Operations and Maintenance (O&M) Plan for MS4 Permit Compliance

Date: June 30, 2020

Date Revised: June 2, 2026

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MS4 O&M Plan Contact List

Stormwater & Environmental Section

Contact to request access to DCR Stormwater Collector database, to request street sweeping at a facility or drainage infrastructure maintenance, and to report signs of dumping or illicit discharges

Thomas Valton, Director thomas.valton@mass.gov

DCR Sign Shop

Contact to request a new or replacement dog waste or waterfowl sign for a facility.

Helene Campbell helene.campbell@mass.gov

MassDCR Spill Reporting / Spill Response Coordinator

Contact when a spill occurs in addition to MassDEP spill reporting.

Robert Lowell robert.lowell@mass.gov

1-508-509-1757 cell

MassDEP Emergency Response

Contact to report a spill of oil/hazardous material or an environmental emergency.
Note: first call 911

1-888-304-1133

Building Maintenance Contact

Contact if a building component such as electric, structural, or plumbing needs to be resolved.

John Larsen john.larsen@mass.gov

Training Contact

Contact to receive training on this plan or answer any questions on MS4 O&M requirements.

Debra Berger debra.berger@mass.gov

1. Introduction

This Operation and Maintenance (O&M) Plan covers the Massachusetts Department of Conservation and Recreation's (DCR's) facilities, infrastructure, and other assets, with chapters organized around the following categories: parks and open space, building and facilities, vehicles and equipment, catch basins, streets and parking lots, winter road maintenance, and structural stormwater best management practices (BMPs). The O&M Plan outlines inspection and maintenance procedures for these assets and facilities. There are two appendices with additional details covering the following two topics: winter road maintenance and spill prevention and control.

This O&M Plan has been prepared by DCR in part to address O&M requirements[1] of the United States Environmental Protection Agency's (USEPA) 2016 National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4) in Massachusetts, hereafter referred to as "the permit, "2016 Massachusetts MS4 Permit," or "MS4 Permit."

More specifically, this plan addresses Minimum Control Measure 6, Good Housekeeping and Pollution Prevention for Permittee Owned Operations, by describing the activities and procedures the DCR will implement so that infrastructure is maintained in a timely manner to reduce the discharge of pollutants from the MS4. This document fulfills the permit requirement for DCR to develop an inventory and written (hardcopy or electronic) operations and maintenance procedures for parks and open spaces, buildings and facilities, vehicles and equipment, and infrastructure within two (2) year of the effective date of the permit. These details are outlined in Part 2.3.7.A of the MS4 Permit.

DCR will ensure employees and contractors who conduct maintenance and operations at DCR parks, open space, buildings, vehicles and equipment, streets and parking lots, and stormwater infrastructure follow this plan and provided with regular training on best practices.

[1] See Part 2.3.7.a.iii of the 2016 MS4 Permit for Infrastructure Operation and Maintenance program requirements.

2. Parks and Open Space

2.1 Overview and Inventory

This section establishes procedures for operations and maintenance of parks and open spaces owned and operated by DCR, as required in the permit. The following MS4 Permit requirements (Part 2.3.7a.ii.1) are addressed in this section:

- Develop an inventory of all parks and open space owned by the permittee;
- Evaluate lawn maintenance and landscaping activities to ensure practices are protective of water quality, including reduced mowing frequencies, proper disposal of lawn clippings, and use of alternative landscaping materials (e.g., drought resistant planting);
- Establish procedures for management of trash containers at parks and open space (scheduled cleanings; sufficient number of containers);
- Establish procedures to address the proper use, storage, and disposal of pesticides, herbicides, and fertilizers including minimizing the use of these products and using only in accordance manufacturer's instruction;
- Establish pet waste handling collection and disposal locations at all parks and open space where pets are permitted, including the placing of proper signage concerning the proper collection and disposal of pet waste;
- Establish procedures to address waterfowl congregation areas where appropriate to reduce waterfowl droppings from entering the MS4; and
- Establish procedures to address erosion or poor vegetative cover when the permittee becomes aware of it; especially if the erosion is within 50 feet of a surface water.

Section 2.2 includes DCR's approach to these requirements. These O&M procedures apply to all parks and open space owned and operated by DCR. DCR owns and operates parks and open space across the Commonwealth and manages the inventory of these properties separate from this document. DCR's inventory of parks and open spaces can be found on the following website: https://www.mass.gov/guides/alphabetical-list-of-massachusetts-state-parks.

1.2 O&M Procedures

Maintaining parks and open space is a critical part of DCR's mission. DCR's mission is to protect, promote and enhance the state's natural, cultural and recreational resources for the well-being of all. This section focuses on procedures to protect the water quality of waterbodies in DCR parks and open space by preventing pollutants from being carried in stormwater runoff to nearby waterbodies. The DCR will

implement the following procedures at parks and open spaces to reduce the discharge of pollutants from the MS4.

1.2.1 Mowing and Landscaping

DCR adheres to the following best practices for mowing and landscaping in parks and open space. Under MS4 Permit requirements, DCR acknowledges that blowing organic waste material (grass cuttings, leaf litter) into waterbodies or their tributaries impaired for nitrogen or phosphorus is strictly prohibited.

Mowing and Landscaping Best Practices

Mowing

- Mow grass to 2-3 inches in height for water retention and weed control.
- Mow frequently, while cutting no more than one third of grass height per mowing.
- Reduce mowing frequencies wherever possible by establishing low/no-mow areas in lesser-used spaces.
- Remove debris and trash from landscaped areas prior to mowing.
- Keep mowing equipment in good state of repair, including sharp blades and well-oiled lawn mowers and maintain equipment over grassy areas or in contained washout areas that do not drain to MS4 or directly to surface water waters.
- Follow proper fueling procedures of equipment to guard against petroleum products from mistakenly entering the stormwater system.
- When establishing new plantings, use alternative landscaping material such as drought resistant plants, and native plants, based on site conditions (e.g., sunlight, wetness, slope, use) and to reduce the need for irrigation and fertilizers and pesticides.

Irrigation

- Only irrigate at a rate that can infiltrate into the soil to limit run-off.
- Irrigate in the early morning; use irrigation water conservatively; and direct irrigation equipment to appropriate vegetated areas, rather than sidewalks, parking lots, or driveways.
- Avoid irrigating close to impervious surfaces such as parking lots and sidewalks.
- Turn off irrigation systems during periods of adequate rainfall.

Repair broken sprinkler heads as soon as possible

1.2.2 Trash and Trash Container Management

Many DCR parks and open space sites have trash and/or recycling receptacles. These receptacles are emptied at varying schedules across the state, based on use and demand. Each region, district, or specific park develops a schedule for waste management, which is communicated to employees and contractors.[2]

[2] Note: Waste management practices are subject to change based on public health situations. During the COVID-19 pandemic, most MassDCR facilities utilized a "carry in, carry out" approach to waste management, which was communicated to visitors via signage and outreach.

DCR follows the best practices outlined in Section 2.2.2 Trash and Recyclables Management of this document for trash receptables within DCR-owned parks and open space. Generally, receptacles are not placed or washed in areas where they could leak or overflow directly to the MS4 or a water resource. At facilities without trash receptacles, visitors are required to carry out any trash or waste that they bring with them and instructed to do so via signage.

1.2.3 Pesticides, Herbicides, and Fertilizer Use

DCR minimizes the use of pesticides, herbicides, and fertilizers at DCR-owned properties in an effort to protect surrounding waterbodies. DCR limits the use of pesticide, herbicide, and fertilizer to targeted areas, such as golf courses, particular natural turf recreational fields, and certain landscaped areas. Pesticides and herbicides are used on a very limited bases for control of invasive and nuisance species (e.g., emerald ash borer, poison ivy). Where utilized, DCR applies minimum amounts necessary for effectiveness.

Standards set forth in Massachusetts regulations on plant nutrient application (330 CMR 31.00) are followed. The state requirements for fertilizers can be found here: https://www.mass.gov/doc/330-cmr-31-plant-nutrient-application-requirements-for-agricultural-land-and-non-agricultural/download. In accordance with these regulations, phosphorus will only be applied in areas where a soil test indicates that it is not present in sufficient quantities. Where possible, DCR will use phosphorus-free fertilizer options. As required by the State, only fertilizer, pesticide, and herbicide products registered with the Department of Agricultural Resources are used.

Proper approval from the Conservation Commission is obtained before applying chemicals within 25 feet of resource areas as defined in the MA Wetlands Protection Act.

DCR has identified 13 facilities across the state which discharge into waters with nitrogen Total Maximum Daily Loads (TMDLs) or discharges a waterbody impaired for nitrogen, or their tributaries. These facilities are listed in DCR' s MS4 Stormwater Management Program (SWMP). In accordance with requirements of the MS4 Permit, DCR will use slow-release fertilizers, if fertilizer is needed, in addition to reducing fertilizer use to reduce runoff in the following facilities. None of the facilities listed use fertilizers regularly:

Ames Nowell State Park, Abington	Representative John G Asiaf Skating Rink, Brockton
F. Gilbert Hills State Forest, Foxborough & Wrentham	New Bedford State Pier, New Bedford
Fall River Heritage State Park, Fall River	Stephen Hetland Memorial Skating Rink, New Bedford
Fort Phoenix State Reservation, Fairhaven	Sweets Knoll State Park, Dighton
James E McVann-Louis F OKeefe Memorial Skating Rink, Peabody	Theodore J. Aleixo Jr. Skating Rink, Taunton
Manning Pool, Brockton	Watson Pond State Park, Taunton
Mount Holyoke Range State Park, Amherst	

Pesticides, herbicides, and fertilizers storage follows the procedures outlined in Section 2.2.1 Use, Storage and Disposal of Potential Pollutants.

Pesticides, Herbicides, and Fertilizer Use Best Practices

General

- Avoid application over impervious surfaces.
- Clean up any spills with dry cleanup methods (i.e., do not hose down a spill site).
- Do not hose down paved areas after application to a storm drain or drainage ditch.
- Read all labels and use products only as directed.
- Mix chemicals using clean application equipment under cover in an area where accidental spills will not enter surface water or groundwater and will not contaminate the soil.
- Spot treat infected areas instead of the entire location.
- Calibrate application equipment regularly to ensure proper application and loading rates.

Fertilizers

- Test soils before applying fertilizer to determine what nutrients need to be supplemented. Prepare and apply only as much chemical as is needed.
- Do not apply fertilizers in the following conditions:
- Between December 1 and March 1
- To frozen and/or snow-covered soil
- To saturated soils or soils that are frequently flooded
- When rain is forecast for 24 hours
- Fertilizers should only be applied by properly trained personnel.
- Time fertilizer application methods for maximum plant uptake, usually in the fall and spring (e.g., between April 15 and October 15). When applying at the beginning and end of planting season, take into consideration the slower uptake rate of fertilizer by plants and adjust the fertilizer application accordingly.
- Never apply fertilizers in quantities exceeding the manufacturer's instructions. Instead, apply small amounts throughout the growing season.

Pesticides and Herbicides

- Pesticides should only be applied by licensed or certified applicators.
- Use alternatives to pesticides and herbicides, such as manual weed control, biological controls, and Integrated Pest Management strategies: learn more at: https://www.mass.gov/files/documents/2016/08/wk/ipm-kit-for-bldg-mgrs.pdf
- Ensure that pesticide application equipment is capable of immediate shutoff in case of emergency.
- Never apply pesticides in quantities exceeding the manufacturer's instructions.
- Apply pesticides at the life stage when the pest is most vulnerable.
- Never apply pesticides if it is raining or immediately before expected rain.
- Establish setback distances from pavement, storm drains, and waterbodies, which act as buffers from pesticide application, with disease-resistant plants and minimal mowing.
- Do not apply pesticides within 100 feet of open waters or of drainage channels.

1.2.4 Pet Waste

Pet waste removal in public parks is an important component of park maintenance for public health, aesthetics, and protecting water quality. It is the responsibility of pet owners to clean up after their pets when visiting DCR facilities.

As required by the MS4 Permit, DCR installs and maintains informational signage at each site where pets are permitted. Waste bag dispensers and trash receptacles are included at each site where pets are allowed. To request a new sign for a DCR facility, contact the DCR Sign Shop and order a version of the DCR standard pet waste sign shown in Figure 1 below.

1.2.5 Waterfowl Congregation

Congregation of waterfowl, including Canada Geese and others, can result in large nutrient loads to surrounding waterbodies due to the volume of fecal waste produced by the waterfowl. If waterfowl cannot be deterred, drainage from congregation areas is redirected away from drainage infrastructure and waterbodies.

Best Practices to Discourage Waterfowl Congregation

- Instruct visitors not to feed waterfowl through signage or other public outreach methods and enforcement. To request a new sign for a DCR facility, contact the DCR Sign Shop and order a version of the DCR standard waterfowl feeding sign shown in Figure 1 below.
- Avoid mowing grass up to the edge of water to provide a natural vegetative buffer around a waterbody. This provides a small barrier for waterfowl to access the shoreline and provides a buffer where nutrient can be absorbed before reaching the waterbody.
- As necessary, conduct waterfowl deterrent practices such as reflective tape, strobe lights, addling eggs, harassment (human and/or dog), habitat manipulation, exclusionary fencing, and repelling devices.

Figure 1 DCR Standard Pet Waste & Waterfowl Signs





1.2.6 Slope Erosion and Vegetative Cover

Ground disturbance and eroded slopes can result in moving soil, rock, or other material from up-slope areas into a waterbody, potentially transporting excess sediment, nutrients, and other contaminants. Controlling erosion by stabilizing disturbed areas and slopes can help maintain water quality.

DCR conducts inspections for eroding areas during on-going operation and maintenance of parks and open space.

Upon identification of eroding areas DCR Stormwater Engineering is contacted and measures are taken immediately to minimize erosion. These measures include installing energy dissipators, re-establishing vegetation, and installing temporary erosion controls, as needed. DCR installs erosion controls during any ground disturbance within 250 feet of a water body or wetland resource or greater than 1-acre in size.

DCR ensures all contractors comply with their National Pollutant Discharge Elimination System (NPDES) Construction Stormwater Permit(s) for erosion control, as required. Following ground disturbance, the ground will be immediately stabilized with mulch or other practices and vegetation will be re-established as quickly as possible.

2. Buildings and Facilities

2.1 Overview and Inventory

This section covers DCR's approach to maintaining its buildings and facilities. DCR's MS4 Permit requires development of O&M procedures for DCR-owned buildings and facilities where pollutants are exposed to stormwater runoff. These procedures apply to all DCR-owned buildings and facilities. DCR maintains an inventory of state-wide buildings and facilities separate from this document.

The goal of these procedures is to minimize the potential for sites to generate pollutants that can runoff into the drainage system or nearby waterbodies. The following MS4 Permit requirements (Part 2.3.7a.ii.2) are addressed in this section:

- Develop an inventory of all permittee-owned buildings and facilities where pollutants are exposed to stormwater runoff;
- Evaluate the use, storage, and disposal of petroleum products and other potential stormwater pollutants and ensure employees or contractors responsible for handling products are trained;
- Ensure Spill Prevention Plans are in place, as applicable, and coordinate with the fire department as necessary;
- Develop management procedures for dumpsters and other waste management equipment; and
- Ensure parking lots are swept and areas surrounding facilities are kept clean to reduce

2.2 O&M Procedures

DCR values the maintenance and upkeep of buildings and facilities to ensure the comfort and safety of employees, and visitors, while also preventing stormwater issues associated with these facilities and ensuring that these facilities perform at high levels. DCR employees participate in training on building and facility operation and maintenance to ensure best practices and skills are kept up to date. Concessions and lessees that operate DCR facilities are provided a copy of these procedures and required to comply with these or their own versions of O&M procedures, as long as they are at least as stringent as this document. The buildings and facilities O&M topics listed above are of particular concern under permit requirements.

2.2.1 Use, Storage and Disposal of Potential Pollutants

Potential pollutants stored at DCR facilities include, but are not limited to, oil, gasoline, antifreeze, fertilizers, pesticides, and de-icing agents and additives. Minimizing or eliminating contact of materials containing potential pollutants with stormwater can significantly reduce pollution of receiving waters. Proper material handling and storage also contributes to employee health, an organized workplace, and efficient operations.

Spill prevention plans are put in place where applicable, based on inventories of material storage and potential pollutants. The attached Spill Prevention Control and Countermeasure (SPCC) Plan (Appendix A)

applies to all DCR facilities where hazardous materials are used or stored. Employees and contractors who are responsible for material use are trained on the SPCC plan and the guidelines below.

Best Practices for the Use, Storage, and Disposal of Potential Pollutants

- Follow manufacturer's guidance on proper storage, disposal, and use.
- Store chemicals under cover in an enclosed controlled, ventilated, well-lit, high, and dry area that is cool and insulated to protect against temperature extremes. Ensure storage areas were constructed in accordance with local fire codes for storing flammable or combustible materials.
- Confine material storage indoors whenever possible. Plug or disconnect floor drains that lead to the stormwater system.
- Confine outdoor material storage to designated areas that are covered, on impervious surfaces, away from high traffic areas, and outside of drainage pathways.
- Equip storage areas with easily accessible spill cleanup materials and portable firefighting equipment. Emergency eyewash stations and emergency drench showers should be located near the storage area.
- Storage cabinets are locked with a weather-proof sign that warns of the existence and danger of the materials inside visible at a distance of 25 feet, as appropriate.
- Include material safety data sheets (MSDS) in an accessible location(s).
- Keep materials in their original containers.
- If materials are not in their original containers, clearly label all storage containers with the name of the chemical, the expiration date, and handling instructions.
- Maintain an inventory of all raw and waste materials to identify leakage. Order new materials only when needed.
- Provide secondary containment for storage tanks and drums with sufficient volume to store 110 percent of the volume of the material.
- Inspect storage areas for spills or leaks and containment units for corrosion or other failures.
- Ensure that contaminated waste materials are kept in designated containers and stored in labeled, designated, covered, and contained areas.
- Dispose of excess or obsolete materials and associated waste materials in accordance with the manufacturer's specification and all applicable regulations.

2.2.2 Trash and Recyclables Management

All liquid and solid waste must be disposed of properly. Some of the most common sources of pollution in Massachusetts are a result of littering, improper collection of debris, and improper disposal of waste. DCR manages waste at its facilities following the best practices listed below.

Best Practices for Waste Management

- Ensure a sufficient number of waste receptacles are in place, where appropriate. Additional receptacles will be placed in high traffic areas based on observation.
- All waste and recycling receptacles should be leak-tight with tight-fitting lids or covers.
- Keep lids on dumpsters and containers closed at all times unless adding or removing material. If using an open-top roll-off dumpster, cover it and tie it down with a tarp unless adding materials.
- Place waste or recycling receptacles indoors or under a roof or overhang whenever possible.
- Locate dumpsters on a flat, paved surface not over or adjacent to catch basins and install berms or curbs around the storage area to prevent run-on and run-off.
- Arrange for waste or recycling to be picked up regularly and disposed of at approved disposal facilities. Prior to transporting waste, trash, or recycling, ensure that containers are not leaking (double bag if needed) and properly secure containers to the vehicle.
- 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 and clean and sweep solid and liquid waste storage areas. Clean up any liquid leaks or spills with dry cleanup methods.
- In dumpster areas, regularly pick up surrounding trash and debris and regularly sweep the area.

2.2.3 General Maintenance

The following best practices are applied when conducting general maintenance at DCR owned facilities. These practices apply to all DCR owned facilities.

- When power washing buildings and facilities, ensure that the wash water does not flow into the storm system. Containment or filtering systems, such as stormceptors, should be provided.
- 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. Do not conduct when it is raining or prior to expected rain.

- 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 to sewer connections
- Streets and parking lots surrounding DCR buildings and facilities should be swept and kept clean to reduce runoff of pollutants and debris to the stormwater system.

3. Vehicles and Equipment

3.1 Overview and Inventory

This section covers DCR's approach to maintaining its vehicles and equipment. DCR's MS4 permit requires establishment of procedures for the storage and maintenance of DCR-owned vehicles and equipment, so as to minimize their contribution of pollution to waterbodies. This section addresses the following MS4 Permit requirements (Part 2.3.7a.ii.3):

- Develop an inventory of permittee-owned vehicles and equipment;
- Establish procedures for the storage of vehicles.;
- Evaluate fueling areas owned or operated by the permittee; and
- Establish procedures to ensure vehicle wash waters are not discharged into the storm sewer system or surface waters.

DCR owns and operates vehicles and equipment at most of its facilities. An inventory of these assets is maintained separate from this document. In addition to storing vehicles at DCR facilities, DCR vehicles and vehicles of DCR staff may be parked at the following areas where the staff is assigned

Table 3 Inventory of Staff Vehicle Parking Areas

1 Eliot Cir., Revere	75 Turtle Pond Pkwy., Hyde Park	Great Brook Farm,165 North Rd., Carlisle
1 Land Blvd. Cambridge	86 Dearth Hill Rd., Brimfield	Harold Parker, 305 Middleton Rd., N. Andover
1 Nahant Rd., Nahant	984 Lowell Rd., Carlisle	Hopkinton, 164 Cedar St., Hopkinton
1 Wicklow St., Medford	AED, Noonan Pl., Somerville	K-Circle Mt. Vernon/Old Colony Lot, Dorchester
115 State St., N. Adams	Beartown, 69 Blue Hill Rd., Monterey	Leominster, 1 Fitchburg Rd., Westminster
135 Fawcett St., Cambridge	Beaver Brook, 66 Mill St., Belmont	Lovejoy Wharf, Beverly St. Ext., Boston Massasoit SF, 1361 Middleboro Ave., Taunton
136 Damon Rd., Northampton	Borderland, 259 Massapoag Ave., N. Easton	Mohawk, Cold River Rd. (Rt. 2), Charlemont
165 William Day Blvd., S. Boston	Botume House, 4 Woodland Rd., Stoneham	Myles Standish, 194 Cranberry Rd., S. Carver
180 Beaman St., W. Boylston	Bradley Palmer, 40 Asbury St., Topsfield	Natural Bridge-McAuley Rd., N. Adams
240 Barber Ave., Worcester	Brookwood Farm, 11 Blue Hill River Rd., Milton	NCRD, 250 Warren Ave., Charlestown
25 Shattuck St., Lowell	Central HQ, 355 West Boylston St., Clinton	October Mtn., 317 Woodland Rd., Lee
271 Oak St., Uxbridge	Chicopee, 570 Burnett Rd., Chicopee	Otter River, 86 Winchendon Rd., Baldwinville
30 Shipyard Dr., Hingham	Connell Rink, 220 Broad St., Weymouth	Pittsfield, 1041 Cascade St., Pittsfield
40 Cold Storage Rd., Amherst	Douglas, 107 Wallum Lake Rd., Douglas	Purgatory Chasm, 198 Purgatory Rd., Sutton
475 Neponset Ave., Dorchester	Dubuque, RT8A, Hawley	Quabbin, 370 Blue Meadow Rd., Belchertown
51 Military Rd., Amherst	F. Gilbert Hills, 45 Mill St., Foxborough	Shawme Crowell, 42 Main St., Sandwich
600 Ocean Ave., Revere	FC Maint. Garage, 250 Leverett Cir., Boston	Stoneham Yard, 164 Pond St., Stoneham
695 Hillside St., Milton	Rutland, 49 Whitehall Rd., Rutland	Tolland, 410 Tolland Rd., E. Otis
740 South St., Pittsfield	Freetown, 110 Slab Bridge Rd., Assonet	Wompatuck, 204 Union St., Hingham

3.2 O&M Procedures

DCR strives to maintain its vehicles and equipment in good working order so as to provide high quality services and ensure the safety of employees and visitors, all while preventing stormwater pollution from vehicles and equipment. DCR follows the following procedures for vehicles and equipment.

3.2.1 Vehicle and Equipment Maintenance

DCR vehicles and equipment are inspected on a regular basis and managers ensure that leaking vehicles or equipment are not used. Vehicles with fluid leaks are stored indoors or containment is otherwise provided until repaired. The following best practices are followed for vehicle and equipment storage, maintenance, and fueling.

Best Practices for Vehicle and Equipment Storage, Maintenance, and Fueling

Vehicle Storage

- 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.
- Always park vehicles 50 feet or more from wellheads.

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.

Body Repair and Painting

- Conduct all body repair and painting work indoors. Most DCR vehicle repair and painting is conducted off-site at commercial body shop facilities.
- Minimize waste from paints and thinners. Calculate paint needs based on surface area.
- Use dry cleanup methods (vacuum, sweep) to clean up metal filings and dust and paint chips from grinding, shaving, and sanding. Sweep debris from wet sanding after allowing it to dry overnight on the shop floor. Dispose of waste properly; never dump waste into storm or sanitary sewers.
- Use sanding tools equipped with vacuum capability to pick up debris and dust.
- Store all chemicals in accordance with Section 2.2.1 Use, Storage and Disposal of Potential Pollutants.

Fueling

- Fueling areas owned or operated by DCR should be covered.
- Fueling areas should be evaluated to ensure that pollutants (e.g., gasoline or oil) do not enter the MS4.
- Follow procedures in Section 3.2.3. Fuel and Oil Handling.

3.2.2 Vehicle Washing Procedures

DCR conducts most vehicle washing at off-site commercial vehicle washing facilities. Outdoor washing of DCR vehicles should be avoided unless wash water is contained in a tight tank or similar structure. Where no alternate wash system is available, and full containment of wash water cannot be achieved, the procedures in the following sections shall be followed.

Best Practices for Vehicle Washing

General

- Bring smaller vehicles to commercial washing stations.
- Where use of detergent cannot be avoided, use products that do not contain regulated contaminants. Use of a biodegradable, phosphate-free detergent is preferred.
- Maintain absorbent pads and drip pans to capture and collect spills or noticeable leaks observed during washing activities. Clean up any spills using the procedures described in the SPCC provided in Appendix A.
- Avoid discharge of any wash water directly to a surface water (e.g., stream, pond, drainage swale, etc.)
- Minimize use of water to the extent practical.
- Solids and particulate accumulation from the washing area shall be completed through periodic sweeping and/or cleaning.
- Designate separate areas for routine maintenance and vehicle cleaning. This helps prevent contamination of wash water by motor oils, hydraulic lubricants, greases, etc.
- Store all chemicals in accordance with Section 2.2.1 Use, Storage and Disposal of Potential Pollutants.

Outdoor Vehicle Washing

- 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 cleaning 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 shall not be used within wellhead protection areas or within other protected resources.
- Impervious surfaces discharging to engineered storm drain systems shall not discharge directly to a surface water unless treatment is provided. Treatment can include a compost-filled sock designed specifically for removal of petroleum and nutrients, such as the Filtrexx™ FilterSoxx product, or equal. The treatment device shall be positioned such that all drainage must flow through the device, preventing bypassing or short-circuiting.
- All adjacent engineered storm drain system catch basins shall have a sump. These structures shall be cleaned periodically. If needed, a stormceptor or oil/grit separator may be installed.
- Heavily soiled vehicles or vehicles dirtied from salting or snow removal efforts shall not be washed outside, without exception.

Indoor Vehicle Washing Procedures

- Detergents shall not be used in areas where oil/water separators provide pre-treatment of drainage.
- Floor drains shall be connected to a sanitary sewer or tight tank. Floor drains discharging

to adjacent surface water bodies or engineered storm drain systems shall be permanently plugged or otherwise abandoned before any vehicle wash activities are completed.

- Dry clean-up methods, such as sweeping and vacuuming, are recommended within garage facilities. Do not wash down floors and work areas with water.

Engine Washing and Steam Washing Procedures

- Do not wash parts outdoors.
- Maintain drip pans and smaller containers to contain motor oils, hydraulic lubricants, greases, etc. and to capture and collect spills or noticeable leaks observed during washing activities, to the extent practicable. Clean up any spills using the procedures described in the SPCC provided in Appendix A.
- Avoid cleaning with solvents except in dedicated solvent parts washer systems. Make use of pressure washing and steam cleaning.
- Recycle clean solutions and rinse water to the extent practicable.
- Wash water shall discharge to a tight tank or a sanitary sewer via an oil/water separator. Detergents shall not be used in areas where oil/water separators provide pre-treatment of drainage.

3.2.3 Fuel and Oil Handling

Spills, leaks, and overfilling can occur during handling of fuels and petroleum-based materials, representing a potential source of stormwater pollution, even in small volumes. This section provides guidance to DCR employees on a variety of ways by which fuels and petroleum-based materials can be delivered, as well as steps to be taken when petroleum products (such as waste oil) are loaded onto vehicles for offsite disposal or recycling.

Best Practices for Fuel and Oil Handling

General

- Vehicles and equipment should always be accompanied during fueling operations (Most DCR fueling is fueling of vehicles and small equipment.)
- There is no smoking while fuel handling is in process or underway. Sources of flame are kept away while fuel handling is being completed. This includes smoking, lighting matches, carrying any flame, or carrying a lighted cigar, pipe, or cigarette.
- The delivery driver should check in with the facility upon arrival.
- The facility representative should ensure that the appropriate spill cleanup and response equipment and personal protective equipment are readily available and easily accessible. Refer to the SPCC in Appendix A for examples of spill cleanup and response materials.
- The delivery vehicle's hand brake is set, and wheels are chocked while the activity is being completed.
- No tools are to be used that could damage fuel or oil containers or the delivery vehicle.
- No flammable liquid should be unloaded from any motor vehicle while the engine is operating unless the engine of the motor vehicle is required to be used for the operation of a pump.
- Ensure that local traffic does not interfere with fuel transfer operations. If it does, make appropriate accommodations.
- The attending persons should watch for any leaks or spills. Any small leaks or spills should be immediately stopped, and spilled materials

absorbed and disposed of properly. Follow the procedures in the SPCC in Appendix A.

- In the event of a large spill or one that discharges to surface waters, or an engineered storm drain system, the facility representative should activate the facility's Stormwater Pollution Prevention Plan (SWPPP) and report the incident as specified in the document.

Delivery of Bulk Fuel

- The facility representative should check to ensure that the amount of delivery does not exceed the available capacity of the tank.
- A level gauge can be used to verify the level in the tank.
- If a level gauge is not functioning or is not present on the tank, the tank should be stick tested prior to filling.
- The truck driver and the facility representative should both remain with the vehicle during the delivery process.
- The truck driver and the facility representative should inspect all visible lines, connections, and valves for leaks.
- When delivery is complete and the hoses are removed, buckets should be placed underneath connection points to catch drippings.
- The delivery vehicle should be inspected prior to departure to ensure that the hose is disconnected from the tank.
- The facility representative should inspect the fuel tank to verify that no leaks have occurred, or that any leaked or spilled material has been cleaned and disposed of properly.
- The facility representative should gauge tank levels to ensure that the proper amount of fuel is delivered and collect a receipt from the truck driver.

Delivery of Drummed Materials

- If damaged drums are found, they should be closely inspected for leaks or punctures.
- Breached drums should be removed to a dry, well-ventilated area and the contents transferred to other suitable containers.
- Drums should be disposed of in accordance with all applicable regulations.
- Drummed materials should not be unloaded outdoors during wet weather events.
- The truck driver and the facility representative should both remain with the vehicle during the delivery process.
- Drums should be handled and unloaded carefully to prevent damage.
- Upon completion of unloading, the facility representative should inspect the unloading point and the drums to verify that no leaks have occurred, that any leaked or spilled material has been cleaned up and disposed of properly, and that the unloaded drums are not leaking.
- The facility representative should check to ensure that the proper amount of fuel or other material is delivered and collect a receipt from the truck driver.

Removal of Bulk Waste Oil

- The truck driver and the facility representative should both remain with the vehicle during the tank draining process.
- When draining is complete and the hoses are removed, buckets should be placed underneath connection points to catch drippings.
- The facility representative should inspect the loading point and the tank to verify that no leaks have occurred, or that any leaked or spilled material has been cleaned up and disposed of properly.
- The facility representative should collect a receipt from the truck driver.
- When draining bulk oil tanks:
- The facility representative should verify that the volume of waste oil in the tank does not exceed the available capacity of the disposal hauler's vehicle.
- The disposal hauler vehicle should be inspected prior to departure to ensure that the hose is

disconnected from the tank.

Removal of Smaller Quantities of Waste Oil

- Smaller volumes of waste oil should be collected in steel 55-gallon drums labelled Waste Oil and stored in designated Hazardous Waste Accumulation areas. Once drums are full, call DCR Hazardous Waste Coordinator to arrange for recycling or disposal.

4. Catch Basins

4.1 Overview and Inventory

This section covers DCR's approach to maintaining its catch basins. Maintaining catch basins in good working order is an important best practice and MS4 Permit requirement. DCR performs routine inspections, cleaning, and maintenance of the approximately 8,000 catch basins that are located within the MS4 regulated area.

This section addresses the following MS4 Permit requirements:

- Establish a schedule with a goal that the frequency of routine cleaning will ensure that no catch basin at any time will be more than 50% full.
- Document in each annual report the following information:
    - 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.

Catch basin locations are mapped and managed in DCR's Stormwater Collector Map. Contact DCR Stormwater & Environmental Section to obtain access to this application.

4.2 O&M Procedures

The DCR or its contractors will implement the following catch basin inspection and cleaning procedures to reduce the discharge of pollutants from the MS4:

Best Practices for Catch Basin Inspections and Cleaning

- Catch basins will be cleaned such that they are no more than 50 percent full[3] at any time.
- If a catch basin sump is more than 50 percent full during two consecutive routine inspections or cleaning events, the findings 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) are inspected and cleaned more frequently if inspection and maintenance activities indicate excessive sediment or debris loadings (i.e., catch basins more than 50 percent full). Priority will also be given to catch basins that discharge to impaired waters.
- Properly dispose of collected sediments and catch basin cleanings (solid material, such as leaves, sand, and twigs removed from stormwater collection systems during cleaning operations).
- Cleanings from stormwater-only drainage systems may be disposed at any landfill that is permitted by MassDEP to accept solid waste. MassDEP does not routinely require stormwater-only catch basin cleanings to be tested before disposal, unless there is evidence that they have been contaminated by a spill or some other means.
- Sediments may need to be placed in a drying bed to allow water to evaporate before proper disposal. In this case, ensure that the sediments are managed properly to prevent pollution.
- Catch basin cleanings must be handled and disposed in compliance with the applicable MassDEP regulations, policies, and guidance (https://www.mass.gov/files/documents/2018/03/09/catch-basins.pdf)
- Catch basin cleanings may be temporarily stockpiled on DCR property, but may not be disposed of on DCR parking lots or land.
- Collect data on the condition of the physical basin structure, its frame, and the grate, as well as on the quality of stormwater conveyed by the structure during inspections and cleanings.
- Make note of any potential pollutants or non-stormwater flows within the catch basin. Observations of oil sheen, discoloration, and/or trash and debris can indicate sources of pollution within the storm drain system. Observations of the following can indicate a potential connection of a sanitary sewer to the storm drain system: fecal matter, sewage odors, foaming (such as from detergent), optical enhancers (such as fluorescent dye added to laundry detergent).
- If any signs of pollution and/or sanitary sewer connections are present, notify DCR's Stormwater and Environmental Section.

[3] A catch basin sump is more than 50 percent full if the contents within the sump exceed one half the distance between the bottom interior of the catch basin to the invert of the deepest outlet of the catch basin

5. Streets and Parking Lots

5.1 Overview and Inventory

This section covers DCR's approach to maintaining its streets and parking lots. As impervious surfaces, streets, and parking lots can contribute to stormwater pollution. The following MS4 Permit requirements are covered in this section:

- Establish and implement procedures for sweeping and/or cleaning streets and permittee-owned parking lots.
- Document in each annual report the following information:
    - Number of miles cleaned, volume of material removed, or weight of material removed,
    - Street sweeping schedule to target areas with high pollutant loads.

The following section outlines procedures implemented directly by DCR when conducting its own street sweeping or mandated by DCR to its contractors when they conduct the street sweeping.

5.2 O&M Procedures

As required by the MS4 Permit, DCR sweeps all DCR-owned roadways with curbs and catch basins at a minimum of once per year. DCR-owned roadways with curbs and catch basins that discharge to nitrogen or phosphorus impaired waters or their tributaries are swept at a minimum of twice per year, once in the spring and once in the fall.

DCR conducts frequent street sweeping, often beyond permit requirements, on DCR-owned parkways and roads through professional contracted services based on a set schedule maintained by DCR's Stormwater & Environmental Section. DCR also conducts additional street sweeping on an as needed basis, with location and material removed reported back to DCR Stormwater & Environmental. Street sweeping is conducted by DCR Operations. Frequent sweeping is also conducted in heavily trafficked DCR-owned parking lots. For the most updated sweeping schedule, contact the Stormwater & Environmental Section.

DCR conducts sweeping on rural uncurbed roads and parking lots with no catch basins on an as-needed basis. Facility managers without the means to street sweep should contact the DCR Stormwater & Environmental Section to schedule a sweeping at a DCR facility when deemed necessary.

The DCR does not reuse street sweepings on DCR property. All street sweepings collected are disposed of at a facility permitted to accept street sweepings. DCR and contractors may temporarily store street sweepings in DCR labor yards, but street sweepings must be disposed of offsite in a reasonable timeframe. Street sweepings may not be disposed of on DCR parking lots or lands.

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

Best Practices for Sweeping and Disposal of Street Sweeping Materials

Sweeping

- Street sweeping will be conducted in dry weather. Sweeping will not be conducted during or immediately after rainstorms.
- Dry cleaning methods will be used whenever possible, with the exception of very fine water spray for dust control. Avoid wet cleaning or flushing of the pavement.
- When necessary, parking bans will be enacted to facilitate sweeping on busy streets.
- Sweeping will be conducted in a manner that avoids depositing debris into storm drains.
- Sweeping equipment (mechanical, regenerative air, vacuum filter, tandem sweeping) will be selected depending on the level of debris. Brush alignment, sweeper speed, rotation rate, and sweeping pattern will be set to optimal levels to manage debris.
- Sweeping equipment will be routinely inspected and maintained to reduce the potential for leaks.
- To request sweeping at a DCR facility, contact the DCR Stormwater & Environmental Section.

Disposal

- The reuse of sweepings is recommended by MassDEP. If street sweepings are reused (e.g., as anti-skid material or fill in parking lots), they will be properly filtered to remove solid waste, such as paper or trash, in accordance with their intended reuse. All reuse and/or disposal of street sweepings will be managed in accordance with current MassDEP policies and regulations. . https://www.mass.gov/doc/street-sweepings-reuse-disposal-policy-baw-18-001/download
- Generally, DCR does not reuse street sweepings. Street sweepings can be stored for up to one year in approved temporary storage areas. Storage areas will be protected to prevent erosion and runoff and should be located away from wetland resource areas and buffer zones, surface water, or groundwater.
- Sweepings are classified as solid waste and are disposed of at solid waste disposal sites.

6. Winter Road Maintenance

6.1 Overview

The DCR, in coordination with MassDOT, performs a variety of maintenance activities to ensure safe winter driving conditions on its roads and parking lots. This section addresses the following MS4 Permit requirements:

- Establish and implement procedures for winter road maintenance including:
  - Use and storage of sand and salt
  - Minimize the use of sodium chloride and other salts
  - Evaluate opportunities for use of alternative materials
- Ensure snow disposal activities do not result in disposal of snow into waters of the United States.

6.2 O&M Procedures

DCR understands that winter road operations can impact water quality. MassDOT and DCR coordinate snow and ice operations on state-owned roads and parkways. MassDOT documents their extensive snow and ice control program every 5 years in an Environmental Status and Planning Report (ESPR). MassDOT's Snow and Ice Control Program ESPR from 2022 includes extensive measures to limit chemical usage, improve road salt efficiency, and protect environmental resources. All snow and ice operators are required to be trained annually on the MassDOT practices. MassDOT's latest ESPR can be found by searching the MEPA eMonitor Database for Document Type: ESPR CERT and Agency: MassDOT. The search portal is located here: https://eeaonline.eea.state.ma.us/EEA/MEPA-eMonitor/search

In general, the DCR implements 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[4] (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 (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.

[4] For purposes of the MS4 Permit, salt means any chloride-containing material used to treat paved surfaces for deicing, including sodium chloride, calcium chloride, magnesium chloride, and brine solutions.

- The MS4 Permit prohibits snow disposal into waters of the United States. Snow disposal activities, including selection of appropriate snow disposal sites, will adhere to the Massachusetts Department of Environmental Protection Snow Disposal Guidance, Guideline No. BWR G2015-01 (Effective Date: December 21, 2015. Revised Date: December 11, 2020), located at: http://www.mass.gov/eea/agencies/massdep/water/regulations/snow-disposal-guidance.html
- DCR follows the MassDEP Snow Disposal Guidance for ice melting operations and skating rinks as well.

7. Structural Stormwater BMPs

7.1 Overview and Inventory

Structural stormwater Best Management Practices (BMPs) are structural controls that are designed, built, and maintained to treat stormwater prior to being discharged to the drainage system or waterbody. BMPs often retain or infiltrate stormwater, allowing natural processes like settling, vegetation uptake, and filtration to remove pollutants from runoff. Examples include infiltration structures or swales, bioretention systems (e.g., rain gardens), wet ponds, detention basins, and infiltration/leaching basins or chambers.

An inventory of structural stormwater BMPs owned and/or maintained by DCR are mapped and managed in DCR's Stormwater Collector Map. Contact DCR Stormwater & Environmental Section to obtain access to this application.

7.2 O&M Procedures

DCR understands that in order to function properly and provide associated stormwater benefits, structural stormwater BMPs must be kept in good working order.

7.2.1 Inspections

Structural stormwater BMPs will be inspected annually at a minimum by DCR Engineering or the Water Supply Protection Division.

During inspections, the following BMP components will be reviewed for signs of potential issues, as listed below.

- **Inlet and Outlet Structures**
    - Blocked flow paths
    - Inlet is functioning as expected and flow from the contributing area is reaching the BMP
    - Outlet is performing as expected and flow is leaving the BMP appropriately
    - Structural damage
    - Vegetation is well established and there are no signs of erosion
    - Evaluate level of sedimentation and trash accumulation
- **BMP Treatment Areas**
    - Flow is dispersed evenly throughout the BMP
    - Erosion and rutting on the side slopes
    - Vegetation is well established, and invasive species are not present
    - For infiltration-type BMPs, review to evaluate whether standing water exists 72 hours after a rain event

- Identify any signs of illicit discharges or vandalism
- Evaluate level of sedimentation and trash accumulation

- **Underground Components**
  - Evaluate level of sedimentation and trash accumulation
  - Structural damage
  - Access to components are not compromised
  - Inspect dry wells after every major storm for the first 3 months once construction is complete and annually thereafter

During inspection, DCR will assign a level of service to each item reviewed. Areas where follow up maintenance is warranted will be indicated. The following maintenance activities will occur at structural BMPs based on condition determined during annual inspections:

- Repair structural damage
- Remove excess sediment, trash, and debris
- Re-establish vegetation
- Remove invasive vegetation
- Re-grade areas, as necessary to ensure proper flow patterns
- Stabilize eroded areas via vegetation establishment, placement of stone, or other energy dissipation measures

DCR maintains records of annual inspections and maintenance actions performed for each structural BMP in their ArcGIS Collector application.

7.2.2 Maintenance

Regular maintenance is important to prevent against premature failure of BMPs. The table on the following page outlines maintenance schedule in general and for specific BMP types. It is important to note that BMP maintenance may not be the responsibility of regular maintenance crews. All maintenance for BMPs should be coordinated with the DCR Stormwater & Environmental Section or the Water Supply Protection Division for BMPs within the Water Supply watersheds.

Table 5 BMP Maintenance Schedule

Activity	Responsible Party[5]	Time of Year	Frequency
General			
Mow	Operations or contracted services	Spring through Fall	As needed, Annually minimum
Remove dead vegetation	Operations	Fall and spring	Bi-annually
Remove invasive vegetation	Operations or contracted services	Spring or fall	Annually
Prune	Operations	Spring or fall	Annually
If identified during inspections as needed			
Replace dead vegetation	Engineering	Spring	As Needed
Stabilize eroded areas	Engineering	Spring through Fall	As Needed
Re-grade areas to ensure proper flow patterns	Engineering	Spring through Fall	As Needed
Remove excess sediment, trash, and debris	Engineering	Spring through Fall	As Needed
Repair structural damage	Engineering	Spring through Fall	As Needed
Bioretention Areas and Rain Gardens			
Mulch void areas	Operations or contracted services	Spring	Annually
Replace all media and vegetation and repair structural damage as needed	Engineering or contracted services	Late spring/early summer	As needed
Extended Dry Detention Basin and Wet Basin			
Mow upper stage, side slopes, embankment, and emergency spillway	Operations or contracted services	Spring through Fall	Bi-annually
Remove sediment from basin	Engineering	Year round	As required, at least once every 5 years
Remove sediment, trash, and debris	Engineering	Spring through Fall	Bi-annually (Minimum)
Subsurface BMPs			

[5] For all BMPs within the Wachusett Reservoir, the Water Supply Protection Division is responsible for all BMP inspection and maintenance activities.

Activity	Responsible Party[5]	Time of Year	Frequency
Inspect subsurface components, as feasible	Engineering	Spring through Fall	Annually
Infiltration Basin			
Mow/rake buffer area, side slopes, and basin bottom	Operations or contracted services	Spring and fall	Bi-annually
Remove trash, debris, and organic matter	Engineering	Spring and fall	Bi-annually

Appendix A: Spill Prevention Control and Countermeasure (SPCC) Plan

Introduction

DCR is responsible for any contaminant spill or release that occurs on property that they own or operate. Particular areas of concern include any facilities that use or store chemicals, fuel oil, or hazardous waste, including fuel depots, garages, and maintenance facilities. Implementation of proper spill response and cleanup procedures can help to mitigate the effects of a contaminant release. The goal of this written document is to provide guidance to DCR employees to help reduce the discharge of pollutants from the MS4 as a result of spills or releases.

DCR undertakes various precautions with spill response and cleanup procedures. To assist with any hazardous waste spills or incidents at DCR facilities statewide, DCR maintains a contract with a Hazardous Waste Responder. Additionally, local Fire Departments are often an integral part of spill response activities at DCR facilities.

Procedures

DCR will implement the following spill response and cleanup procedures to reduce the discharge of pollutants from the MS4:

Responding to a Spill

Employees should be trained in proper spill response specific to the materials used at their site and appropriate personal protective equipment (PPE). In the event of a spill, follow these spill response and cleanup procedures:

1. If the facility has a Stormwater Pollution Prevention Plan (SWPPP), notify a member of the facility's Pollution Prevention Team, the facility supervisor, and/or the facility safety officer and DCR Spill Response Coordinator (fill out the attached spill response contact list). If not, continue to follow the procedures outlined below.
2. Assess the contaminant release site for potential safety issues and for direction of flow.
3. Complete the following:
    a. Stop the contaminant release.
    b. Contain the contaminant release through the use of spill containment berms or absorbents.
    c. Protect all drains and/or catch basins with the use of absorbents, booms, berms or drain covers.
    d. Clean up the spill.
    e. Dispose of all contaminated products in accordance with applicable federal, state, and local regulations.
        i. Soil contaminated with petroleum should be handled and disposed of as described in MassDEP policy WCS-94-400, Interim Remediation Waste Management Policy for

Petroleum Contaminated Soils (https://www.mass.gov/files/documents/2016/08/mq/94-400.pdf).

ii. 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.

iii. Waste oil contaminated industrial wipes and sorptive minerals:

1. Perform the "one drop" test to ensure absorbents do not contain enough oil to be considered hazardous, as described in the MassDEP Waste Oil Management Guide (https://www.mass.gov/files/documents/2018/12/18/oilwiper.pdf).
2. Wring absorbents through a paint filter. If doing so does not generate one drop of oil, the materials are not hazardous.
3. If absorbents pass the "one drop" test they may be discarded in the trash unless contaminated with another hazardous waste.
    a. It is acceptable to mix the following fluids and handle them as waste oil:
        - Waste motor oil
        - Hydraulic fluid
        - Power steering fluid
        - Transmission fluid
        - Brake fluid
        - Gear oil
    b. Do not mix the following materials with waste oil. Store each separately:
        - Gasoline
        - Antifreeze
        - Brake and carburetor cleaners
        - Cleaning solvents
        - Other hazardous wastes
4. If absorbents do not pass the "one drop" test they should be placed in separate metal containers with tight fitting lids, labeled "Oily Waste Absorbents Only."

4. If you need assistance containing and/or cleaning up the spill or preventing it from discharging to a surface water (or an engineered storm drain system), contact DCR Spill Response Coordinator or your local fire department using the number listed below. **In the case of an emergency call 911.**
5. Contact the MassDEP 24-hour spill reporting notification line, toll-free at **(888)-304-1133**;

    a. The following scenarios are exempt from MassDEP reporting requirements (see the MassDEP factsheet on oil and hazardous materials handling for more information: https://www.mass.gov/files/documents/2016/08/xm/spillmgm.pdf).

i. Spills that are less than 10 gallons of petroleum and do not impact a water body
ii. Spills that are less than one pound of hazardous chemicals and do not present an imminent health or safety hazard
iii. Fuel spills from passenger vehicle accidents

b. Spills within a vault or building with a watertight floor and walls that completely contain all released chemicals

Reporting a Spill

When contacting emergency response personnel or a regulatory agency, or when reporting the contaminant release, be prepared to provide the following information:

1. Your name and the phone number you are calling from.
2. The exact address and location of the contaminant release.
3. Specifics of release, including:
    a. What was released;
    b. How much was released, which may include:
        i. Pounds
        ii. Gallons
        iii. Number of containers
4. Where was the release sent/what was contaminated, addressing:
    a. Pavement
    b. Soil
    c. Drains
    d. Catch basins
    e. Water bodies
    f. Public streets
    g. Public sidewalks
5. The concentration of the released contaminant.
6. What/who caused the release.
7. Is the release being contained and/or cleaned up or is the response complete.
8. Type and amount of petroleum stored on site, if any.
9. Characteristics of contaminant container, including:
    a. Tanks
    b. Pipes
    c. Valves

Maintenance and Prevention Guidance

Prevention of spills is preferable to even the best response and cleanup. To mitigate the effects of a contaminant release, provide proper maintenance and inspection at each facility. To protect against contaminant release, adhere to the following guidance:

- 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.
- Provide yearly maintenance and inspection at all DCR facilities, paying particular attention to underground storage tanks. Maintain maintenance and inspection records on site.
- Implement good management practices where chemicals and hazardous wastes are stored:
    - Ensure storage in closed containers inside a building and on an impervious surface wherever possible.
    - If storage cannot be provided inside, ensure secondary containment for 110 percent of the maximum volume of the storage container.
    - Locate storage areas near maintenance areas to decrease the distance required for transfer.
    - Provide accurate labels, Material Safety Data Sheets (MSDS) information, and warnings for all stored materials.
    - Regularly inspect storage areas for leaks.
    - Ensure secure storage locations, preventing access by untrained or unauthorized persons.
    - Maintain accurate records of stored materials.
- 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.

Maintain appropriately stocked spill response kits at each facility and locations where oil, chemicals, or other hazardous materials are handled and stored.

Employee Training

- Employees who perform work with potential stormwater pollutants annually on proper spill procedures.
- Employees are also trained on stormwater pollution prevention and illicit discharge detection and elimination (IDDE) procedures.
- If services are contracted, the contractor should be given a copy of this and any applicable SOPs to ensure compliance with MS4 regulations.

Spill Response and Cleanup Contact List

DCR Spill Response Coordinator: Robert Lowell 508-509-1757