



# STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

**DPW Facility**  
Town of Eastham

September 2020



**ENVIRONMENTAL**  
 **PARTNERS**

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# SECTION 1 INTRODUCTION

This Stormwater Pollution Prevention Plan (SWPPP) has been developed by the Town of Eastham to address the requirements of the United States Environmental Protection Agency's (USEPA's) 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 2016 Massachusetts MS4 Permit.

The 2016 Massachusetts MS4 Permit requires that each permittee, or regulated community, address six Minimum Control Measures. These measures include the following:

1. Public Education and Outreach
2. Public Involvement and Participation
3. Illicit Discharge Detection and Elimination Program
4. Construction Site Stormwater Runoff Control
5. Stormwater Management in New Development and Redevelopment (Post Construction Stormwater Management); and
6. Good Housekeeping and Pollution Prevention for Permittee Owned Operations.

Under Measure 6, Good Housekeeping and Pollution Prevention for Permittee Owned Operations, the permittee is required, per Section 2.3.7.b of the 2016 Massachusetts MS4 Permit (page 50-54), to:

*...develop and fully implement a SWPPP for each of the following permittee-owned or operated facilities: maintenance garages, public works yards, transfer stations, and other waste handling facilities where pollutants are exposed to stormwater as determined by the permittee.*

*The SWPPP shall contain the following elements:*

1. *Pollution Prevention Team*
2. *Description of the facility and identification of potential pollutant sources.*
3. *Identification of stormwater controls*
4. *Management practices including: minimize or prevent exposure, good housekeeping, preventative maintenance, spill prevention and response, erosion and sediment control, management of runoff, management of salt storage piles or piles containing salt, employee training, and maintenance of control measures.*
5. *Site inspections*

This SWPPP accomplishes these requirements by:

- Providing an inventory of the materials and equipment at a facility that have the potential to cause stormwater pollution, and identifying locations where these materials are stored;
- Describing how stormwater is managed at a facility, including: engineered storm drain system conveyance; on-site pretreatment, treatment and infiltration systems; and discharges to surface water directly from the site;

- Reviewing activities that occur at the facility that represent a potential for stormwater pollution;
- Describing the Best Management Practices (BMPs) that will be implemented at the facility to reduce, eliminate and prevent the discharge of pollutants to stormwater;
- Identifying the employees responsible for developing, implementing, maintaining, and revising, as necessary, this SWPPP;
- Establishing a schedule and description of site inspections to be conducted at the facility to determine if the SWPPP is effective in preventing the discharge of pollutants;
- Serving as a tool for the facility employees, including a place to maintain recordkeeping associated with these requirements.

# SECTION 2 DETAILED FACILITY ASSESSMENT

## 2.1 FACILITY SUMMARY

The DPW Facility is located at 555 Old Orchard Road and is owned and operated by the Town of Eastham. The Locus Map in Figure 2-1 shows the location of the facility within the Town of Eastham.

The Department of Public Works is primarily responsible for activities at, and maintenance of, the facility.

## 2.2 SITE INSPECTION

The site inspection associated with the development of this SWPPP was completed on August 19, 2020. The inspection was conducted by Vern Lincoln of Environmental Partners.

During the site inspection, information related to activities at the site, vehicles stored at the site, fueling operations, material storage, transport of oil and other materials, and spill history was gathered.

## 2.3 POLLUTION PREVENTION TEAM

A Pollution Prevention Team for the DPW Facility has been prepared and designated the task of developing, implementing, maintaining, and revising, as necessary, the SWPPP for this facility. Listed below are Pollution Prevention Team members and their respective responsibilities.

Responsibilities assigned to one or more members of the Pollution Prevention Team include:

- Implementing, administering and revising the SWPPP
- Regularly inspecting stormwater control structures
- Conducting stormwater training
- Recordkeeping

**Leader:** Silvio Genao

**Title:** Superintendent of Public Works

**Office Phone:** 508-240-5900 Ext 3615

**Cell Phone:** 508-400-2043

**Responsibilities:** Considers all stages of plan development, inspections, and implementation; coordinates employee training programs; maintains all records and ensures that reports are submitted; oversees sampling program. Responsible for certifying the completeness and accuracy of the SWPPP. Assists in all components of the stormwater program, as needed. Maintains spill kits at the DPW Facility.

**Member:** Ronald Simons

**Title:** Operations Manager/General Foreman

**Office Phone:** 508-240-5973 Ext 3611

**Cell Phone:** 508-962-5985

**Responsibilities:** Implements the preventative maintenance program; oversees good housekeeping activities; serves as spill response coordinator; conducts inspections; assists with employee training programs; conducts sampling/visual monitoring.

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## 2.4 FACILITY DESCRIPTION

The primary purpose of the DPW Facility is to provide the Town of Eastham personnel with a heated, covered area in which to complete minor maintenance, equipment and tool storage, and storage of road deicing material, and other materials used throughout the Town of Eastham. Activities at the site are described in SECTION 2.7

The facility covers approximately 18.9 acres, and contains the structures and other features shown on the Site Map in Figure 2-2 and described in detail in the following sections. Components shown on the site map include:

- Location of the engineered drainage system, including catch basins, ditches, drain manholes, and treatment BMPs
- Outfalls to a receiving water, and the name of the receiving water
- Direction of surface water flow
- Structural stormwater pollution control measures
- Location of floor drains
- Vehicle washing areas
- Vehicle fueling areas
- Aboveground storage tanks (indoors and outdoors)
- Underground storage tanks
- Chemical storage areas
- Pesticide and fertilizer storage areas
- Salt storage areas
- Materials stockpiles
- Waste disposal areas.

## 2.5 FACILITY STRUCTURES

### Vehicle Storage and Maintenance

The maintenance building at the DPW Facility is used to provide Town of Eastham personnel with a heated, covered area in which to complete minor maintenance, oil changes and preparation of vehicles, equipment and tools for use at locations around the Town of Eastham. The natural resources building is also used for the preparation of vehicles, equipment, and tools for use around the Town of Eastham.

Both buildings are located at the north portion of the property. The maintenance building contains one floor drain, which discharges to a tight tank.

## **Maintenance and Storage Buildings**

Carpentry, electrical, and minor maintenance activities are completed in the maintenance building. Small equipment, signage, and tools are stored in the maintenance garage and natural resources garage. Latex paint, spray paint, and similar products are stored in the maintenance building and are properly stored in flammable materials storage cabinets. Both buildings are fully enclosed.

## **Storage of Deicing Materials**

Road salt at the DPW Facility are stored in the salt shed. This building is enclosed and the materials are fully contained within the building. The good housekeeping measure used to minimize the exposure resulting for adding to or removing stored materials include sweeping the entrance area regularly or when salt has accumulated on the paved surface.

## **Storage of Road Deicing Equipment**

The Town of Eastham utilizes a number of salt spreaders, sanders, and snow plows on its vehicles to adequately maintain roads. The salt spreaders and sanders are stored outside of the facility and suspended off the ground so that they can easily be cleaned, inspected, and maintained. Smaller plows are stored inside the maintenance building and natural resources building and the larger plows are stored outside of the facility, near the spreaders.

## **Administrative Buildings**

The DPW Facility Administrative offices are located at the north portion of the property. This building includes administrative space, office space, and break room.

## **2.5.1 Additional Site Features**

### **Aboveground Storage Tanks**

Aboveground storage tanks (ASTs) at the DPW Facility are used for storage of fuel and waste oil. An inventory of significant materials is included in SECTION 2.12.

The fuel AST is located at the far north portion of the property for storage of fuel. The AST is not covered.

The waste oil AST is located behind the office building and is covered and within a concrete secondary containment.

### **Fuel Islands**

An island containing two fuel pumps for gasoline and diesel are located at the northern portion of the property, and is used on a 24-hour basis for fueling of all Town of Eastham vehicles. The island is not covered. Access to these fuel pumps is protected using a FuelMaster fuel management system. The pumps are located on a concrete pad to help contain any oil or fuel spill during refueling.

### **Emergency Generators**

An emergency generator located at the east portion of the facility provides backup power to the facility during outages. The generator is exposed but runs on natural gas. The generator is not located on a pervious surface.

### **Tight Tanks**

The Town of Eastham maintains one tight tank at the DPW Facility. This tight tank collects discharges from a floor drain in the maintenance building.

This pretreatment structure has a cleanout manhole, and is pumped on an annual basis. The Department of Public Works is responsible for contracting this work, and maintains records on the pump out activities. This tight tank provides treatment of flow from the maintenance building. Floor drains in all areas where oil materials are used and/or where vehicles are stored discharge to this tight tank

### **Parking Areas**

There are several designated parking areas at the DPW Facility, each of which is an impervious surface. These parking lots are used primarily for visitors to the DPW offices, Town of Eastham-owned cars for daily use by DPW employees, and employees' personal vehicles; DPW trucks and/or heavy equipment are not kept in this parking lot.

The total number of parking spaces at the DPW Facility is approximately 20.

## **2.6 SITE DRAINAGE**

No stormwater from adjacent properties impacts the DPW Facility property.

### **Sheet Flow**

Stormwater generated by the impervious surfaces at the DPW Facility drains to either the leaching catch basins located on site or offsite to the north of the property.

### **Engineered Drainage**

Engineered drainage at the DPW Facility includes two infiltration catch basins. These catch basins are located to the west of the maintenance building and collect stormwater generated by the area located to the west of the building. Maintenance of the catch basin structures, including sediment removal, is completed by the Department of Public Works.

### **2.6.1 Receiving Waters**

Stormwater generated by this site is either infiltrated into the ground or sheet flows off site to the north. There is no impaired water located to the north of the site.aaaaaaa The good housekeeping practices, preventative maintenance and Best Management Practices implemented at the facility are appropriate and adequate controls.

## 2.7 SITE ACTIVITIES

The following activities occur at the facility:

- Compost Production or Storage
- Facility or Building Maintenance
- Fueling Operations
- Landscaping
- Chemical unloading, handling, and storage (including paint, flammables, fertilizers, and pesticides)
- Painting
- Paving
- Sand storage
- Salt storage
- Solid waste management (including scrap metal)
- Tool storage
- Vehicle and equipment storage
- Vehicle and equipment maintenance/repair (including oil changes)
- Vehicle and equipment washing
- Waste Handling and Disposal
- Waste oil storage.

Below is a discussion of site activities and the potential pollutant sources associated with each, as well as measures taken to minimize pollution. Locations of each activity are shown on the Site Plan (Figure 2-2).

The DPW Facility does not store hazardous materials other than those noted previously, and no obsolete vehicles or other potential sources of pollutants are kept in any structure at the DPW Facility.

No solvent-based parts washers were observed in any structure at the DPW Facility. Any hazardous materials are either collected by a third party vendor contracted by the Town of Eastham on an annual basis, or collected at the annual Household Hazardous Waste Day (HHHD) that is hosted for the benefit of Eastham residents. These materials are properly labeled and stored using appropriate Best Management Practices between the time of generation and disposal.

The Department of Public Works does not apply or utilize fertilizers, herbicides, or pesticides at any facility owned or managed by the Town of Eastham. As such, no fertilizers, herbicides, or pesticides are stored at the DPW Facility.

### 2.7.1 Compost Production or Storage

#### **Potential Sources of Stormwater Pollution**

Compost production and storage locations present a threat to contaminate stormwater with pathogens, including bacteria and viruses, nutrients, including phosphorus and nitrogen, fertilizers, pesticides and sediments.

## **Pollution Prevention**

Compost storage areas shall be located and properly labeled within a designated stockpile area that is covered and contained to prevent exposure to precipitation. If the storage area is unable to be covered it should be contained within an area contained by silt fence or concrete barriers and located in an area that does not receive a substantial amount of runoff from upland areas and does not drain directly to a waterbody. The compost shall be kept in neat, separate piles from all other materials.

### **2.7.2 Stockpiles and Sand Storage**

#### **Potential Sources of Stormwater Pollution**

Sand stored in piles for use during construction and during winter plowing and deicing activities represents a potential source to stormwater pollution. Stockpiled materials such as gravel, loam, and crushed rock represent a similar source of pollution. When stored unprotected outdoors, sand piles and material stockpiles are exposed to precipitation. When the resulting eroded material enters the stormwater system, the sediment can quickly fill the sumps of catch basin structures, rendering them ineffective.

Mixing sand and salt for use in deicing activities poses an additional element of stormwater pollution, particularly if the mixing area is not fully enclosed and protected from the elements.

#### **Pollution Prevention**

To avoid contamination of stormwater by sand and other stockpiled materials, erosion and sediment control measures should be implemented at each storage site. When planning a location for a stockpile, a relatively level site away from slopes and water features should be selected.

Stockpiles can be stabilized by seeding or mulching if they are to remain exposed for more than two weeks, or can be covered with impermeable sheeting to protect the material from rainwater. If the stockpile location becomes a permanent storage site for sand, a roofed structure should be considered to reduce erosion.

Sediment barriers should be placed around the perimeter of the storage site to prevent any runoff carrying sand from entering storm drains and surface waters. If the weather becomes dry and windy, regular light watering of the stockpile and surrounding area will provide effective dust control. Please refer to SOP 6, "Erosion and Sedimentation Control," included in Appendix A, for more information.

Sand that has been mixed with salt for use during winter plowing and deicing activities should always be stored in an enclosed and covered salt shed. Salt sheds should be constructed on level ground with an impervious base on which to store the salt/sand mixture. Under no circumstances should loose salt/sand mix be stored outside and unprotected. All mixing of salt and sand should take place within the salt shed or other covered, enclosed area.

Ensuring that the storage area is regularly swept and kept clean is an important good housekeeping practice.

### 2.7.3 Salt Storage

#### **Potential Sources of Stormwater Pollution**

Salt stored in piles for use during winter plowing and deicing operations represents a potential major contributor to stormwater pollution. When stored unprotected outdoors, salt is exposed to precipitation, causing leachate with high chloride that can be discharged to the receiving water. Salt delivery and loading activities can contribute pollutants to stormwater if the material is not handled with care, and if spills from handling operations are not promptly cleaned up.

#### **Pollution Prevention**

To prevent stormwater pollution, all salt piles should be enclosed and covered in sheds to prevent exposure to precipitation. Salt sheds should be constructed on level ground with an impervious base on which to store the salt. The shed should prevent disturbance or migration of the salt by wind.

During delivery and loading activities, salt should be transferred to and from vehicles within the salt shed, whenever possible. Any spills during unloading and loading events should be tended to without delay. Ensuring that the salt storage area is regularly swept and kept clean is an important good housekeeping practice.

If it is not feasible to fully enclose the salt pile, the salt should be stored on an impervious base and covered with an impermeable membrane material. Under no circumstances should loose salt be stored outside and exposed to precipitation.

The area should not be hosed down to a storm drain as a cleaning method. To further limit stormwater pollution, an independent runoff collection system may be installed in the area of the salt storage to collect and convey runoff either directly to a treatment best management practice or to a sanitary sewer system, with approval from the operator of the sanitary sewer system.

### 2.7.4 Solid Waste Management

#### **Potential Sources of Stormwater Pollution**

Solid waste production and storage locations present the threat to contaminate stormwater with pathogens, including bacteria and viruses, nutrients, including phosphorus and nitrogen, metals and sediments.

Solid waste may be classified as both hazardous and non-hazardous waste consisting of agricultural, construction and demolition, dead animals, industrial, municipal, and tire waste.

#### **Pollution Prevention**

To prevent or reduce the potential for stormwater pollution from solid waste management practices the following preventative maintenance procedures are recommended:

1. All staff shall be properly trained in correct solid waste management practices, including waste disposal and spill prevention and response. All employees shall also be knowledgeable of the potential hazards associated with solid waste handling and storage.
2. Each waste storage location shall be properly labeled and all significant sources of pollution shall be kept in a secure, covered and contained area.
3. The facility and storage containers shall remain locked at all times other than during normal hours of operation.
4. All waste storage containers and waste handling equipment shall be routinely inspected for signs of spills, leaks, corrosion or general deterioration.
5. The facility shall maintain spill response materials in accordance with SOP 4, "Spill Response and Cleanup".

## 2.7.5 Vehicle and Equipment Storage

### **Potential Sources of Stormwater Pollution**

Vehicle and equipment storage activities are a potential source of pollution due to the diesel fuel, gasoline, oil, hydraulic fluid, antifreeze and similar hazardous material or fuel the machinery may contain. In addition, vehicles or machinery may pick up pollutants during the course of offsite activities or at other facilities, and then deposit these pollutants at the storage facility.

### **Pollution Prevention**

Regular visual inspection and maintenance of vehicles and equipment can greatly reduce the potential for pollution by finding and addressing leaks before pollution of the environment occurs. When in storage, vehicles and equipment should be kept on a covered slab or within a building with a common drain. Discharge to this drain shall be managed by an oil/ water separator (refer to SOP 11, "Oil/Water Separator Maintenance", included in Appendix A) to remove oils and gasoline. Vehicle washing activities shall not be completed in areas served by an oil/water separator.

No equipment should be kept in an area where leaks could result in pollutants entering catch basins, channels leading to outfalls, or the engineered storm drain system. If vehicles and equipment are stored outdoors, catch basins or engineered drainage system structures should include devices intended to remove oils and sediments prior to entering the system. These treatment devices should be inspected and replaced at the frequency recommended by the manufacturer.

## 2.7.6 Vehicle and Equipment Maintenance/Repair

### **Potential Sources of Stormwater Pollution**

Vehicle and equipment maintenance and repair often requires the use of harmful liquids such as fuels, oils, and lubricants, and has the potential for producing dust, scrap and by-products that may contain pollutants. Both accidental and purposeful spillage, i.e., a leaky oil pan needing repair vs. draining the pan during an oil change, can lead to situations where pollutants can potentially enter stormwater runoff if the situations are not approached properly. Although there is little potential for effecting stormwater, it should be noted that hazardous gases can be produced during maintenance and repair as well.

## **Pollution Prevention**

Proper maintenance and repair for vehicles and equipment shall include a preliminary assessment of potential pollutant sources. This assessment shall be used to determine the best means of containing any potential spills or by-products of the situation at hand. Approved containers shall be used to capture hazardous liquids to then be disposed of according to applicable MassDEP and USEPA guidelines. If the project may produce hazardous dust that could come in contact and mix with any liquids, the proper containment shall be utilized.

Due to heavy metal accumulation in antifreeze, brake fluid, transmission fluid, and hydraulic oils, it is not recommended that any of these liquids are be discharged to the sanitary sewer system. Contaminated parts removed or replaced on any vehicles or equipment shall be disposed of properly.

All work shall take place on a covered slab or within a building with a common drain. Discharge to this drain shall be managed by an oil/ water separator (refer to SOP 11, "Oil/Water Separator Maintenance", included in Appendix A) to remove oils and gasoline.

Maintenance and repairs shall not take place in areas prone to stormwater runoff or where pollutants could enter catch basins, channels leading to outfalls, or an engineered storm drain system. All catch basins or engineered drainage systems on site that could be affected by accidental spills should include devices intended to remove oils and sediments prior to entering the system. These treatment devices should be inspected and replaced at the frequency recommended by the manufacturer.

### **2.7.7 Vehicle and Equipment Washing**

#### **Potential Sources of Stormwater Pollution**

Vehicle and equipment washing activities are a potential source of pollution not only from petroleum products and pollutants deposited on the exterior of the equipment, but also from nutrients and sediment being washed into water bodies from the act of washing itself. Although some cleaning agents are becoming environmentally friendly, many still contain regulated contaminants. Due to the possibility for multiple types of pollutants, vehicle and equipment washing activities have a high potential for degrading stormwater quality.

#### **Pollution Prevention**

Outdoors, the use of a tight tank or other similar structure that can contain the wash water is ideal. If the wash water cannot be contained, it shall not be allowed to directly enter water bodies. Use phosphate free detergents that do not contain regulated contaminants, and avoid using solvents where the wash water may enter a sanitary sewer. Impervious surfaces may be used to promote infiltration and treatment before wash water enters the groundwater, but wash water coming from impervious pavement shall be treated to remove nutrients and petroleum products before entering an engineered storm drain system. Infiltration shall not be used within wellhead protection areas or other protected resource areas. Power washing, steam cleaning and engine and undercarriage washing shall not occur outdoors. Heavily soiled or vehicle dirtied from salting shall not be washed

outdoors. All adjacent catch basins shall have a sump and be cleaned periodically, (refer to SOP 3, "Catch Basin Inspection and Cleaning", included in Appendix A). All debris and particulate accumulation shall be removed and swept clean in all outdoor washing areas.

Washing vehicles and equipment indoors in the proper facilities is preferred over washing outdoors whenever possible. Indoor facilities shall have a common drain and it shall utilize a tight tank or other containment device to hold the wash water. The use of detergents shall be avoided and when the use of detergents cannot be avoided, use detergents free from phosphates and regulated contaminants. Detergents shall not be used when the discharge of this drain is controlled by an oil/water separator (refer to SOP 11, "Oil/Water Separator Maintenance", included in Appendix A). All drains that discharge directly to a water body of engineered storm drain system shall be plugged or abandoned. Dry clean-up methods such as vacuuming and sweeping shall be used whenever possible to avoid washing down floors with water.

For both outdoor and indoor washing, maintain absorbent pads and drip pans to collect spills and leaks observed during washing activities. Refer to SOP 4, "Spill Response and Cleanup Procedures" included in Appendix A for more information.

Washing of all facility vehicles is completed in the maintenance building at the DPW Facility. Wastewater from vehicle washing operations is discharged to a tight tank that is maintained by the Department of Public Works.

Salt and sand spreaders stored at the DPW Facility are occasionally pressure washed at that location.

## 2.7.8 Waste Handling and Disposal

### **Potential Sources of Stormwater Pollution**

Waste handling and disposal facilities and activities present a potential to contaminate stormwater with pathogens (including bacteria and viruses), nutrients, including phosphorus and nitrogen, fertilizers, pesticides and sediments.

There are several classifications of waste which contribute to stormwater pollution, including:

1. Solid Waste
2. Hazardous Materials and Waste
3. Pesticides and Fertilizers
4. Petroleum Products
5. Detergents

### **Pollution Prevention**

A variety of measures are considered appropriate to prevent pollution from waste handling and disposal activities, based on the waste classifications noted previously.

#### *Solid Waste*

1. Designate a waste collection area on the site that does not receive a substantial amount of runoff from upland areas and does not drain directly to a receiving water.

2. Ensure that containers have lids so they can be covered before periods of rain, and keep containers in a covered area whenever possible.
3. Schedule waste collection to prevent the containers from overflowing.
4. Clean up spills immediately and in accordance with SOP 4, "Spill Response and Cleanup Procedures" included in Appendix A.

#### *Hazardous Materials and Wastes*

1. To prevent leaks, empty and clean hazardous waste containers before disposing of them.
2. Never remove the original product label from the container. Follow the manufacturer's recommended method of disposal, printed on the label.
3. Never mix excess products when disposing of them, unless specifically recommended by the manufacturer.
4. Clean up spills immediately and in accordance with SOP 4 "Spill Response and Cleanup".

#### *Pesticides, Fertilizers and Petroleum Products*

1. Do not handle the materials more than necessary.
2. Store materials in a dry, covered, contained area.
3. Clean up spills immediately and in accordance with SOP 4, "Spill Response and Cleanup".

#### *Detergents*

1. Never dump wastes containing detergents to a storm drain system. All wastes containing detergents shall be directed to a sanitary sewer system for treatment at a wastewater treatment plant.

In addition to the pollution prevention requirements a waste management plan is recommended. The plan shall include employee training and signage informing individuals of the hazards associated with improper storage, handling and disposal of wastes. It is imperative that all employees are properly trained and follow the correct procedures to reduce or eliminate stormwater pollution. Routine visual inspection of storage and use areas is critical. The visual inspection process shall include identification of containers or equipment which could malfunction and cause leaks or spills. The equipment and containers shall be inspected for the following:

1. Leaks
2. Corrosion
3. Support or Foundation Failure
4. Other Deterioration

In the case a defect is found, immediately repair or replace.

## **2.7.9 Waste Oil Storage**

### **Potential Sources of Stormwater Pollution**

When not stored properly, waste oil can be a potential source of petroleum in stormwater. Waste oil containers can leak, and spills can occur while during transportation activities.

**Pollution Prevention**

All waste oil containers should be properly labeled and stored with secondary containment. Containers should be regularly inspected for rust, leaks, or other signs of deterioration. Defective containers should be promptly removed and replaced. A spill response kit should be located wherever waste oil is stored. Facility personnel should know where the spill kit is located and be familiar with the procedures outlined in SOP 4 “Spill Response and Cleanup Procedures” in Appendix A. Used oil filters should also be properly disposed.

Care should be taken when transferring used oil to and from storage containers. For additional information see SOP 7 “Fuel and Oil Handling Procedures” found in Appendix A.

Waste oil should be stored indoors or under a covered structure to prevent exposure to precipitation. Floor drain in waste oil storage areas should drain to an oil/water separator rather than the storm drain system. See SOP 11 “Oil/Water Separator Maintenance” in Appendix A for further information.

When possible, steps should be taken to recycle waste oil or reduce the amount generated.

## 2.8 VEHICLE AND EQUIPMENT INVENTORY

Vehicles and major equipment stored and maintained at the facility are shown in Table 2-1.

**Table 1: Vehicle Inventory**

Vehicle Type	Number on Site
FORD DUMP TRUCK	1
INTERNATIONAL 400SER 4700	1
INTERNATIONAL DUMP	1
MACK TRACTOR TRUCK	1
PETERBILT 335 DUMP TRUCK	2
CHEVROLET C5500 KODIAK DIESEL	1
CHEVROLET SILVERADO 3500HD 4WD	3
CHEVROLET SILVERADO 2500HD 4WD	5
TROJAN UTILITY LOADER	1
MORBARK TORNADO CHIPPER	1
KUBOTA TRACTOR	1
JOHN DEERE LOADER	1
BARBER SURF RAKE	1
ATLAS PORTABLE AIR COMPRESSOR	1
INTERNATIONAL SWEEPER	1
HOMEMADE TRAILER	1
STECO SEMI TRAILER	1

Vehicle Type	Number on Site
TOW MASTER UTILITY TRAILER	1
SPECTOR TRAILERS	1
SPECTOR EJECTOR TRAILERS	1
CAM UTILITY TRAILER	2

## 2.9 LOCATION OF LEAK AND SPILL CLEANUP MATERIALS

Leak and spill cleanup materials are stored at DPW Facility in order to facilitate rapid response. Locations and types of leak and spill cleanup materials are identified in Table 2-2.

**Table 2: Leak and Spill Cleanup Materials**

Building or Area	Location	Materials Available
Maintenance Building	Chemical Storage Closet	Redi-Dri
Natural Resources Building	Drum	Redi-Dri

## 2.10 ALLOWABLE NON-STORMWATER DISCHARGES

A non-stormwater discharge is defined as any discharge or flow to the engineered storm drain system that is not composed entirely of stormwater runoff.

Allowable non-stormwater discharges that occur at this facility include:

- Water line flushing
- Rising ground water
- Uncontaminated ground water infiltration (as defined at 40 CFR § 35.2005(20))
- Uncontaminated pumped ground water
- Discharge from potable water sources
- Foundation drains
- Air conditioning condensation
- Water from crawl space pumps
- Footing drains
- Street wash waters

It has been determined that the above non-stormwater discharges at DPW Facility do not represent a significant contribution of pollution to the MS4 or the waters of the United States. Therefore, these are considered to be authorized under the current MS4 permit.

## 2.11 EXISTING STORMWATER MONITORING DATA

Historical stormwater monitoring data at DPW Facility includes the following sampling, as shown in Table 2-3.

**Table 3: Existing Stormwater Monitoring Data  
DPW Facility**

Building or Area	Location	Type of Monitoring

## 2.12 SIGNIFICANT MATERIAL INVENTORY

Materials stored include those specified in SECTION 2.7, "Site Activities". An inventory of these materials at DPW Facility is included in Table 2-4, which also reviews the likelihood for each identified material to come in contact with stormwater. The type of container has also been identified. Oil, gasoline, and other petroleum-based materials are listed separately in the table.

The locations of these material storage areas are provided on the Site Plan in Figure 2-2.

**Table 4: Significant Material Inventory  
DPW Facility**

Material	Storage Location	Quantity	Potential Pollutant	Covered (C) or Enclosed (E)	Likelihood of Contact with Water
<b>Petroleum-Based Compounds</b>					
Diesel fuel	Tanks	4,000 gal	Petroleum hydrocarbons	Enclosed	None
Gasoline	Tanks	4,000 gal	Petroleum hydrocarbons	Enclosed	None
Hydraulic Fluid	Maintenance Building	55 gal	Petroleum hydrocarbons	Enclosed	Low
Motor Oil	Maintenance Building	165 gal	Petroleum hydrocarbons	Enclosed	Low
Fuel Oil, No. 2			Petroleum hydrocarbons		
Fuel Oil, No. 6			Petroleum hydrocarbons		
Lubricants			Petroleum hydrocarbons		
Transmission Fluid	Maintenance Building	55 gal	Petroleum hydrocarbons	Enclosed	None
Waste Oil	Waste Oil AST	500 gal	Petroleum hydrocarbons	Enclosed	Low
Other:					

Material	Storage Location	Quantity	Potential Pollutant	Covered (C) or Enclosed (E)	Likelihood of Contact with Water
<b>Total Volume of Oil at Facility =</b>					
<b>Non-Petroleum Significant Materials</b>					
Antifreeze	Maintenance Building	10 gal	Ethylene glycol; potential source of BOD	Enclosed	Low
Spray Lubricant	Maintenance Building	5 gal	Petroleum hydrocarbons	Enclosed	Low
Sodium Hypochlorite			Chlorides; pH adjustment		
Sodium Bisulfite			pH adjustment		
Acid			pH adjustment		
Adhesives and sealants			Volatile and semivolatile organic compounds		
Aggregates			Sediments		
Animal Wastes			Fecal		
Asphalt			Sediments		
Batteries, Used Lead Acid			Lead, sulfuric acid; possible particulate matter and residual oil		
Brake Fluid	Maintenance Building	1 gal	Volatile organic compounds; non-petroleum based oil	Enclosed	Low
Coolant (new or used)	Maintenance Building	10 gal	Volatile organic compounds	Enclosed	Low
Deicer- Calcium Chloride (liquid)			Chlorides		
Deicer- Road Salt	Salt Shed	450 tons	Chlorides	Enclosed	Low
Detergents			Surfactants		
Fertilizers			Nutrients		
Paint, Latex	Maintenance Building	10 gal	Petroleum constituents, including volatile and semivolatile organic compounds	Enclosed	Low
Paint, Oil-Based	Maintenance Building	10 gal	Petroleum constituents, including volatile and semivolatile organic compounds	Enclosed	Low

Material	Storage Location	Quantity	Potential Pollutant	Covered (C) or Enclosed (E)	Likelihood of Contact with Water
Paint, Spray	Maintenance Building	20 cans	Petroleum constituents, including volatile and semivolatile organic compounds	Enclosed	Low
Pesticides			Volatile and semivolatile organic compounds		
Herbicides			Volatile and semivolatile organic compounds		
Sand	Yard	100 yds	Sediments		Low
Solvents			Volatile organic compounds		
Solid Waste, Recyclable			Miscellaneous debris/solids, particulate matter, metals		
Solid Waste, for Disposal			Particulate matter, solids, metals		
Solid Waste, C&D			Particulate matter, solids, metals		
Spill response material (Speedi Dri or similar)	Maintenance Building/Natural Resources Building	5 bags absorbant. 4 dozen mats.	Particulate matter, solids, residual oil.	Enclosed	Low

## 2.13 APPLICABILITY OF SPILL PREVENTION, CONTROL AND COUNTERMEASURE (SPCC) REQUIREMENTS

Under federal regulations 40 CFR Part 112 (and Amendments), a Spill Prevention, Control, and Countermeasure (SPCC) Plan is required when a facility has an aboveground oil storage capacity greater than 1,320 gallons, when including containers with a capacity of 55 gallons or more. The DPW Facility does not have aboveground oil storage capacity that exceeds 1,320 gallons.

## 2.14 DESCRIPTION OF SIGNIFICANT MATERIAL STORAGE AREAS

Many activities at the DPW Facility which involve the materials included in Table 2-5 occur within contained garages or bays. These activities may include minor equipment/vehicle repair, oil changes, repainting, lubrication, and parts replacement.

Fueling of all Town of Eastham vehicles occurs at the Fuel Island located near the entrance to the DPW Facility. All bulk delivery of fuel to the Fuel Island is monitored by a Town of Eastham employee.

Waste oil and other used motor fluids are stored in the waste oil AST. Waste oil is stored in tanks and drums also located within the maintenance building, all of which have internal containment or are located on appropriate containment pallets.

Within the salt shed, deicing materials including road salt are stored. Delivery of deicing materials to the salt shed is monitored by a DPW employee.

## 2.15 LIST OF SIGNIFICANT LEAKS OR SPILLS

Significant leaks or spills that occurred at the DPW Facility in the last three years are shown in Table 2-5.

**Table 5: Significant Leaks or Spills  
DPW Facility**

Building or Area	Location	Type of Monitoring

Forms included in Appendix B will be used to document any spill or leak that occurs at the facility in the future.

## 2.16 STRUCTURAL BMPS

Structural BMPs include onsite constructed systems that provide pretreatment or treatment of stormwater flows. The following structural BMPs are presently used at the DPW Facility to maintain water quality.

### 2.16.1 Pretreatment Structural BMPs

- Deep sump catch basins

## 2.17 SEDIMENT AND EROSION CONTROL

Site topography at the DPW Facility prevents drainage of stormwater and any associated sedimentation from entering the Town of Eastham storm drain system or discharging directly to a water body.

# SECTION 3 NON-STRUCTURAL CONTROLS

## 3.1 GOOD HOUSEKEEPING

Good housekeeping practices are activities, often conducted daily, that help maintain a clean facility and prevent stormwater pollution problems. The following is a list of good housekeeping measures that are practiced at the facility:

- All washing of vehicles is performed within the designated vehicle wash bay.
- All fluid products and wastes are kept indoors.
- Fueling of small equipment is completed indoors.
- All floor drains present within garage bays drain to an oil/water separator.
- Spill materials and cleanup kits are maintained at all locations where oil materials are used, stored, or may be present, including at Fuel Islands.
- Used spill cleanup materials are disposed of properly.
- Materials are stored indoors or in covered areas to minimize exposure to stormwater.
- No fertilizers, herbicides, or pesticides are stored or used at the facility.
- Lead-acid batteries are stored indoors and within secondary containment.
- Hazardous materials storage lockers with spill containment are used. Storage areas are located away from vehicle and equipment paths to reduce the potential of accident related leaks and spills.
- Storage drums and containers are not located close to storm drain inlets.
- All hazardous material storage areas and containers have proper signage, labels, restricted access, locks, inventory control, overhead coverage, and secondary containment.
- All materials, waste oil storage containers, and gas cans are properly labeled.
- Oil/water separators and catch basins are maintained regularly and properly.
- Speedi Dri (or similar absorbent) is readily available and used for appropriate spills.
- Spill kits are located in areas where fluids are stored or where activities may result in a spill.
- Tools and materials are returned to designated storage areas after use.
- Waste materials are properly collected and disposed of.
- Different types of wastes are separated as appropriate.
- Regular waste disposal is arranged.
- Work areas are clean and organized.
- Work areas are regularly swept or vacuumed to collect metal, wood, and other particulates and materials.
- Obtain only the amount of materials required to complete a job.
- Materials are recycled when possible.
- Staff is familiar with manufacturer directions for proper use of materials and associated Safety Data Sheets (SDSs).
- Staff is familiar with proper use of equipment.
- Bollards, berms, and containment features are in place around areas and structures where fluids are stored.
- Drip pans are used for maintenance operations involving fluids and under leaking vehicles and equipment waiting repair.

The facility maintains a supply of spill cleanup materials at many buildings on site, and will maintain this inventory. An inventory of spill containment, control, and cleanup materials and spill kits maintained at the DPW Facility was shown in Table 2-3.

## 3.2 PREVENTATIVE MAINTENANCE

Preventative Maintenance can minimize the occurrence of stormwater pollution by addressing issues before they become problems. Vehicles and equipment should be regularly inspected to prevent leaks of fuel, oil, and other liquids. Structural stormwater controls should be regularly maintained to prevent inadequate performance during storm events.

The following is a list of preventative maintenance procedures practiced at the facility

- All staff members are aware of spill prevention and response procedures.
- All staff members have received formal spill prevention and response procedure training.
- All equipment fueling procedures are completed by qualified personnel trained in spill response procedures.
- Hydraulic equipment is kept in good repair to prevent leaks.
- Vehicle storage areas are inspected frequently for evidence of leaking oil.
- Material storage tanks and containers are regularly inspected for leaks.
- All material and bulk deliveries are monitored by facility employees.
- All waste oil is fully contained and the containers are inspected regularly.

## 3.3 BEST MANAGEMENT PRACTICES

In a SWPPP, existing and planned BMPs are identified that will prevent or reduce the discharge of pollutants in stormwater runoff for each area of concern listed in SECTION 2.

To prevent or reduce the potential of stormwater contamination from petroleum products, the following BMPs shall continue to be followed:

1. Follow Standard Operating Procedures (s) during delivery of waste oil to the equipment/waste oil storage bay. These SOPs are included in Appendix A.
2. Follow Standard Operating Procedures during delivery of bulk oil to the emergency generator and bulk fuel to the Fuel Island. These SOPs are included in Appendix A.
3. Minimize the volume of gasoline stored within the buildings and on the site.
4. Clean up any oil spills observed in the parking lot, garages, or other surfaces in a timely manner.
5. Monitor all material deliveries.
6. Inspect all storage tanks prior to filling activities for spills, leaks and corrosion.

## 3.4 SPILL PREVENTION AND RESPONSE

The following procedures apply to the facility:

- All personnel are instructed in location, use, and disposal of spill response equipment and supplies maintained at the site such as oil absorbent materials.

- The Pollution Prevention Team leader will be advised immediately of all spills of hazardous materials or regulated materials, regardless of quantity.
- Spills will be evaluated to determine the necessary response. If there is a health hazard, fire or explosion potential, 911 will be called. If a spill exceeds five gallons or threatens surface waters, including the storm drain system, state or federal emergency response agencies will be called.
- Spills will be contained as close to the source as possible with oil-absorbent materials. Additional materials or oil-absorbent socks will be utilized to protect adjacent catch basins.

# SECTION 4 PLAN IMPLEMENTATION

## 4.1 EMPLOYEE TRAINING

Regular employee training is required for employees who work in areas where materials or activities are exposed to stormwater, or who are responsible for implementing activities identified in the SWPPP, including all members of the Pollution Prevention Team.

The Department of Public Works is responsible for stormwater management training for DPW Facility employees. This position coordinates training related to stormwater management on at least an annual basis to review specific responsibilities for implementing this SWPPP, what and how to accomplish those responsibilities, including BMP implementation.

Additionally, general awareness training is provided regularly (preferably annually) to all employees whose activities may impact stormwater discharges. The purpose of this training is to educate workers on activities that can impact stormwater discharges and to help implement BMPs.

All employees responsible for the fueling or lubrication of vehicles or equipment stored at the facility will be trained regularly (preferably annually). The topics below will be covered at employee training sessions.

1. Spill prevention and response.
2. Good housekeeping.
3. Materials management practices

Pollution Prevention Team members will meet at least twice a year to discuss the effectiveness of and improvement to the SWPPP. Appendix C contains copies of training documentation from these training activities including attendance sheets, instructor name and affiliation, date, time, and location of the training.

## 4.2 SITE INSPECTION REQUIREMENTS

It is required that the entire DPW Facility be inspected at least once each calendar quarter when the facility is in operation (at least one inspection must be conducted during a period when stormwater discharge is occurring). The Superintendent of Public Works is responsible for completing this inspection.

The inspection must check for evidence of pollution, evaluate non-structural controls in place at the site, and inspect equipment. The site inspection report must include:

- The inspection date and time
- The name of the inspector
- Weather information and a description of any discharge occurring at the time of the inspection
- Identification of any previously unidentified discharges from the site
- Any control measures needing maintenance or repair
- Any failed control measures that need replacement

- Any SWPPP changes required as a result of the inspection
- Signed certification statement.

The inspection form for these inspections, and copies of completed inspection forms, are included in Appendix D.

Corrective actions may be required based on evidence of past stormwater pollution or the high potential for future stormwater pollution to occur. Information about any issues and the respective corrective actions must be included in a Compliance Evaluation report. The permittee must repair or replace control measures in need of repair or replacement before the next anticipated storm event if possible, or as soon as practicable. In the interim, the permittee shall have back-up measures in place. The Compliance Evaluation report must be kept with the SWPPP and must state the problem, the solution, and when the solution was implemented.

### 4.3 RECORDKEEPING AND REPORTING

The permittee must keep a written record (hardcopy or electronic) of all activities required by the SWPPP including but not limited to maintenance, inspections, and training for a period of at least five years.

This SWPPP shall be kept at the DPW Facility office and shall be updated if any of the conditions in SECTION 2.21 occur. The SWPPP and records shall be made available to state or federal inspectors and the general public upon request.

The 2016 Massachusetts MS4 Permit requires that each permittee report on the findings from Site Inspections in the annual report to USEPA and MassDEP.

Inspections of the DPW Facility should be performed at least quarterly (at least one during stormwater discharge) and described in the Annual Report, including any corrective actions taken, to demonstrate that operation of the DPW Facility is in compliance with the 2016 Massachusetts MS4 Permit.

### 4.4 TRIGGERS FOR SWPPP REVISIONS

The Town of Eastham shall review this SWPPP regularly to determine if any update or revision is required. Changes that may trigger revision include:

- An increase in the quantity of any potential pollutant stored at the facility;
- The addition of any new potential pollutant (not already addressed in this SWPPP) to the list of materials stored or used at the facility;
- Physical changes to the facility that expose any potential pollutant (not presently exposed) to stormwater;
- Presence of a new authorized non-stormwater discharge at the facility; or
- Addition of an activity that introduces a new potential pollutant.

Changes in activity may include an expansion of operations, or changes in any significant material handling or storage practices which could impact stormwater.

The amended SWPPP will describe the new activities that could contribute to increased pollution, as well as control measures that have been implemented to minimize the potential for pollution.

This SWPPP will be amended if a state or federal inspector determines that it is not effective in controlling stormwater pollutants discharged to waterways.

# SECTION 5 SWPPP CERTIFICATION

# Certification

**Authorized Representative (Optional):** All reports, including SWPPPs, inspection reports, annual reports, monitoring reports, reports on training and other information required by this permit must be signed by a person described in Appendix B, Subsection 11.A or by a duly authorized representative of that person in accordance with Appendix B, Subsection 11.B. If there is an authorized representative to sign MS4 reports, there must be a signed and dated written authorization.

The authorization letter is:

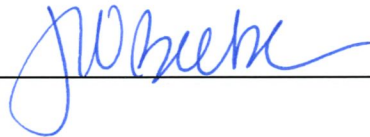
- Attached to this document (document name listed below)

- Publicly available at the website below

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Printed Name

Signature



Date

# FIGURES

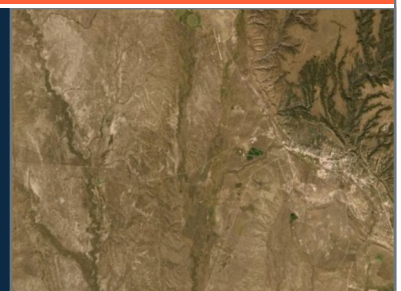
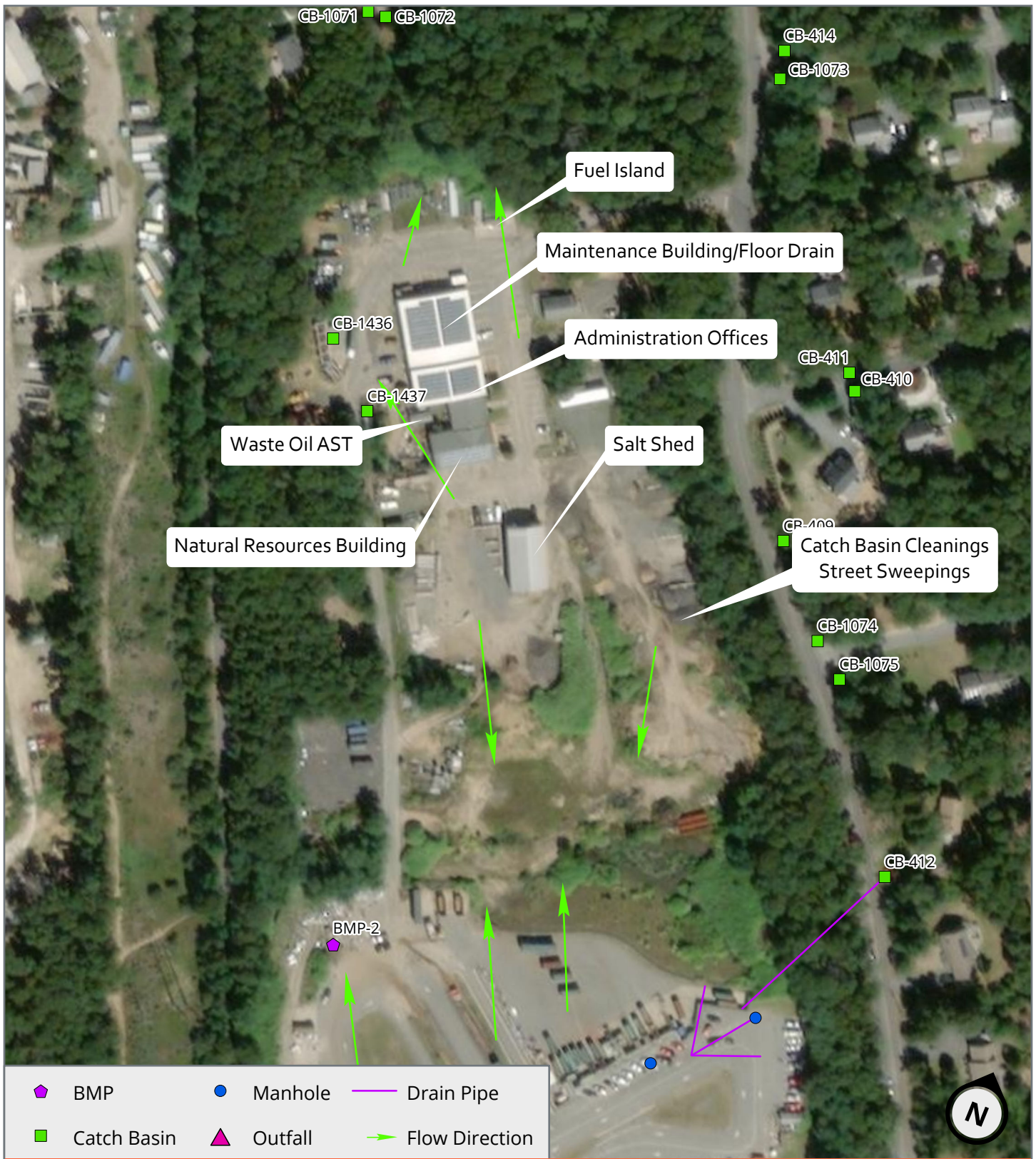


ENVIRONMENTAL  
 PARTNERS

**Figure 1: DPW Facility Locus Map**

Eastham, Massachusetts





# APPENDIX A

## Standard Operating Procedures

# STANDARD OPERATING PROCEDURE 3: CATCH BASIN INSPECTION AND CLEANING

## Introduction

Catch basins help minimize flooding and protect water quality by removing trash, sediment, decaying debris, and other solids from stormwater runoff. These materials are retained in a sump below the invert of the outlet pipe. Catch basin cleaning reduces foul odors, prevents clogs in the storm drain system, and reduces the loading of suspended solids, nutrients, and bacteria to receiving waters.

During regular cleaning and inspection procedures, data can be gathered related to the condition of the physical basin structure and its frame and grate and the quality of stormwater conveyed by the structure. Observations such as the following can indicate sources of pollution within the storm drain system:

- Oil sheen
- Discoloration
- Trash and debris

Both bacteria and petroleum can create a sheen on the water surface. The source of the sheen can be differentiated by disturbing it, such as with a pole. A sheen caused by an oil will remain intact and move in a swirl pattern; a sheen caused by bacteria will separate and appear “blocky”. Bacterial sheen is not a pollutant but should be noted.

Observations such as the following can indicate a potential connection of a sanitary sewer to the storm drain system, which is an illicit discharge.

- Indications of sanitary sewage, including fecal matter or sewage odors
- Foaming, such as from detergent
- Optical enhancers, fluorescent dye added to laundry detergent

Each catch basin should be cleaned and inspected at least annually. Catch basins in high-use areas may require more frequent cleaning. Performing street sweeping on an appropriate schedule will reduce the amount of sediment, debris, and organic matter entering the catch basins, which will in turn reduce the frequency with which structures need to be cleaned.

## Cleaning Procedure

Catch basin inspection cleaning procedures should address both the grate opening and the basin's sump. Document any and all observations about the condition of the catch basin structure and water quality on the Catch Basin Inspection Form (attached).

Catch basin inspection and cleaning procedures include the following:

1. Work upstream to downstream.
2. Clean sediment and trash off grate.
3. Visually inspect the outside of the grate.
4. Visually inspect the inside of the catch basin to determine cleaning needs.
5. Inspect catch basin for structural integrity.
6. Determine the most appropriate equipment and method for cleaning each catch basin.
  - a. Manually use a shovel to remove accumulated sediments, or
  - b. Use a bucket loader to remove accumulated sediments, or
  - c. Use a high pressure washer to clean any remaining material out of catch basin while capturing the slurry with a vacuum.
  - d. If necessary, after the catch basin is clean, use the rodder of the vacuum truck to clean downstream pipe and pull back sediment that might have entered downstream pipe.
7. If contamination is suspected, chemical analysis will be required to determine if the materials comply with the Massachusetts DEP Hazardous Waste Regulations, 310 CMR 30.000 ([https://www.mass.gov/files/documents/2016/08/xl/310cmr30\\_7883\\_54357.pdf](https://www.mass.gov/files/documents/2016/08/xl/310cmr30_7883_54357.pdf)). Chemical analysis required will depend on suspected contaminants. Note the identification number of the catch basin on the sample label, and note sample collection on the Catch Basin Inspection Form.
8. Properly dispose of collected sediments. See following section for guidance.
9. If fluids collected during catch basin cleaning are not being handled and disposed of by a third party, dispose of these fluids to a sanitary sewer system, with permission of the system operator.
10. If illicit discharges are observed or suspected, notify the appropriate Department (see "SOP 10: Addressing Illicit Discharges").
11. At the end of each day, document location and number of catch basins cleaned, amount of waste collected, and disposal method for all screenings.
12. Report additional maintenance or repair needs to the appropriate Department.

## Disposal of Screenings

Catch basin cleanings from storm water-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.

Screenings may need to be placed in a drying bed to allow water to evaporate before proper disposal. In this case, ensure that the screenings are managed to prevent pollution.

## Attachments

1. Catch Basin Inspection Form

## Related Standard Operating Procedures

1. SOP 10, Addressing Illicit Discharges
2. SOP 13, Water Quality Screening in the Field

Job No.: \_\_\_\_\_ Town: \_\_\_\_\_  
 Inspector: \_\_\_\_\_ Date: \_\_\_\_\_

**CATCH BASIN INSPECTION FORM**

<b>Catch Basin I.D.</b>		<b>Final Discharge from Structure?</b> Yes <input type="checkbox"/> No <input type="checkbox"/> <b>If Yes, Discharge to Outfall No:</b> _____	
<b>Catch Basin Label:</b>	Stencil <input type="checkbox"/> Ground Inset <input type="checkbox"/> Sign <input type="checkbox"/> None <input type="checkbox"/> Other _____		
<b>Basin Material:</b>	Concrete <input type="checkbox"/> Corrugated metal <input type="checkbox"/> Stone <input type="checkbox"/> Brick <input type="checkbox"/> Other: _____ <input type="checkbox"/>	<b>Catch Basin Condition:</b>	Good <input type="checkbox"/> Poor <input type="checkbox"/> Fair <input type="checkbox"/> Crumbling <input type="checkbox"/>
<b>Pipe Material:</b>	Concrete <input type="checkbox"/> HDPE <input type="checkbox"/> PVC <input type="checkbox"/> Clay Tile <input type="checkbox"/> Other: _____ <input type="checkbox"/>	<b>Pipe Measurements:</b>	Inlet Dia. (in): d= _____ Outlet Dia. (in): D= _____

<b>Required Maintenance/ Problems (check all that apply):</b>	
<input type="checkbox"/> Tree Work Required <input type="checkbox"/> New Grate is Required <input type="checkbox"/> Pipe is Blocked <input type="checkbox"/> Frame Maintenance is Required <input type="checkbox"/> Remove Accumulated Sediment <input type="checkbox"/> Pipe Maintenance is Required <input type="checkbox"/> Basin Undermined or Bypassed	<input type="checkbox"/> Cannot Remove Cover <input type="checkbox"/> Ditch Work <input type="checkbox"/> Corrosion at Structure <input type="checkbox"/> Erosion Around Structure <input type="checkbox"/> Remove Trash & Debris <input type="checkbox"/> Need Cement Around Grate <b>Other:</b> _____

<b>Catch Basin Grate Type :</b>	<b>Sediment Buildup Depth :</b>	<b>Description of Flow:</b>	<b>Street Name/ Structure Location:</b>
Bar: <input type="checkbox"/> Cascade: <input type="checkbox"/> Other: _____ Properly Aligned: Yes <input type="checkbox"/> No <input type="checkbox"/>	0-6 (in): _____ 6-12(in): _____ 12-18 (in): _____ 18-24 (in): _____ 24 + (in): _____	Heavy <input type="checkbox"/> Moderate <input type="checkbox"/> Slight <input type="checkbox"/> Trickling <input type="checkbox"/>	

<b>*If the outlet is submerged check yes and indicate approximate height of water above the outlet invert.</b> h above invert (in): _____	Yes <input type="checkbox"/>	No <input type="checkbox"/>
---	------------------------------	-----------------------------

<input type="checkbox"/> Flow <input type="checkbox"/> Standing Water (check one or both)	<b>Observations:</b>	<b>Circle those present:</b>	
	Color: _____	Foam	Oil Sheen
	Odor: _____		
<b>Weather Conditions :</b>	Dry > 24 hours <input type="checkbox"/> Wet <input type="checkbox"/>	Sanitary Waste	Bacterial Sheen
<b>Sample of Screenings Collected for Analysis?</b> Yes <input type="checkbox"/> No <input type="checkbox"/>		Orange Staining	Floatables
<b>Comments:</b>		Excessive sediment	Pet Waste
		Other: _____	Optical Enhancers

# STANDARD OPERATING PROCEDURE 4:

## Spill Response and Cleanup Procedures

### Introduction

Municipalities are responsible for any contaminant spill or release that occurs on property they own or operate. Particular areas of concern include any facilities that use or store chemicals, fuel oil or hazardous waste, including schools, garages, DPW yards, and landfills. Implementation of proper spill response and cleanup procedures can help to mitigate the effects of a contaminant release.

### Responding to a Spill

In the event of a spill, follow these spill response and cleanup procedures:

1. Notify a member of the facility's Pollution Prevention Team, the facility supervisor, and/or the facility safety officer.
2. Assess the contaminant release site for potential safety issues and for direction of flow.
3. With proper training and personal protective equipment, 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. Products contaminated with petroleum shall be handled and disposed of as described in MassDEP policy WCS-94-400, Interim Remediation Waste Management Policy for Petroleum Contaminated Soils, <http://www.mass.gov/dep/cleanup/laws/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 products:
      1. Perform the "one drop" test to ensure absorbents do not contain enough oil to be considered hazardous. Wring absorbents through a paint filter. If doing so does not generate one drop of oil, the materials are not hazardous.
      2. 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:
          - i. Waste Motor Oil;

- ii. Hydraulic Fluid;
  - iii. Power Steering Fluid;
  - iv. Transmission Fluid;
  - v. Brake Fluid;
  - vi. Gear Oil.
- a. Do not mix the following materials with waste oil, store each separately:
  - i. Gasoline;
  - ii. Antifreeze;
  - iii. Brake and Carburetor Cleaners;
  - iv. Cleaning Solvents;
  - v. Other Hazardous Wastes.
- 3. If absorbents do not pass the “one drop” test they should be placed in separate metal containers with tight fittings 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 your local fire department, however in the case of an emergency call 911.
- 5. Contact the MassDEP 24-hour spill reporting notification line, toll-free at (888)-3104-1133;
  - a. The following scenarios are exempt from MassDEP reporting requirements:
    - i. Spills of less than 10 gallons of petroleum and do not impact a water body;
    - ii. Spills of less than one pound of hazardous chemicals and do not present an imminent health or safety hazard;
    - iii. Spills from passenger vehicle accidents;
    - iv. Spills within a vault or building with a watertight floor and walls that completely contain all released chemicals.

### Procedures for Reporting Spill Response

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. a. Pavement;

- b. b. Soil;
  - c. c. Drains;
  - d. d. Catch Basins;
  - e. e. Water Bodies;
  - f. f. Public Street; and
  - g. g. Public Sidewalk.
5. The concentration of the released contaminant.
  6. What/who caused the released contaminant.
  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 Guide

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:

1. Ensure all employees are properly trained to respond in the case of a spill, understand the nature and properties of the contaminant and understand the spill control materials and personnel safety equipment. Maintain training records of current personnel on site and retain training records of former personnel for at least three years from the date last worked at the facility;
2. Provide yearly maintenance and inspection at all municipal facilities, paying particular attention to underground storage tanks. Maintain maintenance and inspection records on site;
3. Implement good management practices where chemicals and hazardous wastes are stored;
  - d. Ensure storage in closed containers inside a building and on an impervious surface;
  - e. If storage cannot be provided inside, ensure secondary containment for 110 percent of the maximum volume of the storage container;
  - f. Locate storage areas near maintenance areas to decrease the distance required for transfer;
  - g. Provide accurate labels, MSDS information and warnings for all stored materials;
  - a. Regularly inspect storage areas for leaks;
  - b. Ensure secure storage locations, preventing access by untrained or unauthorized persons;
  - c. Maintain accurate records of stored materials.
4. 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;
5. Maintain a oil and grease spill response kit with the following materials, at a minimum, at each facility:
  - a. 6.5 gallon bucket with screw top lid and handle

- b. 10 gallons of sand
- c. 200 pounds of Speedi Dry absorbent
- d. Drain covers
- e. Spill containment berms
- f. (4) 3' absorbent socks
- g. (16) 16" x 18" absorbent pads
- h. Goggles
- i. Nitrile gloves
- j. Disposable bags to dispose of used materials
- k. Laminated contacts list shall include the following names and numbers:
  - i. Safety Officer;
  - ii. Facility Supervisor;
  - iii. Local Fire Department;
  - iv. MassDEP spill report notification line;
  - v. MassDEP Regional Office;
  - vi. Hazardous Waste Compliance Assistance Line;
  - vii. Household Hazardous Products Hotline;
  - viii. Massachusetts Department of Fire Services;
  - ix. Licensed Site Professionals Information.

#### Attachments

- 1. Spill Response and Cleanup Contact List

#### Related Standard Operating Procedures

- 1. SOP 7, Fuel and Oil Handling Procedures

### SPILL RESPONSE AND CLEANUP CONTACT LIST

	Phone Number	Date and Time contacted
Safety Officer: _____		
Facility Supervisor: _____		
Fire Department: _____		
MassDEP 24-Hour Spill Reporting	(888)-304-1133	
MassDEP Regional Offices:		
Northeast Regional Office	(978) 694-3200	
Southeast Regional Office	(508) 946-2700	
Central Regional Office	(508) 792-7650	
Western Regional Office	(413) 784-1100	
Hazardous Waste Compliance Assistance Line	(617) 292-5898	
Household Hazardous Products Hotline	(800) 343-3420	
Massachusetts Department of Fire Services	(978) 567-3100 or (413) 587-3181	
Licensed Site Professionals Association (Wakefield, MA)	(781) 876-8915	
Licensed Site Professionals Board	(617) 556-1091	

# STANDARD OPERATING PROCEDURE 6:

## EROSION AND SEDIMENTATION CONTROL

### Introduction

Erosion and sedimentation from land-disturbing human activities can be a significant source of stormwater pollution. This Standard Operating Procedure describes methods for reducing or eliminating pollutant loading from such activities.

#### Controlling Erosion and Sediment through Design and Planning

Prevention of erosion and sedimentation is preferable to installing treatment devices. Consistent application and implementation of the following guidelines during the design and review phases can prevent erosion and sedimentation:

2. Avoid sensitive areas, steep slopes, and highly erodible soils to the maximum extent possible when developing site plans.
3. Identify potential problem areas before the site plan is finalized and approved.
4. Plan to use sediment barriers along contour lines, with a focus on areas where short-circuiting (i.e., flow around the barrier) may occur.
5. Use berms at the top of a steep slopes to divert runoff away from the slope's edge.
6. Design trapezoidal or parabolic vegetated drainage channels, not triangular.
7. Use vegetated channels with rip rap check dams, instead of impervious pavement or concrete, to reduce the water velocity of the conveyance system.
8. Design a check dam or sediment forebay with level spreader at the exit of outfalls to reduce water velocity of the discharge and collect sediment.
9. Use turf reinforcement matting to stabilize vegetated channels, encourage vegetation establishment, and withstand flow velocities without scouring the base of the channel.
10. Plan open channels to follow land contours so natural drainage is not disrupted.
11. Use organic matting for temporary slope stabilization and synthetic matting for permanent stabilization.
12. Provide a stable channel, flume, or slope drain where it is necessary to carry water down slopes.

#### Controlling Erosion and Sediment on Construction Sites

During the construction phase, it is important to inspect active sites regularly to ensure that practices are consistent with approved site plans and the site's Stormwater Pollution Prevention Plan (SWPPP) or other document, as required by the municipality's legal authority. The following guidelines apply:

1. Erosion and sediment control features should be constructed before initiating activities that remove vegetated cover or otherwise disturb the site. These shall be installed consistent with the approved site plans and with manufacturer's instructions.
2. Erosion and sediment control devices shall be inspected by the contractor regularly, and maintained as needed to ensure function.
3. In the SWPPP or other document, the contractor shall clearly identify the party responsible for maintaining erosion and sediment control devices.
4. An inspection should be completed of active construction sites every month, at a minimum, to check the status of erosion and sedimentation controls. Refer to SOP 5, "Construction Site Inspection", for construction site stormwater inspection procedures.
5. Existing vegetation should be maintained on site as long as possible.
6. Construction should proceed progressively on the site in order to minimize exposed soil, and disturbed areas should be restored as soon as possible after work has been completed.
7. Stockpiles shall be stabilized by seeding or mulching if they are to remain for more than two weeks.
8. Disturbed areas shall be protected from stormwater runoff by using protective Best Management Practices (BMPs).
9. Clean water shall be diverted away from disturbed areas on construction sites to prevent erosion and sedimentation.
10. Sediment traps and sediment barriers should be cleaned out regularly to reduce clogging and maintain design function.
11. Vegetated and wooded buffers shall be protected.
12. Soils shall be stabilized by mulching and/or seeding when they would be exposed for more than one week during the dry season, or more than two days during the rainy season.
13. Vegetation shall be allowed to establish before introducing flows to channels.
14. Regular light watering shall be used for dust control, as this is more effective than infrequent heavy watering.
15. Excessive soil compaction with heavy machinery shall be avoided, to the extent possible.
16. Construction activities during months with higher runoff rates shall be limited, to the extent possible.

### Controlling Erosion and Sediment by Proper Maintenance of Permanent BMPs

Many construction phase BMPs can be integrated into the final site design, but ongoing inspection and maintenance are required to ensure long-term function of any permanent BMP. Refer to SOP 9, "Inspection of Constructed Best Management Practices", for more information. The following guidelines summarize the requirements for long-term maintenance of permanent BMPs.

1. Responsibility for maintaining erosion and sediment control devices shall be clearly identified.
2. Erosion and sediment control devices shall be inspected following heavy rainfall events to ensure they are working properly.
3. Erosion control blankets shall be utilized when seeding slopes.
4. Vegetated and wooded buffers shall be protected, and left undisturbed to the extent possible.
5. Runoff shall not be diverted into a sensitive area unless this has been specifically approved.

6. Sedimentation basins shall be cleaned out once sediment reaches 50% of the basin's design capacity.
7. Snow shall not be plowed into, or stored within, retention basins, rain gardens, or other BMPs.
8. Easements and service routes shall be maintained, to enable maintenance equipment to access BMPs for regular cleaning.

#### Related Standard Operating Procedures

1. SOP 5, Construction Site Inspection
2. SOP 9, Inspection of Constructed Best Management Practices

# STANDARD OPERATING PROCEDURE 7:

## FUEL AND OIL HANDLING PROCEDURES

### Introduction

Spills, leaks, and overfilling can occur during handling of fuels and petroleum-based materials, even in small volumes, representing a potential source of stormwater pollution. This Standard Operating Procedure addresses 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. Delivery, unloading, and loading of waste oils are hereafter referred to as “handling”.

For all manners of fuel and oil handling described below, a member of the facility’s Pollution Prevention Team (or another knowledgeable person familiar with the facility) shall be present during handling procedures. This person shall ensure that the following are observed:

1. There is no smoking while fuel handling is in process or underway.
2. 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.
3. The delivery vehicle’s hand brake is set and wheels are chocked while the activity is being completed.
4. Catch basins and drain manholes are adequately protected.
5. No tools are to be used that could damage fuel or oil containers or the delivery vehicle.
6. No flammable liquid shall 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.
7. Local traffic does not interfere with fuel transfer operations.
8. The attending persons should watch for any leaks or spills
  - a. Any small leaks or spills should be immediately stopped, and spilled materials absorbed and disposed of properly. Refer to SOP 4, “Spill Response and Cleanup Procedures”, for examples of spill cleanup and response materials.
  - b. In the event of a large spill or one that discharges to surface waters or an engineered storm drain system, the facility representative shall activate the facility’s Stormwater Pollution Prevention Plan (SWPPP) and report the incident as specified within.

### Delivery by Bulk (Tanker) Truck

Procedures for the delivery of bulk fuel shall include the following:

1. The truck driver shall check in with the facility upon arrival.
2. The facility representative shall ensure that the appropriate spill cleanup and response equipment and personal protective equipment are readily available and easily accessible.

Refer to SOP 4, "Spill Response and Cleanup Procedures", for examples of spill cleanup and response materials.

3. The facility representative shall check to ensure that the amount of delivery does not exceed the available capacity of the tank.
  - a. A level gauge can be used to verify the level in the tank.
  - b. If a level gauge is not functioning or is not present on the tank, the tank should be stick tested prior to filling.
4. The truck driver and the facility representative shall both remain with the vehicle during the delivery process.
5. The truck driver and the facility representative shall inspect all visible lines, connections, and valves for leaks.
6. When delivery is complete and the hoses are removed, buckets should be placed underneath connection points to catch drippings.
7. The delivery vehicle shall be inspected prior to departure to ensure that the hose is disconnected from the tank.
8. The facility representative shall 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.
9. The facility representative shall 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

Drummed materials may include motor oil, hydraulic fluid, transmission fluid, or waste oil from another facility (as approved). Procedures for the delivery of drummed materials shall include the following:

1. The truck driver shall check in with the facility upon arrival.
2. The facility representative shall ensure that the appropriate spill cleanup and response equipment and personal protective equipment are readily available and easily accessible. Refer to SOP 4, "Spill Response and Cleanup Procedures", for examples of spill cleanup and response materials.
3. The facility representative shall closely examine the shipment for damaged drums.
  - a. If damaged drums are found, they shall be closely inspected for leaks or punctures.
  - b. Breached drums should be removed to a dry, well-ventilated area and the contents transferred to other suitable containers.
  - c. Drums shall be disposed of in accordance with all applicable regulations.
4. Drummed materials shall not be unloaded outdoors during wet weather events.
5. The truck driver and the facility representative shall both remain with the vehicle during the delivery process.
6. Drums shall be handled and unloaded carefully to prevent damage.
7. Upon completion of unloading, the facility representative shall 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.
8. The facility representative shall check to ensure that the proper amount of fuel is delivered, and collect a receipt from the truck driver.

## Delivery of Drummed Materials

When waste oil or similar oil products need to be removed from the premises, only haulers certified to transport waste oil should be utilized. Procedures for the draining of bulk oil tanks shall include the following:

1. The disposal truck driver shall check in with the facility upon arrival.
2. The facility representative shall ensure that the appropriate spill cleanup and response equipment and personal protective equipment are readily available and easily accessible. Refer to SOP 4, "Spill Response and Cleanup Procedures", for examples of spill cleanup and response materials.
3. The facility representative shall verify that the volume of waste oil in the tank does not exceed the available capacity of the disposal hauler's vehicle.
4. The truck driver and the facility representative shall both remain with the vehicle during the tank draining process.
6. When draining is complete and the hoses are removed, buckets should be placed underneath connection points to catch drippings.
7. The disposal hauler vehicle shall be inspected prior to departure to ensure that the hose is disconnected from the tank.
8. The facility representative shall 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.
9. The facility representative shall collect a receipt from the truck driver.

## Attachments

1. Fuel Delivery Checklist

## Related Standard Operating Procedures

1. SOP 4, Spill Response and Cleanup Procedures

# STANDARD OPERATING PROCEDURE 11:

## OIL/WATER SEPARATOR (OWS) MAINTENANCE

### Introduction

Oil/water separators (OWS), also known as gas/oil separators, are structural devices intended to provide pretreatment of floor drain water from industrial and garage facilities. An OWS allows oils (and substances lighter than water) to be intercepted and be removed for disposal before entering the sanitary sewer system. Substances heavier than water settle into sludge at the bottom of the unit. The remaining water passes through the unit into the sanitary sewer system.

OWS units are generally required where petroleum-based products, wastes containing petroleum, or oily and/or flammable materials are used, produced, or stored. OWS units should not be used to manage stormwater or flow from vehicle washing facilities. High flow rates through an OWS will reduce the structure's ability to separate materials. Detergents and solvents can emulsify oil and grease, allowing the particles to enter the sewer, so these should not be disposed of in drains entering the OWS.

### General OWS Maintenance Requirements

1. Each OWS at a facility may receive different materials in different quantities, so the cleanout schedule may not be the same for every OWS at a facility.
2. Employees performing inspections of an OWS must be properly trained and be familiar with the maintenance of that specific structure, since function can vary based on design. Third-party firms may be utilized to perform quarterly inspections.
3. Do not drain petroleum, oil, or lubricants directly to an OWS. The structures are designed to manage these materials at low and medium concentrations in sanitary sewage, not as slug loads.
4. Do not drain antifreeze, degreasers, detergents, fuels, alcohols, solvents, coolant, or paint to the OWS.
5. Separator compartment covers should be tightly sealed to ensure floor drainage only enters the first compartment of the OWS.
6. Drains should be kept free of debris and sediment to the maximum extent practicable.
7. Spill cleanup materials should be maintained in the area served by the OWS. For more information on spill cleanup and response materials, refer to SOP 4, "Spill Response and Cleanup Procedures".

### OWS Inspection Procedures

Daily inspection of an OWS should include a visual examination of the area served by the OWS for evidence of spills or leaks.

Weekly inspections of an OWS should include the following:

1. Visually examine the area served by the OWS for evidence of spills or leaks.
2. Inspect the point of discharge (i.e., sewer manhole) for evidence of petroleum bypassing the OWS.
3. Inspect drains for any signs of unauthorized substances entering the OWS.
4. Examine the OWS for signs of leaks or any malfunction.

Quarterly inspections of an OWS should include the following:

1. Complete tasks noted as appropriate for daily and weekly inspection.
2. Complete the Quarterly OWS Inspection Checklist, attached, during the inspection.
3. Take the following measurements to benchmark function of the OWS:
  - a. Distance from rim of access cover to bottom of structure
  - b. Distance from rim of access cover to top of sludge layer
  - c. Depth of sludge layer ( $c = a - b$ )
  - d. Distance from rim of access cover to the oil/water interface
  - e. Distance from rim of access cover to the top of the liquid surface
  - f. Depth of oil layer ( $f = d - e$ )

### OWS Cleaning Procedures

Cleaning of the OWS is required when there has been a spill to the OWS that exceeds ten gallons of oil, one gallon of detergent or solvent, or any material prohibited by the owner of the sanitary sewer. Cleaning is also required when the levels of accumulated sludge and/or oil meet the manufacturer's recommended levels for cleaning. This will vary based on the manufacturer of the OWS. If the manufacturer's recommendations are unknown, the following guidelines are appropriate for determining when to clean:

1. When sludge accumulates to 25% of the wetted height of the separator compartment; or
2. When oil accumulates to 5% of the wetted height of the separator compartment; or
3. When 75% of the retention capacity of the OWS is filled.

Cleaning should be performed a minimum of once per year. When cleaning is required, it shall be performed by licensed OWS maintenance companies. Materials removed from the OWS must be disposed of in accordance with Massachusetts Hazardous Waste Regulations, 310 CMR 30.00.

### Documentation of Cleaning and Service

The operator of the premises where the OWS is located shall maintain a log describing the date and type of all inspections, service and maintenance performed in connection with the Separator. Documentation shall include the identity of the inspector (or the identity of the person or entity that performed the service and/or maintenance). Records shall also document the amount of residue removed from the OWS each time it was cleaned, and how removed materials were disposed. This documentation shall be maintained for a minimum of six years.

### Attachments

1. Quarterly OWS Inspection Checklist

### Related Standard Operating Procedures

1. SOP 4, Spill Response and Cleanup Procedures

**OIL/WATER SEPARATOR (OWS)  
QUARTERLY INSPECTION CHECKLIST**

Facility: \_\_\_\_\_

OWS Location: \_\_\_\_\_

Inspected By: \_\_\_\_\_

Date: \_\_\_\_\_

Visual Inspection	Are there any signs of spills or leaks in the general area?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
	Is there any evidence of petroleum bypassing the OWS?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
	Are there any unauthorized substances entering the OWS?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
	Does the OWS exhibit any signs of leaks or malfunctions?	Yes <input type="checkbox"/>	No <input type="checkbox"/>

If you answered “Yes” to any of the above questions, further inspection, repair, and/or cleaning may be necessary.

Measurements	A	Distance from rim of access cover to bottom of structure	
	B	Distance from rim of access cover to top of sludge layer	
	C = A - B	Depth of sludge layer	
	D	Distance from rim of access cover to the oil/water interface	
	E	Distance from rim of access cover to the top of the liquid surface	
	F = D - E	Depth of oil layer	

If the values for “C” and/or “F” are greater than those in the manufacturer’s recommendations, the OWS must be cleaned by a licensed OWS maintenance company.



# STANDARD OPERATING PROCEDURE 12:

## STORAGE AND USE OF PESTICIDES AND FERTILIZERS

### Introduction

Use and improper storage of pesticides and fertilizers can contribute to loading of nutrients and toxic compounds to surface waters. This SOP addresses Best Management Practices for storing these materials, and guidelines for safe and appropriate application. In this SOP, the term “pesticide” includes products used as herbicides.

### Storage of Pesticides and Fertilizers

Procedures for the storage of pesticides and fertilizers shall include the following, many of which are included on the Massachusetts Pesticide Safety Checklist, attached:

1. Store pesticides and fertilizers in high, dry locations in accordance with the manufacturer’s specifications.
2. Store in cool, well-ventilated, and insulated areas to protect against temperature extremes.
3. Store in an area which has been constructed in accordance with local fire codes for storing flammable or combustible materials.
  - a. Flammable products shall be stored separately from non-flammable products, preferably in a fire-proof cabinet.
  - b. Small quantities (less than 500 lbs or 220 gallons) of pesticides can be stored in cabinets constructed of double-walled 18-gauge sheet metal.
  - c. Large quantities (greater than 500 lbs or 220 gallons) of pesticides can be stored in a prefabricated Hazardous Material Storage Building or in a purpose-built storage facility. It is not anticipated that many municipal facilities will store quantities in excess of 500 lbs or 220 gallons of pesticides.
  - d. Building walls should have a two hour fire rating and be impervious to the stored materials.
  - e. Floors should be water tight, impervious, and provide spill containment. Refer to SOP 4, “Spill Response and Cleanup Procedures”, for more information on spill cleanup.
4. Store materials in an enclosed area or in covered, impervious containment, such as a locked cabinet. The cabinet shall be located in a first story room or one which has direct access to the outdoors.
5. For pesticides, storage cabinets should be kept locked and the door to the storage area should contain a weather proof sign warning of the existence and danger of pesticides inside. The door should be kept locked. The sign should be visible at a distance of twenty five feet and should read as follows:

**DANGER  
PESTICIDE STORAGE  
AREA  
ALL UNAUTHORIZED  
PERSONS KEEP OUT  
KEEP DOORS LOCKED  
WHEN NOT IN USE**

The sign should be posted in both English and the language or languages understood by workers if this is not English.

6. Pesticides shall not be stored in the same place as ammonium nitrate fertilizer.
7. Separate pesticides and fertilizers from other chemical storage and other flammable materials.
8. Label all containers with date of purchase, and use the older materials first.
9. Clearly label all secondary containers.
10. Never leave unlabeled or unstable pesticides and fertilizers in uncontrolled locations.
11. Maintain a current written inventory of all pesticides and fertilizers at the storage site.
12. Order for delivery as close to time of use as possible to reduce the amount of chemical stored at the facility.
13. Order only the amount of materials needed in order to minimize excess or obsolete materials, which require storage and disposal.
14. Regularly inspect storage area for leaks and spills.
15. Storage area should be equipped with easily accessible spill cleanup materials and portable firefighting equipment.
16. Emergency eyewash stations and emergency drench showers should be located near the storage area.
17. Ensure that contaminated waste materials are kept in designated containers and stored in a labeled, designated, covered, and contained area.
18. Dispose of excess or obsolete pesticides/fertilizers and associated waste materials in accordance with the manufacturer's specifications and all applicable regulations.

### Storage of Pesticides and Fertilizers

All fertilizer products manufactured or distributed in the State of Massachusetts must be registered with the Department of Agricultural Resources. There is no licensing or certification required for individuals in order to purchase or apply fertilizers.

Procedures for the use of fertilizers include the following:

1. Fertilizers should only be applied by properly trained personnel.
2. Perform soil testing before evaluating and choosing a fertilizer. The quantity of available nutrients already present in soil will determine the type and amount of fertilizer that is recommended. The soil test will also determine soil pH, humic matter and exchangeable acidity, which will indicate whether pH adjustment is required for a fertilizer to work efficiently. A soil test should be completed at each facility, as soil type and quality can vary

widely within a single community. Type of turf and turf use should also be considered in fertilizer selection.

3. Fertilizer selection shall take into account any surface waters within the watershed that are impaired for nutrients. Future regulatory actions may limit use of many fertilizers within these watersheds.
4. Calibrate application equipment regularly to ensure proper application and loading rates.
5. Never apply fertilizers in quantities exceeding the manufacturer's instructions.
6. Time fertilizer application periods for maximum plant uptake, usually in the fall and the spring.
7. Do not over-apply fertilizer in late fall to "use it up" before winter. The effectiveness of fertilizer will not reduce when stored.
8. Do not fertilize during a drought or when the soil is dry.
9. Never apply fertilizer to frozen ground.
10. Never apply fertilizer if it is raining or immediately before expected rain.
11. Mix fertilizers and clean application equipment under cover in an area where accidental spills will not enter surface water or groundwater and will not contaminate soil.
12. Do not hose down paved areas after fertilizer application if drainage will enter to an engineered storm drain system or drainage ditch.
13. Apply fertilizers in amounts appropriate for the type of vegetation to minimize losses to surface water and groundwater
14. Where applicable, till fertilizers into the soil rather than dumping or broadcasting (proper application techniques will depend on the types of soil and vegetation).
15. If phosphorous fertilizer is used when re-seeding, mix the phosphorous into root zone. Do not apply directly to the soil surface.
16. Use alternatives to chemical fertilizers, such as natural compost and organic fertilizers, which are beneficial to soil organisms.
17. Avoid combined products such as "weed and feed," which do not target specific problems at the appropriate time.
18. Use slow-release fertilizer for turf grass.

### Storage of Pesticides and Fertilizers

The State of Massachusetts has a stringent program for registration of pesticides and certification of those authorized to apply them. Once a pesticide has been approved for use by the U.S. EPA, it must be registered by the Massachusetts Pesticide Board Subcommittee prior to being distributed, purchased, or used in Massachusetts. Pesticide classification in Massachusetts is based on the potential adverse effects the pesticide may have on humans or the environment. "Restricted Use" pesticides can only be sold by Licensed Dealers to Certified Applicators, while "State Limited Use" pesticides may be restricted to use by certain individuals or require written permission from the Department of Agricultural Resources prior to use.

Legal application of pesticides must be performed by an individual licensed or certified by the Massachusetts Department of Agricultural Resources. A Commercial Applicator License is required for applying general use pesticides, and a Commercial Applicator Certification is required for applying restricted and state limited use products.

Procedures for the use of pesticides include the following:

1. Pesticides should only be applied by licensed or certified applicators.
2. Calibrate application equipment regularly to ensure proper application and loading rates.
3. Ensure that pesticide application equipment is capable of immediate shutoff in case of emergency.
4. Conduct spray applications according to specific label directions and applicable local regulations.
5. Never apply pesticides in quantities exceeding the manufacturer's instructions.
6. Apply pesticides at the life stage when the pest is most vulnerable.
7. Never apply pesticides if it is raining or immediately before expected rain.
8. Do not apply pesticides within 100 feet of open waters or of drainage channels.
10. Establish setback distances from pavement, storm drains, and water bodies, which act as buffers from pesticide application with disease-resistant plants and minimal mowing.
11. Spot treat infected areas only instead of the entire location.
12. Mix pesticides and clean application equipment under cover in an area where accidental spills will not enter surface water or groundwater and will not contaminate soil.
13. Do not hose down paved areas after pesticide application to a storm drain or drainage ditch.
14. Recycle rinsate from equipment cleaning back into product.
15. Choose the least toxic pesticide that is still capable of reducing the infestation to acceptable levels.
16. Use alternatives to pesticides, such as manual weed control, biological controls, and Integrated Pest Management strategies (learn more at [http://www.mass.gov/agr/pesticides/publications/docs/IPM\\_kit\\_for\\_bldg\\_mgrs.pdf](http://www.mass.gov/agr/pesticides/publications/docs/IPM_kit_for_bldg_mgrs.pdf)).
17. For use of herbicides, reduce seed release of weeds by timing cutting and pesticide application at seed set. Select vegetation and landscaping that is low-maintenance, in order to tolerate low levels of weeds without interfering with aesthetics.

#### Attachments

1. Massachusetts Pesticide Safety Checklist

#### Related Standard Operating Procedures

1. SOP 4, Spill Response and Cleanup Procedures

# STANDARD OPERATING PROCEDURE 14:

## MUNICIPAL VEHICLE WASHING PROCEDURES

### Introduction

Vehicle washing activities can result in the discharge of nutrients, sediment, petroleum products, and other contaminants to a surface water body or to an engineered drainage system.

Consistent with the 2003 USEPA NPDES Phase II Small Municipal Separate Storm Sewer System (MS4) Permit, municipal vehicle washing activities should not discharge pollutants to the MS4 system.

### Outdoor Vehicle Washing Procedures

Procedures for the storage of pesticides and fertilizers shall include the following, many of which are included on the Massachusetts Pesticide Safety Checklist, attached:

Outdoor washing of municipal 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 following procedures shall be followed:

1. Avoid discharge of any wash water directly to a surface water (e.g., stream, pond, drainage swale, etc.)
2. Minimize use of water to the extent practical.
3. Where use of detergent cannot be avoided, use products that do not contain regulated contaminants. Use of a biodegradable, phosphate-free detergent is preferred.
4. Do not use solvents except in dedicated solvent parts washer systems or in areas not connected to a sanitary sewer.
5. Do not power wash, steam clean or perform engine cleaning or undercarriage cleaning.
6. 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.
7. 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 Filtréxx™ FilterSoxx product, or equal. The treatment device shall be positioned such that all drainage must flow through the device, preventing bypassing or short-circuiting.
8. All adjacent engineered storm drain system catch basins shall have a sump. These structures shall be cleaned periodically (refer to SOP 3, "Catch Basin Inspection and Cleaning").

9. Solids and particulate accumulation from the washing area shall be completed through periodic sweeping and/or cleaning.
10. 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 SOP 4, "Spill Response and Cleanup Procedures".

Heavily soiled vehicles or vehicles dirtied from salting or snow removal efforts shall not be washed outside, without exception.

### Indoor Vehicle Washing Procedures

Indoor vehicle washing procedures shall include the following:

1. Where use of detergent cannot be avoided, use products that do not contain regulated contaminants. Use of a biodegradable, phosphate-free detergent is preferred.
2. Detergents shall not be used in areas where oil/water separators provide pre-treatment of drainage (refer to SOP 11, "Oil/Water Separator Maintenance", for more information).
3. 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.
4. Designate separate areas for routine maintenance and vehicle cleaning. This helps prevent contamination of wash water by motor oils, hydraulic lubricants, greases, etc.
5. Dry clean-up methods, such as sweeping and vacuuming, are recommended within garage facilities. Do not wash down floors and work areas with water.
6. Bring smaller vehicles to commercial washing stations.
7. 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 SOP 4, "Spill Response and Cleanup Procedures".

### Heavy Equipment Washing Procedures

Heavy equipment washing procedures shall include the following:

1. Mud and heavy debris removal shall occur on impervious pavement or within a retention area.
2. Maintain these areas with frequent mechanical removal and proper disposal of spoils.
3. All adjacent engineered storm drain system components shall have a sump. These structures shall be cleaned periodically (refer to SOP 3, "Catch Basin Inspection and Cleaning").
4. Impervious surfaces with engineered storm drain systems shall not discharge directly to a surface water.
5. 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.
6. Where use of detergent cannot be avoided, use products that do not contain regulated contaminants. Use of a biodegradable, phosphate-free detergent is preferred.

7. Detergents shall not be used in areas where oil/water separators provide pre-treatment of drainage (refer to SOP 11, "Oil/Water Separator Maintenance", for more information).
8. 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 SOP 4, "Spill Response and Cleanup Procedures".

### Engine Washing and Steam Procedures

Engine and steam washing procedures shall include the following:

1. Do not wash parts outdoors.
2. 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 SOP 4, "Spill Response and Cleanup Procedures".
3. Where use of detergent cannot be avoided, use products that do not contain regulated contaminants. Use of a biodegradable, phosphate-free detergent is preferred.
4. Avoid cleaning with solvents except in dedicated solvent parts washer systems. Make use of pressure washing and steam cleaning.
5. Recycle clean solutions and rinse water to the extent practicable.
6. 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 (refer to SOP 11, "Oil/Water Separator Maintenance", for more information).

### Related Standard Operating Procedures

1. SOP 3, Catch Basin Inspection and Cleaning
2. SOP 4, Spill Response and Cleanup Procedures
3. SOP 11, Oil/Water Separator Maintenance

# APPENDIX B

## Spill Documentation Forms

## Significant Spills, Leaks or Other Releases

**Instructions:**

- Include the descriptions and dates of any incidences of significant spills, leaks, or other releases that resulted in discharges of pollutants to waters of the U.S., through stormwater or otherwise; the circumstances leading to the release and actions taken in response to the release; and measures taken to prevent the recurrence of such releases .
- Provide information, as shown below, for each incident, and attach additional documentation (e.g., photos, spill cleanup records) as necessary. Repeat as necessary by copying and pasting the fields below.

Date of incident: [Insert Date of Incident](#)

Location of incident: [Insert Location of Incident](#)

Description of incident: [Insert Description of Incident](#)

Circumstances leading to release: [Describe circumstances leading to release](#)

Actions taken in response to release: [Describe actions taken in response to release](#)

Measures taken to prevent recurrence: [Describe measures taken to prevent recurrence](#)

Date of incident: [Insert Date of Incident](#)

Location of incident: [Insert Location of Incident](#)

Description of incident: [Insert Description of Incident](#)

Circumstances leading to release: [Describe circumstances leading to release](#)

Actions taken in response to release: [Describe actions taken in response to release](#)

Measures taken to prevent recurrence: [Describe measures taken to prevent recurrence](#)

Date of incident: [Insert Date of Incident](#)

Location of incident: [Insert Location of Incident](#)

Description of incident: [Insert Description of Incident](#)

Circumstances leading to release: [Describe circumstances leading to release](#)

Actions taken in response to release: [Describe actions taken in response to release](#)

Measures taken to prevent recurrence: [Describe measures taken to prevent recurrence](#)

Date of incident: [Insert Date of Incident](#)

Location of incident: [Insert Location of Incident](#)

Description of incident: [Insert Description of Incident](#)

Circumstances leading to release: [Describe circumstances leading to release](#)

Actions taken in response to release: [Describe actions taken in response to release](#)

Measures taken to prevent recurrence: [Describe measures taken to prevent recurrence](#)

# APPENDIX C

## Training Documentation and Attendance Sheets

## Employee Training

<p><b>Instructions:</b></p> <ul style="list-style-type: none"> <li>- Keep records of employee training, including the date of the training.</li> <li>- For in-person training, consider using the tables below to document your employee trainings. For computer-based or other types of training, keep similar records on who was trained and the type of training conducted.</li> </ul>
---

Training Date: <a href="#">Insert Date of Training</a>	
Training Description (including duration and subjects covered): <a href="#">Insert Description of Training</a>	
Trainer: <a href="#">Insert Trainer(s) names</a>	
Employee(s) trained	Employee signature
<a href="#">Insert Name</a>	
<a href="#">Insert Name</a>	
<a href="#">Insert Name</a>	
<a href="#">Insert Name</a>	
<a href="#">Insert Name</a>	
<a href="#">Insert Name</a>	

Training Date: <a href="#">Insert Date of Training</a>	
Training Description (including duration and subjects covered): <a href="#">Insert Description of Training</a>	
Trainer: <a href="#">Insert Trainer(s) names</a>	
Employee(s) trained	Employee signature
<a href="#">Insert Name</a>	
<a href="#">Insert Name</a>	
<a href="#">Insert Name</a>	
<a href="#">Insert Name</a>	
<a href="#">Insert Name</a>	
<a href="#">Insert Name</a>	

Training Date: <a href="#">Insert Date of Training</a>	
Training Description (including duration and subjects covered): <a href="#">Insert Description of Training</a>	
Trainer: <a href="#">Insert Trainer(s) names</a>	
Employee(s) trained	Employee signature
<a href="#">Insert Name</a>	
<a href="#">Insert Name</a>	
<a href="#">Insert Name</a>	
<a href="#">Insert Name</a>	
<a href="#">Insert Name</a>	
<a href="#">Insert Name</a>	

# APPENDIX D

## Facility Inspection Form

## Site Inspection Reports

### Instructions:

- Include in your records copies of all routine facility inspection reports completed for the facility.
- The sample inspection report is consistent with the requirements in the 2016 Massachusetts MS4 Permit relating to site inspections. If MassDEP provides you with an inspection report, use that form.

### Using the Sample Site Inspection Report

- This inspection report is designed to be customized according to the specific control measures and activities at your facility. For ease of use, you should take a copy of your site plan and number all of the stormwater control measures and areas of industrial activity that will be inspected. A brief description of the control measures and areas that were inspected should then be listed in the site-specific section of the inspection report.
- You can complete the items in the “General Information” section that will remain constant, such as the facility name and inspector (if you only use one inspector). Print out multiple copies of this customized inspection report to use during your inspections.
- When conducting the inspection, walk the site by following your site map and numbered control measures/areas of industrial activity to be inspected. Also note whether the “Areas of Materials or Activities exposed to stormwater” have been addressed (customize this list according to the conditions at your facility). Note any required corrective actions and the date and responsible person for the correction.



	Structural Control Measure	Control Measure is Operating Effectively?	If No, In Need of Maintenance, Repair, or Replacement?	Corrective Action Needed and Notes (identify needed maintenance and repairs, or any failed control measures that need replacement)
	Name		<input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
8	Insert Control Measure Name	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	Describe Corrective Actions
9	Insert Control Measure Name	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	Describe Corrective Actions
10	Insert Control Measure Name	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	Describe Corrective Actions

**Areas of Materials or Activities exposed to stormwater**

Below are some general areas that should be assessed during routine inspections. Customize this list as needed for the specific types of materials or activities at your facility.

	Area/Activity	Inspected?	Controls Adequate (appropriate, effective, and operating)?	Corrective Action Needed and Notes
1	Material loading/unloading and storage areas	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	Describe Corrective Actions
2	Equipment operations and maintenance areas	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	Describe Corrective Actions
3	Fueling areas	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	Describe Corrective Actions
4	Outdoor vehicle and equipment washing areas	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	Describe Corrective Actions
5	Waste handling and disposal areas	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	Describe Corrective Actions
6	Erodible areas/construction	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	Describe Corrective Actions
7	Non-stormwater/ illicit connections	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	Describe Corrective Actions
8	Salt storage piles or pile containing salt	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	Describe Corrective Actions
9	Dust generation and vehicle tracking	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	Describe Corrective Actions
10	(Other)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	Describe Corrective Actions

	Area/Activity	Inspected?	Controls Adequate (appropriate, effective, and operating)?	Corrective Action Needed and Notes
11	(Other)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	<a href="#">Describe Corrective Actions</a>
12	(Other)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	<a href="#">Describe Corrective Actions</a>

**Non-Compliance**

Describe any incidents of non-compliance observed and not described above:  
[Describe Non-compliance](#)

**Additional Control Measures**

Describe any additional control measures or changes to the SWPPP needed to comply with the permit requirements:  
[Describe Additional Controls Needed](#)

**Notes**

Use this space for any additional notes or observations from the inspection:  
**Additional Notes**

**Print inspector name and title:**

\_\_\_\_\_

**Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

## Quarterly Visual Assessment Reports – additional form when stormwater discharge is occurring

**Instructions:**

- Include in your records copies of all quarterly visual assessment reports completed for the facility. An example quarterly visual assessment report can be found on the following page.
- At least one quarterly inspection per year must occur while stormwater is discharging.

**Quarterly Visual Assessment Form– additional form when stormwater discharge is occurring**

(Complete a separate form for each outfall you assess)

Name of Facility: **Name of Facility**

Outfall Name: **Name** "Substantially Identical Outfall"?  No  Yes (**identify substantially identical outfalls**):

Person(s)/Title(s) collecting sample: **Name/Title**

Person(s)/Title(s) examining sample: **Name/Title**

Date & Time Discharge Began (approx.):  
**Enter date and time**

Date & Time Visual Sample Collected:  
**Enter date and time**

Date & Time Visual Sample Examined:  
**Enter date and time**

Nature of Discharge:  Rainfall  Snowmelt

**Parameter**

Color  None  Other (**describe**):

Odor  None  Musty  Sewage  Sulfur  Sour  Petroleum/Gas \_\_\_\_\_  
 Solvents  Other (**describe**):

Clarity  Clear  Slightly Cloudy  Cloudy  Opaque  Other

Floating Solids  No  Yes (**describe**):

Settled Solids\*  No  Yes (**describe**):

Suspended Solids  No  Yes (**describe**):

Foam (gently shake sample)  No  Yes (**describe**):

Oil Sheen  None  Flecks  Globs  Sheen  Slick  
 Other (**describe**):

Other Obvious Indicators  No  Yes (**describe**):  
of Stormwater Pollution

\* Observe for settled solids after allowing the sample to sit for approximately one-half hour.

Detail any concerns, additional comments, descriptions of pictures taken, and any corrective actions taken below (attach additional sheets as necessary). **Insert details**

A. Name:

B. Title:

C. Signature:

D. Date Signed:



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