



STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

Department of Public Works Facility & Garage
Town of Wakefield, MA

June 2020



ENVIRONMENTAL
 **PARTNERS**

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SECTION 1 INTRODUCTION

This Stormwater Pollution Prevention Plan (SWPPP) has been developed by the Town of Wakefield 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 Department of Public Works (DPW) Facility is located at 27 North Avenue and is owned and operated by the Town of Wakefield. The Locus Map in Figure 2-1 shows the location of the facility. The DPW 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 June 16, 2020. The inspection was conducted by Katelyn Burke, E.I.T.. Site tour and information provided by Dana Brickett, Environmental Compliance Officer of Wakefield DPW.

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. Table 2-1 includes the list of Pollution Prevention Team members.

Table 2-1: Pollution Prevention Team Members

DPW Facility		
Name	Title	Division
Kristopher Ahern	Working Foreman	Water
Dana Brickett	Foreman Mechanic	Fleet
Neil Burgess	Mechanic	Fleet
Mark Forward	Working Foreman	Highway
John Furrier	Working Foreman	Cemetery
Joseph Gaudreau	Working Foreman	Highway
Blaine Hiltz	Working Foreman	Highway
James Laughlin	Working Foreman	Parks
Robert Leblanc	Working Foreman	Forestry & Park
Matthew Morris	Plumber – Working Foreman	Buildings
Mackenzie O'Keefe	Craftsman	Buildings
Louis Perriello	Working Foreman	Water

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

Pollution Prevention Team Leader 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.

Pollution Prevention Team Member 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. Assists in all components of the stormwater program, as needed. Maintains spill kits.

2.4 FACILITY DESCRIPTION

The primary purpose of the DPW Facility is to maintain the Town's infrastructure and facilities. Activities at the site are described in SECTION 2.7. The facility covers approximately 2.72 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
- Direction of surface water flow
- Structural stormwater pollution control measures
- Vehicle fueling areas
- Aboveground storage tanks (indoors and outdoors)
- Salt storage areas

2.5 FACILITY STRUCTURES

Vehicle Storage and Maintenance

Buildings at the DPW Facility are used to provide Town personnel with heated, covered areas in which to complete minor maintenance, oil changes and preparation of vehicles, equipment and tools for use at locations around Town.

The Repairs Building is located at the eastern portion of the property. Activities in this structure include vehicle maintenance and storage of hazardous materials in flammable materials storage cabinets. This building contains three (3) floor drains, which discharge to an oil/water separator.

Maintenance and Storage Buildings

Small equipment, signage, and tools are stored in the Equipment Building. This building is fully enclosed and contains two long trough floor drains that lead to an oil/water separator.

Latex paint, spray paint, and similar products are stored in the Repairs Building. This building contains three (3) floor drains and is fully enclosed. These products are properly stored in flammable materials storage cabinets.

Vehicle Wash Bays or Recycling Systems

The Town maintains vehicle washing in the Repair Building, at the eastern portion of the property. The building is fully-enclosed. The wash water discharges to the floor drains which lead to the oil/water separator.

Waste Oil Burner

The Repairs Building on the eastern portion of the property contains a waste oil furnace used and operated by the Town.

This structure provides fully-enclosed storage for waste oil drums, and serves as a heated, enclosed workspace for maintenance of Town vehicles. Latex paint, spray paint, and similar products in this building were observed to be properly stored in flammable materials storage cabinets.

Storage of Deicing Materials

Liquid calcium chloride at the DPW Facility is stored in a 3,000 gallon tank in the Equipment Building. This building is enclosed, and the materials are fully contained within the building. The good housekeeping measure used to minimize the exposure includes sweeping the area regularly.

Storage of Road Deicing Equipment

The Town utilizes a number of plows and sanders on its vehicles to adequately maintain roads. These devices are stored in the Equipment Building, located at the western portion of the property. In this building, the equipment is suspended off the ground so that it can easily be cleaned, inspected, and maintained, but is protected from the elements. The equipment is covered by a roof. Large bays can be opened at each end of the facility so that plow trucks and other vehicles can easily attach the devices.

Administrative Buildings

The DPW Administrative offices are located at the eastern portion of the property, adjacent to the Repairs building. This Administrative office space includes restrooms, administrative space, break room and office space.

2.5.1 Additional Site Features

Aboveground Storage Tanks

Aboveground storage tanks (ASTs) at the DPW Facility are used for storage of fuels. An inventory of significant materials is included in SECTION 2.12. Both ASTs are located at the north portion of the property for storage of gasoline and diesel. The ASTs are not covered.

Fuel Islands

An island containing two (2) fuel pumps for gasoline and diesel is located at the center of the property, and is used on a 24-hour basis for fueling all Town vehicles. The island is not covered. Access to these fuel pumps is by key fob, and the tanks are locked. The location of the fuel island is such that all users are visible to personnel at all buildings at the DPW Facility. The area drains towards the catch basin just north of the fuel island.

Emergency Generators

An emergency generator located at the western portion of the facility, inside the Equipment Building, to provide backup power during outages. The generator, a Kohler 100, is exposed but has 110% containment of its 100 gallon diesel day tank. The generator is not located on a pervious surface.

A second emergency generator is located at the east portion of the facility, behind the Repairs Building. This generator also provides backup power to this building during outages. The generator, Kohler, is exposed but has 110% containment of its diesel day tank. The generator is not located on a pervious surface.

Oil/Water Separators

The Town maintains two (2) oil/water separators at the DPW Facility.

These oil/water separators are located at the center of the property. This pretreatment structure has a cleanout manhole, and is pumped on an annual basis. The DPW is responsible for contracting the pump out of the Oil/Water separators to Safety Clean, and maintains records on the pump out activities. This oil/water separators provide treatment of flow from the Repair and Equipment Buildings. Floor drains in all areas where oil materials are used and/or where vehicles are stored drain to one of the two oil/water separators.

Materials for Use by Residents

The Town maintains an awning for storage of sand/salt material for use by Wakefield residents. This is located off the side of the Equipment Building and is covered. Materials remain contained.

Parking Areas

There are two 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 Facility, Town-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 but in the Equipment building.

The Administrative Building contains parking for five (5) vehicles. The Repairs/Equipment Buildings contain parking for 32 vehicles. There are 37 designated and striped parking spaces outdoors on the site.

2.6 SITE DRAINAGE

No stormwater from adjacent properties flows onto the DPW Facility property.

Sheet Flow

Drainage from the impervious surfaces at the DPW Facility is directed partially to a catch basin in the center of the property.

Engineered Drainage

Engineered drainage at the DPW Facility includes approximately one (1) catch basin at the center of the site, three (3) floor drains within the Repairs Building, and two (2) long troughs in the Equipment Building that lead to oil/water separators. Maintenance of the catch basin structures, including sediment removal, is completed by *Safety Clean*. The catch basin connects to a drain line that eventually discharges to Mill River as part of the Wakefield Brook Conduit.

2.6.1 Receiving Waters

The final point of discharge for stormwater from this site is Mill River. Mill River has been categorized as a 303(d) List (Impaired) surface water. The impairment of this river, assigned the unique identifier MA93-31, is considered a Category 5, meaning that more than one designated use is impaired and that a TMDL will be required.

Impairments of this water body are shown in Table 2-2, below.

Table 2-2: Impaired Waters Receiving Drainage from the Facility

DPW Facility

Water Body Name	ID	Category	Impairment(s)
Mill River	MA93-31	5	<ul style="list-style-type: none">• Dissolved Oxygen• Escherichia Coli (E. Coli)• Fecal Coliform• Total Suspended Solids (TSS)• Turbidity

The types of impairments documented for this surface water body are related to bacterial and suspended solids impairments. The activities and materials at the DPW Facility have the potential to affect these impairments.

The good housekeeping practices, preventative maintenance and Best Management Practices implemented at the facility are methods to limit potential negative impacts to stormwater. These practices are discussed in SECTION 3 of this SWPPP.

2.6.2 Applicable TMDLS

The water body identified as Category 5, as shown in Table 2-2, is impaired or threatened for the defined uses. Total Maximum Daily Loads (TMDLs) are required for the impairment shown. The following TMDLs have been developed:

- 50120-50123 Final Pathogen TMDL for the North Coastal Watershed (CN 155.0), October, 25, 2012

2.7 SITE ACTIVITIES

The following activities occur at the facility:

- Facility or Building Maintenance
- Fueling Operations
- Chemical unloading, handling, and storage (including paint, flammables, fertilizers, and pesticides)
- Painting
- 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. The Town's Operations and Maintenance (O&M) of Municipal Buildings and Facilities document is provided in Appendix A. 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. The Town's Hazardous Materials Storage and Handling SOP is provided in Appendix A.

No solvent-based parts washers were observed in any structure at the DPW Facility. Household hazardous materials are either collected by a third party vendor contracted by the Town on an annual basis, or collected at the annual Household Hazardous Waste Day (HHHD) that is hosted for the benefit of Wakefield residents. Waste materials from the DPW Facility operations that may be collected at the annual HHHW Day include used motor vehicle fluids that cannot be utilized for the waste oil burner, such as used antifreeze and brake fluid. Any oil that may be contaminated with antifreeze, brake fluid, paint, or other additive that makes it unburnable in the waste oil furnace is also collected on the HHHW Day rather than being used in the waste oil furnace. These materials are properly labeled and stored using appropriate Best Management Practices between the time of generation and disposal.

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

2.7.1 Solid Waste Management

Potential Sources of Stormwater Pollution

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

Solid waste may be classified as either hazardous or 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 "Spill Response and Cleanup".

2.7.2 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. The Town's Vehicles and Equipment O&M Document is provided in Appendix A.

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

“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.

2.7.3 Vehicle and Equipment Maintenance/Repair

Potential Sources of Stormwater Pollution

Vehicle and equipment maintenance and repair often requires the use of 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 managed 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 disposed of in 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. Discharges to this drain shall be treated by an oil/ water separator (refer to SOP “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.

2.7.4 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 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

When equipment washing is performed outdoors, the use of a tight tank or other similar structure that can contain the wash water is ideal. If 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. Pervious 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 "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 other regulated contaminants. Detergents shall not be used when the discharges from this drain are controlled by an oil/ water separator (refer to SOP "Oil/Water Separator Maintenance", included in Appendix A). All drains that discharge untreated water directly to a water body 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 "Spill Response and Cleanup Procedures" included in Appendix A for more information.

Washing of all facility vehicles is performed in the Repairs Building at the DPW Facility. Waste water from vehicle washing operations is discharged to an oil/water separator that is maintained by *Safety Clean*.

Wastewater from sand/salt spreader vehicles in the Equipment Building is discharged to an oil/water separator that is maintained by *Safety Clean*.

2.7.5 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 overfilling.
4. Clean up spills immediately and in accordance with SOP "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 "Spill Response and Cleanup".

Pesticides, Fertilizers and Petroleum Products

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

2.7.6 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 "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 "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 "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 2-3.

Table 2-3: Vehicle Inventory

Vehicle Type	Number on Site
Plows	20
Sanders	7

2.9 LOCATION OF LEAK AND SPILL CLEANUP MATERIALS

Leak and spill cleanup materials are stored at the DPW Facility in order to facilitate rapid response. Locations and types of leak and spill cleanup materials are identified in Table 2-4.

Table 2-4: Leak and Spill Cleanup Materials

Building or Area	Location	Materials Available
Equipment Building	Inside side entrance	Pig mat kit
Repairs Building	Inside front entrance	Fuel tank spill kit
Repairs Building	Inside front entrance	4 pallets of Speedi Dry

2.10 ALLOWABLE NON-STORMWATER DISCHARGE

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:

- Diverted stream flows (Wakefield Brook)
- Air conditioning condensation

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

2.11 SIGNIFICANT MATERIAL INVENTORY

Materials stored include those specified in SECTION 2.7, "Site Activities". An inventory of these materials at the DPW Facility is included in Table 2-5, 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 2-5: Significant Material Inventory
DPW Facility

Material	Storage Location	Quantity	Potential Pollutant	Covered (C) or Enclosed (E)	Likelihood of Contact with Water
Petroleum-Based Compounds					
Diesel fuel	Center of property (aboveground)	6000 gal	Petroleum hydrocarbons	E*	Low
Gasoline	Center of property (aboveground)	8000 gal	Petroleum hydrocarbons	E*	Low
Hydraulic Fluid	Repairs Bldg	100 gal	Petroleum hydrocarbons	E	Low
Motor Oil	Repairs Bldg	430 gal	Petroleum hydrocarbons	E	Low
Transmission Fluid	Repairs Bldg	55 gal	Petroleum hydrocarbons	E	Low
Waste Oil	Repairs Bldg	500 gal	Petroleum hydrocarbons	E	Low
Total Volume of Oil at Facility = 15,085 gal					
Non-Petroleum Significant Materials					
Antifreeze	Repairs Bldg	55 gal	Ethylene glycol; potential source of BOD	E	Low
Adhesives and sealants	Repairs Bldg	1 gal	Volatile and semivolatile organic compounds	E	Low
Batteries, Used Lead Acid	Repairs Bldg	4-5 batteries	Lead, sulfuric acid; possible particulate matter and residual oil	E	Low
Brake Fluid	Repairs Bldg	1 gal	Volatile organic compounds; non-petroleum based oil	E	Low
Coolant (new or used)	Repairs Bldg	55 gal (used)	Volatile organic compounds	E	Low
Paint, Oil-Based	Repairs Bldg	15 gal	Petroleum constituents, including volatile and semivolatile organic compounds	E	Low
Paint, Spray	Repairs Bldg	30, 8-oz sprays	Petroleum constituents, including volatile and semivolatile organic compounds	E	Low

Material	Storage Location	Quantity	Potential Pollutant	Covered (C) or Enclosed (E)	Likelihood of Contact with Water
Spill response material (Speedi Dri or similar)	Repairs Bldg; Equipment Bldg	2 stations; 4 pallets	Particulate matter, solids, residual oil.	E	Low
Salt/Sand	Outside of Equipment Bldg		Chlorides/Sediments	C	Low

E* Indicates fuel stored in enclosed tanks located outside.

2.12 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 have aboveground oil storage capacity that exceeds 1,320 gallons.

2.13 DESCRIPTION OF SIGNAFICANT 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 vehicles occurs at the Fuel Island located at the DPW Facility. All bulk delivery of fuel to the Fuel Island is monitored by a Town employee.

The DPW Facility emergency generator is fueled with diesel approximately ##FREQUENCY. The fuel is delivered to the storage tanks which are located within the Equipment Building and outside the back of the Repairs Building. All bulk delivery of fuel to the emergency generator is monitored by a Town employee.

Waste oil and other used motor fluids are stored in the Repairs Building. Waste oil is stored in tanks and drums also located within the Repairs Building, all of which have internal containment or are located on appropriate containment pallets. All delivery of waste oil to the facility occurs within the Repairs Building and is monitored by a DPW employee.

Chemicals, including antifreeze, brake fluids and paints, are used at the DPW Facility. These chemicals are stored within the Repairs Building and fully contained. Delivery of all chemicals to the Repairs Building is monitored by a DPW employee.

Within the Equipment Building, deicing materials including liquid calcium chloride are stored. Delivery of deicing materials to the Equipment Building is monitored by a DPW employee.

2.14 LIST OF SIGNIFICANT LEAKS OR SPILLS

No significant leaks or spills occurred at the DPW Facility in the last three years. Forms included in Appendix B will be used to document any spill or leak that occurs at the facility in the future.

2.15 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.

2.15.1 Pretreatment Structural BMPs

- Oil/Grit Separators

2.16 SEDIMENT AND EROSION CONTROL

Site topography at the DPW Facility prevents untreated stormwater and any associated sedimentation from directly entering the Town storm drain system or discharging directly to Mill River.

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 2-4.

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 Environmental Manager of the Wakefield DPW is responsible for stormwater management training for DPW 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 maintenance.

Additionally, general awareness training is provided regularly 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 Environmental Compliance Officer of Wakefield DPW 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 Department of Public Works at Town Hall 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 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

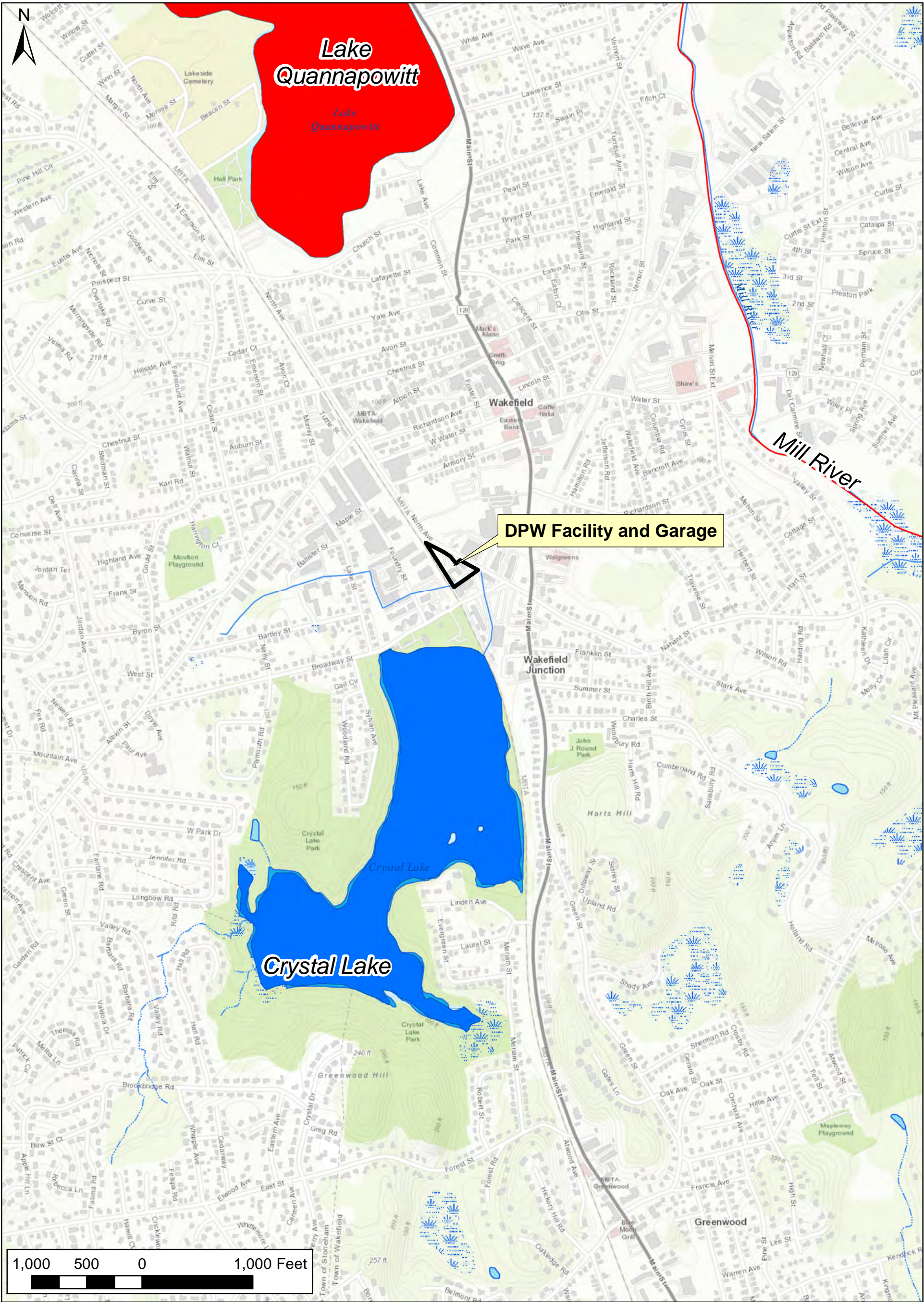
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage 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.


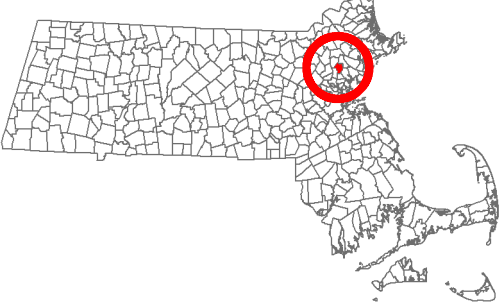
Authorized Official

Title


Date

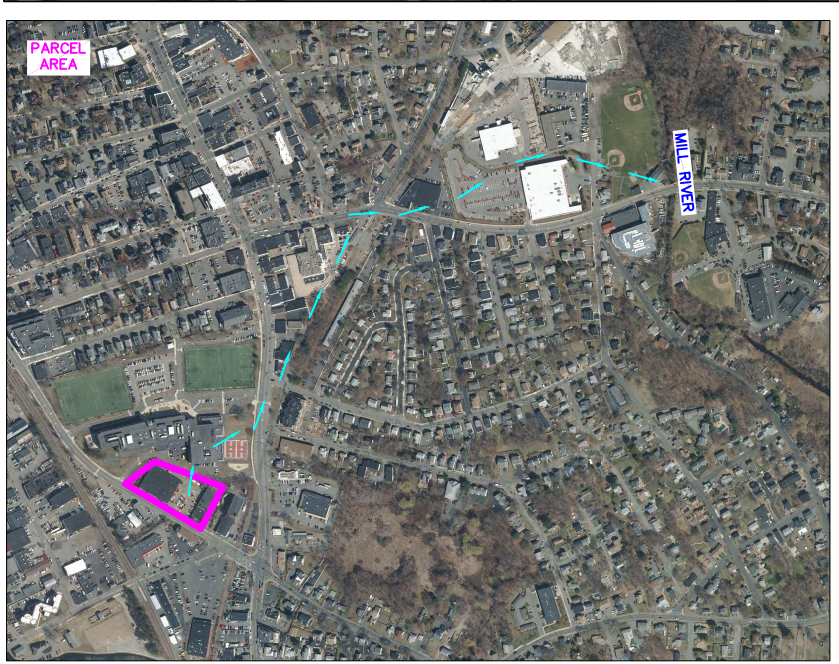
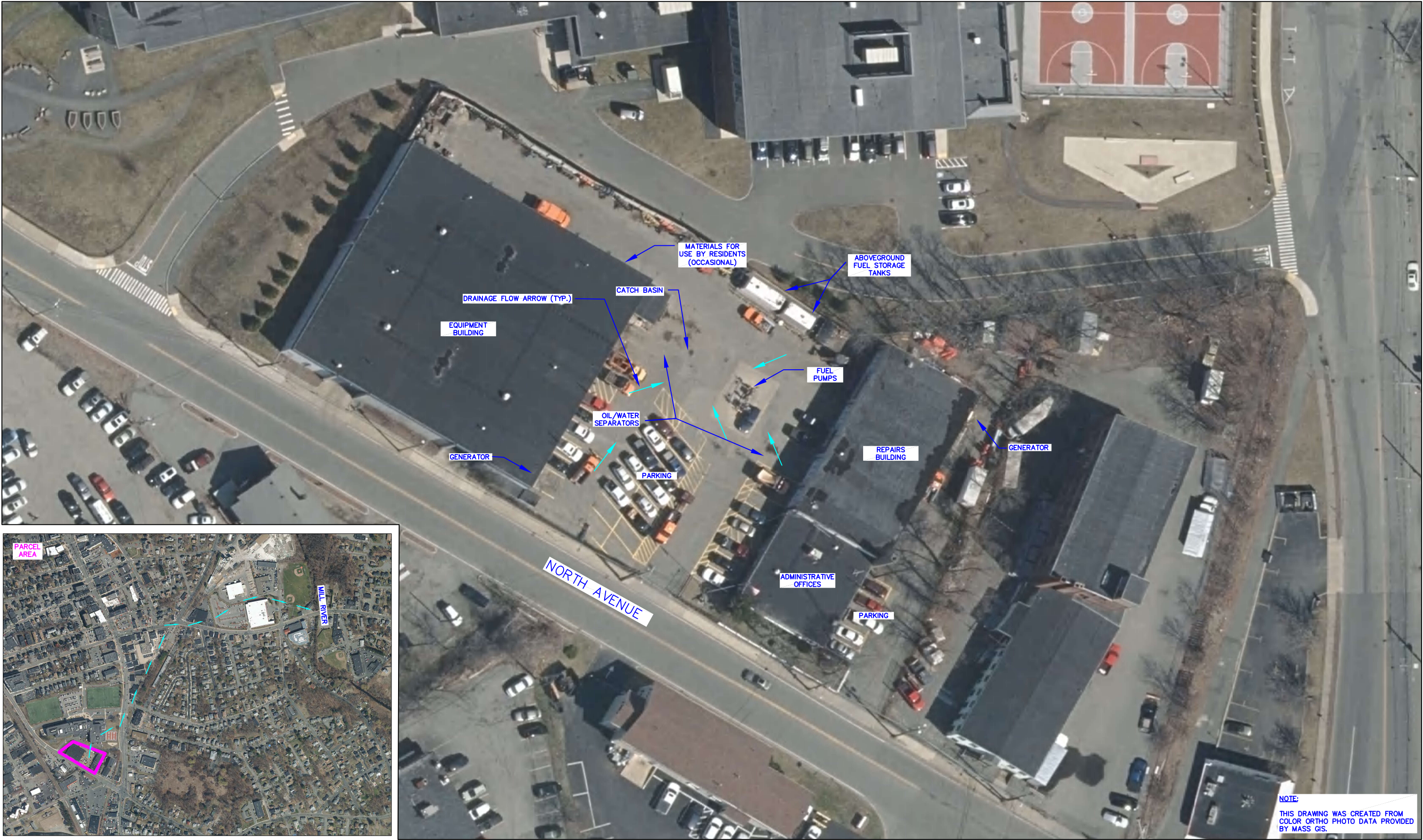
FIGURES






**Figure 2-1. Locus Map
DPW Facility and Garage
Wakefield, Massachusetts**







**ENVIRONMENTAL
PARTNERS**

MARK

DATE

DESCRIPTION

Scale

Date

Job No.

Designed by

Drawn by

Checked by

Approved by

June 2020

313-2001

KHB

KHB

THIS LINE IS ONE INCH
LONG WHEN PLOTTED AT
FULL SCALE ON A 22" X
34" DRAWING

FIGURE 2-2. WAKEFIELD DPW FACILITY AND GARAGE

SITE MAP

NOT FOR CONSTRUCTION

Sheet No.

C-1

Drawing file: I:\Wakefield\313\313-2001\5\MPHPS\03 Deliverables\DPW and Garage - North Ave\Figures\Fig 2-2 Site Map.dwg Plot Date: Jun 30/2020-1:27pm

APPENDIX A

Standard Operating Procedures

STANDARD OPERATING PROCEDURE: 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). 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

Job No.: _____ Town: _____
 Inspector: _____ Date: _____



CATCH BASIN INSPECTION FORM

Catch Basin I.D.		Final Discharge from Structure? Yes <input type="checkbox"/> No <input type="checkbox"/> If Yes, Discharge to Outfall No: _____	
Catch Basin Label:	Stencil <input type="checkbox"/> Ground Inset <input type="checkbox"/> Sign <input type="checkbox"/> None <input type="checkbox"/> Other _____		
Basin Material:	Concrete <input type="checkbox"/> Corrugated metal <input type="checkbox"/> Stone <input type="checkbox"/> Brick <input type="checkbox"/> Other: _____ <input type="checkbox"/>	Catch Basin Condition:	Good <input type="checkbox"/> Poor <input type="checkbox"/> Fair <input type="checkbox"/> Crumbling <input type="checkbox"/>
Pipe Material:	Concrete <input type="checkbox"/> HDPE <input type="checkbox"/> PVC <input type="checkbox"/> Clay Tile <input type="checkbox"/> Other: _____ <input type="checkbox"/>	Pipe Measurements:	Inlet Dia. (in): d= _____ Outlet Dia. (in): D= _____
Required Maintenance/ Problems (check all that apply): <div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <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 </div> <div style="width: 48%;"> <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 Other: _____ </div> </div>			
Catch Basin Grate Type :	Sediment Buildup Depth :	Description of Flow:	Street Name/ Structure Location:
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"/>	
*If the outlet is submerged check yes and indicate approximate height of water above the outlet invert. 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)	Observations: Color: _____ Odor: _____		Circle those present: Foam Sanitary Waste Orange Staining Excessive sediment Other: _____
Weather Conditions : Dry > 24 hours <input type="checkbox"/> Wet <input type="checkbox"/>			
Sample of Screenings Collected for Analysis? Yes <input type="checkbox"/> No <input type="checkbox"/>			
Comments: 		Oil Sheen Bacterial Sheen Floatables Pet Waste Optical Enhancers	

STANDARD OPERATING PROCEDURE:

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 using the number listed below, however in the case of an emergency call 911;
 - a. Auburn: (508)-832-7800
 - b. Charlton: (508)-248-2299
 - c. Dudley: (508)-949-8040
 - d. Holden: (508)-210-5650
 - e. Leicester: (508)-892-7022
 - f. Millbury: (508)-865-5328
 - g. Oxford: (508)-987-6012
 - h. Paxton: (508)-791-6600
 - i. Shrewsbury: (508)-841-8522
 - j. Spencer: (508)-885-3555
 - k. Sturbridge: (508)-347-2525
 - l. Webster: (508)-949-3876
 - m. West Boylston: (508)-835-3233
- 5. Contact the MassDEP 24-hour spill reporting notification line, toll-free at (888)-3104-1133;
 - n. 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

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:

FUEL AND OIL HANDLING

Spills, leaks, and overfilling can occur during handling of fuels and petroleum-based materials, representing a potential source of stormwater pollution, even in small volumes. The goal of this written Standard Operating Procedure (SOP) is to provide guidance to municipal employees on a variety of ways by which fuels and petroleum-based materials can be delivered, as well as steps to be taken when petroleum products (such as waste oil) are loaded onto vehicles for offsite disposal or recycling. Delivery, unloading, and loading of waste oils are hereafter referred to as "handling." Attached is a fuel delivery form checklist.

The Town of Wakefield performs a variety of procedures and precautions in handling fuel and oil in accordance with NPDES regulations.

Procedures:

General

- Member of the Fleet's Pollution Prevention Team should be present during fuel and handling procedures.
- Sources of flame are kept away while fuel handling is being completed. This includes smoking, lighting matches, carrying any flame, or carrying a lighted cigar, pipe, or cigarette.
- The delivery vehicle's hand brake is set.
- Catch basins and drain manholes are adequately protected.
- No tools are to be used that could damage fuel or oil containers or the delivery vehicle.
- No flammable liquid should be unloaded from any motor vehicle while the engine is operating, unless the engine of the motor vehicle is required to be used for the operation of a pump.
- Ensure that local traffic does not interfere with fuel transfer operations. If it does, make appropriate accommodations.
- The attending persons should watch for any leaks or spills:
 - Any small leaks or spills should be immediately stopped, and spilled materials absorbed and disposed of properly. Follow Spill Prevention, Control, and Countermeasure (SPCC) procedures.
 - In the event of a large spill or one that discharges to surface waters or an engineered storm drain system, the facility representative should activate the facility's Stormwater Pollution Prevention Plan (SWPPP) and report the incident as specified in the document.

Delivery by Bilk (Tanker) Truck



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

Delivery of Drummed Materials (e.g. motor oil, hydraulic fluid, or transmission fluid)

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

Removal of Waste Oil from the Facility

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

Employee Training

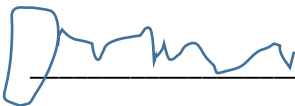
- Employees who handle or deliver fuel and/or oil are trained annually on proper procedures.
- Employees are trained annually on stormwater pollution prevention, illicit discharge detection and elimination (IDDE) procedures, and spill and response procedures.
- If services are contracted, the contractor should be given a copy of this and any applicable SOPs to ensure compliance with MS4 regulations.

Revising the SOP

- These procedures are reviewed annually and updated as needed.

Effective

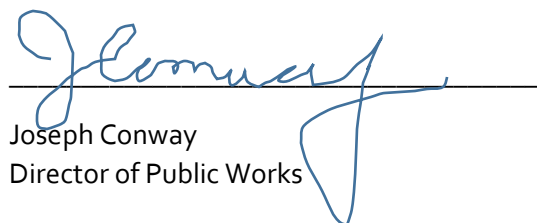
1/1/2020



Dennis Gorman
Fleet Supervisor



Dana Brickett
Environmental Compliance Officer



Joseph Conway
Director of Public Works



TOWN OF WAKEFIELD

DEPARTMENT OF PUBLIC WORKS

FUEL DELIVERY FORM

Date: _____

Time of Arrival: _____

Time of Departure: _____

Truck Number: _____

Name of Truck Driver: _____

Name of Town Employee: _____

Before Unloading:

Is all spill response equipment and personal protective equipment in place?

Yes ☐ No ☐

In the case of bulk fuel delivery, does tank capacity exceed the amount of delivery?

Yes ☐ No ☐ N/A ☐

In the case of drum fuel delivery, are all drums free of leaks and punctures?

Yes ☐ No ☐ N/A ☐

Commence unloading. Remain with vehicle at all times.

After Unloading is Complete:

Have all fuel containers, including the vehicle, been inspected for leaks?

Yes ☐ No ☐

Has the ground at the unloading point been inspected for evidence of leaks?

Yes ☐ No ☐

If there are any leaks or spills, has the material been properly cleaned?

Yes ☐ No ☐

Has the correct amount of fuel been delivered?

Yes ☐ No ☐

Has a receipt been collected?

Yes ☐ No ☐

Delivery is Complete.



STANDARD OPERATING PROCEDURE:

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

**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.



Operations and Maintenance of Municipal Buildings and Facilities

The Town of Wakefield performs a variety of operations and maintenance activities at its municipal buildings and facilities in accordance with NPDES regulations.

Municipal buildings and facilities often house various chemicals, such as petroleum products and hazardous materials. As a result, these buildings and facilities are potential sources of pollutant discharges to the storm drainage system. The goal of this written Standard Operating Procedure (SOP) is to provide guidance to municipal employees on the use, storage, and disposal of chemicals and other stormwater pollutants to reduce the discharge of pollutants from the MS4. If services are contracted, this SOP should be provided to the contractor. The contract should specify that the contractor is responsible for compliance with all applicable laws.

The Current municipal buildings and facilities maintenance activities regarding the use, storage, and disposal of petroleum products, dumpster and waste management activities, spill prevention plans and parking lot sweeping are as follows:

- Gasoline and oil are used in snow blowers and other gas-powered maintenance equipment
- Gasoline is stored in Steel type II safety Gas containers
- All petroleum products are stored in Flammable fuel storage cabinets
- When gas powered machinery is serviced, it is either sent to the DPW Fleet Maintenance Division or a third party vendor, to properly dispose of any hazardous material.
- If disposal of a Petroleum product or other hazardous waste is necessary, the Environmental Compliance Officer from the Fleet Maintenance Division is contacted.
- Heating oil is present in some of the municipal buildings which are monitored for leaks during daily building checks.
- Exterior Generators that are filled with diesel fuel are inspected regularly and protected by bollard posts.
- Recycling receptacles are kept indoors until they are scheduled to be picked up
- Grounds walks are performed by employees to pick up any loose debris and trash
- Dumpster enclosures are cleaned regularly
- Dumpster and waste management is performed by the Highway Division in conjunction with JRM
- Parking lot sweeping is performed by the Highway Division



Procedures:

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

- All waste and recycling receptacles must be leak-tight with tight-fitting lids or covers.
- Place waste or recycling receptacles indoors or under a roof or overhang whenever possible.
- Locate dumpsters on a flat, paved surface and install berms or curbs around the storage area to prevent run-on and run-off.
- Do not locate dumpsters over or adjacent to catch basins.
- Prior to transporting waste, trash, or recycling, ensure that containers are not leaking (double bag if needed) and properly secure containers to the vehicle.
- Clean and sweep up around outdoor waste containers regularly.
- Clean up any liquid leaks or spills with dry cleanup methods.
- Never place hazardous materials, liquids, or liquid-containing wastes in a dumpster or recycling or trash container (see Hazardous Materials Storage and Handling SOP).
- Do not wash trash or recycling containers outdoors or in parking lots.
- Conduct periodic inspections of solid and liquid waste storage areas to check for leaks and spills.
- Conduct periodic inspections of work areas to ensure that all wastes are being disposed of properly.
- In dumpster areas, regularly pick up surrounding trash and debris and regularly sweep the area.
- For regular sweeping of municipally-owned parking lots, refer to Street and Parking Lot Sweeping SOP.

Building Maintenance

- When power washing buildings and facilities, ensure that the washwater does not flow into the drainage system. Containment or filtering systems should be provided.
- Paint and other chemicals should not be applied on the outside of buildings when it is raining or prior to expected rain.
- When sanding, painting, power washing, etc., ensure that sites are properly prepared (e.g., use tarps) and cleaned (e.g., use dry cleaning methods) especially if they are near storm drains. Protect catch basins when maintenance work is conducted up-gradient of them.
- When painting, use a drop cloth and clean up any spills immediately.
- Do not leave open containers on the ground where they may accidentally tip over.
- Buildings should be routinely inspected for areas of potential leaks.

Storage of Petroleum Products and Potential Pollutants

- Floor drains in storage areas should be disconnected from the drainage system.
- Routinely inspect buildings and facilities for areas of potential leaks.
- For storage and handling procedures of petroleum products and potential pollutants, refer to Hazardous Materials Storage and Handling SOP and Fuel and Oil Handling Procedures SOP.
- All municipal buildings and facilities should be periodically inspected to address potential pollutant sources (e.g., leaks).

Spill Prevention

- Spill Prevention Control and Countermeasure (SPCC) Plans should be in place where applicable, based on inventories of material storage and potential pollutants. Follow SPCC procedures.

Employee Training

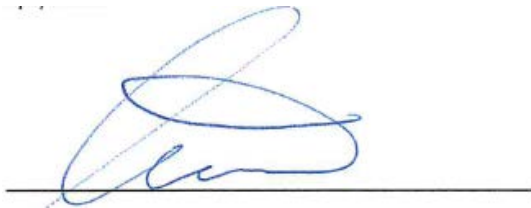
- Employees who perform maintenance or other applicable work at municipal buildings and facilities are trained monthly on these procedures and the proper operation of related equipment.
- Employees are trained annually on stormwater pollution prevention, illicit discharge detection and elimination (IDDE) procedures, and spill and response procedures.
- If services are contracted, the contractor should be given a copy of this and any applicable SOPs to ensure compliance with MS4 regulations.

Revising the SOP

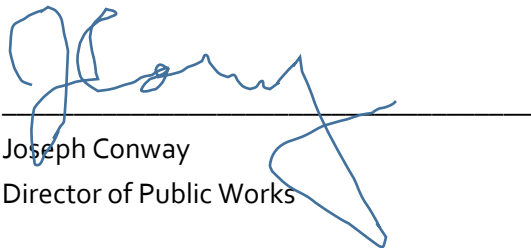
- These procedures are reviewed annually and updated as needed.

Effective

1/1/2020



Christopher Pierce
Buildings Manager



Joseph Conway
Director of Public Works



Hazardous Materials Storage and Handling

A hazardous material is any biological, chemical, or physical material with properties that make it dangerous or potentially harmful to human health or the environment. Hazardous materials can be released to the environment in a variety of ways. When hazardous materials come into contact with rain or snow, the pollutants are washed into the storm sewer system and to surface waterbodies and/or groundwater. Hazardous materials associated with municipal facilities and their operations include, but are not limited to, oil, gasoline, antifreeze, fertilizers, pesticides, and de-icing agents and additives.

Municipally owned or managed facilities where hazardous materials are commonly stored and handled include:

- North Ave: vehicle and equipment storage and maintenance facility
- Nahant St. Yardwaste Site: public works materials storage yard
- Broadway: Water Treatment Plant

Minimizing or eliminating contact of hazardous materials with stormwater can significantly reduce pollution of receiving waters. Proper hazardous material handling and storage also contributes to employee health, an organized workplace, and efficient operations. The goal of this written Standard Operating Procedure (SOP) is to provide guidance to municipal employees to help prevent stormwater pollution resulting from the handling and storage of hazardous materials. If services are contracted, this SOP should be provided to the contractor. The contract should also specify that the contractor is responsible for compliance with all applicable laws.

Procedures:

Handling, Loading, and Unloading

- Avoid loading and unloading materials in the rain. If necessary, provide cover.
- Retrace areas where materials have been transferred to identify spills. If spills are found, immediately clean them up. Follow Spill Prevention, Control, and Countermeasure (SPCC) procedures.
- Time delivery and handling of materials during favorable weather conditions whenever possible (e.g., avoid receiving loads of sand during windy weather).
- Inspect containers for material compatibility and structural integrity prior to loading/unloading any raw or waste materials.



- Use dry cleanup methods (e.g., squeegee and dust pan, sweeping, and absorbents as last step) rather than hosing down surfaces.

Material Storage

- Confine material storage indoors whenever possible. Cover floor drains, in the case of a spill. Floor drains lead to oil water separator before leading to sanitary sewer system.
- Confine outdoor material storage to designated areas that are covered, on impervious surfaces, away from high traffic areas, and outside of drainage pathways.
- Store containers on pallets to facilitate leak inspection, mitigate contact with vermin, and prevent contact with wet floors that can cause corrosion.
- Store materials and waste in materially compatible containment units.
- Keep hazardous materials in their original containers.
- Clearly label all storage containers with the name of the chemical, the expiration date, and handling instructions.
- Provide secondary containment for storage tanks and drums with sufficient volume to store 110 percent of the volume of the material.
- Provide sufficient aisle space to allow for routine inspections and access for spill cleanup.
- Inspect storage areas for spills or leaks and containment units for corrosion or other failures.

Waste Treatment, Disposal, and Cleanup

- Maintain regular schedule with Safety Clean for the pick-up and disposal of waste materials.
- Recycle leftover materials whenever possible.
- Substitute nonhazardous or less-hazardous materials for hazardous materials whenever possible.
- Protect empty containers from exposure to stormwater and dispose of them regularly to avoid contamination from container residues.

Employee Training

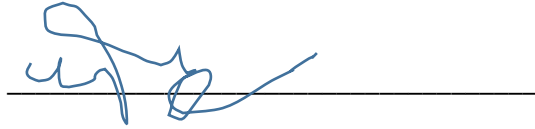
- Employees who handle and use hazardous materials are trained twice annually on these procedures.
- Employees are trained annually on stormwater pollution prevention, illicit discharge detection and elimination (IDDE) procedures, and spill and response procedures.
- If services are contracted, the contractor should be given a copy of this and any applicable SOPs to ensure compliance with MS4 regulations.

Revising the SOP

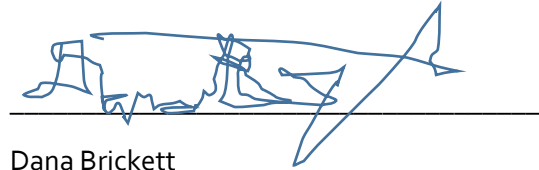
- These procedures are reviewed annually and updated as needed.

Effective

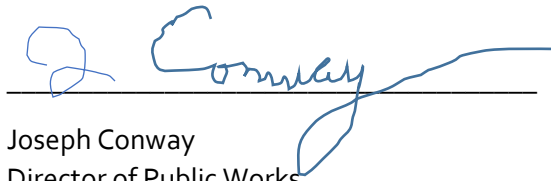
1/1/2020

A handwritten signature in blue ink, appearing to read 'D. Gorman', written over a horizontal line.

Dennis Gorman
Fleet Supervisor

A handwritten signature in blue ink, appearing to read 'Dana Brickett', written over a horizontal line.

Dana Brickett
Environmental Compliance Officer

A handwritten signature in blue ink, appearing to read 'J. Conway', written over a horizontal line.

Joseph Conway
Director of Public Works



Operations and Maintenance of Municipal Vehicles and Equipment

Regular maintenance of both municipal and contracted vehicles and heavy equipment not only prolongs the life of municipal assets but also helps reduce the potential for leaking of fluids associated with normal wear and tear. Potential pollutants include fuels, oil, antifreeze, brake fluid, solvents, and battery acid. The goal of this written Standard Operating Procedure (SOP) is to provide guidance to municipal employees to help reduce the discharge of pollutants from the MS4 as a result of leaks from vehicles and equipment. If services are contracted with respect to vehicles and equipment, this SOP should be provided to the contractor. The contract should also specify that the contractor is responsible for compliance with all applicable laws.

The Town of Wakefield performs a variety of operations and maintenance activities for municipally owned and operated vehicles and equipment in accordance with NPDES regulations.

Procedures:

Vehicle Storage

- Monitor vehicles and equipment for leaks and use drip pans as needed until repairs can be performed.
- When drip pans are used, avoid overtopping.
- Drain fluids from leaking or wrecked vehicles and parts as soon as possible. Dispose of fluids properly.
- Store and park vehicles on impervious surfaces and/or under cover or indoors whenever possible.

Vehicle Maintenance

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



Body Repair and Painting

- Send out to third party body shop

Fueling

- Fueling areas should be evaluated to ensure pollutants do not enter the drainage system. Follow procedures in Fuel and Oil Handling SOP.

Material Management

- Store materials and waste in labeled containers under cover and in secondary containment.
- Chemicals should not be combined in containers.
- Hazardous waste must be labeled and stored according to hazardous waste regulations. Follow the procedures in Hazardous Materials Storage and Handling SOP.
- Carefully transfer collected fluids from containers into designated storage areas as soon as possible.
- Store new and used batteries securely to avoid breakage. Store indoors or in secondary containment to contain potential acid leaks. Recycle used batteries.
- Conduct periodic inspections of storage areas to detect possible leaks.
- When washing, use oil/ water separator, dry cleanup methods whenever possible (speedy dry), and perform drip test.
- Wash or hose down storage areas into oil/ water separator. Use dry cleanup methods whenever possible.
- Keep lids on containers. Store them indoors or under cover to reduce exposure to rain.
- Inspect and maintain all pretreatment equipment, including interceptors, according to the manufacturer's maintenance schedule and at least once per year.
- Proper spill protocol should be followed to prevent chemicals from entering the drainage system. Follow Spill Prevention, Control, and Countermeasure (SPCC) procedures.

Parts Cleaning

- Use designated areas for cleaning equipment and vehicle. Do not wash or rinse parts outdoors. If parts cleaning equipment is not available then capture parts cleaning fluids.
- Recycle excess cleaning solution.
- Use biodegradable solution, steam cleaning, or pressure washing of parts instead of solvent cleaning. Cleaning equipment must be connected to an oil/water separator.
- When using solvents for cleaning, drain parts over the drip pan to avoid drips to the floor. Utilize an absorbent mat to remove excess solution. Prior to disposal, use drip test. If excess liquid remains, follow Hazardous Materials Storage and Handling SOP.

Indoor Vehicle Washing

- Vehicles and equipment should be washed indoors.
- Where the use of detergent cannot be avoided, use products that do not contain regulated contaminants. The use of biodegradable, phosphate-free detergent is

preferred.

- Detergents should not be used in areas where oil/water separators do not provide pre-treatment of drainage.
- Floor drains should be connected to oil/water separator before out letting to the sanitary sewer.
- Designate separate areas for routine maintenance and vehicle cleaning to prevent contamination of wash water by motor oils, hydraulic lubricants, greases, or other chemicals.
- Dry cleanup methods should be used within garage facilities. Do not wash down floors and work areas with water.
- Bring small vehicles to commercial washing stations (e.g. police cruisers).
- Maintain absorbent pads and drip pans to capture and collect spills or noticeable leaks observed during washing activities. Follow SPCC procedures.

Heavy Equipment Washing

- Vehicles and equipment should be washed indoors.
- Maintain these areas with frequent mechanical removal and proper disposal of waste.
- Impervious surfaces with floor drains discharge directly to an oil/ water separator.
- Where the use of detergent cannot be avoided, use products that do not contain regulated contaminants. The use of biodegradable, phosphate-free detergent is preferred.
- Detergents should not be used in areas where oil/water separators do not provide pre-treatment of drainage.
- Maintain absorbent pads and drip pans to capture and collect spills or noticeable leaks observed during washing activities. Follow SPCC procedures.

Engine and Steam Washing

- Vehicles and equipment should be washed indoors.
- 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. Follow the SPCC procedures.
- Where use of detergent cannot be avoided, use products that do not contain regulated contaminants. The use of a biodegradable, phosphate-free detergent is preferred.
- Avoid cleaning with solvents except in dedicated solvent parts washer systems. Make use of pressure washing and steam cleaning.
- Recycle clean solutions and rinse water to the maximum extent practicable.
- Wash water should discharge to an oil/water separator. Detergents should not be used in areas where oil/water separators do not provide pre-treatment of drainage.

Employee Training

- Employees who perform work on municipal vehicles or equipment are trained (4) times per year on these procedures and the proper operation of related equipment.
- Employees are trained annually on stormwater pollution prevention, illicit discharge detection and elimination (IDDE) procedures, and spill and response procedures.
- If services are contracted, the contractor should be given a copy of this and any applicable SOPs to ensure compliance with MS4 regulations.

Revising the SOP


- These procedures are reviewed annually and updated as needed.

Effective

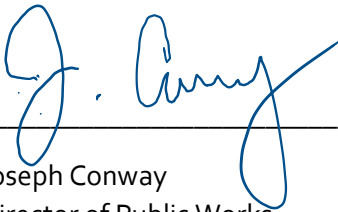
1/1/2020



Dennis Gorman
Fleet Supervisor



Dana Brickett
Environmental Compliance Officer



Joseph Conway
Director of Public Works

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

Instructions:

- Keep records of employee training, including the date of the training.
- 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.

Training Date: Insert Date of Training	
Training Description (including duration and subjects covered): Insert Description of Training	
Trainer: Insert Trainer(s) names	
Employee(s) trained	Employee signature
Insert Name	
Insert Name	
Insert Name	
Insert Name	
Insert Name	
Insert Name	

Training Date: Insert Date of Training	
Training Description (including duration and subjects covered): Insert Description of Training	
Trainer: Insert Trainer(s) names	
Employee(s) trained	Employee signature
Insert Name	
Insert Name	
Insert Name	
Insert Name	
Insert Name	
Insert Name	

Training Date: Insert Date of Training	
Training Description (including duration and subjects covered): Insert Description of Training	
Trainer: Insert Trainer(s) names	
Employee(s) trained	Employee signature
Insert Name	
Insert Name	
Insert Name	
Insert Name	
Insert Name	
Insert Name	



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.



Stormwater Site Inspection Report

General Information			
Facility Name	Insert Name		
Date of Inspection	Insert Date	Start/End Time	Insert Start/End Time
Inspector's Name(s)	Insert Name		
Inspector's Title(s)	Insert Title		
Inspector's Contact Information	Insert Contact Info		
Inspector's Qualifications	Insert qualifications or add reference to the SWPPP		
Weather Information			
Weather at time of this inspection? <input type="checkbox"/> Clear <input type="checkbox"/> Cloudy <input type="checkbox"/> Rain <input type="checkbox"/> Sleet <input type="checkbox"/> Fog <input type="checkbox"/> Snow <input type="checkbox"/> High Winds <input type="checkbox"/> Other: _____ Temperature: _____			
Have any previously unidentified discharges of pollutants occurred since the last inspection? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: Describe			
Are there any discharges occurring at the time of inspection? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: Describe			

Control Measures

- Number the structural stormwater control measures identified in your SWPPP on your site map and list them below (add as many control measures as are implemented on-site). Carry a copy of the numbered site map with you during your inspections. This list will ensure that you are inspecting all required control measures at your facility.
- Describe corrective actions initiated, date completed, and note the person that completed the work in the Corrective Action Log.

	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)
1	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
2	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
3	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
4	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
5	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
6	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
7	Insert Control Measure	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance	Describe Corrective Actions



	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	Describe Corrective Actions
12	(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

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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