a list of properties covered by these procedures and include all municipal and county facilities where fertilizers are stored, mixed, applied, recycled, or disposed of, and at municipal properties in which lawns or vegetation are mowed, trimmed, and maintained (e.g. parks, golf courses, and open space properties) located within the MS4 area. This inventory shall be updated annually during SWMP review.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Park/Open Space** | **Address/Location** | **Services Contracted** | **Lawn Mowing** | **Landscaping** | **Fertilizing** | **Pesticide/Herbicide** | **Trash mgmt.** | **Pet waste mgmt.** | **Waterfowl mgmt.** | **Other maintenance:** |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |

*Add lines as necessary*

**Responsible Department/Parties: ##MUNICIPALITY**

**Training:**

Annual maintenance procedures training will be made available to employees involved in Parks and Open Spaces operations. All contractors involved in Parks and Open Spaces operations are provided the information in this section of the SWMP.

Deb Note: Employee Training - include? Is this something that individuals already attend UNHT2 trainings? Or should we coordinate with UNHT2 to develop a training for general Good Housekeeping?

Or develop training videos? Funny video for parks maintenance and stormwater protection employee training: <https://www.youtube.com/watch?v=6eD29UBINqE&feature=youtu.be>

**Best Management Practices**

The following best management practices (BMPs) aim to minimize the concentration of nitrogen and phosphorus in stormwater runoff:

***Lawn Maintenance***

***Landscape Maintenance***

• **Mulch-mow grasses whenever possible; grass clippings are a natural fertilizer.**

**• Sweep grass clippings from sidewalks or streets back onto grassy areas.**

**• Dispose of organic wastes by composting whenever possible. When composting is not possible, dispose of organic wastes at an approved disposal facility. In both cases, ensure that runoff from sites does not enter a waterway.**

**• Do not wash down or dispose of lawn clippings, leaves, tree trimmings, or other landscape waste in a storm drain, drainage ditch, or open body of water.**

• Collect and dispose of wastes generated by cleaning equipment (e.g. grass clippings) in the trash or by composting.

• Irrigate with the minimal amount of water needed. Never water at rates that exceed the infiltration rate of the soil.

• Maintain all irrigation systems so that irrigation uses the minimum amount of water possible, is applied evenly, and does not run off. Repair broken or leaking sprinkler heads as soon as possible.

• Use automatic timers or computer-controlled systems on irrigation equipment to minimize runoff.

• Incorporate evapotranspiration rates and/or weather data into daily irrigation rates.

• Monitor daily, monthly, and yearly irrigation usage, and set goals for annual water use reduction.

**• Consider landscape design that utilizes native, drought tolerant vegetation.**

***Application of Fertilizers***

**• Properly calibrate all fertilizer application equipment to ensure proper application rate.**

• Train employees on proper application methods, as recommended by the equipment manufacturer.

**• Time the application of fertilizers to coincide with the manufacturer’s recommendation for best results.**

• Base fertilizer application on soil test results to avoid excess application.

**• Consider using fertilizers with low or no levels of phosphorus.**

• Do not apply fertilizers when heavy rainfall or winds are expected.

• Never over-apply fertilizers.

**• Consider use slow release fertilizers.**

• Use the lowest lbs/acre rate possible (“spoon feeding”).

• Till fertilizers into the soil when possible (i.e. when seeding new areas or during “grow-in periods”) rather than broadcasting them on the surface.

• Designate “no spray zones” and/or “buffer areas” around ponds, lakes, or streams. Avoid spraying fertilizers within 25-50 feet of any surface water or storm drainage structure (unless stricter limits apply).

• Raise mower height to >3” in buffer areas around water features to allow the vegetation to slow down and filter stormwater runoff.

• Reduce the need for chemical, algal control in ponds through proper aeration, nutrient reduction, bio-filtration, vegetation management, and/or biological controls.

• Do not apply fertilizers or pesticides in or near any drainage areas or irrigation ditches.

• Sweep or blow granular fertilizers back onto grassy areas from pavement and sidewalks.

***Storage and Handling of Fertilizers***

• **Store and mix fertilizers inside a covered area that has an impervious (i.e. hard or paved) surface, preferably indoors, so that spills or leaks will not contact soils or waters.**

• Ensure that spill kits and absorbents are available in the event of a spill. Clean up any spills or leaks of fertilizers promptly using dry cleanup methods.

• Mix only the minimum amount of fertilizer that will be needed for the immediate job.

• Use water left over from rinsing containers or application equipment to dilute the next batch or apply left over chemicals to target areas.

• **Do not handle or dispose of fertilizers, pesticides, herbicides, or fungicides in or near storm drains, irrigation ditches, or surface water.**

**• Dispose of excess or leftover chemicals according to the instructions on the label, preferably on the target pest, vegetated area, or as hazardous waste.**

***Trash Management***

* **Routinely pick up any trash bags left along trails, parks, or streets.**

**• Empty trash cans and dumpsters regularly.**

**• Keep lids on all trash cans and dumpsters.**

***Pet Waste Cleanup***

• Provide pet waste bags and waste containers at all parks, trailheads, and open space properties.

**• Post signs in areas concerning the proper disposal of pet wastes.**

• Collect pet waste in a bag, and deposit it in a trashcan or dumpster.

***Waterfowl Waste Management***

**• Discourage waterfowl from living in stormwater infrastructure.**

• Scare geese away from ponds on golf courses or parks.

• Clean and inspect storm drains regularly to prevent wildlife from living in the storm drainage system.

• Sweep and clean bike paths and paved trails under bridges and near creeks. Collect debris and dispose of in the trash; do not sweep or wash it into nearby creeks, ponds, or rivers.

• Contact local animal control, pest control, or New Hampshire and Game Department to remove wild animals from bridges, storm drainage systems, or golf courses.

* Do not feed waterfowl.

***Erosion and Poor Vegetative Cover***

* **Install temporary sediment and erosion control stabilization measures as needed.**
* **Re-establish grass or native plants, especially within 50 ft of a surface water.**

##### Measurable Goal(s): Implement the BMP’s on 100% of the parks and open spaces.

##### *BMP: Buildings and Facilities Operations and Maintenance Procedures*

*Requirements Due by Year 2*

**Description:** Evaluate the use, storage, and disposal of petroleum products and other potential stormwater pollutants. Provide employee training as necessary, ensure that Spill Prevention Plans are in place. Develop management procedures for dumpsters and other waste management equipment. Sweep lots and areas surrounding the facilities clean to reduce runoff of pollutants in accordance with Section 2.3.7.1 b. of the MS4 permit.

**Municipal Buildings and Facilities Inventory**

The following is a list of properties covered by these procedures and include all schools, municipal offices, police and fire stations, municipal pools, parking garages, etc. located within the MS4 area. This inventory shall be updated annually during SWMP review.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Building** | **Address/Location** | **Services Contracted** | **Trash mgmt.** | **Building Maintenance** | **Pollutant Storage** | **Petroleum Storage** | **Other maintenance:** |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

*Add lines as necessary*

**Responsible Department/Parties:** ##MUNICIPALITY

**Training:**

Annual maintenance procedures training will be made available to employees involved in Municipal Building and Facilities operations. All contractors involved in Building and Facilities operations are provided the information in this section of the SWMP.

` **Best Management Practices**

The following best management practices (BMPs) will be implemented at all municipally owned or operated buildings and facilities located within the MS4 area:

## ***Handling, Storage, Transfer, and Disposal of Trash and Recyclables***

All liquid and solid waste must be disposed of properly. Some of the most common sources of pollution at municipal facilities are a result of littering, improper collection of debris, and improper disposal of solid or liquid waste.

* All waste and recycling receptacles must be leak-tight with tight-fitting lids or covers.
* **Keep lids on dumpsters and containers closed at all times unless adding or removing material.**
* Place waste or recycling receptacles indoors or under a roof or overhang whenever possible.
* Locate dumpsters on a flat, paved surface and install berms or curbs Around the storage area to prevent run-on and run-off.
* **Do not locate dumpsters over or adjacent to catch basins.**
* Prior to transporting waste, trash, or recycling, ensure that containers are not leaking (double bag if needed) and properly secure containers to the vehicle.
* Clean and sweep up around outdoor waste containers regularly.
* **Clean up any liquid leaks or spills with dry cleanup methods.**
* **Arrange for waste or recycling to be picked up regularly and disposed of at approved disposal facilities.**
* **Never place hazardous materials, liquids, or liquid-containing wastes in a dumpster or recycling or trash container.**
* Do not wash trash or recycling containers outdoors or in parking lots.
* **Conduct periodic inspections of solid and liquid waste storage areas to check for leaks and spills.**
* Conduct periodic inspections of work areas to ensure that all wastes are being disposed of properly.
* In dumpster areas, regularly pick up surrounding trash and debris and regularly sweep the area.
* In compactor areas, regularly check the hydraulic fluid hoses and reservoir to ensure that there are no cracks or leaks. Regularly sweep the area.

## ***Building Maintenance***

* **Sweep parking lots and keep areas surrounding facilities clean to reduce runoff of pollutants**.
* When power washing buildings and facilities, ensure that the washwater does not flow directly into the storm system. Containment or filtering systems should be provided.
* Paint and other chemicals should not be applied on the outside of buildings when it is raining or prior to expected rain.
* When sanding, painting, power washing, etc., ensure that sites are properly prepared (e.g., use tarps) and cleaned (e.g., use dry cleaning methods) especially if they are near storm drains. Protect catch basins when maintenance work is conducted upgradient of them.
* When painting, use a drop cloth and clean up any spills immediately.
* Do not leave open containers on the ground where they may accidentally tip over.
* Buildings should be routinely inspected for areas of potential leaks.
* Do not discharge chlorinated pool water into the stormwater system. Water must be properly dechlorinated and tested before it is discharged.
* Streets and parking lots surrounding municipal buildings and facilities should be swept and kept clean to reduce runoff of pollutants and debris to the stormwater system.

## ***Storage of Petroleum Products and Potential Pollutants***

* **Evaluate the use, storage and disposal of petroleum products and other potential stormwater pollutants.**
* Floor drains in storage areas should be disconnected from the stormwater system.
* **Routinely inspect buildings and facilities for areas of potential discharges or leaks.**

## ***Spill Response***

* **Ensure that spill prevention plans are in place (these should be included for maintenance garages, public works yards, transfer stations and other waste handling facilities see individual SWPPPs).**
* **Notify the facility’s supervisor immediately and ensure that other staff and/or members of the public are aware of the spill and removed from the spill area as appropriate.**
* **Coordinate with fire department as necessary.**
* Assess the contaminant release site for potential safety issues and for direction of flow.
* **For large oil spills, NHDES Petroleum Spill Response program will be notified immediately at (603) 271-3644 and an emergency response contractor would be called in.**
* **Materials and equipment necessary for spill cleanup may include but are not limited to brooms, dust pans, mops, rags, gloves, goggles, kitty litter, sand, sawdust, and plastic and metal trash containers specifically for the purpose.**
* The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
* Spills of toxic or hazardous material will be reported to the appropriate State or local government agency as required by State and Local regulations.
* With proper training and personal protective equipment, complete the following:
  + Stop the contaminant release;
  + Contain the contaminant release through the use of spill containment berms or absorbents;
  + Protect all drains and/or catch basins with the use of absorbents, booms, berms or drain covers;
  + Clean up the spill;
  + Dispose of all contaminated products in accordance with applicable federal, state and local regulations.

##### Measurable Goal(s): Implement the BMP’s on 100% of buildings and facilities.

##### *BMP: Vehicles and Equipment Operations and Maintenance Procedures*

*Requirements Due by Year 2*

**Description:** **##MUNICIPALITY** has established procedures for the storage of permittee vehicles. Vehicles with fluid leaks shall be stored indoors and containment shall be provided. Evaluate fueling areas owned by the permittee or used by permittee vehicles. Procedures have been established to ensure that vehicle wash waters are not discharged to municipal stormdrains or surface waters. Procedures have been established as outlined below and in accordance with Section 2.3.7.1.c of the MS4 permit.

**Responsible Department/Parties: ##MUNICIPALITY**

**Training:** Annual maintenance procedures training will be made available to employees involved in Vehicle Equipment operations.

**Best Management Practices** The following best management practices (BMPs) will be implemented for all municipally owned or operated vehicles and equipment:

***Vehicle Storage***

* **Vehicles with fluid leaks shall be stored in doors or containment shall be provided until repaired.**
* Monitor vehicles and equipment for leaks and use drip pans as needed until repairs can be performed.
* When drip pans are used, avoid overtopping.
* Drain fluids from leaking or wrecked vehicles and parts as soon as possible. Dispose of fluids properly.
* Store and park vehicles on impervious surfaces and/or under cover or indoors whenever possible.

***Vehicle Maintenance***

* Conduct routine inspections of heavy equipment and vehicles to proactively identify maintenance needs or potential leaks.
* Perform routine preventive maintenance to ensure heavy equipment and vehicles are operating optimally.
* Recycle or dispose of waste properly and promptly.
* Sweep and pick up trash and debris as needed.
* Do not dump any liquids or other materials outside, especially near or in storm drains or ditches.

## ***Fueling***

* Fueling areas owned or operated by the municipality should be covered if possible.
* Fueling areas should be evaluated to ensure that pollutants (e.g., gasoline or oil) do not enter the MS4.

***Vehicle Washing Procedures***

Outdoor washing of municipal vehicles should be avoided. Vehicle wash waters shall not be discharged to the MS4 or to surface waters.

Where no alternative wash system is available, and full containment of wash water cannot be achieved, adhere to the following procedures:

* Avoid discharge of any wash water directly to the storm drainage system or surface water (e.g., stream, pond, or drainage swale)
* Minimize the use of water to the extent practicable.
* Where the use of detergent cannot be avoided, use products that do not contain regulated contaminants. The use of a biodegradable, phosphate-free detergent is preferred.
* Do not use solvents except in dedicated solvent parts washer systems or in areas not connected to a sanitary sewer.
* Do not power wash, steam clean, or perform engine or undercarriage cleaning.
* Grassy and pervious (porous) surfaces may be used to promote direct infiltration of wash water, providing treatment before recharging groundwater and minimizing runoff to an adjacent stormwater system. Pervious surfaces or other infiltration-based systems should not be used within wellhead protection areas or within other protected resources.
* Impervious surfaces discharging to the storm drainage system should not discharge directly to a surface water unless treatment is provided. The treatment device should be positioned such that all drainage must flow through the device, preventing bypassing or short-circuiting.
* Periodic sweeping and/or cleaning should be completed to prevent accumulation from forming on the washing area.
* Maintain absorbent pads and drip pans to capture and collect spills or noticeable leaks observed during washing activities.

## ***Indoor Vehicle Washing Procedures***

* Vehicles and equipment should be washed inside whenever possible to reduce runoff to the stormwater system.
* Where the use of detergent cannot be avoided, use products that do not contain regulated contaminants. The use of biodegradable, phosphate-free detergent is preferred.
* Detergents should not be used in areas where oil/water separators provide pre-treatment of drainage.
* Floor drains should be connected to a sanitary sewer or tight tank. Floor drains discharging to adjacent surface water bodies or engineered storm drain systems should be permanently plugged or otherwise abandoned before any vehicle wash activities are completed.
* Designate separate areas for routine maintenance and vehicle cleaning. This helps prevent contamination of wash water by motor oils, hydraulic lubricants, greases, or other chemicals.
* Dry cleanup methods are recommended within garage facilities. Do not wash down floors and work areas with water.
* Maintain absorbent pads and drip pans to capture and collect spills or noticeable leaks observed during washing activities.

## ***Heavy Equipment Washing Procedures***

* Mud and heavy debris removal should occur on impervious surfaces or within a retention area.
* Maintain these areas with frequent mechanical removal and proper disposal of waste.
* Impervious surfaces with engineered storm drain systems should not discharge directly to a surface water.
* Floor drains should be connected to a sanitary sewer or tight tank. Floor drains discharging to adjacent surface waterbodies or engineered storm drain systems should be permanently plugged or otherwise abandoned before any vehicle wash activities are completed.
* Where the use of detergent cannot be avoided, use products that do not contain regulated contaminants. The use of biodegradable, phosphate-free detergent is preferred.
* Detergents should not be used in areas where oil/water separators provide pre-treatment of drainage.
* Maintain absorbent pads and drip pans to capture and collect spills or noticeable leaks observed during washing activities.

##### Measurable Goal(s): Implement the BMP’s on 100% of the vehicles.

### INFRASTRUCTURE

***BMP: Catch Basin Cleaning Program***

*Requirements Due by Year 1*

##### Description: The ##AGENCY OR DEPARTMENT performs routine inspections, cleaning, and maintenance of the approximately ##NUMBER OF CATCH BASINS catch basins that are located within the MS4 regulated area. The ##MUNICIPALITY will implement the following catch basin inspection and cleaning procedures to reduce the discharge of pollutants from the MS4.

##### Routine inspection and cleaning of catch basins. Catch basins should be cleaned such that they are no more than 50% full at any time. The ##MUNICIPALITY will initially inspect all catch basins within the regulated area within two (2) years of the effective date of the permit to evaluate sediment or debris accumulation and establish optimal inspection and maintenance frequencies to meet the “50 percent” goal.

* If a catch basin sump is more than 50% full during two consecutive routine inspections or cleaning events, the finding will be documented, the contributing drainage area will be investigated for sources of excessive sediment loading, and to the extent practicable, contributing sources will be addressed. If no contributing sources are found, the inspection and cleaning frequency will be increased.
* Catch basins located near construction activities (roadway construction, residential, commercial, or industrial development or redevelopment) will be inspected and cleaned more frequently if inspection and maintenance activities indicate excessive sediment or debris loadings (i.e., catch basins more than 50% full). Priority will also be given to catch basins that discharge to impaired waters.
* The following information must be included in each annual report:
  + Any action taken in response to excessive sediment or debris loadings
  + Total number of catch basins
  + Number of catch basins inspected
  + Number of catch basins cleaned
  + Total volume or mass of material removed from catch basins.

##### Measurable Goal(s): All catch basins are cleaned in accordance to the document above such that no catch basin is more than 50% full at any given time

***BMP: Street Sweeping Program***

*Requirements Due by Year 1*

##### Description: The ##MUNICIPALITY will implement the following street and parking lot sweeping procedures to reduce the discharge of pollutants from the MS4:

* All streets, with the exception of rural uncurbed roads with no catch basins or high speed limited access highways, will be swept and/or cleaned a minimum of once per year in the spring (following winter activities such as sanding).
* More frequent sweeping will be considered for targeted areas based on pollutant load reduction potential, inspections, pollutant loads, catch basin cleaning or inspection results, land use, impaired waters, or other factors.
* More frequent sweeping is required for municipally-owned streets and parking lots in areas that discharge to certain nutrient-impaired waters. Sweeping must be performed in these areas a minimum of two times per year, once in the spring (following winter activities such as sanding) and at least once in the fall (Sept 1 – Dec 1; following leaf fall).
* For rural uncurbed roadways with no catch basins and limited access highways, the **##MUNICIPALITY** will either meet the minimum frequencies above, or develop and implement an inspection, documentation, and targeted sweeping plan outlining reduced frequencies within two (2) years of the effective date of the permit, and submit such plan with its year one annual report.
* The following information will be included in each annual report:
  + Number of miles cleaned or the volume or mass of material removed.

**Measurable Goal(s):** Annually sweep 100% of all streets and municipal parking lots in accordance with the schedule above.

***BMP: Winter Road Maintenance Program***

*Requirements Due by Year 1*

**Description:** The **##MUNICIPALITY** will implement the following winter maintenance procedures to reduce the discharge of pollutants from the MS4:

* Minimize the use, and optimize the application of, sodium chloride and other salt (while maintaining public safety) and consider opportunities for use of alternative materials.
* Optimize sand and/or chemical application rates through the use, where practicable, of automated application equipment (e.g., zero velocity spreaders), anti-icing and pre-wetting techniques, implementation of pavement management systems, and alternate chemicals. Maintain records of the application of sand, anti-icing and/or de-icing chemicals to document the reduction of chemicals to meet established goals.
* Prevent exposure of deicing product (e.g. salt, sand, or alternative products) storage piles to precipitation by enclosing or covering the storage piles. Implement good housekeeping, diversions, containment or other measures to minimize exposure resulting from adding to or removing materials from the pile. Store piles in such a manner as not to impact surface water resources, groundwater resources, recharge areas, and wells
* Provide training for municipal employees on winter roadway maintenance procedures.

##### Measurable Goal(s): Evaluate at least one salt/chloride alternative for use in the municipality.

***BMP: Stormwater Treatment Structures Inspection and Maintenance Procedures***

*Requirements Due by Year 1*

**Description:** Structural stormwater BMPs (excluding catch basins) will be inspected annually at a minimum and maintained as needed.

**Measurable Goal(s):** Inspect and Maintain 100% of treatment structures to ensure they are properly functioning.

***BMP: SWPPP***

*Requirements Due by Year 2*

**Description:** Develop and implement a SWPPP for each of the following municipally-owned or operated facilities: maintenance garages, public works yards, transfer stations and other waste handling facilities where pollutants are exposed to stormwater; and in accordance with Section 2.3.7.2 of the MS4 permit.

**Measurable Goal(s):** Develop and implement SWPPPs for 100% of municipally-owned facilities.