
Town of Canton

Facility Best Management Practices and Drainage Infrastructure Operations & Maintenance Manual

A Guide to Good Housekeeping Best
Practices to Prevent Stormwater
Pollution

Revision date: 06/17/2019



Table of Contents

BMP 01 – ROAD SALT APPLICATION AND STORAGE.....	8
BMP 02 - SNOW STOCKPILING/REMOVAL.....	11
BMP 03 - MATERIALS MANAGEMENT.....	12
BMP 04 - HAZARDOUS MATERIAL STORAGE.....	15
BMP 05 - VEHICLE FUELING, MAINTENANCE AND STORAGE.....	19
BMP 06 - VEHICLE WASHING.....	22
BMP 07 - SPILL PREVENTION AND RESPONSE.....	24
BMP 08 - LANDSCAPE MAINTENANCE & YARD WASTE MANAGEMENT.....	28
BMP 09 - STREET AND PARKING LOT SWEEPING.....	31
BMP 10 - CATCH BASIN CLEANING.....	35
BMP 11 - PET WASTE AND LITTER / WATERFOWL MANAGEMENT.....	41
BMP 12 – RAIN GARDEN MAINTENANCE.....	42
BMP 13 – OIL & GRIT/PARTICLE SEPARATOR MAINTENANCE.....	43
BMP 14 – PROPRIETARY SEPARATOR MEINTANENCE.....	44
BMP 15 – SEDIMENT FOREBAY MAINTENANCE.....	45
BMP 16 – DETENTION BASIN MAINTENANCE.....	46
BMP 17 – WATER QUALITY SWALE MAINTENANCE.....	47
BMP 18 – EXTENDED DRY SETENTION BASIN MAINTENANCE.....	48
APPENIX A – FACILITY INSPECYION LOG.....	49

Introduction

Stormwater Pollution and the NPDES Permit

In Canton, stormwater is conveyed through a system of catch basins, pipes and roadside ditches commonly referred to as the stormwater drainage system. Stormwater pollution can be conveyed through this stormwater drainage system and affect the quality of the Town's receiving waters which are all tributary to the Neponset River. Canton's drinking water is supplied by seven local wells also located within the Neponset River basin. Polluted stormwater can contain salts from de-icing operations, nutrients (phosphorus) from fertilizers, detergents, leaf litter and sediment, bacteria from pet waste, and hazardous or toxic chemicals from improperly stored or disposed of containers. These pollutants can kill fish, choke waterways with algae, and contaminate groundwater.

Canton is subject to the National Pollutant Discharge Elimination System (NPDES) Phase II Small MS4 General Permit requirements (MS4). The NPDES MS4 program is intended to reduce pollution of streams and waterways. The NPDES MS4 Permit allows permittees to discharge stormwater in compliance with the Clean Water Act, as amended (33 U.S.C. § 1251 et seq) and the Massachusetts Clean Waters Act, as amended (M.G.L. Chap. 21§§ 26-53), provided that the permit conditions are met.

As part of the NPDES MS4 Permit Part 2.3.7. "Good Housekeeping" requirement, the Town of Canton must adopt pollution prevention and good housekeeping controls intended to ensure that Town operations and activities conducted at Town-owned facilities do not contribute to stormwater and groundwater pollution. In addition, the Town is obligated to manage and operate drainage infrastructure ("repair and rehabilitate" as referenced in the permit) to reduce or eliminate the discharge of pollutants. The Town of Canton's commitment to environmental stewardship is aligned with these permit requirements and the Town has many practices already in place prior to the preparation of this document. This document serves to record, formalize and enhance existing best practices to meet the Permit requirement to reduce stormwater pollution "to the maximum extent practicable."

How to Use this "Good Housekeeping" Manual

The pollution prevention and good housekeeping controls outlined in this document and referred to as best management practices (BMPs), are standard operating procedures for Town personnel and for use at all applicable Town-owned facilities and drainage infrastructure. These BMPs are intended to serve as guidance on good housekeeping practices as they relate to reducing pollutants in runoff from municipal operations.

Canton has an Asset Management Program and uses a software driven work management system. This Good Housekeeping Manual is being integrated into the program's software solution (Cityworks) with the objective of "automating" work order generation to reflect task thresholds, frequency, and data capture requirements of recommended tasks in this manual.

Each of the BMP fact sheets in this Manual provides a description of the practice, the pollution prevention approach, suggested practices, inspection procedures, and maintenance procedures. For those tasks that have a regulatory reporting component (e.g. volume of material removed from a catch basin), links are provided to appropriate tracking logs or inspection forms. These logs/forms will facilitate compilation of data required for NPDES annual reporting. In addition,

elements of specific BMPs associated with **regulatory reporting data requirements** are highlighted in a blue box.

Table 1 provides a list of Town-owned targeted facilities for which BMPs are provided. Not all of these facilities represent the same potential for contribution of pollutants to the Town's MS4. All of the suggested Best Management Practices do not need to be implemented for the targeted facilities and operations. The BMPs that reduce an influx of pollutants to the stormwater drainage system to the maximum extent practicable should be considered for implementation. Examples of **facility types** included within the manual are public school properties, fire department facilities, and the Department of Public Works garage/yard. **Targeted operations** include municipal

activities that take place throughout the Town. Examples of these types of activities include roadway and drainage system maintenance. The potential pollutants for each facility and operation are identified and included in the pollutant constituents listing for each BMP.

Table 1 lists the various facilities and operations that should use these BMPs. Each facility should be provided a copy of this Manual for use by Town personnel. The manual is also centrally available electronically to all users as a component of the Town’s Stormwater Master Plan.

Table 1 Canton Facilities		
Facility or Operation	Applicable BMPs	Responsible Department(s)
Town Streets and Parking Lots	BMP 01 – Salt Application/Storage BMP 02 – Snow Stockpiling /Removal BMP 09 – Street and Parking Lot Sweeping BMP 10 – Catch Basin Cleaning	DPW Highway Dept.
Town-Owned Stormwater Control Structures	BMP 12 through BMP 18, as applicable	DPW
Cemetery	BMP 03 – Materials Management BMP 05 – Vehicle Fueling, Maintenance and Storage BMP 06 – Vehicle Washing BMP 07 – Spill Prevention and Response BMP 08 – Landscape Maintenance & Yard Waste Management	DPW Parks and Recreation
DPW Garage	BMP01 – Salt Application/Storage BMP 03 – Materials Management BMP 04 – Hazardous Materials Storage BMP 05 – Vehicle Fueling, Maintenance and Storage BMP 06 – Vehicle Washing BMP 07 – Spill Prevention and Response	DPW
Water Garage	BMP-09 – Street and Parking Lot Sweeping	Water Dept.
Recycling Facility	BMP 03 – Materials Management BMP-08 – Landscape Maintenance & Yard Waste Management BMP-09 – Street and Parking Lot Sweeping	DPW

**Table 1
Canton Facilities**

Facility or Operation	Applicable BMPs	Responsible Department(s)
Police Station/Eliot School	BMP 05 – Vehicle Fueling, Maintenance and Storage BMP 06 – Vehicle Washing	Police Dept.
Fire Stations #1 & #2	BMP 05 – Vehicle Fueling, Maintenance and Storage BMP 06 – Vehicle Washing	Fire Dept.
Reservoirs/Ponds	BMP-11 – Pet Waste and Litter / Waterfowl Management	Parks and Recreation
Dams	BMP-11 – Pet Waste and Litter / Waterfowl Management	DPW
Parks and Fields	BMP-03 – Materials Management BMP-08 – Landscape Maintenance & Yard Waste Management BMP-11 – Pet Waste and Litter / Waterfowl Management	Parks and Recreation
Parks and Fields Buildings	BMP-09 – Street and Parking Lot Sweeping	DPW
Skating and Hockey Rinks	BMP 02 – Snow Stockpiling /Removal BMP 03 – Materials Management BMP 09 – Street and Parking Lot Sweeping BMP-08 – Landscape Maintenance & Yard Waste Management BMP-09 – Street and Parking Lot Sweeping	DPW; Parks and Recreation
Pequitside Farm	BMP-08 – Landscape Maintenance & Yard Waste Management BMP-09 – Street and Parking Lot Sweeping BMP-11 – Pet Waste and Litter / Waterfowl Management	Parks and Recreation DPW
William J. Armando, Jr. Recreational Center	BMP 02 – Snow Stockpiling /Removal BMP-08 – Landscape Maintenance & Yard Waste Management BMP-09 – Street and Parking Lot Sweeping	DPW Parks and Recreation

**Table 1
Canton Facilities**

Facility or Operation	Applicable BMPs	Responsible Department(s)
	BMP-11 – Pet Waste and Litter / Waterfowl Management	
Gridley School and Center	BMP 02 – Snow Stockpiling /Removal BMP-08 – Landscape Maintenance & Yard Waste Management BMP-09 – Street and Parking Lot Sweeping BMP-11 – Pet Waste and Litter / Waterfowl Management	School Dept. DPW Parks and recreation
Canton High School	BMP 02 – Snow Stockpiling /Removal BMP-08 – Landscape Maintenance & Yard Waste Management BMP-09 – Street and Parking Lot Sweeping BMP-11 – Pet Waste and Litter / Waterfowl Management	School Dept. DPW Parks and recreation
Town Hall	BMP-09 – Street and Parking Lot Sweeping	DPW
Public Library	BMP-09 – Street and Parking Lot Sweeping	DPW
Art Center Building	BMP-09 – Street and Parking Lot Sweeping	DPW
Boy Scouts Building	BMP-09 – Street and Parking Lot Sweeping	DPW
Aquatic Center	BMP 03 – Materials Management BMP 07 – Spill Prevention and Response BMP-09 – Street and Parking Lot Sweeping	DPW
Council on Aging Building	BMP-09 – Street and Parking Lot Sweeping	DPW
Animal Shelter Building	BMP-03 – Materials Management BMP-09 – Street and Parking Lot Sweeping BMP-11 – Pet Waste and Litter / Waterfowl Management	DPW

Manual Updates

This Manual is intended to be a ‘living document’ that is updated as needed to meet the Town’s needs while striving to reduce pollution “to the maximum extent practicable” under the NPDES MS4 Permit. The current version of this Manual was prepared to be consistent with the 2016 Final Massachusetts MS4 Permit, effective July 1, 2018.

Under each BMP, a space for “**Notes / Specific Procedures**” has been included so that unique conditions, problem areas, protocol specifics or changes can be documented by the Town.

Training

The Town of Canton will provide employee training, as necessary, so that those responsible for handling petroleum products and other stormwater pollutants know the proper procedures detailed in this Manual. Employees who are members of the Pollution Prevention Team at the Public Works Garage on Bolivar Street will be trained annually.

Annual Reporting

This document, as updated, should be included in the NPDES MS4 Annual Reports provided to the MassDEP and the US EPA. Certain of the BMPs cited are required elements of the Town’s MS4 Stormwater Management Program and specific data pertinent to execution of these tasks must be reported in the Annual Report as well. Those tasks are identified within the associated BMP fact sheet and work orders generated through CityWorks will direct staff performing the function to collect and record the appropriate information.

Other Applicable Documents

IDDE Plan: The Town has developed an Illicit Discharge Detection and Elimination (IDDE) Plan, also in accordance with the 2016 MS4 Permit requirements. The IDDE Plan outlines the IDDE Program including legal mechanisms, detection and elimination protocols and procedures, schedules, and training elements of the Town’s IDDE program.

Public Works Garage Stormwater Pollution Prevention Plan (SWPPP): Canton has developed a site-specific SWPPP for its DPW Garage on Bolivar Street.

Document Limitations; Other Regulatory Requirements

It should be noted that this document outlines best practices but **may not meet** the requirements for other pollution prevention documents that may be required for certain facilities, or if there has been a change in use of a facility. For example, certain facilities (maintenance garages, public works yards, transfer stations, and waste handling facilities where pollutants are exposed to stormwater) are required to develop and implement facility-specific written Stormwater Pollution Prevention Plans (SWPPPS) to meet detailed NPDES requirements.

Facilities adjacent to wetlands may have Wetlands Protection Act Orders of Conditions for certain maintenance activities in proximity to wetland resources.

Acknowledgements:

Kleinfelder thanks the many Town of Canton staff who provided their time and information essential to the preparation of this document.

Best Management Practices (BMP) Sheets

BMP 01 – ROAD SALT APPLICATION AND STORAGE

DESCRIPTION

The Town provides ice management for over 150 miles of roadways and cul-de-sacs as well as areas associated with all municipal buildings including schools, parks and the Recreation Center. The Town of Canton currently stores road salt in a covered structure at the DPW's Bolivar Street Facility. Proper road salt application storage is necessary to prevent contamination to surface and ground water supplies. Salts are very soluble—once in contact with water there is no cost-effective way to remove salt. The major reasons for keeping salt covered and controlling use are that salt:

- Kills vegetation
- Corrodes infrastructure
- Small quantities (5% road salt) contain phosphorus, nitrogen, copper, and cyanide

POLLUTION PREVENTION APPROACH

Implement applicable suggested Best Management Practices to reduce the influx of pollutants to the stormwater system to the maximum extent practicable.

SUGGESTED BEST MANAGEMENT PRACTICES

Proper Storage

Storage facilities for salt should have the following key elements:

- Covered structure on impervious surface.
- Drainage should be diverted away from storage facility.
- Salt handling should be done within storage facility.
- Should not be located in a water supply watershed or within 100 year floodplain.

Proper Disposal

Disposal of salt should not be done in the following areas:

- Wetlands
- Any surface waters
- Well locations and public drinking supplies

Proper Removal

- Street sweeping of all Town roadways and municipal parking areas on an annual basis. Additional sweeping as needed.
- Catch basin cleaning completed as necessary.

TARGETED FACILITIES AND OPERATIONS

- Street Rights-of-Way
- All Town Owned Facilities
- Bolivar Street Facility (storage)

TARGETED CONSTITUENTS

- Sediment
- Salt
- Nutrients
- Trash
- Metals
- Oil & Grease
- Organics
- Low Dissolved Oxygen

REFERENCE

NOTES / SPECIFIC PROCEDURES:

(List identified problem or priority areas, document changes in protocol, or unique conditions along with date(s) of implementation and personnel initials)

BMP 01 – ROAD SALT APPLICATION AND STORAGE

Proper Use

- Establish a low salt area near any water bodies or residential areas.
- When feasible, use higher percentage of sand in sand/salt mixture.
- Regulate the amount of road salt applied to prevent over-salting of motorways and increasing runoff concentrations.
- Vary the amount of salt applied to reflect site-specific characteristics, such as road width and design, traffic concentration, and proximity to surface waters.
- Provide calibration devices for spreaders in trucks to aid maintenance workers in the proper application of road salts.
- Establish air temperature and snow depth conditions favorable for successful use of salt.
- Use alternative materials, such as sand or gravel, in especially sensitive areas.
- Use environmentally friendly products alternative to traditional deicing salt.

INSPECTION PROCEDURES – USE APPENDIX A

- Inspect salt storage shed for leaks on a regular basis including Fall and Spring.
- Inspect salt application equipment including calibration equipment and spreaders.
- Inspect salt regularly for lumping or water contamination.
- Inspect surface areas for evidence of runoff – salt stains in ground near and around the salt storage shed, loading area, or downslope.
- Inspect for excessive amounts of salt on roads.

MAINTENANCE PROCEDURES- USE LOG BELOW

- Service trucks and calibrate spreaders regularly to ensure accurate, efficient distribution of salt.
- Educate and train operators on hazards of over-salting to roads and environment at the beginning of the snow season as part of meetings with supervisors and drivers.
- Repair salt storage shed leaks.

BMP 01 – ROAD SALT APPLICATION AND STORAGE

MAINTENANCE LOG BMP 01 - Road Salt Application & Storage

Control Measure Maintenance Records (copy information below for each control measure)

Control Measure or Equipment:

Regular Maintenance Activities:

Regular Maintenance Schedule:

Date of Action:

Reason for Action: Regular Maintenance Discovery of Problem

If Problem,

- Description of Action Required:
- Date Control Measure Returned to Full Function:
- Justification for Extended Schedule, if applicable:

Notes:

Control Measure Maintenance Records (copy information below for each control measure)

Control Measure or Equipment:

Regular Maintenance Activities:

Regular Maintenance Schedule:

Date of Action:

Reason for Action: Regular Maintenance Discovery of Problem

If Problem,

- Description of Action Required:
- Date Control Measure Returned to Full Function:
- Justification for Extended Schedule, if applicable:

Notes:

BMP 02 - SNOW STOCKPILING/REMOVAL

DESCRIPTION

Proper snow management in terms of stockpiling and removal can prevent or minimize runoff and pollutant loading impacts. Snow piles can contain trash, nutrients, sediments, salt, sand, and vehicle pollutants (petroleum, antifreeze, and oil) that can directly be carried into surface waters during snowmelt. The Town of Canton provides snow removal for over 150 miles of roadways and cul-de-sacs as well as municipal buildings including schools, parks. Snow removal is completed in accordance with Best Management Practices and procedures outlined herein.

POLLUTION PREVENTION APPROACH

Implement applicable suggested Best Management Practices to reduce the influx of pollutants to the stormwater drainage system to the maximum extent practicable.

SUGGESTED BEST MANAGEMENT PRACTICES

During extreme conditions when stockpiling of snow is necessary the following practices should be applied:

- Do not stockpile snow near or within direct drainage to surface waters.
- Do not stockpile snow in wooded areas, around trees, or in vegetated buffer zones due to sediment and salt damage to vegetation.
- Stockpile snow in pervious areas where it can slowly infiltrate.
- During plowing activities on pervious surfaces, blading (plow lowers blade below ground surface level and plows the upper layers of soil in addition to overlying snow) should be avoided to prevent erosion.

INSPECTION PROCEDURES

- Check snow piles for debris that could be windblown.

MAINTENANCE PROCEDURES

- Contain sediments as snow melts and remove every Spring from snow storage areas. This includes sweeping roadways and parking lots or other impervious areas.
- During plowing activities, avoid blocking drainage structures including catch basins, swales, and channels.

TARGETED FACILITIES AND OPERATIONS

- Street Rights-of-Way
- All Town Owned Facilities

TARGETED CONSTITUENTS

- Sediment
- Salt
- Nutrients
- Trash
- Oil & Grease

REFERENCE

NOTES / SPECIFIC PROCEDURES:

(List identified problem or priority areas, document changes in protocol, or unique conditions along with date(s) of implementation and personnel initials)

BMP 03 - MATERIALS MANAGEMENT

DESCRIPTION

Materials management entails the selection of the individual product, the correct use and storage of the product, and the proper disposal of associated waste(s). It is important to be responsible with common chemicals and solvents including paints, cleaners, and automotive products to reduce contamination to stormwater runoff.

Proper management reduces the likelihood of accidental spills or releases of hazardous materials into storm drains or during storm events. In addition, health and safety conditions at the facility will improve.

POLLUTION PREVENTION APPROACH

Implement applicable suggested Best Management Practices to reduce the influx of pollutants to the stormwater drainage system to the maximum extent practicable.

SUGGESTED BEST MANAGEMENT PRACTICES

Material Inventory

- Identify all hazardous and non-hazardous substances by reviewing purchase orders and conducting a walk-through of facility.
- Compile Material Safety Data Sheets (MSDS) for all chemicals. These should be readily accessible to all facility employees.
- Label all containers of significant materials that include cleaners, fuels, and other hazards.
- Identify handling, storage, and disposal requirements of all chemicals.
- Use environmentally friendly or non-hazardous substitutes when appropriate that include but not limited to H2Orange2, Orange Thunder, and Simple Green®.
- Keep hazardous materials and waste off the ground.
- All drums and containers should be in good condition and properly labeled.
- Loose materials including any gravel piles should be covered or placed in shelter.

Solid Waste

- Trash storage bins, dumpsters, and disposal areas should be clean and free of debris, especially those located near catch basins.
- Dumpsters maintained in good condition and securely closed at all times.
- Clean up equipment and materials.
- Dispose of within local, state, and federal laws.

TARGETED FACILITIES AND OPERATIONS

- All Town-Owned Facilities
- All Fleet Vehicle and Equipment Operations

TARGETED CONSTITUENTS

- Sediment
- Nutrients
- Trash
- Metals
- Oil & Grease
- Organics
- Low Dissolved Oxygen

NOTES / SPECIFIC PROCEDURES:

(List identified problem or priority areas, document changes in protocol, or unique conditions along with date(s) of implementation and personnel initials)

BMP 03 - MATERIALS MANAGEMENT

- Temporary trash storage should be inspected weekly before taken to the local privately owned transfer station.
- Debris piles including sweepings, construction, and wood debris should be inspected weekly before removed off site.

INSPECTION PROCEDURES- USE APPENDIX A

- Review and follow other applicable documents as may be required by law including Stormwater Pollution Prevention Plans (SWPPPs) and/or Spill Prevention, Control, and Countermeasure (SPCC) Plans in place for a specific facility for petroleum products.
- Physical on-site verification of sealed floor drains (or redirected to sanitary sewer).
- Regular inspection of material storage areas (inside and outside) to verify items are not exposed to precipitation and are covered or in enclosed areas. (See Appendix E).
- Regular inspection and cleaning of oil/water separators by qualified contractor or facility personnel.
- Inspect stormwater discharge locations and onsite stormwater drainage infrastructure (e.g., catch basins) regularly (for contaminants, soil staining, plugged discharge lines).

MAINTENANCE PROCEDURES- USE LOG BELOW

- Repair or replace any leaking/defective containers, and replace labels as necessary.
- Maintain caps and/or covers on containers.
- Maintain aisle space for inspection of products/wastes.
- Routinely clean work spaces.
- Properly collect/dispose of waste.
- Routinely maintain and inspect vehicles and equipment.
- Train employees routinely and when new products enter the facility on proper use, storage, disposal, and safety concerns. MSDS sheets should be reviewed and readily accessible in central facility location.

BMP 03 - MATERIALS MANAGEMENT

MAINTENANCE LOG BMP 03 - Materials Management

Control Measure Maintenance Records (copy information below for each control measure)

Control Measure or Equipment:

Regular Maintenance Activities:

Regular Maintenance Schedule:

Date of Action:

Reason for Action: Regular Maintenance Discovery of Problem

If Problem,

- Description of Action Required:
- Date Control Measure Returned to Full Function:
- Justification for Extended Schedule, if applicable:

Notes:

Control Measure Maintenance Records (copy information below for each control measure)

Control Measure or Equipment:

Regular Maintenance Activities:

Regular Maintenance Schedule:

Date of Action:

Reason for Action: Regular Maintenance Discovery of Problem

If Problem,

- Description of Action Required:
- Date Control Measure Returned to Full Function:
- Justification for Extended Schedule, if applicable:

Notes:

BMP 04 - HAZARDOUS MATERIAL STORAGE

DESCRIPTION

It is important to properly store hazardous materials to prevent them from contaminating stormwater runoff. Hazardous materials include:

- Cleaning agents: solvents, drain cleaners, and bleach
- Vehicle maintenance fluids: motor oil, gasoline, antifreeze, degreasers, and radiator flush
- Water treatment chemicals
- Paints

POLLUTION PREVENTION APPROACH

Proper management reduces the likelihood of accidental spills or releases of hazardous materials during storm events. In addition, health and safety conditions at the facility will improve.

Implement applicable suggested Best Management Practices to reduce the influx of pollutants to the stormwater drainage system to the maximum extent practicable.

SUGGESTED BEST MANAGEMENT PRACTICES

Loading/Unloading

- All facilities should have proper procedures in place for loading and/or unloading hazardous materials received, especially areas located near catch basins.
- Do not conduct loading and unloading of exposed hazards during wet weather, whenever possible.
- If feasible, load and unload all materials and equipment in covered areas such as building overhangs at loading docks.
- Load/unload only at designated loading areas.
- Use drip pans underneath hose and pipe connections and other leak-prone spots during liquid transfer operations, and when making and breaking connections.
- Temporarily cover or otherwise barricade any proximate or immediately downgradient catchbasins or drain system inlets to preclude accidental discharge during loading/unloading operations.

Storage

- When possible, store indoors.
- Storage of reactive, ignitable, or flammable liquids must comply with the Massachusetts Fire Prevention Regulations for the Storage of Flammable and Combustible Materials (527 CMR 14.03).

TARGETED FACILITIES AND OPERATIONS

- All Town-Owned Facilities
- All Fleet Vehicle and Equipment Operations

TARGETED CONSTITUENTS

- Sediment
- Nutrients
- Trash
- Metals
- Oil & Grease
- Organics
- Low Dissolved Oxygen

NOTES / SPECIFIC PROCEDURES:

(List identified problem or priority areas, document changes in protocol, or unique conditions along with date(s) of implementation and personnel initials)

- This BMPs may not be sufficient to meet all regulatory compliance obligations for specific materials, container types (e.g. UST/AST) or volumes of material, kept at municipal facilities. If there are specific regulatory compliance guidelines for a material, those guidelines should supersede this guidance.

BMP 04 - HAZARDOUS MATERIAL STORAGE

- Place containers in a designated area that is paved, free of cracks and gaps, and impervious in order to contain leaks and spills. The area should also be covered.
- Provide secondary containment for hazardous materials and waste placed outdoors.
- Keep containers away from high traffic areas.
- Cover all containers and drums or place under shelter, if stored outdoors.
- MSDSs should be supplied for all stored materials at a specific facility, and in readily accessible location for all facility employees.
- Maintain a log inventory of materials stored at the facility.
- Chemicals should be kept in original labeled containers.
- Containers should not be overfilled.
- Store containers on pallets.
- Properly stack containers and drums.
- Storage areas should be enclosed.
- Minimize storage onsite.
- Keep storage areas clean and organized. Electronic Wastes are collected by the DPW throughout the year.
- Contractors should be responsible for delivery, storage and waste disposal practices.
- Containers should not be glass.
- Segregate reactive/incompatible materials (such as chlorine and ammonia).
- Place drip pans under container spouts.
- Install overfill protection on storage tanks/drums.
- Lock storage areas and provide warning signs.

INSPECTION PROCEDURES- USE APPENDIX A

- Check loading and unloading equipment regularly for leaks, including valves, pumps, flanges and connections.
- Look for dust or fumes during loading or unloading operations.
- Inspect storage areas regularly for leaks or spills.
- Conduct routine inspections and check for external corrosion of material containers.
- Check for structural failure, spills and overfills due to operator error, failure of piping system.
- Check for leaks or spills during pumping of liquids or gases from truck or rail car to a storage facility or vice versa.
- Visually inspect new tank or container installations for loose fittings, poor welding, and improper or poorly fitted gaskets.
- Inspect tank foundations, connections, coatings, and tank walls and piping system. Look for corrosion, leaks, cracks, scratches, and other physical damage that may weaken the tank or container system.

BMP 04 - HAZARDOUS MATERIAL STORAGE

- Replace containers that are leaking, corroded, or otherwise deteriorating with ones in good condition. If the liquid chemicals are corrosive, containers made of compatible materials must be used instead of metal drums.
- Label new or secondary containers with the product name and hazards.

MAINTENANCE PROCEDURES- USE LOG BELOW

- Conduct regular inspections and make repairs as necessary. The frequency of repairs will depend on the age of the facility.
- Check loading and unloading equipment regularly for leaks.
- Sweep area regularly with dry broom.
- Conduct major clean-out of loading and unloading area and any sumps prior to October 1 of each year.
- Repair or replace any leaking/defective containers, and replace labels as necessary.
- Maintain caps and/or covers on containers.
- Maintain aisle space for inspection of products/wastes.
- Train employees on proper procedures and when new hazardous materials are used.

BMP 04 - HAZARDOUS MATERIAL STORAGE

MAINTENANCE LOG BMP 04 - Hazardous Material Storage

Control Measure Maintenance Records (copy information below for each control measure)

Control Measure or Equipment:

Regular Maintenance Activities:

Regular Maintenance Schedule:

Date of Action:

Reason for Action: Regular Maintenance Discovery of Problem

If Problem,

- Description of Action Required:
- Date Control Measure Returned to Full Function:
- Justification for Extended Schedule, if applicable:

Notes:

Control Measure Maintenance Records (copy information below for each control measure)

Control Measure or Equipment:

Regular Maintenance Activities:

Regular Maintenance Schedule:

Date of Action:

Reason for Action: Regular Maintenance Discovery of Problem

If Problem,

- Description of Action Required:
- Date Control Measure Returned to Full Function:
- Justification for Extended Schedule, if applicable:

Notes:

BMP 05 - VEHICLE FUELING, MAINTENANCE AND STORAGE

DESCRIPTION

Vehicle repair and service (e.g. parts cleaning and fueling), replacement of fluids (e.g. oil change), and outdoor equipment storage and parking (dripping engines) can impact water quality if stormwater runoff from areas with these activities occurring on them becomes polluted by a variety of contaminants. Spills and leaks that occur during vehicle and equipment fueling can contribute hydrocarbons, oil and grease, as well as heavy metals to stormwater runoff. It only takes 1 gallon of oil to contaminate 1 million gallons of drinking water. It is important to properly store and discard vehicle fluids including oil, transmission fluid, antifreeze, and lubricants to prevent surface and groundwater contamination from spills or improper disposal. There are active municipal fuel pumps located at the DPW facility on Bolivar Street with no shelter.

In an effort to reduce potential pollution impacts to stormwater from activities associated with vehicle and equipment maintenance, the Town performs all maintenance activities indoors.

POLLUTION PREVENTION APPROACH

Implement applicable suggested Best Management Practices to reduce the influx of pollutants to the stormwater drainage system to the maximum extent practicable.

SUGGESTED BEST MANAGEMENT PRACTICES

General Practices

- Store fluids in labeled, plastic or metal container with a lid away from drains and catch basins.
- Place flammables in a fire safe cabinet.
- Place drip pans under leaking vehicles, valves, spigots, and pumps.
- Routinely check for leaking vehicles.
- Do not do any vehicle maintenance near storm drains.
- Vehicle maintenance should be done in covered facility.
- Install inlet catch basins equipped with a small sedimentation basin or grit chamber to remove large particles from stormwater in highly impervious areas.

Fueling

- Town vehicles are fueled at the Bolivar St. DPW facility.
- Ensure that all equipment fueling activities with portable tanks are not conducted near storm drains and dry wells or that there are procedures in place to control any spills.
- Any portable fuel storage tanks should be stored on impervious surfaces with no cracks or gaps; secondary containment is recommended.
- Label drains within the facility boundary, by paint/stencil (or equivalent), to indicate whether they flow to an oil/water

TARGETED FACILITIES AND OPERATIONS

- DPW Garage
- Police Maintenance Garage
- Water Department
- Fire Departments & Headquarters
- All Fleet Vehicle and Equipment Operations
- Police Departments & Headquarters

TARGETED CONSTITUENTS

- Sediment
- Nutrients
- Trash
- Metals
- Oil & Grease
- Hydrocarbons

NOTES / SPECIFIC PROCEDURES:

(List identified problem or priority areas, document changes in protocol, or unique conditions along with date(s) of implementation and personnel initials)

BMP 05 - VEHICLE FUELING, MAINTENANCE AND STORAGE

separator, directly to the sewer, to a storm drain or into a drywell.

Vehicle Maintenance

- Provide a designated area for vehicle maintenance on an impervious surface.
- Keep equipment clean; don't allow excessive build-up of oil and grease.
- If possible, perform all vehicle fluid removal or changing inside or under cover:
 - Keep a drip pan under the vehicle while you unclip hoses, unscrew filters, or remove other parts.
 - Promptly transfer used fluids to the proper waste or recycling drums. Don't leave drip pans or other open containers lying around.
 - Keep drip pans or containers under vehicles or equipment that might drip during repairs.
 - Do not change motor oil or perform equipment maintenance in non-appropriate areas.
- If temporary work is being conducted outside: Use a tarp, ground cloth, or drip pans beneath the vehicle or equipment to capture all spills and drips.
- If equipment (e.g., radiators, axles) is to be stored outdoors, oil and other fluids should be drained first. This is also applicable to vehicles being stored and not used on a regular basis.

Disposal

- Dispose of all fluids and waste materials according to applicable laws and regulations.
- Dump full pans into waste oil AST.
- Dispose of debris including oil filters, oil cans, rags, and clean-up supplies.
- Do not dump vehicle fluids down storm drains.
- Interior floor drains should discharge to oil water separator, holding tanks, or be sealed.

INSPECTION PROCEDURES

- Identify locations of floor drains and catch basins and know where they discharge to. Floor drains should be connected to the sanitary sewer system and catch basins should be connected to the stormwater drainage system.
- Regularly inspect vehicles and equipment for leaks and repair immediately.
- Inspect portable fuel storage containers. Look for corrosion, leaks, cracks, scratches, and other physical damage that may weaken the container system.
- Inspect fueling areas, catch basin inserts, containment areas, and drip pans on a regular schedule.

BMP 05 - VEHICLE FUELING, MAINTENANCE AND STORAGE

MAINTENANCE PROCEDURES

- Sweep the maintenance area on a regular basis, if it is paved, to collect loose particles. Wipe up spills with rags and other absorbent material immediately. Do not hose down the area to a storm drain.
- Clean oil/water separators, sumps and on-site treatment/recycling units at appropriate intervals.
- Keep ample supplies of spill cleanup materials onsite. Cleanup spills immediately.
- Properly train employees on fueling and handling oil and waste oil.

BMP 06 - VEHICLE WASHING

DESCRIPTION

Wash water from vehicle and equipment cleaning activities performed outdoors or in areas where wash water flows onto the ground can contribute toxic hydrocarbons and other organic compounds, oils and greases, nutrients, phosphates, heavy metals, and suspended solids to stormwater runoff.

In an effort to reduce potential pollution impacts to stormwater from vehicle washing activities, it is the Town's policy to perform all vehicle washing indoors. Vehicle washing occurs either in the Town's DPW Facility on Bolivar Street, the wash bay at the Police Department Facility, or vehicles are taken to commercial car wash facilities. Vehicle wash water from the Bolivar St. DPW facility goes to an oil water separator which is connected to the local sanitary sewer system. The Police Station washbay is connected to the sanitary sewer system.

POLLUTION PREVENTION APPROACH

Implement applicable suggested Best Management Practices to reduce the influx of pollutants to the stormwater drainage system to the maximum extent practicable.

SUGGESTED BEST MANAGEMENT PRACTICES

General

- Use biodegradable, phosphate-free detergents for washing vehicles as appropriate.
- Mark the area clearly as a wash area.
- Post signs stating that only washing is allowed in wash area and that discharges to the storm drain are prohibited. Facility employees should be familiar with any catch basin locations.
- Provide a trash container in wash area.
- Those that use facility to wash vehicles should be informed of proper washing protocols.

Vehicle and Equipment Cleaning

- Wash vehicles and equipment indoors at one of the Town's wash bays or at a commercial car wash.
- If washing must occur outdoors:
 - Use designated paved wash areas. Designated wash areas must be well marked with signs indicating where and how washing must be done. This area must be covered or bermed to collect the wash water and graded to direct the wash water to a treatment or disposal facility.
 - Cover the wash area when not in use to prevent contact with rain water.
- Use hoses with nozzles that automatically turn off when left unattended. Use high-pressure, low-volume sprays.
- Perform pressure cleaning and steam cleaning off-site to avoid generating runoff with high pollutant

TARGETED FACILITIES AND OPERATIONS

- DPW Facility
- Water Department & Headquarters
- Fire Departments & Headquarters
- Police Department & Headquarters
- All Fleet Vehicle and Equipment Operations

TARGETED CONSTITUENTS

- Sediment
- Nutrients
- Trash
- Metals
- Oil & Grease

NOTES / SPECIFIC PROCEDURES:

(List identified problem or priority areas, document changes in protocol, or unique conditions along with date(s) of implementation and personnel initials)

BMP 06 - VEHICLE WASHING

concentrations. If done on-site, no pressure cleaning and steam cleaning should be done in areas designated as protection areas for public water supply.

Disposal

- Filter and recycle wash water if possible.
- If discharging to an oil/water separator, do not use detergents that disperse oil in wash water and make oil/water separators ineffective with oil passing to the sanitary sewer system. It is best to use high pressure water with no cleaning agent. If using a cleaner it must be a non-emulsifying product.
- Discharge vehicle wash water to (1) the sanitary sewer, a holding tank, or process treatment system or (2) an enclosed recycling system.

INSPECTION PROCEDURES

- Inspect floor drain systems regularly – use only those that discharge to a sanitary sewer collection system.
- Inspect and maintain sumps, oil/water separators, and on-site treatment/storage/recycling units.

MAINTENANCE PROCEDURES

- Maintain a map of on-site storm drain locations to avoid discharges to the storm drainage system.
- Take precautions against excess use of and spillage of detergents.
- Clean vehicles only where wastes can be captured for proper disposal.

BMP 07 - SPILL PREVENTION AND RESPONSE

DESCRIPTION

It is important to have a plan in place in the event a spill should occur so contaminants do not mix with stormwater runoff. A spill prevention and response plan can be effective at reducing the risk of contamination to surface and groundwater contamination—but only with proper personnel training, the availability of cleanup supplies, and when management ensures procedures are followed.

POLLUTION PREVENTION APPROACH

- Develop and implement spill prevention and response plan.
- Post a response checklist in any hazardous waste storage area with contact information (including emergency phone numbers), and spill containment procedures.
- Train personnel.
- Regularly update plan, checklists, and contact information.
- Regularly inspect spill potential areas.
- Facilities with aboveground storage tanks (ASTs) and underground storage tanks (USTs) greater than 1,320 gallons and 42,000 gallons, respectively, must have Spill, Prevention, Containment and Countermeasure (SPCC) Plans in place.

SPILL PREVENTION AND RESPONSE PLAN

An effective Spill Prevention and Response Plan may include one or more of the following:

- Description of the facilities, the address, activities and materials involved.
- Identification of key spill response personnel and hospital contacts.
- Identification of the potential spill areas or operations prone to spills/leaks.
- Identification of which areas should be or are bermed to contain spills/leaks.
- Facility map identifying the key locations of areas, activities, materials, structural BMPs, infrastructure assets, etc.
- Material handling procedures and safety measures for each kind of waste or product.
- Spill response procedures including:
 - Assessment of the site and potential impacts
 - Containment of the material
 - Notification of the proper personnel and evacuation procedures
 - Cleanup of the site
 - Disposal of the waste material
 - Proper record keeping procedures
- Plan to protect all storm drains in the event of a spill.
- Descriptions of spill response equipment, including safety and cleanup equipment.

TARGETED FACILITIES AND OPERATIONS

- Town Owned Buildings that store material inventory containing pollutants of concern
- Street and Public Rights-of-Way

TARGETED CONSTITUENTS

- Nutrients
- Metals
- Oil & Grease
- Hydrocarbons
- Organics

NOTES / SPECIFIC PROCEDURES:

(List identified problem or priority areas, document changes in protocol, or unique conditions along with date(s) of implementation and personnel initials)

BMP 07 - SPILL PREVENTION AND RESPONSE

SUGGESTED BEST MANAGEMENT PRACTICES

Spill/Leak Prevention

- If possible, move material handling indoors, under cover, or away from storm drains or sensitive water bodies.
- Properly label all containers so that the contents are easily identifiable.
- Berm storage areas so that if a spill or leak occurs, the material is contained.
- Cover outside storage areas either with a permanent structure or with a seasonal one such as a tarp so that rain will not come into contact with the materials.
- Check containers (and any containment sumps) often for leaks and spills. Replace containers that are leaking, corroded, or otherwise deteriorating with containers in good condition. Collect all spilled liquids and properly dispose of them.
- Store, contain and transfer liquid materials in such a manner that if the container is ruptured or the contents spilled, they will not discharge, flow or be washed into the storm drainage system, surface waters, or groundwater.
- Place drip pans or absorbent materials beneath all mounted taps and at all potential drip and spill locations during the filling and unloading of containers. Any collected liquids or soiled absorbent materials should be reused/recycled or properly disposed of.
- For Town programs that involve material transport, only transport the minimum amount of material needed for the daily activities and transfer materials between containers at a municipal yard where leaks and spills are easier to control.
- If paved, sweep and clean storage areas monthly, do not use water to hose down the area unless all of the water will be collected and disposed of properly (e.g., in an oil/water separator).
- Install a spill control device (such as a tee section) in any catch basins that collect runoff from any storage areas if the materials stored are oil, gas, or other materials that separate from and float on water. This will allow for easier cleanup if a spill occurs.
- If necessary, protect catch basins while conducting field activities so that if a spill occurs, the material will be contained.
- Keep ample supplies of spill cleanup materials including Speedi Dry and absorbent boom pads onsite.

Spill Clean Up

- Small non-hazardous spills:
 - Use a rag, damp cloth or absorbent materials for general cleanup of liquids.

BMP 07 - SPILL PREVENTION AND RESPONSE

- Use brooms or shovels for the general cleanup of dry materials
- If water is used, it must be collected and properly disposed of. The wash water cannot be allowed to enter the storm drain.
- Dispose of any waste materials properly.
- Clean or dispose of any equipment used to clean up the spill properly.
- Large non-hazardous spills
 - Use absorbent materials for general cleanup of liquids.
 - Use brooms, shovels or street sweepers for the general cleanup of dry materials.
 - If water is used, it must be collected and properly disposed of. The wash water cannot be allowed to enter the storm drain.
 - Dispose of any waste materials properly.
 - Clean or dispose of any equipment used to clean up the spill properly.
- For hazardous or very large spills, the Fire Department and/or a private cleanup contractor may need to be contacted to assess the situation and conduct the cleanup and disposal of the materials.
- Chemical cleanups of material can be achieved with the use of absorbents, gels, and foams.
- Remove the adsorbent materials promptly and dispose of according to regulations.
- If the spilled material is hazardous, then the used cleanup materials, including rags, are also hazardous and must be sent to a certified laundry facility or disposed of as hazardous waste.

Reporting

- Report any spills immediately to the identified key municipal spill response personnel.
- Report spills in accordance with applicable reporting laws. Spills that pose an immediate threat to human health or the environment must be reported immediately to the DPW at 781-821-5023 and the Fire Department at 911.
- Federal regulations require that any oil spill into a water body or onto an adjoining shoreline be reported to the National Response Center (NRC) at 800-424-8802 (24 hour). An oil spill over 10 gallons that reaches a surface water, sewer, storm drain, ditch, or culvert leading thereto requires Massachusetts DEP notification at (888) 304-1133.
- After the spill has been contained and cleaned up, a detailed report about the incident should be generated and kept on file. The incident may also be used in briefing staff about proper procedures.

BMP 07 - SPILL PREVENTION AND RESPONSE

INSPECTION PROCEDURES

- Inspect secondary containment systems and oil/water separators periodically to identify any operational problems.
- Inspect containers for leaks, areas near storm receiver inlets and outlets, and floor drains for indications of spills.

MAINTENANCE PROCEDURES

- Pump out oil water separators as needed.
- Protect drains with oil absorbent materials.
- Clean out receivers on regular schedule.
- Remove spilled salt from salt loading areas, including the Town's Salt Storage Barn.

BMP 08 - LANDSCAPE MAINTENANCE & YARD WASTE MANAGEMENT

DESCRIPTION

Landscape maintenance activities include vegetation removal; herbicide and insecticide application; fertilizer application; watering; and other gardening and lawn care practices. All of these maintenance practices have the potential to contribute pollutants to the storm drain system and contaminate drinking water supplies. It is important to reduce pesticides, herbicides, fertilizers, and lawn debris from entering surface and ground water supplies by washing and cleaning up with as little water as possible, following good landscape management practices, preventing and cleaning up spills immediately, keeping debris from entering the storm drains, and maintaining the stormwater drainage system.

POLLUTION PREVENTION APPROACH

Implement applicable suggested Best Management Practices to reduce the influx of pollutants to the stormwater drainage system to the maximum extent practicable.

SUGGESTED BEST MANAGEMENT PRACTICES

Landscaping Activities

- Do not apply any chemicals (insecticide, herbicide, or fertilizer) directly to surface waters, unless the application is approved and permitted by the Massachusetts DEP.
- Use mulch or other erosion control measures on exposed soils.
- Check irrigation schedules so pesticides will not be washed away and to minimize non-stormwater discharge.
- Place temporarily stockpiled material away from watercourses and drain inlets, and berm or cover stockpiles to prevent material releases to the stormwater drainage system.
- Use hand or mechanical weeding where practical.
- Employ mowing techniques to maintain a healthy lawn and minimize chemical use—no more than 1" of lawn should be removed from each mowing (grasses kept at 2.5" to 3.0" high are more heat resistant than close-cropped grass).
- Keep mower blades sharp and leave clippings in place after mowing.
- Water plants in the early morning.

Fertilizer and Pesticide Management

- When using a commercial lawn care company for fertilizer and pesticide management ensure "Lake Safe" products are used.
- Follow manufacturers' recommendations and label directions.
- Do not apply insecticides within 100 feet of surface waters such as lakes, ponds, wetlands, and streams.
- Use less toxic pesticides that will do the job, whenever possible and use the minimum amount needed. Avoid use

TARGETED FACILITIES AND OPERATIONS

- All Town-Owned Facilities with lawns and grounds
- Street and Public Rights-of-Way

TARGETED CONSTITUENTS

- Sediment
- Nutrients
- Trash
- Metals
- Bacteria
- Oil and Grease
- Organics
- Low Dissolved Oxygen

NOTES / SPECIFIC PROCEDURES:

(List identified problem or priority areas, document changes in protocol, or unique conditions along with date(s) of implementation and personnel initials)

BMP 08 - LANDSCAPE MAINTENANCE & YARD WASTE MANAGEMENT

of copper-based pesticides if possible. Evaluate use of [Integrated Pest Management](#) techniques.

- Do not use pesticides if rain is expected.
- Do not mix or prepare pesticides for application near storm drains.
- Calibrate fertilizer distributors to avoid excessive application.
- Clean pavement and sidewalk if fertilizer is spilled on these surfaces before applying irrigation water.
- Apply pesticides only when wind speeds are low.
- Work fertilizers into the soil rather than dumping or broadcasting them onto the surface.
- Irrigate slowly to prevent runoff and then only as much as is needed.
- Dispose of empty pesticide containers according to the instructions on the container label.
- Use up the pesticides. Rinse containers, and use rinse water as product. Dispose of unused pesticide as hazardous waste.
- Implement storage requirements for pesticide products with guidance from the local fire department and the Massachusetts Department of Agricultural Resources.
- Provide secondary containment for pesticides.

Leaf Litter and Yard Waste Management

- Provide regular and timely collection of leaf piles on paved surfaces.
- Compost or mulch yard waste.
- Sweep up yard debris instead of hosing down.
- Do not leave yard waste in the street or sweep it into storm drains or streams.
- Do not blow yard waste and dust debris onto streets or parking lots.
- Properly manage and dispose of grass cuttings and leaf litter.

INSPECTION PROCEDURES

- Inspect irrigation system periodically to ensure that the right amount of water is being applied and that excessive runoff is not occurring.
- Minimize excess watering, and repair leaks in the irrigation system as soon as they are observed.
- Inspect and remove accumulated debris from grounds and storm drains
- Routinely monitor lawns to identify problems during their early stages.
- Identify nutrient/water needs of plants.
- Inspect for problems by testing soils.

MAINTENANCE PROCEDURES

- Sweep paved areas regularly to collect loose particles.

BMP 08 - LANDSCAPE MAINTENANCE & YARD WASTE MANAGEMENT

<ul style="list-style-type: none">• Wipe up spills with rags and other absorbent material immediately.• Do not hose down the area to a storm drain. Keep mower blades sharp.	
---	--

BMP 09 - STREET AND PARKING LOT SWEEPING

DESCRIPTION

Street and parking lot sweeping includes self-propelled equipment to remove sediment from paved surfaces that can enter storm drains or receiving waters. Sweeping is most effective for removing coarse particles, leaves, and trash. Regularly sweeping reduces catch basin cleaning.

The Town owns a mechanical/rotary broom sweeper. It is Town's Policy to sweep every street annually in the Spring, following winter activities such as sanding. **The 2016 MS4 Permit requires additional sweeping in the Fall (Sept 1 through Dec 1) of all the streets and parking lots that discharge to the following waterbodies:**

- Massapoag Brook
- Forge Pond
- Bolivar Pond
- Neponset River

POLLUTION PREVENTION APPROACH

Implement applicable suggested Best Management Practices to reduce the influx of pollutants to the stormwater drainage system to the maximum extent practicable.

BEST MANAGEMENT PRACTICES

- Adhere to the Town's cleaning schedule – every street and parking lot must be swept annually in the Spring and streets and parking lots discharging to the impaired waterbodies listed above must be swept in the Fall as well.
- Evaluation of effectiveness to be incorporated into Town's Street Sweeping Optimization Program (SSOP).
- Town parking lots should be checked regularly by DPW personnel and swept when needed.
- Any visible sediment should be swept up (including sand/salt mixtures and granular material).
- Control the number of points where vehicles leave the Facilities to allow sweeping to be focused on certain areas in parking lots.
- Sweep up the smallest particles feasible.
- Sweep in pattern to keep spilled material from being pushed into catch basins.
- Before sweeping, manually rake sand from any turf areas on surfaces to be swept.
- Use hand-held tools to assist with mechanical equipment.
- If possible, recycle Fall leaf sweepings by composting.
- The DPW should maintain a **log or schedule** of sweeping activities they conduct (see below). Information should include date/ frequency, equipment used, techniques employed, mileage, amount (volume or mass) of sweepings removed, and heavily sedimented areas for street rights-of-way.
- Facilities should maintain a **log or schedule** (see below) for their facility parking lots. Information should include amount of sweepings removed (volume or mass), equipment used,

TARGETED FACILITIES AND OPERATIONS

- All Town-Owned Facility parking areas
- Street Rights-of-Way

TARGETED CONSTITUENTS

- Sediment
- Nutrients
- Salt
- Trash
- Metals
- Oil & Grease
- Organics

NOTES / SPECIFIC PROCEDURES:

(List identified problem or priority areas, document changes in protocol, or unique conditions along with date(s) of implementation and personnel initials)

BMP 09 - STREET AND PARKING LOT SWEEPING

techniques employed, heavily sedimented catch basins, and date/frequency of sweeping activities. By recording heavily sedimented areas, prioritizations can be made to sweep these areas or clean catch basins more frequently.

INSPECTION PROCEDURES

- Regularly inspect streets and Town-owned parking lots for debris.

MAINTENANCE PROCEDURES- USE LOG BELOW

- Adjust broom frequently to maximize efficiency of sweeping operations.
- After sweeping is finished, properly dispose of sweeper wastes.
- Do not use kick brooms or sweeper attachments that tend to spread dirt.
- When unloading sweeper, make sure there is no dust or sediment release.
- Inspect sweepers to check that the contractor properly maintains and repairs them.

BMP 09 - STREET AND PARKING LOT SWEEPING

Street Sweeping & Parking Lot Maintenance Activity Log

Date	Street Name (Segment) or Facility Name	Distance/Length (miles)	Equipment Employed	Est. Volume of Material Removed

BMP 09 - STREET AND PARKING LOT SWEEPING

MAINTENANCE LOG BMP 09 - Street & Parking Lot Sweeping

Cityworks
Search..

Dashboard Admin Recent Service Requests Work Orders Inspections Help Links Admin Menu

Work Order

Description: Street Sweeping (Plow Route)

Work Order No: 472

Entity Type: SNOWPLOW ROUTE Change

Category: Street

Initiated By: QUINLAN, KELSEY M Date: 05/30/2019 8:17 AM

Status: Open Priority: Medium

Requested By: Supervisor: WALSH, WILLIAM J

Submit To: Date:

Projected Start: 05/30/2019 8:17 AM Projected Finish: 06/06/2019 8:17 AM

Opened By: Date:

Closed By: Date:

Completed By:

Actual Start: Actual Finish:

Stage: Actual Expense Type: Maintenance

Comments: Add Comment Sort

Instructions:

Resolution: Reactive?

Location Information

WO Address:

Location Details:

Map:

Lot:

Mass State Plane: Mass State Plane:

X Coordinate: Y Coordinate:

Details

Cancel Work Order:

Cancelled By: Date:

Cancel Reason:

Map Layer Fields

Reset

Assets

Total Entities: 1

Asset	Asset Id	Asset Uid	Location	Warranty Date	Wor
SNOWPLOW ROUTE	0	0			

- Pink rows indicate inventory still under warranty.

Update Work Order XY when adding/removing assets?

Work Cycle

Repeat: Never

Interval: 2 Months

From: Projected Start Date

Date Printed: Next Print Date: 5/28/2019

Related Work Activities

Service Requests

Add Request:

Inspections

Add Inspection:

Work Orders

Create Child Work Order

Permits

Create

Attachments

+ Add attachment.. Remove all attachments

Drag and drop files here to attach them.

Custom Fields

Category: Street Sweeping Data

Volume of Debris (cy):

Type of Debris:

Heavy Sedimented Area:

BMP 10 - CATCH BASIN CLEANING

DESCRIPTION

It is important to remove sediments from catch basins that can have a high concentration of pollutants including metals and hydrocarbons. These sediments can clog downstream drainage systems and transport pollutants to nearby water bodies. The Town employees clean the catch basins (approximately 2,300 catch basins) on an annual basis and follow Best Management Practices and procedures outlined herein.

The 2016 MS4 Permit requires prioritizing the inspection and maintenance of catch basins that discharge to the following waterbodies:

- Massapoag Brook
- Forge Pond
- Bolivar Pond
- Neponset River

POLLUTION PREVENTION APPROACH

Implement applicable Best Management Practices to reduce the influx of pollutants to the stormwater drainage system to the maximum extent practicable.

REQUIRED BEST MANAGEMENT PRACTICES

- **Remove debris/material from catch basin sumps such that sumps consistently remain less than 50 percent full.** A catch basin sump is more than 50 percent full if the contents within the sump exceed one half the distance between the bottom interior of the catch basin to the invert of the deepest outlet of the catch basin.
- If a catch basin is greater than 50 percent full two times in a row through scheduled cleaning, investigate the source of sediment or debris to that catchment in order to reduce potential pollutants at the source. Document activities associated with this task.
- Target cleaning for early Spring or late Fall.
- Clean manually or with equipment (i.e., bucket loaders).
- Properly dispose of catch basin material or store until contractor picks up cleanings (Massachusetts DEP and EPA requires chemical analysis to determine if substance is hazardous waste).
- Repair damaged catch basins including outlet traps.
- Install hoods if catch basins do not have them.
- Inform employees that catch basins are part of the stormwater drainage system and not the sanitary sewer system.
- The DPW should continue to **maintain a log** (see below) of inspection and cleaning activities. Information should include number of catch basins inspected, number cleaned, volume of material amount of cleanings removed and areas with heavily filled basins.
- The DPW should develop a plan for optimized catch basin cleaning on the basis of the information developed over the

TARGETED FACILITIES AND OPERATIONS

- All Town-Owned Facilities
- Street Rights-of-Way
- Drainage system
- Disposal of Removed Solids

TARGETED CONSTITUENTS

- Sediment
- Nutrients
- Trash
- Metals
- Oil & Grease
- Organics

REFERENCE

Follow MS4 Permit Part 2.3.7.a.iii requirements.

Utilize Cityworks Work Order System

NOTES / SPECIFIC PROCEDURES:

(List identified problem or priority areas, document changes in protocol, or unique conditions along with date(s) of implementation and personnel initials)

BMP 10 - CATCH BASIN CLEANING

course of cleaning/inspection activities and revisit annually. This will be an integrated element of Town's asset management program going forward.

- Facilities should maintain a log of cleaning activities on their parking lots. Information should include amount of cleanings removed, heavily filled catch basins, and dates cleaned by DPW.

INSPECTION PROCEDURES – Use Inspection Log Sheets Below

- Establish baseline inspection frequency for catch basins, grates, and ditches to at least twice per year. Inspections should be incorporated during routine cleaning, as part of reconstruction contracts, after significant storm events, and through requests made by residents or other Town departments.
- Identify cleaning needs (i.e. if cleaning is required and appropriate method for cleaning) and document condition and structural integrity of catch basin.
- Review results of previous inspections of the subject catch basin(s).
- Using Inspection Form (below) document condition, amount of sediment in sump (as percent volume) and proposed corrective action, if required (e.g. clean sump, reset frame, no action required, etc.).
- Note problem areas accumulating heavy loads of leaf litter, trash or pet waste bags that may warrant targeted educational outreach or enforcement efforts.
- If catch basin sump is more than 50 percent full during two consecutive inspections/cleaning events document on inspection form and generate work order for investigation of contributing drainage area for sources of excessive sediment loading and mitigation of sources where possible. Work order shall not be closed until documentation of corrective actions taken has been completed.

MAINTENANCE PROCEDURES- USE MAINTENANCE LOG BELOW

- Establish initial cleaning/maintenance schedule that provides for cleaning catch basins on an annual basis (i.e. 1x/year). After first year of baseline operation, areas or individual catch basins that accumulate a significant amount of sediment should be scheduled for cleaning more frequently.
- Based on recommended cleaning method (see inspection form per catch basin), clean as appropriate. Methods may include manual shoveling, bucket loader use, high pressure wash/slurry vacuum/rodder or other standard approach.
- If inspection notes or current observation indicate potential contamination suspected, collect sample of sediment/cleanings for chemical analysis and characterization for disposal. Segregate suspected cleanings from other catch basin cleanings until characterization confirmed and proper disposal completed.

BMP 10 - CATCH BASIN CLEANING

- | | |
|--|--|
| <ul style="list-style-type: none">• Dispose of uncontaminated screenings from stormwater-only drainage systems at a permitted landfill. Fluids collected during cleaning may be disposed of through a sanitary sewer with permission of the system operator.• During catch basin repairs, any hoods missing should be replaced.• Document amount of waste collected per catch basin using log form provided below. | |
|--|--|

BMP 10 - CATCH BASIN CLEANING

CATCH BASIN CLEANING AND INSPECTION SHEETS

Cityworks
Search...

Dashboard Admin Recent Service Requests Work Orders Inspections Help Links Admin Menu

Work Order

Description: Catchbasin Cleanout

Work Order No: 471

Entity Type: CATCH BASIN Change

Category: StormWater

Initiated By: QUINLAN, KELSEY M Date: 05/30/2019 8:16 AM

Status: Open Priority: Medium

Requested By: Supervisor: WALSH, WILLIAM J

Submit To: Date:

Projected Start: 05/30/2019 8:16 AM Projected Finish: 05/30/2019 8:16 AM

Opened By: Date:

Closed By: Date:

Completed By:

Actual Start: Actual Finish:

Stage: Actual Expense Type: Maintenance

Comments: Add Comment Sort

Instructions:

Resolution Reactive?

Location Information

WO Address:

Location Details:

Map:

Lot:

Mass State Plane X Coordinate: Mass State Plane Y Coordinate:

Map Layer Fields

Reset

Work Cycle

Repeat: Never

Interval: 2 Months

From: Projected Start Date

Date Printed: Next Print Date: 5/28/2019

Related Work Activities

Service Requests

Add Request:

Inspections

Add inspection:

Work Orders

Create Child Work Order

Permits

Create

Attachments

+ Add attachment... Remove all attachments

Drag and drop files here to attach them.

Custom Fields

Category:

Details

Cancel Work Order:

Cancelled By: Date:

Cancel Reason:

Assets

Total Entities: 1

Asset	Asset Id	Asset Uid	Location	Warranty Date	Work
CATCH BASIN	0	0			

- Pink rows indicate inventory still under warranty.

Update Work Order XY when adding/removing assets?

BMP 10 - CATCH BASIN CLEANING

Cityworks

QUINLAN, KELSEY M ▾

Dashboard ▾
Admin ▾
Recent ▾
Service Requests ▾
Work Orders ▾
Inspections ▾

Help Links ▾
Admin Menu ▾

Details
Inspection

Inspection ID: 431 ▾

Location:

Status: Open ▾ Resolution: ▾

Insp. Date: Inspected By:

Observations

Catch Basin Not Found ✎

Heavily Sedimented Area? ✎

Yes No

Sedimentation Thickness (ft): ✎

Debris Noted? ✎

Yes No

Debris Type/Details: ✎

Additional Concerns: ✎

Car Parked on Catch Basin
 Tree Trimming Required
 Evidence of Gas or Paint
 Dog Bags Present

Cleanout Notes: ✎

Weather: ✎

Clear Partial Clouds Full Clouds
 Rain

Temperature (F): ✎

Repairs Required? ✎

Repair Details: ✎

Add Hood Adjust Grate Block Replacement
 Brick Replacement

Specific Repairs Required: (from picklist) ✎

Last Grate Replacement: ** NO DATA IN GIS YET TO STORE THIS ✎

Last Paved Date: **NO DATA IN GIS YET TO STORE THIS ✎

Reset

Comments

Observation:

Repairs:

Recommendation:

Cond. Score 0

BMP 11 - PET WASTE AND LITTER / WATERFOWL MANAGEMENT

DESCRIPTION

Pet waste has been found to be a significant contributor of bacteria, nitrogen, and phosphorus in receiving waters where there are high populations of dogs.

Waterfowl waste not only raises bacteria concentrations to levels unsafe for water contact recreation, but it is also a source of nutrients that allow excessive growth of algae and rooted aquatic plants in receiving waters. Feeding of waterfowl by streams and ponds encourages waterfowl congregation in those areas.

POLLUTION PREVENTION APPROACH

Provide pet waste and waterfowl management awareness and education programs with the following elements:

- Encouraging residents to clean up after their pets and to properly dispose of such wastes that may be deposited in their yards, streets and parks.
- Posting signs in local parks describing the problem and urging cleanup and proper disposal of pet wastes.
- Discourage feeding of waterfowl at local parks, particularly where adjacent to waterways. Produce educational material and/or post signage as appropriate.

SUGGESTED BEST MANAGEMENT PRACTICES

- Incorporate public outreach elements like signage and informational brochures into and around parks.
- Provide information to pet owners applying for dog licenses about pet waste and stormwater pollution.
- Put waste in the trash.
- Restrict dog access to areas of parks containing swales, steep slopes and streams.
- Provide vegetated buffers of prescribed widths between dog parks and waterways, swales, storm drain inlets, gulleys and steep slopes.
- Add pet waste stations with free sanitary "pick-up" bags and proper receptacles to all Town-Owned parks, playgrounds, and reservations where dogs are allowed.

INSPECTION PROCEDURES

- Routinely inspect common dog walking areas for pet waste.
- Evaluate pet waste/water fowl waste management and document targeted effort to address "problem" areas.
- Within 2 years of MS4 Permit effective date, document largest sources and plan to address.

MAINTENANCE PROCEDURES

- Remove and properly dispose of pet waste.

TARGETED FACILITIES AND OPERATIONS

- All Town-Owned Parks, Playgrounds, and Conservation Areas
- Sidewalk and Street Rights-of-Way

TARGETED CONSTITUENTS

- Bacteria
- Nutrients
- Organics

NOTES / SPECIFIC PROCEDURES:

(List identified problem or priority areas, document changes in protocol, or unique conditions along with date(s) of implementation and personnel initials)

BMP 12 – RAIN GARDEN MAINTENANCE

DESCRIPTION

A Rain Garden is an impoundment area that uses soils, plants and microbes to treat stormwater runoff before it is infiltrated or discharged.

POLLUTION PREVENTION APPROACH

Implement applicable suggested Best Management Practices to reduce the influx of pollutants to the stormwater drainage system to the maximum extent practicable.

INSPECTION/MAINTENANCE PROCEDURES

- Rain Gardens require careful attention while plants are being established. Inspect plants frequently during the first growing season. Plants failing to thrive must be replaced in-kind.
- Inspect and remove trash monthly year-round.
- Inspect soil and repair eroded areas monthly.
- Remove dead vegetation annually in the spring and fall
- Replace dead vegetation annually each spring.
- Prune vegetation annually each spring.
- Mulch annually each spring.
- Upon failure, excavate area, scarify bottom and sides, replace soil, replant and mulch. If necessary, replace entire media and all vegetation as needed in the late spring or early summer.

TARGETED FACILITIES AND OPERATIONS

- Devoll Playground
- Dean Luce School

TARGETED CONSTITUENTS

- Sediment
- Debris
- Nitrogen
- Phosphorous
- Metals
- Trash

NOTES/SPECIFIC PROCEDURES

(List identified problem or priority areas, document changes in protocol, or unique conditions along with date(s) of implementation and personnel initials)

BMP 13 – OIL & GRIT/PARTICLE SEPARATOR MAINTENANCE

DESCRIPTION

Oil & Grit/Particle Separators are underground, flow-through storage tanks designed to remove heavy particles, floating, debris, and hydrocarbons from stormwater. They are important to prevent gasoline, oil or sand from getting into the drainage systems and may also be used for spill control. In the following places they are always required:

- Repair garages where motor vehicles are serviced and repaired, and where floor drainage is provided
- Commercial motor vehicle washing facilities
- Gasoline Stations with grease racks, grease pits or wash racks
- Facilities which have oily and/or flammable waste as a result of manufacturing, storage, repair or testing
- Public storage garages with floor drainage
- Any place where solid, oil, gasoline or other volatile liquids can enter the drainage system

POLLUTION PREVENTION APPROACH

Implement applicable suggested Best Management Practices to reduce the influx of pollutants to the stormwater drainage system to the maximum extent practicable.

SUGGESTED BEST MANAGEMENT PRACTICES

- DPW recommends sweeping garage floor frequently, depending on use.
- Target cleaning for early Spring or late Fall.
- Use oil absorbent materials on any liquid spills, such as oil or hydraulic fluid leaks.
- The facility manager should maintain a log of cleaning activities. Information should include frequency of cleanings.
- It is important to remove sediments from garage floors that can have a high concentration of pollutants including metals and hydrocarbons. These sediments can clog downstream drainage systems and transport pollutants to nearby water bodies

INSPECTION/MAINTENANCE PROCEDURES

- Oil & Grit/Particle can become a source of pollutants due to resuspension of sediment unless properly maintained.
- Maintenance includes removal of accumulated oil, grease, and sediment using a vacuum truck or other ordinary catch basin cleaning device.
- Inspect units monthly and clean in Spring and Fall, unless it is determined that less frequent inspection is warranted.

TARGETED FACILITIES AND OPERATIONS

Reference 'Stormwater Base Map Canton NPDES MS4', (Latest Edition)

TARGETED CONSTITUENTS

- Sediments
- Floating Debris
- Oil/Grease

NOTES / SPECIFIC PROCEDURES:

(List identified problem or priority areas, document changes in protocol, or unique conditions along with date(s) of implementation and personnel initials)

BMP 14 – PROPRIETARY SEPARATOR MEINTANENCE

<p>DESCRIPTION A proprietary separator is an underground, flow-through structure with a settling/separation unit to remove sediments and other pollutants. They may utilize swirling or flowing water for separation or rely solely on gravity without a swirl chamber.</p> <p>POLLUTION PREVENTION APPROACH Implement applicable suggested Best Management Practices to reduce the influx of pollutants to the stormwater drainage system to the maximum extent practicable.</p> <p>INSPECTION/MAINTENANCE PROCEDURES</p> <ul style="list-style-type: none">• Inspect and clean units in accordance with manufacturers' recommendations and requirements.• At the least, inspect no less than twice a year following installation, and no less than once a year thereafter.• Remove sediment and other trapped pollutants at frequency or level specified by manufacturer.• Vactor trucks are typically used to clean these units.	<p><u>TARGETED FACILITIES AND OPERATIONS</u> Reference Stormwater Base Map Canton NPDES MS4 (Latest Edition)</p> <p><u>TARGETED CONSTITUENTS</u></p> <ul style="list-style-type: none">• Floatables• Coarse sediment <p><u>NOTES / SPECIFIC PROCEDURES:</u> (List identified problem or priority areas, document changes in protocol, or unique conditions along with date(s) of implementation and personnel initials)</p>
---	---

BMP 15 – SEDIMENT FOREBAY MAINTENANCE

DESCRIPTION

A sediment forebay is a pre-treatment device that treats stormwater runoff before delivery to other Best Management Practices (BMPs). Sediment forebays are designed to slow incoming stormwater runoff and facilitate the gravity separation of suspended solid.

A sediment forebay can be an excavated pit, a bermed area, or a cast structure combined with a weir.

POLLUTION PREVENTION APPROACH

Implement applicable suggested Best Management Practices to reduce the influx of pollutants to the stormwater drainage system to the maximum extent practicable.

INSPECTION / MAINTENANCE PROCEDURES

- Regular maintenance of forebay is essential to decrease the chance of sediment resuspension.
- Inspect monthly for the first year of operation. Reduce inspection frequency if monthly inspection is not warranted.
- If grassed, maintain grass height between 3 and 6 inches.
- Check for signs of rilling and gulying and repair as needed.
- Clean four times per year.
- After removing sediment, replace any damaged vegetation by reseeding or resodding.

TARGETED FACILITIES AND OPERATIONS

Reference Stormwater Base Map Canton NPDES MS4 (Latest Edition)

TARGETED CONSTITUENTS

- Coarse sediment

NOTES / SPECIFIC PROCEDURES:

(List identified problem or priority areas, document changes in protocol, or unique conditions along with date(s) of implementation and personnel initials)

BMP 16 – DETENTION BASIN MAINTENANCE

DESCRIPTION

A detention basin is an impoundment for the short-term detention of stormwater. Detention basins can be excavated and/or created via construction of a berm.

POLLUTION PREVENTION APPROACH

Implement applicable suggested Best Management Practices to reduce the influx of pollutants to the stormwater drainage system to the maximum extent practicable.

INSPECTION / MAINTENANCE PROCEDURES

- Inspect basins once a year during and after rainfall event to ensure basin is functioning as designed.
- Basin inspection should include the following:
 - Outlet control structure for evidence of clogging
 - Subsidence
 - Erosion
 - Cracking or tree growth on embankment
 - Damage to the emergency spillway
 - Sediment accumulation around the outlet
 - Inadequacy of the inlet/outlet channel erosion control measures
 - Changes in the condition of the pilot channel
 - Erosion within the basin and banks
 - Twice a year, examine outlet structure of basin for evidence of clogging or outflow release velocities that are greater than design flow.
- Make any necessary repairs immediately
- Mow side slope, embankment and emergency spillway twice a year.
- Twice a year, remove trash and debris.
- Remove sediment at least once every 10 years or when basin is 50% full.

TARGETED FACILITIES AND OPERATIONS

Reference Stormwater Base Map Canton NPDES MS4 (Latest Edition)

TARGETED CONSTITUENTS

- Used primarily to control the peak rate of runoff, though does reduce:
 - Nitrogen
 - Phosphorous
 - Metals

NOTES / SPECIFIC PROCEDURES:

(List identified problem or priority areas, document changes in protocol, or unique conditions along with date(s) of implementation and personnel initials)

BMP 17 – WATER QUALITY SWALE MAINTENANCE

<p>DESCRIPTION A water quality swale is a vegetated open channel designed to treat and convey runoff without causing erosion. Water quality swales have higher pollutant removal efficiencies than ordinary grass channels.</p> <p>POLLUTION PREVENTION APPROACH Implement applicable suggested Best Management Practices to reduce the influx of pollutants to the stormwater drainage system to the maximum extent practicable.</p> <p>INSPECTION / MAINTENANCE PROCEDURES</p> <ul style="list-style-type: none">• For the first few months after construction, inspect for adequate vegetation, slope erosion, rilling and gulying. Repair eroded areas and revegetate.• After the first few months Re-inspect twice a year.• Mow as needed, at least once per year. Grass should be between three or four inches and six inches.• Protect swale from snow removal, on street parking, and disposal practices.• Remove sediment and debris manually once a year.• Re-seed as necessary.	<p><u>TARGETED FACILITIES AND OPERATIONS</u> Reference Stormwater Base Map Canton NPDES MS4 (Latest Edition)</p> <p><u>TARGETED CONSTITUENTS</u></p> <ul style="list-style-type: none">• Suspended solids• Sediment• Debris• Nitrogen• Phosphorous <p><u>NOTES / SPECIFIC PROCEDURES:</u> (List identified problem or priority areas, document changes in protocol, or unique conditions along with date(s) of implementation and personnel initials)</p>
--	--

BMP 18 – EXTENDED DRY SETENTION BASIN MAINTENANCE

DESCRIPTION

Extended dry detention basins are modified conventional dry detention basins, designed to hold stormwater for at least 24 hours to allow solids to settle and to reduce local and downstream flooding. May be designed with either a fixed or adjustable outflow device.

POLLUTION PREVENTION APPROACH

Implement applicable suggested Best Management Practices to reduce the influx of pollutants to the stormwater drainage system to the maximum extent practicable.

INSPECTION / MAINTENANCE PROCEDURES

- Inspect basin twice a year and during and after major storms. Check for the following:
 - Subsidence
 - Erosion
 - Cracking or tree growth on embankment
 - Damage to the emergency spillway
 - Sediment accumulation around the outlet
 - Inadequacy of the inlet/outlet channel erosion control measures
 - Changes in the condition of the pilot channel
 - Erosion within the basin and banks
- Twice a year, examine outlet structure of basin for evidence of clogging or outflow release velocities that are greater than design flow.
- Mow the upper-stage, side slopes, embankment and emergency spillway twice a year.
- Twice a year, remove trash and debris.
- Remove sediment at least once every five years.

TARGETED FACILITIES AND OPERATIONS

Reference Stormwater Base Map Canton NPDES MS4 (Latest Edition)

TARGETED CONSTITUENTS

- Sediment
- Debris
- Nitrogen
- Phosphorous
- Metals
- Pathogens

NOTES / SPECIFIC PROCEDURES:

(List identified problem or priority areas, document changes in protocol, or unique conditions along with date(s) of implementation and personnel initials)

APPENDIX A

FACILITY INSPECTION LOG – STORMWATER POLLUTION PREVENTION

FACILITY INSPECTION LOG – STORMWATER POLLUTION PREVENTION

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

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

	Structural Control Measure	Control Measure is Operating Effectively?	If No, In Need of Maintenance, Repair, or Replacement?	Corrective Action Needed and Notes <small>(Identify needed maintenance and repairs, or any failed control measures that need replacement)</small>
1		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
2		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
3		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair	

FACILITY INSPECTION LOG – STORMWATER POLLUTION PREVENTION

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

FACILITY INSPECTION LOG – STORMWATER POLLUTION PREVENTION

Areas of Industrial Materials or Activities exposed to storm water

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

FACILITY INSPECTION LOG – STORMWATER POLLUTION PREVENTION

	Area/Activity	Inspected?	Controls Adequate (appropriate, effective, and operating)?	Corrective Action Needed and Notes
9	Dust generation and vehicle tracking	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	
10	(Other)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	

Non-Compliance: Describe any incidents of non-compliance observed and not described above:

Additional Control Measures: Describe any additional control measures needed to comply with the permit requirements:

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