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STORMWATER POLLUTION PREVENTION PLAN

MS4 GENERAL PERMIT COMPLIANCE

APRIL 2020

TOWN OF
Dedham
MASSACHUSETTS

DPW Facility
55 River Street

SWPPP

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STORMWATER POLLUTION PREVENTION PLAN

DEPARTMENT OF PUBLIC WORKS

Facility Name: Dedham Department of Public Works

Facility Address: 55 River Street, Dedham, Massachusetts 02026

1. INTRODUCTION

The 2016 Massachusetts Municipal Separate Storm Sewer System General Permit (MS4 Permit), which came into effect on July 1, 2018, regulates discharges from small MS4s to waters of the United States. The MS4 Permit requires operators to develop, implement, and enforce a stormwater management program (SWMP). The purpose of the SWMP is to reduce the discharge of pollutants from the MS4 to the maximum extent practicable, to protect water quality, and to satisfy the applicable water quality requirements of the Clean Water Act. MS4 operators identified in the MS4 Permit are required to implement various Best Management Practices (BMPs) for each of the six minimum control measures. These minimum control measures are as follows:

- Public Education and Outreach
- Public Involvement/Participation
- Illicit Discharge Detection and Elimination
- Construction Site Stormwater Runoff Control
- Post-Construction Stormwater Management in New Development and Redevelopment
- Good Housekeeping and Pollution Prevention for Municipal Operations

As part of the minimum control measure for Good Housekeeping and Pollution Prevention for Municipal Operations, Section 2.3.7 of the 2016 MA-MS4 Permit requires regulated communities to develop and implement a written Stormwater Pollution Prevention Plan (SWPPP) for all permittee-owned or operated maintenance garages, public works yards, transfer stations, and other waste handling facilities where pollutants are exposed to stormwater. This document must be in place within two (2) years of the permit effective date, or by July 1, 2020.

1.1 Stormwater Pollution Prevention Plan (SWPPP) Overview

This Stormwater Pollution Prevention Plan:

- Identifies the SWPPP coordinator with a description of the coordinator's duties;
- Identifies members of the SWPPP team and lists their responsibilities;
- Describes the facility, with information on location and activities, a site map, and a description of the stormwater drainage system;
- Identifies potential stormwater contaminants;
- Describes stormwater management controls and various Best Management Practices (BMPs) needed to reduce pollutants in stormwater discharges;
- Describes the facility's monitoring plan; and,
- Describes the implementation schedule and provisions for amendment of the plan.

2. PLANNING AND ORGANIZATION

2.1 SWPPP Coordinator and Team

This is the member roster and list of responsibilities for the pollution prevention team. The team is responsible for implementing the Stormwater Pollution Prevention Plan.

Leader: Joseph Flanagan Office Phone: (781) 751-9377

Title: Director of the Department of Public Works

Responsibilities:

Coordinate all stages of plan development, inspections and implementation; coordinate employee training programs; keep all records and ensure that reports are submitted; oversee sampling program; serves as spill response coordinator.

Member: Jason Mammone, PE Office Phone: (781) 751-9352

Title: Director of the Engineering Department

Responsibilities:

Implement the preventive maintenance program; oversee good housekeeping activities.

3. DETAILED FACILITY ASSESSMENT

3.1 Site Inspection

The DPW facility site inspection was conducted on November 14, 2019 by Jaurice Schwartz and Andrew Wojciak. During the site inspection, information pertaining to activities conducted on site, vehicles stored on site, fueling operations, material storage, transfer of waste materials and spill history was gathered. This information was evaluated to develop a stormwater pollution prevention plan for this facility.

3.2 Site Description

The Town of Dedham's Department of Public Works is located at 55 River Street, Dedham, Massachusetts. The location of the site is shown in the map included in Appendix A. The facility covers 3.3 acres which includes four buildings, several outdoor storage areas and facility parking areas. Table 1, below, includes the use, footprint, and locations of each building on site.

Table 1: Buildings at the Dedham DPW Facility

Building Name	Location	Building Footprint	Building Use
Department of Public Works Building	South end of property line along River Street	15,700 SF	Office area, 1-bay garage divided into vehicle storage, material storage, and sign shop. Two floor drains in use throughout garage area.
DPW Maintenance Facility	West side of property, next to Parks Department building	2,300 SF	2-bay garage used for vehicle repair and maintenance. No floor drains in this facility.
Parks Department Building	Middle of property, next to DPW Maintenance building	2,350 SF	2-bay garage used for vehicle and material storage.
Salt Shed	East side of property	5,300 SF	Salt storage

The drainage on site is a closed loop infiltration system. There are seven catch basins on site and six drain manholes that form a loop around the perimeter of the property. The stormwater runoff collected by the catch basins drains through a 24" perforated pipe along the north end of the property. Although there is no direct discharge to surface waters, during heavy rain events the ground above the perforated pipe can be seen bubbling, and ultimately discharges within 100 feet of Mother Brook.

3.3 Site Plan

Appendix B includes a detailed site plan of the facility showing identified potential sources of pollution. The following items are shown on the plan:

- Footprints for all buildings and structures
- Surface area types
- Direction of stormwater flow on site
- Location of all stormwater structures, including catch basins and manhole covers
- Approximate location of all sanitary sewer structures, including the oil-water separator and sewer manholes
- Locations of the following activities exposed to precipitation or runoff:
  - Exposed significant material
  - Sand/Salt piles and storage sheds
  - Waste storage and disposal areas, including dumpsters

3.4 Receiving Waters

The site's drainage is a closed loop infiltration system and does not have an outfall or discharge point. However, after heavy rain events, the perforated pipe cannot handle the flow, and the ground will begin to bubble. Although this is not a direct discharge, this excess water could ultimately discharge to Mother Brook. This brook is impaired for Low Flow Altercations, Color, DDT, E.coli, Fecal Coliform, Mercury in Fish Tissue, Dissolved Oxygen, PCB in Fish Tissue, Total Phosphorous, and Taste and Odor. A Total Maximum Daily Load (TMDL) has already been developed for E.coli and Fecal Coliform. Both pollutants are covered under the *Final TMDL of Bacteria for the Neponset River Basin*. A TMDL is not required for Low Flow Alterations as it is considered a non-pollutant. All other identified impairments require the development of a TMDL.

3.5 Significant Material Inventory

A full list of Town owned vehicles and equipment is included in Appendix C. Materials stored at the facility are shown on the site map in Appendix B. A complete inventory of these materials as well as their likelihood of exposure to stormwater and their potential to cause an impact on surrounding water bodies can be found in Appendix D. The most significant materials and activities are discussed in detail in Sections 3.6 - 3.12.

3.6 Stockpile Storage

Potential Pollutant Risk and Best Management Practices

Stockpiled materials such as gravel, loam, sand, and crushed rock contain similar sources of pollution. When unprotected or outdoors, sand piles and material stockpiles are exposed to precipitation and can erode while contributing significant sediment loads to stormwater runoff. If eroded material enters the storm drain system, the sediment can quickly fill the sumps of catch basins or clog other stormwater structures, rendering them ineffective. This may result in increased sediment loads in receiving waterways.

To avoid contamination of stormwater by sand and other stockpiled material, erosion and sediment control measures should be implemented at each storage site. A relatively level site away from

slopes and water features should be used as a stockpile location.

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

Sediment barriers should be placed around the perimeter of the stockpile area to prevent any runoff carrying sand or other material from entering storm drains and surface waters. If the weather becomes dry and windy, regular light watering of the stockpile and surrounding area will provide effective dust control.

The stockpile storage area should be swept regularly and kept clean.

Current Practices and Recommendations

There are multiple stockpiles in the northern section of the site, including temporary stockpiles of catch basin cleanings and street sweepings, and permanent stockpiles of crushed stone, sand, gravel, and cold patch. All stockpiles are uncovered and enclosed on three sides by jersey barriers. Employees at the DPW facility shall implement the practices outlined above and in Section 4.0 to minimize contributions to stormwater pollution from stockpiled material.

Stockpile storage area.

3.7 Salt Storage

Potential Pollution Risk and Best Management Practices

Salt stored in piles for use during winter deicing operations is a significant potential contributor to stormwater pollution. When stored unprotected or outdoors, salt is exposed to precipitation, causing leachate with a high chloride content that can discharge to the site's receiving water. Salt delivery, loading, and handling operations can contribute pollutants to stormwater if the material is not handled with care or if spills are not promptly cleaned up.

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

During delivery and loading activities, salt should be transferred to and from vehicles within the salt shed. Salt and sand mixing should also occur in the salt shed whenever possible. Any spills during unloading and loading events should be cleaned up immediately. The salt storage areas should be swept regularly and kept clean.

Current Practices and Recommendations

All salt and sand used for winter road operations is stored in a 82-foot diameter circular salt shed located in the middle of the DPW facility. This building is in good condition but is missing the door that was originally installed with the structure. The Town often mixes sand and salt together to use for deicing – this mixing occurs entirely inside the salt shed. This shed is also used to store magnesium chloride for roadway pre-treatment. These tanks are protected from vehicles entering and exiting the salt shed by a concrete barrier. During the inspection, there was evidence of salt being tracked outside of the salt shed and being carried by stormwater runoff to a nearby catch basin. The salt may be contaminating stormwater because of the missing door on the salt shed. The Town should install a new door on the salt shed to ensure material is not exposed to stormwater runoff.

When salt is delivered to the facility, it is unloaded from the delivery truck inside the salt shed to add to the pile. When vehicles and equipment collect salt use for winter road operations, they do so inside the salt shed. The Dedham DPW does not allow residents to collect salt for personal use from the DPW Facility.

DPW salt shed.

3.8 Vehicle and Equipment Storage

Potential Pollution Risk and Best Management Practices

Vehicle and equipment storage activities are a potential source of pollution due to the fuel, oil, hydraulic fluid, antifreeze and other hazardous material the machinery may contain. Vehicles and

equipment may also pick up pollutants during offsite activities and then track these pollutants into the storage facility.

Regular visual inspection and maintenance of vehicles and equipment can greatly reduce the potential for pollution by finding and addressing leaks before hazardous material can enter the environment. When in storage, vehicles and equipment should be kept on a covered slab or in a building with a common drain. Discharge to this drain shall be managed by an oil/ water separator to remove oils and gasoline.

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.

Current Practices and Recommendations

The DPW building, which includes office space and garage space, is used for indoor vehicle and equipment storage. However, several trucks, trailers, plows, and other equipment are being stored uncovered outside. Tires, manhole covers, and unused vehicles were also being stored outside. The DPW should consider storing as many vehicles as possible inside its existing garage or constructing a canopy in the northern end of the property for vehicle and equipment storage. This will minimize the exposure of vehicles, equipment, and any associated hazardous materials to stormwater runoff.

Vehicles stored in the DPW garage.

3.9 Vehicle and Equipment Maintenance/Repair

Potential Pollution Risk and Best Management Practices

When performing vehicle and equipment repair, there is a high risk for pollutants such as fuel, oil, and lubricants to leak or be spilled. There is also the possibility to create dust and other by-products that may contain pollutants. Both accidental and purposeful spillage, i.e., a leaky oil pan needing repair or a pan that is drained during an oil change, can lead to pollutants entering stormwater runoff. Although there is little potential for impacting stormwater, it should be noted that hazardous gases

can be produced during maintenance and repair as well.

Proper maintenance and repair for vehicles and equipment should include a preliminary assessment of potential pollutant sources. This assessment will determine the best means of containing any potential spills or by-products of the situation at hand. Approved containers should be used to capture hazardous liquids; all waste should be disposed of according to applicable MassDEP and USEPA guidelines. Projects that may produce hazardous dust that could come in contact and mix with any liquids should be performed indoors in an area with proper ventilation.

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

All vehicle and maintenance repair shall take place on a covered slab or within a building with a common drain. Discharge to this drain shall be managed by an oil/ water separator.

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.

Current Practices and Recommendations

Dedham currently conducts their vehicle and equipment maintenance in their DPW maintenance building. This 2-bay building is separate from the DPW garage. There are no floor drains in the facility so there is little risk of spills in this building contaminating stormwater. There is no vehicle fueling at the DPW Facility; all vehicles are fueled off site. The Town should continue their current vehicle maintenance practices.

DPW Maintenance garage.

3.10 Vehicle Wash Water and Wastewater

Potential Pollution Risk and Best Management Practices

Like vehicle storage and maintenance, vehicle washing has the potential to carry fuel, oil, hydraulic fluid, or other hazardous materials into the storm drain system or nearby surface waters when conducted outside in a paved area. Wash water can contain sediment, metals, or chlorides from grime that builds up on vehicles and equipment during winter and other routine operations, as well as surfactants or nutrients from the cleaning agent itself.

To prevent the transport of contaminants in vehicle wash water to the storm drain system or eventual receiving waters, all vehicle washing should be done indoors in a building equipped with floor drains. These floor drains shall not discharge to the storm drain system or directly to a surface water. If it is not practicable for vehicles and equipment to be washed indoors, then they shall be washed outdoors over an impervious area where runoff is treated for nutrients and petroleum products. Heavily soiled vehicles or vehicles dirtied from salting, should never be washed outside.

Current Practices and Recommendations

The Department of Public Works washes their vehicles in the DPW garage. Vehicle washing takes place over two floor drains which discharge to the sanitary sewer via an oil/water separator. The Town should continue their current practice of washing their vehicles in the DPW garage

3.11 Solid Waste Management

Potential Pollutant Risk and Best Management Practices

The handling and storage of solid waste can potentially contaminate stormwater with nutrients, pathogens, metals, and sediments. Solid waste, which encompasses agricultural, construction and demolition, household, industrial, municipal, and tire waste, can be classified as both hazardous and non-hazardous. Each waste storage location shall be properly labeled, covered, and contained, and all storage containers shall be routinely inspected for signs of spills, leaks, corrosion, or general deterioration. If stormwater runoff encounters improperly stored solid waste, it may carry pollutants found in the waste to the storm drain system or nearby receiving waters.

Employees shall be properly trained in correct solid waste management practices and shall be knowledgeable of the potential hazards associated with solid waste handling and storage.

Current Practices and Recommendations

The Department of Public Works facility has two dumpsters on site for solid waste management. The dumpsters are located on the east side of the property. Both dumpsters have drain holes that allow water in the dumpster to drain to the parking lot. The 10-yard dumpster has a cover that remains closed when not in use. The 30-yard dumpster does not have a cover. This dumpster should have a cover installed and the employees should keep the cover on when the dumpster is not in use. By covering dumpsters, garbage and other pollutants are less likely to be exposed to precipitation and contaminate stormwater during rain events.

10-yard dumpster on site.

3.12 Waste Oil Storage

Potential Pollutant Risk and Best Management Practices

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 transporting the waste oil.

To prevent these potential issues, oil containers should be properly labeled and stored in secondary containment. These containers should be regularly checked for rust, leaks, or any other signs of deterioration. Any defective container should be immediately replaced. A spill kit should be located anywhere oil is stored and all employees should be trained on its location and the proper spill response procedures. Any floor drain located near stored oil should be equipped with an oil water separator before the water goes into the wastewater system. When possible, steps should be taken to recycle the used oil and to reduce the use of oil. All oil filters should be disposed of properly.

Current Practices and Recommendations

The waste oil tank is located outside of the DPW maintenance building. The Town has considered relocating the storage tank to the DPW garage, but there is not enough space. The Town is requesting funds for the design and construction of a structure to adequately cover and protect the waste oil tank in Fiscal Year 2022. This will ensure that oil, grease, or petroleum will not enter stormwater runoff in the event of a leak or spill.

Waste oil storage tank.

3.13 Spills and Leaks

There have been no significant spills or chronic leaks at this facility in the past 3 years. Any future significant spills and/or chronic leaks shall be recorded on the list provided in Appendix E.

3.14 Stormwater Treatment Structures

There are no stormwater treatment systems or devices on site. Stormwater runoff is captured by catch basins surrounding the property and is conveyed through the storm sewer system to a perforated pipe. The perforated pipe allows the untreated stormwater to infiltrate into the soils and groundwater below.

3.15 Allowable Non-Stormwater Discharges

Certain non-stormwater discharges to the storm drain system or surfaces waters are allowable under the Town's MS4 Permit, such as potable water, compressor condensate, irrigation drainage, landscape watering, pavement washing without detergents, and uncontaminated groundwater. To be allowable, these non-stormwater sources must be identified in the SWPPP. The only allowable non-stormwater discharge identified at the Dedham Department of Public Works Facility is air conditioner condensate from the office area of the building.

3.16 Existing Stormwater Monitoring Data

The Town has no previous data regarding existing stormwater monitoring at the DPW facility.

3.17 Site Summary (Sources of pollution with a high risk of contaminating stormwater)

This section identifies the areas, activities and/or materials at the DPW Facility that pose the highest risk of contaminating stormwater. It lists activities undertaken at the Public Works Facility and describes pollutants that may be associated with these activities. Appendix F summarizes this information by potential pollution source. The following areas are potential sources of contamination:

- Waste Oil Tank. Having the waste oil tank located outside and near a catch basin poses a high risk of contamination. If the tank fails or is accidentally struck by a vehicle, waste oil will

be spilled almost directly into one of the catch basins.

- Sand/Street Sweeping Material/Catch Basin Cleanings/Crushed Stone/Cold Patch. There are open bins of material scattered around the perimeter on the north side of the property. Each of these piles is in a runoff path that drains to a catch basin on the northwest corner of the property.

- Salt and Sand Storage. The salt shed is currently missing the door that was installed with the structure. This creates more of a risk for salt and sand from within the shed to contaminate stormwater runoff.

- Solid Waste Management. There are two dumpsters onsite. One is a ten-yard covered dumpster, and the other is a thirty-yard dumpster with no cover. Material within the thirty-yard open dumpster is exposed to stormwater and contaminated stormwater discharge can exit the bottom of the dumpster via drain holes and end up in the drainage system carrying pollutants from the waste.

4. IMPLEMENTATION

This section describes practices that are in place or that will be implemented to control pollutants with the potential to contaminate stormwater. Implementing these practices at this facility may reduce stormwater pollution and will conserve resources by identifying problems in equipment and structures before they fail.

4.1 Good Housekeeping

Good housekeeping practices are the most effective first step towards preventing pollution in stormwater. These activities are usually done daily to maintain a clean facility and prevent future problems. The following is a list of good housekeeping practices for the Department of Public Works facility:

- Spills are immediately cleaned up with an absorbent. (See Spill Prevention and Response Procedures in Section 4.6)
- All fluid products and wastes are kept indoors.
- Used antifreeze is kept in a covered container.
- All changing of fluids is done indoors in the maintenance building.
- Spillage occurring during addition or removal from salt storage piles or sand and salt pile mixing are promptly cleaned up.
- Fueling of small equipment is completed indoors.
- All floor drains present within garage bays drain to an oil/water separator.
- Used spill cleanup materials are disposed of properly.
- 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 for 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.
- Drip pans are used for maintenance operations involving fluids and under leaking vehicles and equipment waiting repair.
- All vehicle washing is done indoors with wash water discharging to the sanitary sewer.

The following is a list of good housekeeping practices that will be implemented, along with expected date of implementation, at this facility.

- Within 30 days, spigots/funnels will be used to minimize drips/leaks.

4.2 Preventive Maintenance

Preventive maintenance can minimize stormwater pollution by addressing potential issues before they become problems. This facility shall implement a preventive maintenance program that involves inspections and maintenance of stormwater management controls and routine inspections of facility operations to detect faulty equipment. Equipment, such as tanks, vehicles, containers and drums, should be checked regularly for signs of deterioration and leaks. Structural stormwater controls should be regularly maintained to prevent inadequate performance during storm events.

The following is a list of preventive maintenance procedures practiced at this facility:

- Spill response equipment is located at all potential spill areas.
- Catch basins and sediment chambers are checked and cleaned as needed.
- Hydraulic equipment is kept in good repair to prevent leaks.
- Outdoor drum containment areas are checked for leaks.
- Uncontaminated stormwater in containment areas is kept to a minimum.
- Vehicle storage areas are inspected frequently for evidence of leaking oil.
- All material and bulk deliveries are monitored by facility employees.
- All waste oil is fully contained, and the containers are inspected regularly.

The following is a list of preventive maintenance measures that will be implemented.

- Within 30 days, begin regular inspections of above ground storage tanks for signs of corrosion or leaks.
- Within 30 days, all materials, waste storage areas, drains, tanks and cans will be properly labeled.

4.3 Best Management Practices (BMPs)

The following is a list of existing and planned Best Management Practices. When implemented, each BMP will prevent or reduce the discharge of potential pollutants in stormwater runoff for the area of concern listed in the Site Summary.

- Perform loading and unloading inside whenever possible.
- Do not load or unload hazardous materials that are in easily ripped or breakable containers (such as bags, plastic pails) when it rains.
- Ensure a staff member is present during loading and unloading operations.
- Minimize the volume of gasoline stored within the buildings and on the site.
- Clean up any oil spills observed in the parking lot, garages, or other surfaces in a timely manner.
- Monitor all material deliveries.
- Inspect all storage tanks prior to filling activities for spills, leaks and corrosion.
- Cover the storm sewer when drums are being handled to help contain potential spills.
- Clean all scrap metal of hazardous materials prior to storage in the scrap metal pile. Salvage vehicles have fluids removed prior to storage.
- Keep dumpster lids closed when not in use.
- Within 60 days, cover all outdoor dumpsters when not in use.
- Within 2 years, install a door on the salt shed.

4.4 Sediment and Erosion Control

The following erosion and sedimentation controls shall be implemented on those portions of the facility where loose material such as sand, fill, salt, or gravel is stored.

- The edges of permanent and temporary stockpile areas shall be confined with jersey barriers or silt fences to prevent sediment tracking out of the stockpile area.
- Catch basins in the vicinity of stockpile areas shall be equipped with inlet protection. Inlet protection shall be inspected and replaced at the frequency specified by the manufacturer.
- Stockpiles or stockpile areas shall be covered wherever possible.

4.5 Management of Stormwater Runoff

As explained in Section 3.2, stormwater runoff from the entire site drains from a perforated pipe at the north end of the property.

- Runoff on the east side of the facility is collected by one of four catch basins. The stormwater then drains into the soil through the perforated pipe.
- Runoff on the west side of the facility is collected by one of two catch basins. The stormwater then drains into the soil through the perforated pipe.
- This closed loop drainage system does not have any outlets.
- Any stormwater runoff that is not captured by the catch basins drains off the site to the north.

4.6 Spill Prevention and Response

This complete Spill Prevention and Response Procedures can be found in Appendix G.

The following procedures apply to the facility:

- All personnel are instructed in the location, use, and disposal of spill response equipment and supplies maintained at the site.
- 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 or fire 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.

4.7 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 Dedham Department of Public Works is responsible for stormwater management training for their employees. This Department will coordinate training related to stormwater management on an annual basis to review specific responsibilities for implementing this SWPPP, including but not limited to BMP implementation, Good Housekeeping, Spill Prevention and O&M procedures. Members of the Pollution Prevention Team will meet at least twice yearly to discuss the effectiveness of and improvements to the SWPPP.

Documentation for these training sessions is included in Appendix H. Documentation includes attendance sheets; the instructor's name and affiliation; the date, time and location of training; and the presentation that was used.

5. EVALUATION

5.1 Site Inspection Requirements

All stormwater pollution control measures and stormwater discharge points at the facility must be inspected quarterly. A minimum of one (1) of these quarterly inspections must occur during a wet weather event. A visual examination must be made during daylight hours and within 30 minutes after stormwater begins to runoff. The inspection must check for evidence of pollution, evaluate non-structural controls in place at this site, and inspect equipment. The inspection report must include:

- The inspection time and date.
- The name of the inspector(s).
- Weather information and a description of any discharge occurring at the time of 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.
- A certification statement signed by the inspector with the following Certification Language: "This Compliance Evaluation Report has been prepared by qualified personnel who properly gathered and evaluated information submitted for this Report. The information in this Report, to the best of my knowledge, is accurate and complete."

The inspection form for these inspections and all previously completed inspections can be found in Appendix I.

Corrective action may be necessary based on evidence of past stormwater pollution or the high potential for future stormwater pollution to occur. Any information about these issues and the corrective action taken against them must be included in a Compliance Evaluation Report. The Town must repair or replace control measures in need of repair or replacement before the next anticipated storm event 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.

5.2 Recordkeeping and Reporting

The Town must keep a written record (hardcopy or electronic) of all activities required by the SWPPP. This includes but is not limited to maintenance, stormwater monitoring, inspection, and training for a period of at least five (5) years. These records must be made available to state or federal inspectors and to the general public upon request.

Quarterly inspections of this facility must be described in the Town's MS4 Annual Report, including any corrective actions taken. Inspection and employee training records must demonstrate that the operation of this facility is in compliance with the 2016 Massachusetts MS4 Permit.

5.3 Plan 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 but are not limited to an expansion of operations, or changes in any significant material handling or storage practices which could impact stormwater.

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

This Plan must also be amended if a state or federal inspector determines that it is not effectively controlling pollutants in stormwater discharges.

6. ENDANGERED SPECIES

The 2016 MS4 Permit requires that the Town demonstrate that all activities taking place on the facility premises will not adversely impact endangered and threatened species or critical habitat.

Through consultation with the US Fish & Wildlife Service (USFWS), it was determined that the only threatened species within Dedham is the northern long-eared bat. Correspondence with USFWS regarding this determination is included in Appendix J. Current activities at this facility will not affect this species. Therefore, the Town has determined that it can certify eligibility under USFWS Criterion C for coverage under the permit. Prior to construction of any structural BMPs on site, the Town will consult with USFWS to confirm that the proposed project will not impact the northern long-eared bat or any other endangered or threatened species that may be identified in the future.

7. HISTORIC PLACES

The 2016 MS4 Permit requires the Town to demonstrate that all activities taking place on the premises will not adversely impact federal historic properties on the National Register of Historic Properties (NRHP). Under the Historic Preservation Act, Dedham certified eligibility under Criterion A on their Notice of Intent for coverage under the permit because the Town was previously covered under the 2003 MS4 Permit, and conditions have not changed since that determination.

The Town does have multiple historic properties, including Ames Schoolhouse (83004284), the Dedham Village Historic District (06000785), the Endicott Estate (02000128), the Fairbanks House (66000367), and the Norfolk County Courthouse (72001312).

These historic places are located at a minimum of 500 feet away from the Dedham Department of Public Works Facility. It has been determined to be very unlikely that any actions taking place at this facility will cause any disturbances that would impact any of these historic properties.

Prior to construction of any structural BMPs at this facility, the Town will consult with the State Historic Preservation Officer by submitting a completed Project Notification Form to confirm that the proposed project will not impact any federal historic properties.

8. CERTIFICATIONS

This section includes certifications for the facility's:

- Non-Stormwater Discharges
- Stormwater Pollution Prevention Plan

Non-Stormwater Discharges

With the exception of condensate from air conditioners and air compressors, this facility have been evaluated and found to be free of non-stormwater discharges.

Stormwater Pollution Prevention Plan

This Stormwater Pollution Prevention Plan has been prepared in accordance with good engineering practices. Qualified personnel properly gathered and evaluated information submitted for this Plan. The information in this Plan, to the best of my knowledge, is accurate and complete.

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.

_____
Name:

_____
Title:

_____
Date:

Appendix A

Locus Map

DEDHAM, MA
PUBLIC WORKS DEPARTMENT
55 RIVER STREET

LOCUS MAP

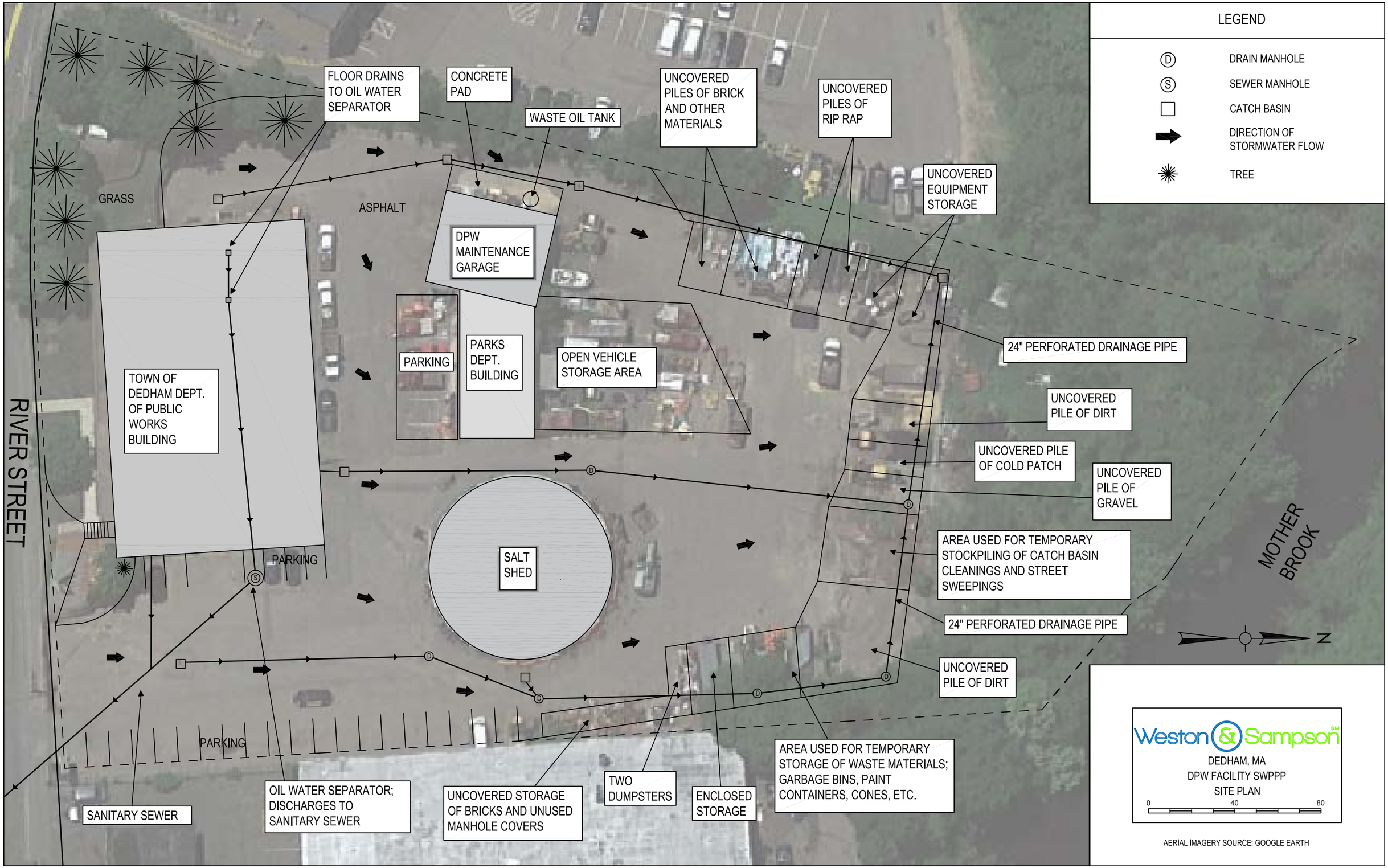
0.5 0 0.5

Miles

Weston & Sampson

Appendix B

Department of Public Works Facility Site Plan


LEGEND
DRAIN MANHOLE
SEWER MANHOLE
CATCH BASIN
DIRECTION OF STORMWATER FLOW
TREE
FLOOR DRAINS TO OIL WATER SEPARATOR
CONCRETE PAD
WASTE OIL TANK
UNCOVERED PILES OF BRICK AND OTHER MATERIALS
UNCOVERED PILES OF RIP RAP
UNCOVERED EQUIPMENT STORAGE
GRASS
ASPHALT
DPW MAINTENANCE GARAGE
PARKING
PARKS DEPT. BUILDING
OPEN VEHICLE STORAGE AREA
24" PERFORATED DRAINAGE PIPE
UNCOVERED PILE OF DIRT
UNCOVERED PILE OF COLD PATCH
UNCOVERED PILE OF GRAVEL
TOWN OF DEDHAM DEPT. OF PUBLIC WORKS BUILDING
RIVER STREET
SALT SHED
AREA USED FOR TEMPORARY STOCKPILING OF CATCH BASIN CLEANINGS AND STREET SWEEPINGS
MOTHER BROOK
24" PERFORATED DRAINAGE PIPE
UNCOVERED PILE OF DIRT
N
PARKING
PARKING
SANITARY SEWER
OIL WATER SEPARATOR; DISCHARGES TO SANITARY SEWER
UNCOVERED STORAGE OF BRICKS AND UNUSED MANHOLE COVERS
TWO DUMPSTERS
ENCLOSED STORAGE
AREA USED FOR TEMPORARY STORAGE OF WASTE MATERIALS; GARBAGE BINS, PAINT CONTAINERS, CONES, ETC.
Weston & Sampson
DEDHAM, MA
DPW FACILITY SWPPP
SITE PLAN
0
40
80
AERIAL IMAGERY SOURCE: GOOGLE EARTH

Appendix C

Inventory of Vehicles and Equipment

Town of Dedham, MA
Inventory of Municipal Vehicles and Equipment - February 2020

Department	Vehicle ID	Yr/Make/Model	Vehicle Description/Function
DPW – PARKS		2001/Ford/F250	
DPW – PARKS		1979/Ford	
DPW – PARKS		1999/Ford/F350	
DPW – PARKS		2016/Ford/F350	
DPW – PARKS		2013/Ford/F250	
DPW – PARKS		1999/Ford/F350	
DPW – PARKS		2005/Ford/F350	
DPW – HGWY	1	2007/Ford/F250	DPW Director
DPW – HGWY	8	2001/Ford/F250	Highway
DPW – HGWY	21	2012/Ford/F150	Highway Superintendent
DPW – HGWY	23	2001/Ford/F350	2-ton dump truck
DPW – HGWY	24	2014/Ford/F550	Utility/Sign shop
DPW – HGWY	25	2010/International	1 ½ ton dump truck
DPW – HGWY	27	2001/Ford/F450	1 ½ ton dump truck
DPW – HGWY	28	1978/Ford	Flatbed
DPW – HGWY	30	2007/Sterling	10-wheel combination dump truck/sander
DPW – HGWY	31	2008/Peterbuilt	10-wheel combination dump truck/sander
DPW – HGWY	32	2013/International	6-wheel dump truck dedicated sander
DPW – HGWY	33	2012/International	6-wheel hooklift
DPW – HGWY	34	1993/Ford/L8000	6-wheel dump truck

Department	Vehicle ID	Yr/Make/Model	Vehicle Description/Function
DPW – HGWY	35	1994/Ford/L8000	6-wheel dump truck
DPW – HGWY	36	2001/Ford/F550	2-ton hooklift
DPW – HGWY	37	2004/Ford/F550	2-ton hooklift
DPW – HGWY	38	2004/Ford/F550	2-ton hooklift
DPW – HGWY	39	2014/Ford/F550	
DPW – SEWER	48	1998/Ford/LN8000	
DPW – SEWER	49	2000/Sterling/L7501	Catch basin cleaning truck
DPW – PARKS		1993/Asplundh	Chipper
DPW – FLEET MAINT.	81	2014/Ford/F150	Mechanic foreman
DPW – FLEET MAINT.	82	2001/Ford/F450	Mechanic service truck
DPW – FLEET MAINT.	83	2001/Ford/F250	Utility Body
DPW		1999/John Deere/310E	
DPW		2002/Bombadier	Backhoe loader assigned to cemetery
DPW		1987/Bombadier	
DPW		1997/John Deere/955	
DPW		1992/John Deere/624E	
DPW		2001/John Deere/624H	
DPW		2013/Prinorth	Sidewalk plow
DPW		1999/Elgin	Street sweeper
DPW		2008/Elgin	Street sweeper
DPW		2011/Elgin/Pelican	Street sweeper – dual broom
DPW		Model - GP060RCJUAV086	Forklift

Department	Vehicle ID	Yr/Make/Model	Vehicle Description/Function
DPW		1999/Whacker/RD-11A	1-ton asphalt roller
DPW		1977/Sull-Air/160-GP	
DPW		1999/Sull-Air/185-DPQ	
DPW		1997/Cross Country	Paint machine trailer
DPW		1998/Cam (Trailer)	Tandem axle trailer
DPW		2003/Cross Country	Carries lawn mowers, blowers, etc.
DPW		2004/PJ	10-ton utility trailer
DPW		2012/Monster (Trailer)	Trailer
DPW – ENGINEERING		2017/Chevy/Tahoe	
DPW – ENGINEERING		2013/Ford/Explorer	
DPW – ENGINEERING		2016/Ford/Explorer Xlt	

Appendix D

SWPPP Material Inventory

Appendix D
Dedham, MA Department of Public Works - SWPPP Material Inventory

The following table includes an inventory of materials and activities that are exposed to stormwater at the DPW Facility. These areas are also identified on the Site Map included in Appendix C.

Material	Activity/ Use	Quantity stored (tank size if applicable: above or below ground)	Pollutant	Likelihood of contact with stormwater? (Low, medium or high)	Comments
Vehicles/Equipment	Vehicle & Equipment Washing	N/A	Chlorides, Oil, Grease & Petroleum Products	Medium	Outside vehicle and equipment washing occurs over a paved area where flow is directed to a closed loop catch basin system with perforated pipe. After heavy rain events, the ground above the perforated pipe bubbles with water; may discharge excess stormwater.
Floor Drains	Vehicle & Equipment Maintenance	N/A	Chlorides, Oil, Grease & Petroleum Products	Low	Two floor drains located in the DPW building garage both discharge to an oil/water separator which discharges to the sanitary sewer system.
Vehicles/Equipment	Vehicle & Equipment Storage	N/A	Oil, Grease & Petroleum Products	Low	Vehicles and equipment are stored both inside and outside on the property, and are maintained to minimize the likelihood of leaks.

Appendix D. SWPPP Material Inventory - page 2

Material	Activity/Use	Quantity stored (tank size if applicable: above or below ground)	Pollutant	Likelihood of contact with stormwater? (Low, medium or high?)	Comments
Sand/Salt	Sand/Salt Mixing	N/A	Sediment & Chlorides	Medium	Mixing of sand & salt occurs in the salt shed, but the shed currently has no door and some remanence appears to drain into a nearby catch basin.
Sand/Salt Storage Pile	Sand/Salt Mix Storage	N/A	Sediment & Chlorides	Medium	Sand/Salt is stored in the salt shed, but the shed currently has no door and some remanence appears to drain into a nearby catch basin.
Fill Material	Fill Material on Site	N/A	Sediment	Medium	There is a large pile of fill material stored in the rear of the site uncovered. Runoff drains to the drainage system.
Dumpsters	Disposal of Trash & Debris	N/A	Debris	Medium	One of the large dumpsters does not have a cover. Both dumpsters have drain holes.
Waste Oil	Waste Oil Disposal	Stored in a 250 gallon above ground tank.	Oil & Petroleum Products	Medium	Tank appears to be in good condition with no indication of leaks. Located on concrete pad near a catch basin.

Appendix D. SWPPP Material Inventory - page 3

Material	Activity/Use	Quantity stored (tank size if applicable: above or below ground)	Pollutant	Likelihood of contact with stormwater? (Low, medium or high?)	Comments
Magnesium Chloride Liquid Ice Melt	De-icing	3,000 gallon above ground storage tank	Magnesium Chloride	Low	Tank is in good condition, located within salt shed.
Vehicles/Equipment	Vehicle & Equipment Maintenance	N/A	Chlorides, Grease, Oil, Petroleum Products	Low	Vehicle and equipment maintenance are performed in the maintenance garage. Any leaks or spills are contained within the building. There are no floor drains in the building.

Appendix E

List of Significant Spills and Leaks

Appendix E
Dedham, MA Department of Public Works
List of Significant Spills (> 5 gallons) and Chronic Leaks

The DPW Facility has not had any significant (> 5 gallons) spills of oils, toxic or hazardous materials within the last 3 years. Any spills that occur in the future will be documented in this table.

Date	Spill	Leak	Source	Description			Response Procedures	Measures Taken to Prevent Recurrence
	(check one)			Type of Material	Quantity	Reason		

Completed by:
Title:
Date:

Appendix F

Site Summary – Activities with a High Risk of Contaminating Stormwater

Appendix F
Dedham, MA Department of Public Works
Site Summary (Activities with a High Risk of Contaminating Stormwater)

The following table includes a list of those activities that have a high risk of contaminating stormwater, as well as pollutants that may be associated with those activities.

Activity	Pollutants	Current Practices	Future Practices
Sand & Salt Storage	Sediment & Chlorides	Salt shed used for salt storage does not have a door on it.	Install a new door on the salt shed to ensure material is not exposed to stormwater runoff.
Uncovered Fill Material	Sediment	There is a pile of uncovered fill material located in the northeast corner that discharges to the storm drain system.	Covered material to avoid contamination of stormwater runoff.
Uncovered Dumpster	Garbage, Debris	There are two dumpsters located on site. The 10-yard dumpster has a cover and the 30-yard dumpster does not.	Ensure that the 10-yard dumpster remains covered . Install a cover for the 30-yard dumpster.

Appendix G

Spill Prevention and Response Procedures

Appendix G: Spill Response and Cleanup

Introduction

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

The Town of Dedham undertakes various precautions with spill response and cleanup procedures, which are described in Section 3.4 of the Town's Operation and Maintenance Plan.

Procedures

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

Responding to a Spill

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

- If the facility has a Stormwater Pollution Prevention Plan (SWPPP), notify a member of the facility's Pollution Prevention Team, the facility supervisor, and/or the facility safety officer (fill out the attached spill response contact list). If not, continue to follow the procedures outlined below.
- Assess the contaminant release site for potential safety issues and for direction of flow.
- Complete the following:
    - Stop the contaminant release.
    - Contain the contaminant release through the use of spill containment berms or absorbents.
    - Protect all drains and/or catch basins with the use of absorbents, booms, berms or drain covers.
    - Clean up the spill.
    - Dispose of all contaminated products in accordance with applicable federal, state and local regulations.
        i. Soil contaminated with petroleum should be handled and disposed of as described in MassDEP policy WCS-94-400, Interim Remediation Waste Management Policy for Petroleum Contaminated Soils (https://www.mass.gov/files/documents/2016/08/mq/94-400.pdf).
        ii. Products saturated with petroleum products or other hazardous chemicals require special handling and disposal by licensed transporters. Licensed transporters will pick up spill contaminated materials for recycling or disposal. Save the shipping records for at least three years.
        iii. Waste oil contaminated industrial wipes and sorptive minerals:
            1. Perform the "one drop" test to ensure absorbents do not contain enough

oil to be considered hazardous, as described in the MassDEP Waste Oil Management Guide (https://www.mass.gov/files/documents/2018/12/18/oilwiper.pdf).

2. Wring absorbents through a paint filter. If doing so does not generate one drop of oil, the materials are not hazardous.
3. If absorbents pass the "one drop" test they may be discarded in the trash unless contaminated with another hazardous waste.
    a. It is acceptable to mix the following fluids and handle them as waste oil:
        i. Waste motor oil
        ii. Hydraulic fluid
        iii. Power steering fluid
        iv. Transmission fluid
        v. Brake fluid
        vi. Gear oil
    b. **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
4. If absorbents do not pass the "one drop" test they should be placed in separate metal containers with tight fitting lids, labeled "Oily Waste Absorbents Only."

- 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. **In the case of an emergency call 911**.
    - Dedham Fire Department: (781)-751-9400
- Contact the MassDEP 24-hour spill reporting notification line, toll-free at **(888)-304-1133**;
    - The following scenarios **are exempt** from MassDEP reporting requirements (see the MassDEP factsheet on oil and hazardous materials handling for more information: https://www.mass.gov/files/documents/2016/08/xm/spillmgm.pdf).
        i. Spills that are less than 10 gallons of petroleum and do not impact a water body
        ii. Spills that are less than one pound of hazardous chemicals and do not present an imminent health or safety hazard
        iii. Fuel spills from passenger vehicle accidents
        iv. Spills within a vault or building with a watertight floor and walls that completely contain all released chemicals

Reporting a Spill

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

1. Your name and the phone number you are calling from.
2. The exact address and location of the contaminant release.

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

Maintenance and Prevention Guidance

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

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

- Replace traditional hazardous materials such as pesticides and cleansers with non-hazardous products such as bio-lubricants which can reduce response costs in the case of a spill.

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

Employee Training

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

Attachments

1. Spill Response and Cleanup Contact List

Spill Response and Cleanup Contact List

Contact	Phone Number	Date and Time Contacted
Facility Supervisor: Joseph Flanagan	**(781)-751-9377**	
Fire Department: William Spillane, Fire Chief	**(781)-751-9400**	
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) Licensed Site Professionals Board	**(781) 876-8915** **(617) 556-1091**	

Appendix H

Employee Training Log

DPW Facility SWPPP Training for Dedham, Massachusetts

Name (Please Print)	Department

Preventing Stormwater Pollution from Municipal Operations

Dedham, Massachusetts

2020 Municipal Employee Training

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1

FIRST, SOME DEFINITIONS

Runoff – precipitation, snowmelt, or irrigation that runs off the land into streams or other surface water

Point Source – a stationary location or fixed facility such as an industry or municipality that discharges through a pipe or other single identifiable source

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2

FIRST, SOME DEFINITIONS

Non-Point Source (NPS) – pollution collected by rain and melting snow as it runs over land into streams or other surface waters

- Soil
- Salt
- Grease
- Oil
- Antifreeze
- Gasoline
- Paint
- Fertilizer
- Pesticides
- Litter

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FIRST, SOME DEFINITIONS

Sanitary Sewer Overflow (SSO) – Any unpermitted discharge of wastewater exiting from a sanitary or combined sewer system

Sewer Manhole Overflows
Overflows at Pump Stations
Back-ups into Buildings

NOTE: All SSOs must be reported to the EPA and the MADEP within 24 hours, followed by submission of a written report within five days.

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4

FIRST, SOME DEFINITIONS

Municipal Separate Storm Sewer System (MS4) All man-made stormwater collection and conveyance infrastructure owned by a municipality.

- Drainpipes
- Drain Manholes
- Catch basins
- Outfalls
- Culverts
- Man-made Channels / Swales
- Infiltration / Detention / Retention Basins
- Treatment structures

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FIRST, SOME DEFINITIONS

Illicit Discharge – pollutants that enter the drainage system through direct and indirect sources

- Improperly connected sewer services / floor drains
- Cross connections between the sewer and drain
- SSOs flowing into CBs/DMHs
- Illegal dumping
- Outside washing
- Leaky dumpsters
- Exfiltrating sewers
- Failing septic systems
- Contaminated soils or groundwater

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FIRST, SOME DEFINITIONS

Impaired Water - A waterbody or section of a waterbody with regular violations of water quality standards

Total Maximum Daily Load (TMDL) – Pollutant reductions set based how much of a given pollutant a waterbody can assimilate and still meet water quality standards

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7

FIRST, SOME DEFINITIONS

Best Management Practice (BMPs) – methods used to minimize pollutants discharged with stormwater into waterbodies and/or the peak rate at which stormwater discharges

Non-Structural	Structural
Street sweeping	Infiltration basins
CB cleaning	Particle separators
Public education	CB sumps / hoods
Good housekeeping	Rain gardens
Low impact development	Detention ponds

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WHY ARE WE HERE?

The discharge of polluted stormwater
is a leading cause of impairment
in US water bodies

Stormwater pollutants:

- Are conveyed to local water bodies
- Endanger public health
- Threaten natural resources

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9

WHY ARE WE HERE?

Municipal Operations Can *Prevent* Pollution

- Hazardous waste collection / disposal
- Infrastructure inspection / cleaning / improvement
- Municipal street / lot sweeping

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WHY ARE WE HERE?

But, Municipal Operations Can *Cause* Pollution

- Winter snow / ice operations
- Runoff from waste / materials stockpiles
- Fertilizers / pesticides / cuttings
- Vehicle washing & maintenance
- Improper chemical use / storage / disposal

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WHY ARE WE HERE?

Why Require Training?

So that municipal employees will:
Examine and improve their actions
Observe and report pollutant sources

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THE BASIC PREMISE

Get / Keep Stormwater IN

Keep Waste OUT

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MS4 PERMIT REQUIREMENTS

Same Six Minimum Control Measures

- Public education & outreach
- Public participation & involvement
- Illicit discharge detection & elimination
- Construction site runoff control
- Post-construction runoff control
- **Pollution prevention & good housekeeping for municipal operations**

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2016 MS4 PERMIT

Pollution Prevention/Good Housekeeping

- Written O&M Procedures
- Required street and parking lot sweeping
- Required catch basin inspection/cleaning
- BMP inspections and maintenance
- Development of SWPPPs
- **SWPPP training**

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O&M PROGRAMS

Inventory & Written Procedures for:

- Parks / Open Space
  - Proper storage / use / disposal of chemicals
  - Proper lawn / landscape maintenance
  - Pet waste education & collection/disposal stations
  - Proper trash management
- Vehicles / Equipment
  - Vehicle fueling / washing / storage procedures
  - Fluid leak containment

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O&M PROGRAMS

Inventory & Written Procedures for (cont.):

- Buildings / Facilities
  - Spill prevention plans
  - Dumpsters / waste management procedures
  - Employee training on proper storage / use / disposal for petroleum products

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INFRASTRUCTURE O&M

Procedures (in writing) for:

- Catch basin inspection / cleaning
  - ✓ No sump >50% full
  - ✓ More frequent inspection required in areas of construction
  - ✓ If sump >50% full twice, initiate source investigation
- Sweeping of streets / municipal lots (annually)
  - Required twice per year in areas tributary to water bodies impaired for phosphorous
- Proper storage / disposal / reuse of spoils & sweepings
- Minimizing pollutants from winter operations
- Annual inspection / maintenance of structural BMPs

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INFRASTRUCTURE O&M

Observations During O&M:

- Infrastructure
  - ✓ Is it in need of cleaning?
  - ✓ Is it in need of repair / replacement?
  - ✓ Is it "always" full of sand / sediment?
- In General
  - ✓ Is there evidence of illicit discharges (e.g., odor, suds, etc.)?
  - ✓ Is there excessive trash or evidence of illegal dumping?
  - ✓ Is a property discharging something other than water?

Be sure to report observations to your supervisor!!

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SWPPPs

Stormwater Pollution Prevention Plans

- SWPPPs for:
  - Maintenance garages
  - Public works yards
  - Transfer stations
  - Other waste handling facilities
- Written SWPPP document
- Implemented within 2 years
- Management Practices
- Quarterly site inspections
- Keep written record of all SWPPP activities (maintenance, inspections, and training)

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SWPPPs

Stormwater Pollution Prevention Plans

- Required for Town owned facilities where pollutants are exposed to stormwater
- Examples: Maintenance garages, public works yards, transfer stations
- **For Dedham** – The DPW Facility is the only facility that requires a SWPPP

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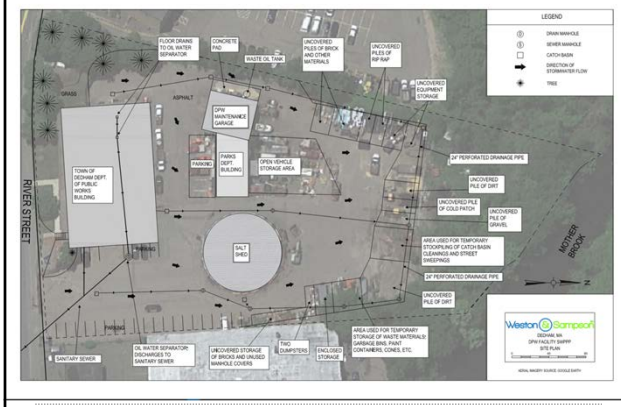

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SWPPPs

SWPPP Management Practices

(Required Under the MS4 Permit)

1. Minimize or Prevent Exposure
2. Good Housekeeping
3. Preventive Maintenance
4. Spill Prevention & Response
5. Erosion & Sediment Control
6. Management of Runoff
7. Salt Storage Piles / Piles Containing Salt
8. **Employee Training**
9. Maintenance of Control Measures

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MANAGEMENT PRACTICES

1. Minimize or Prevent Exposure

Keep vehicles/equipment/materials/activities inside
OR
Prevent exposure to precipitation (e.g., cover)

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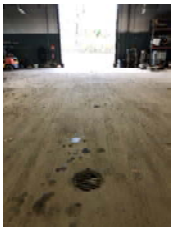
MANAGEMENT PRACTICES

1. Minimize or Prevent Exposure - Vehicles

- Store vehicles inside
- Conduct maintenance work indoors
- Identify / capture vehicle fluid leaks
- Have a vehicle washing area
- Use steam / pressure washing
- Avoid solvents (use water-based)



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MANAGEMENT PRACTICES

1. Minimize or Prevent Exposure - Materials

- Locate piles inside or cover
- Properly store /dispose of spoils & sweepings
- Keep materials contained to designated area
- Sweep stray material back into designated area
- Place sediment barriers around materials

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MANAGEMENT PRACTICES

2. Good Housekeeping

- Maintain outdoor areas
- Clean / sweep exposed areas regularly
- Ensure trash containers are kept closed
- Keep storage areas swept
- Identify / replace damaged storage containers
- Store leaky vehicles / equipment indoors

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MANAGEMENT PRACTICES

3. Preventative Maintenance

- Timely preventive maintenance minimizes leaks
- Regularly (≥once/quarter) inspect / test
  - Vehicles
  - Equipment
  - Systems
- Repair as soon as practical
- Avoid situations likely to result in spills

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MANAGEMENT PRACTICES

4. Spill Prevention & Response

- Develop / train on spill prevention & response plan
  - Call 911; notify Acting Fire Chief Spillane (781-751-9400)
- Control inventory / storage / disposal
- Store as per manufacturer / law
- Identify hazardous substances
- Label all containers
- Use secondary containment
- Promptly transfer used materials
- Maintain organized / clean workspace

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MANAGEMENT PRACTICES

5. Erosion & Sediment Control

- Prevent erosion & sediment due to activities such as:
  - Infrastructure repair / replacement
  - CB / ditch cleaning
  - Dewatering
- Minimize disturbed areas
- Use structural & non-structural controls to:
  - Contain runoff from exposed areas
  - Minimize erosion / sedimentation
  - Protect CB inlets
- Stabilize disturbed areas ASAP

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MANAGEMENT PRACTICES

6. Management of Runoff

- Prevent or reduce the discharge of pollutants
  - Divert runoff from areas with potential pollutants
  - Contain runoff in areas with potential pollutants
  - Reuse / infiltrate / treat runoff to minimize discharges
- Be aware of catch basins and other drainage
- Update facility piping schematics
- Maintain oil / water separators

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MANAGEMENT PRACTICES

7. Salt / Piles Containing Salt

- Enclose or cover piles
- Provide door (or similar) & keep closed to minimize exposure
- Minimize exposed material during addition / removal
- Sweep spilled material back into facility
- Know proper procedures for storage/disposal of sand, spoils, sediment, floatables, and other debris
- Locate storage piles out of 100-year flood plain

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MANAGEMENT PRACTICES

8. Employee Training

- "Regularly" (EPA recommends annual)
- Train employees who:
  - Work in areas where materials / activities are exposed to stormwater
  - Are responsible for activities in SWPPP
- Training to cover:
  - Components / scope of SWPPP
  - All Management Practices
  - O&M of structural BMPs / controls

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MANAGEMENT PRACTICES

9. Maintenance of Control Measures

- Includes both structural & non-structural BMPs
- Maintain control measures in good condition
- Prepare preventive maintenance plans / schedules
- Have back-up plan should measures be off-line
- Perform / document preventive maintenance
- Inspect control measures regularly
- Take corrective action as soon as practical

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SITE INSPECTIONS

Inspection Requirements

- Quarterly (minimum)
- Performed when facility is in operation
- At least one inspection during a wet weather event
- All areas exposed to stormwater
- All stormwater control measures
- Document control measures needing repair or replacement
- Take corrective action as soon as practicable
- Discuss findings in MS4 Permit Annual Reports
- Keep all records for 5 years.

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SITE INSPECTIONS

Appendix I
Dedham, MA Department of Public Works
Quarterly Visual Monitoring Inspection Log
for Stormwater Pollution

Instructions: Every quarter you must visually inspect stormwater pollution control measures at the DPW Facility.

Date	Time	Outfall Number or Description	Weather Conditions	Observations (contaminants observed/ erosion/sediment runoff	Probable Source of Any Observed Contamination	Action Taken to Prevent in Future

Completed by:
Title:
Date:

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SITE INSPECTIONS

Practices to Continue:

Covered salt storage

Indoor vehicle storage

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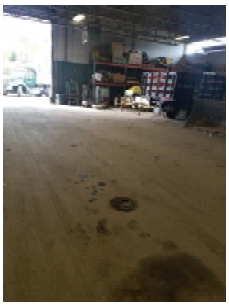
SITE INSPECTIONS

Practices to Continue:



Indoor vehicle washing to floor drains

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SITE INSPECTIONS

Areas to Improve:

Cover stockpiles when feasible.

Cover dumpsters when not in use.

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SITE INSPECTIONS

Areas to Improve:

Install new salt shed door to minimize exposure to Stormwater (in the works).

Relocate waste oil tank indoors (in the works).

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WHAT CAN I DO?

Well … this is just ducky, but what does it have to do with me?

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WHAT CAN I DO?

Know – learn / understand (attend training)
Observe – pay attention to what you do & see
Document – record all actions / observations
Report – forward actions / findings to supervisors
Educate – pass on your knowledge to others

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WHAT CAN I DO?

Know What to Look For

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WHAT CAN I DO?

Observe During Daily Routine



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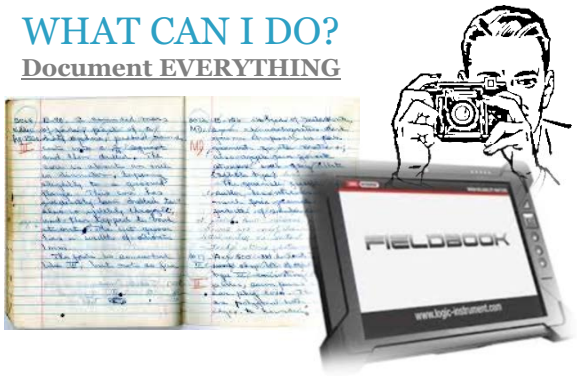
WHAT CAN I DO?

Document EVERYTHING



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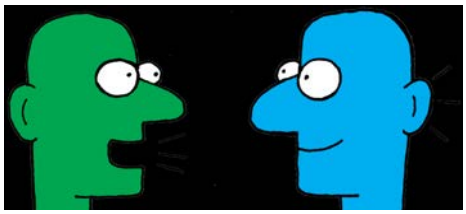
WHAT CAN I DO?

Report it to Your Supervisor



Note: Just because you report it, doesn't mean you have to fix it!

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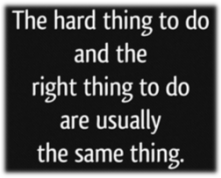

WHAT CAN I DO?

Do the Right Thing Even if:

It's more work

The other guy doesn't want to

It doesn't get you anything in return

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WHY *WERE* WE HERE?

LET'S REVIEW

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WHY ***WERE*** WE HERE?

The discharge of polluted stormwater is a leading cause of impairment in US water bodies

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WHY *WERE* WE HERE?

So that you will:

Examine your actions

Observe and report pollutant sources

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Appendix I

Quarterly Monitoring Logs

Appendix I
Dedham, MA Department of Public Works
Quarterly Visual Monitoring Inspection Log
for Stormwater Pollution

Instructions: Every quarter you must visually inspect stormwater pollution control measures at the DPW Facility.

Date	Time	Outfall Number or Description	Weather Conditions	Observations (contaminants observed/ erosion/sediment runoff	Probable Source of Any Observed Contamination	Action Taken to Prevent in Future

Completed by:
Title:
Date:

Appendix J

Historic Properties and Endangered Species

Appendix J
Dedham, MA Department of Public Works
List of Historical Properties – National Register of Historic Places, February 2020

Reference #	Property Name	Status	Restricted Address	Street & Number	Listed Date	NHL Designated Date	Architects/ Builders	Other Names
83004284	Ames School House	Listed	False	450 Washington St.	3/31/1983		Greenleaf, Luther; Cobb, Albert W.	
06000785	Dedham Village Historic District	Listed	False	Roughly bounded by High Court, Washington, School St., Village Ave., and Chestnut St.	9/6/2006		Baker, Eliphalet; et.al	Connecticut Corner; Franklin Square
02000128	Endicott Estate	Listed	False	656 East St.	3/6/2002		Alden, Henry Bailey	
66000367	Fairbanks House	Listed	False	Eastern Ave. and East St.	10/15/1966	22198	Fayerbanke, Johnathan	
72001312	Norfolk County Courthouse	Listed	False	650 High St.	11/28/1972	26631	Willard, Solomon	Sacco-Vanzetti Trail Site

IPaC **U.S. Fish & Wildlife Service**

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Project information

NAME

Town of Dedham IPaC Report

LOCATION

Norfolk County, Massachusetts

Local office

New England Ecological Services Field Office

(603) 223-2541
(603) 223-0104

70 Commercial Street, Suite 300
Concord, NH 03301-5094

http://www.fws.gov/newengland

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Log in to IPaC.
2. Go to your My Projects list.
3. Click PROJECT HOME for this project.
4. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information.
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS

Northern Long-eared Bat Myotis septentrionalis Threatened
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/9045

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Measures for avoiding and minimizing impacts to birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Nationwide conservation measures for birds http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Oct 15 to Aug 31
Black-billed Cuckoo *Coccyzus erythropthalmus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10
Bobolink *Dolichonyx oryzivorus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Jul 31
Canada Warbler *Cardellina canadensis* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Aug 10
Eastern Whip-poor-will *Antrostomus vociferus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Aug 20
Lesser Yellowlegs *Tringa flavipes* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere

Prairie Warbler Dendroica discolor This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31
Prothonotary Warbler Protonotaria citrea This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 1 to Jul 31
Rusty Blackbird Euphagus carolinus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Semipalmated Sandpiper Calidris pusilla This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Snowy Owl Bubo scandiacus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Wood Thrush Hylocichla mustelina This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence

across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.

3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

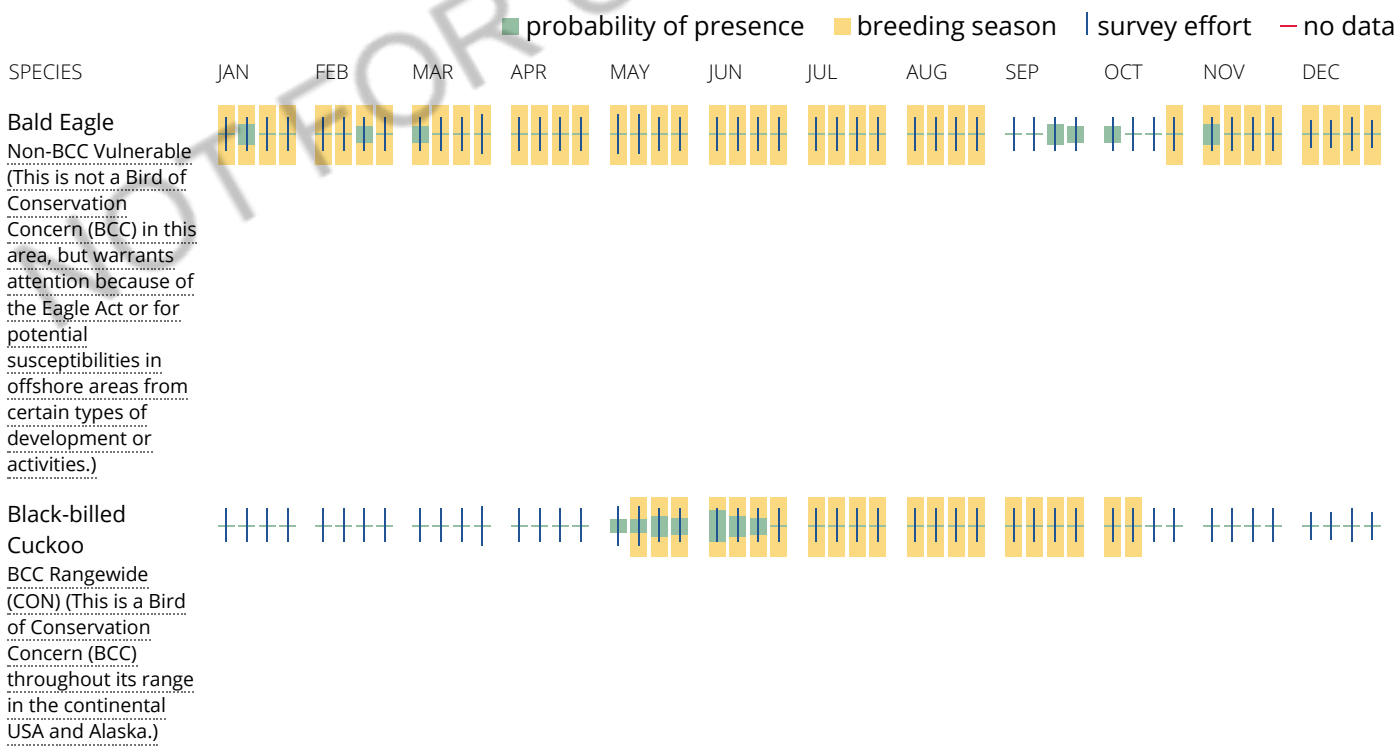
Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

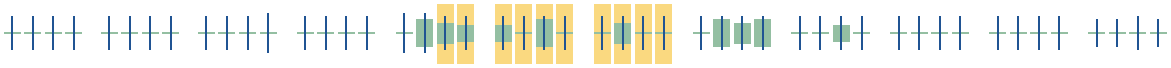
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

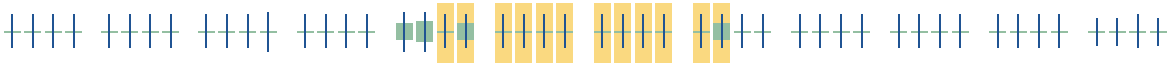
Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Bobolink
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



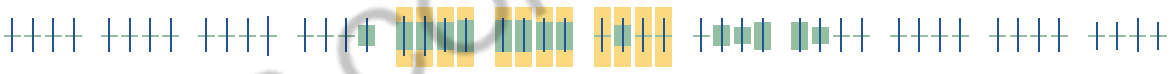
Canada Warbler
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



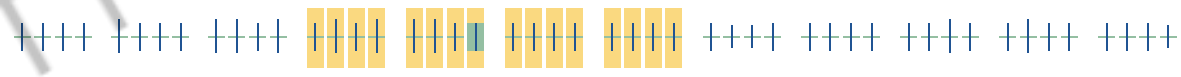
Eastern Whip-poor-will
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Lesser Yellowlegs
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Prairie Warbler
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Prothonotary Warbler
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

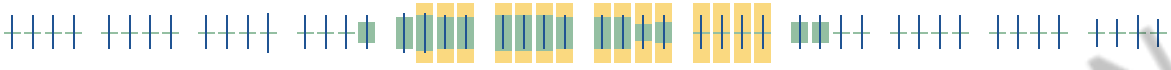


Rusty Blackbird
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Semipalmated Sandpiper
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Snowy Owl
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Wood Thrush
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures and/or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the E-bird Explore Data Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets .

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ “What does IPaC use to generate the migratory birds potentially occurring in my specified location”. Please be aware this report provides the “probability of presence” of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look

carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

FRESHWATER EMERGENT WETLAND

- PEM1/SS1Eh
- PEM1Eh
- PEM1E

FRESHWATER FORESTED/SHRUB WETLAND

- PFO1Ed
- PFO1Eh
- PFO4Eh
- PFO1E
- PFO4/1Eh
- PFO4/1E
- PFO1/4Eh
- PSS1Eh
- PSS1E

FRESHWATER POND

- PUBHx
- PUBHh
- PUB/EM1Fh

LAKE

- L1UBHh

RIVERINE

- R2UBHx
- R2UBH
- R5UBH

A full description for each wetland code can be found at the National Wetlands Inventory website

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

TOWN OF DEDHAM

ENVIRONMENTAL DEPARTMENT

January 30, 2019

Michelle Vuto
Stormwater & Construction Permits
U.S. EPA Region 1
5 Post Office Square-OEP06-4
Boston, MA 02109-3912

Dear Michelle,

Per your request please find attached to this letter the IPaC report results. As this report indicates the only species present is the Northern Long Eared Bat which is a Category C species and we do not anticipate any impact to this species as a result of our MS4 program activities. The Town's planned discharge activities will not adversely affect the endangered species present.

Please feel free to contact me at 781-751-9213 or vleclair@dedham-ma.gov with any questions.

Thank you,

Virginia LeClair
Environmental Coordinator

cc: Jason Mammone, Director of Engineering
Elissa Brown, Conservation Agent
Joe Flanagan, DPW Director