

Stormwater Management Program (SWMP)

City of Dover, NH

Permit Year 5

EPA NPDES Permit Number NHR041000

Background

Stormwater Regulation

The Stormwater Phase II Final Rule was promulgated in 1999 and was the next step after the 1987 Phase I Rule in EPA's effort to preserve, protect, and improve the Nation's water resources from polluted stormwater runoff. The Phase II program expands the Phase I program by requiring additional operators of MS4s in urbanized areas and operators of small construction sites, through the use of NPDES permits, to implement programs and practices to control polluted stormwater runoff. Phase II is intended to further reduce adverse impacts to water quality and aquatic habitat by instituting the use of controls on the unregulated sources of stormwater discharges that have the greatest likelihood of causing continued environmental degradation. Under the Phase II rule all MS4s with stormwater discharges from census designated Urbanized Area are required to seek NPDES permit coverage for those stormwater discharges.

Permit Program Background

On May 1, 2003, EPA Region 1 issued its Final General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (2003 small MS4 permit) consistent with the Phase II rule. The 2003 small MS4 permit covered "traditional" (i.e., cities and towns) and "non-traditional" (i.e., federal and state agencies) MS4 Operators located in the states of Massachusetts and New Hampshire. This permit expired on May 1, 2008 but remained in effect until operators were authorized under the 2016 MS4 general permit, which became effective on July 1, 2018.

Stormwater Management Program (SWMP)

The SWMP describes and details the activities and measures that will be implemented to meet the terms and conditions of the permit. The SWMP accurately describes the permittees plans and activities. The document should be updated and/or modified during the permit term as the permittee's activities are modified, changed or updated to meet permit conditions during the permit term. The main elements of the stormwater management program are (1) a public education program in order to affect public behavior causing stormwater pollution, (2) an opportunity for the public to participate and provide comments on the stormwater program (3) a program to effectively find and eliminate illicit discharges within the MS4 (4) a program to effectively control construction site stormwater discharges to the MS4 (5) a program to ensure that stormwater from development projects entering the MS4 is adequately controlled by the construction of stormwater controls, and (6) a good housekeeping program to ensure that stormwater pollution sources on municipal properties and from municipal operations are minimized.

Small MS4 Authorization

The NOI was submitted on

The NOI can be found at the following (document name or web address):

Authorization to Discharge under the 2017 NH Small MS4 General Permit was granted on

The Authorization Letter can be found (document name or web address):

Stormwater Management Program Team

SWMP Team Coordinator:

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SWMP Team:

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Receiving Waters

The list of receiving waters, impairments and number of outfalls discharging to each waterbody segment has been included in the Notice of Intent. Impairments have been updated as described in the TMDLs and Water Quality Limited Waters section of this plan.

Eligibility: Endangered Species and Historic Properties

Endangered Species and Historic Properties eligibility information has been included in the Notice of Intent.

MCM 1
Public Education and Outreach
Permit Part 2.3.2

Requirement Year 1

BMP: Grass and Fertilizer

Description:	Launch an outreach campaign based on Dover's use of steam as a chemical free means of performing municipal weed control. https://www.seacoastonline.com/news/20190601/dover-creates-steam-machine-to-kill-curb-side-weeds
Targeted Audience:	Residential and/or Business
Responsible Department/Parties:	Community Services
Measurable Goal(s):	To have article printed in one local newspaper and shared over social media by at least three other organizations.
Message Date:	June 1, 2019

BMP: Petwaste Disposal

Description:	Pass out brochures and information promoting proper pet waste management, impacts of improper management, and disposal requirements at the City of Dover Apple Harvest Day event. Have residence pledge to properly dispose of pet waste and enter to win high-quality pet waste collector (poop-scoop) and gift certificate for pet grooming at local pet store.
Targeted Audience:	Pet Owners
Responsible Department/Parties:	Community Services Department
Measurable Goal(s):	Approximately 20,000 people attend Apple Harvest Day. A total of 76 people signed a pledge to follow proper pet waste protocol.
Message Date:	Summer, time of license renewal, other

BMP: Disposal of Leaf and Grass Clippings

Description:	Pass out leaf and debris brochures and information promoting the use of curbside yard waste collection program at the Apple Harvest Day event. Have residents pledge to properly dispose of leaf and grass clippings and enter to win a high-quality rake and yard waste bags.
Targeted Audience:	Residential and/or Business
Responsible Department/Parties:	Community Services Department
Measurable Goal(s):	Approximately 20,000 people attend Apple Harvest Day. A total of 50 people signed a pledge to follow proper yard waste removal protocol.
Message Date:	Fall

BMP: Septic System Maintenance

Description: Distribute and promote brochure, directing to website to educate New Hampshire homeowners with septic systems on how to identify, locate and maintain those systems at the Apple Harvest Day event. Get Pumped NH is a collaborated effort between the New Hampshire Association of Septage Haulers (NHASH) and the New Hampshire Department of Environmental Services (NHDES).

Targeted Audience: Septic System Owners

Responsible Department/Parties: Community Services Department

Measurable Goal(s): Count the number of reconstructed or eliminated septic systems.

Message Date: Fall

Requirement Year 2

BMP: Grass and Fertilizer

Description: Send City of Dover Staff (Deputy Director of Community Services) as well as encourage Landscapers, designers, contractors, maintenance professionals, watershed groups, volunteer municipal board members, residents and students to attend the Landscaping for Water Quality Workshop. Landscaping for Water Quality Workshop is a two-day training provided by UNH Cooperative Extension faculty, NHDES Soak Up the Rain Program specialists, and guest speakers who are experts in their field. Participants will learn about best management practices to reduce impacts to water quality. Topics will include how to use ecological landscape practices including rain gardens, vegetative buffers, and other green infrastructure to infiltrate stormwater and absorb pollutants and how to reduce impacts from fertilizer and good housekeeping related leaf and yard waste.

Targeted Audience: Residential and/or Business

Responsible Department/Parties: Community Services Department

Measurable Goal(s): Track the number of attendees that practice landscaping in Dover.

Message Date: Event to be held on March 26 and 27.

BMP: Petwaste Disposal

Description: Distribute Every Drop pet waste brochures with each dog license issued.

Targeted Audience: Pet Owners

Responsible Department/Parties: City Clerk & Community Services Department

Measurable Goal(s): Track the number of residents who log in and take the pledge to Scoop the Poop.

Message Date: Spring

BMP: Disposal of Leaf and Grass Clippings

Description: Pass out leaf and debris brochures and information promoting the use of curbside yard waste collection program at the Apple Harvest Day event. Have residents pledge to properly dispose of leaf and grass clippings and enter to win a high-quality rake and yard waste bags.

Targeted Audience: Residential and/or Business

Responsible Department/Parties: Community Services Department

Measurable Goal(s): Increase the number of residents who take the pledge

Message Date: Fall

BMP: Developer/Construction

Description: Hold preconstruction meetings prior to permitting any commercial project that has gone through the Planning Board review process. Address stormwater and erosion control construction practices in each meeting.

Targeted Audience: Developer/Construction

Responsible Department/Parties: Track the number of pre-construction meetings held.

Measurable Goal(s): TBD

Message Date: Ongoing.

BMP: Septic System Maintenance

Description: Distribute and promote brochure, directing to website to educate New Hampshire homeowners with septic systems on how to identify, locate and maintain those systems at the Apple Harvest Day event. Get Pumped NH is a collaborated effort between the New Hampshire Association of Septage Haulers (NHASH) and the New Hampshire Department of Environmental Services (NHDES).

Targeted Audience: Septic System Owners

Responsible Department/Parties: Community Services Department

Measurable Goal(s): Count the number of reconstructed or eliminated septic systems.

Message Date: Fall

Requirement Year 3

BMP: Grass and Fertilizer

Description: Organic gardening program (virtual)

Targeted Audience: Residential &/or Business

Responsible Department/Parties: Library

Measurable Goal(s): Reach at least 50 attendees. (Goal met – 248 attended)

Message Date: Spring

BMP: Petwaste Disposal

Description: Distribute Every Drop pet waste cards with each dog license issued.

Targeted Audience: Pet Owners

Responsible Department/Parties: City Clerk & Community Services Department

Measurable Goal(s): Track the number of residents who log in and take the pledge to Scoop the Poop.

Message Date: March 2021

BMP: Disposal of Leaf and Grass Clippings

Description: Due to COVID, we were not able to hold our regular outreach and raffle at the Apple Harvest Day event. This year, flyers were put out in various locations around the city announcing the leaf and debris pick-up and drop-off options. Additionally, there was public outreach through the Dover Download.

Targeted Audience: Residential and/or Business

Responsible Department/Parties: Community Services Department

Measurable Goal(s): Count the number of folks receiving and reading the Dover Download messaging set out.

Message Date: Fall

BMP: Industrial Site Stormwater Mailer

Description: Mail information to all NHDES registered industrial sites in the City.

Targeted Audience: Industrial

Responsible Department/Parties: Community Services Department

Measurable Goal(s): Provide information to all NHDES registered industrial sites in the City.

Message Date: Spring 2021

BMP: Septic System Maintenance

Description: Septic Smart Week messaging, provided by NHDES included in the City of Dover's, Dover Download. Dover Download is a weekly message to residents that includes pertinent information for the week.

Targeted Audience: Septic System Owners

Responsible Department/Parties: Community Services Department

Measurable Goal(s): Count the number of folks receiving and reading the Dover Download messaging set out.

Message Date: September 18, 2020

Requirement Year 4

BMP: Grass and Fertilizer

Description:	Host the “Community Conversations” meeting in cooperation with PREP and CLF. Discuss how Dover, and specifically individuals are connected to the waterways and estuary. Focus messaging on proper grass and fertilizer as a way individuals can make a difference.
Targeted Audience:	Residential and/or Business
Responsible Department/Parties:	Community Services
Measurable Goal(s):	Attract a minimum of 20 residents and business members to the event.
Message Date:	Spring

BMP: Petwaste Disposal

Description:	Distribute Every Drop pet waste card with each dog license issued. Also, create new signage to accompany dog waste bag dispensers.
Targeted Audience:	Pet Owners
Responsible Department/Parties:	Community Services
Measurable Goal(s):	Track the number of residents who log in and take the pledge to Scoop the Poop.
Message Date:	April

BMP: Disposal of Leaf and Grass Clippings

Description:	Pass out leaf and debris brochures and information promoting the use of curbside yard waste collection program at the Apple Harvest Day event. Raffle off a rain-barrel for residents committing to property yard maintenance. Work with local partner to develop a City of Dover compost facility. Facility is privately owned but receives all yard waste from residents who bring to the City Recycling Center.
Targeted Audience:	Residential and/or Business
Responsible Department/Parties:	Community Services
Measurable Goal(s):	100 raffle entries
Message Date:	Fall

BMP: Developer/Construction

Description:	Distribute and educate developers and contractors about the new EPA Construction General Permit requirements. Specifically, include a discussion of the Erosion Control requirements at every pre-construction meeting for all planning board approved projects.
Targeted Audience:	Developer/Construction
Responsible Department/Parties:	Community Services.
Measurable Goal(s):	Educate all developers and contractor who participate in preconstruction meetings.
Message Date:	Ongoing.

BMP: Septic System Maintenance

Description:	Sent the NHDES created “Get Pumped” brochure along with City of Dover cover letter to all properties with septic systems within the city.
Targeted Audience:	Septic System Owners
Responsible Department/Parties:	Community Services Department
Measurable Goal(s):	Reach all septic owners.
Message Date:	Fall

Requirement Year 5

BMP: Grass and Fertilizer

Description:	As part of the ongoing discussion around the Stormwater and Flood Resiliency Utility, staff are providing a comprehensive outreach effort to educate the public about the importance of stormwater and nutrient loading. This includes loading from grass and fertilizers.
Targeted Audience:	Residential and/or Business
Responsible Department/Parties:	Environmental Projects Manager
Measurable Goal(s):	Host one outreach meeting.
Message Date:	Spring

BMP: Petwaste Disposal

Description:	Distribute Every Drop pet waste card with each dog license issued.
Targeted Audience:	Pet Owners
Responsible Department/Parties:	City Clerk
Measurable Goal(s):	Send out 2000 messages

Message Date: April

BMP: Disposal of Leaf and Grass Clippings

Description: Pass out leaf and debris brochures and information promoting the use of curbside yard waste collection program at the Apple Harvest Day event. Raffle off a rain-barrel for residents committing to property yard maintenance.

Work with local partner to develop a City of Dover compost facility. Facility is privately owned but receives all yard waste from residents who bring to the City Recycling Center.

Targeted Audience: Residential &/or Business

Responsible Department/Parties: Environmental Projects Manager

Measurable Goal(s): 100 raffle entries

Message Date: Fall

BMP: Industrial Site Stormwater Mailer

Description: Mail information to all NHDES registered industrial sites in the City.

Targeted Audience: Industrial

Responsible Department/Parties: Community Services Department

Measurable Goal(s): Provide information to all NHDES registered industrial sites in the City.

Message Date: February 2023

BMP: Septic System Maintenance

Description: Septic Smart Week messaging, provided by NHDES included in the City of Dover's, Dover Download. Dover Download is a weekly message to residents that includes pertinent information for the week.

Targeted Audience: Septic System Owners

Responsible Department/Parties: Community Services Department

Measurable Goal(s): Count the number of folks receiving and reading the Dover Download messaging set out.

Message Date: September 2022

MCM 2
Public Involvement and Participation
Permit Part 2.3.3

BMP: Public Review of Stormwater Management Program

Location of Plan and/or Web Address:

<https://www.dover.nh.gov/government/city-operations/planning/stormwater/index.html>

Responsible Department/Parties: Community Services Department

Measurable Goal(s): Stormwater Management Plan is publicly available

BMP: Public Participation in Stormwater Management Program Development

Description: Review the Stormwater Management Program annually at the Dover Utilities Commission.

Responsible Department/Parties: Community Services Department.

Measurable Goal(s): Annual public input provided

MCM 3
**Illicit Discharge Detection and
Elimination (IDDE) Program**
Permit Part 2.3.4

BMP: IDDE Legal Authority

See Illicit Discharge Detection and Elimination (IDDE) Plan

BMP: Sanitary Sewer Overflow (SSO) Inventory

See Illicit Discharge Detection and Elimination (IDDE) Plan

BMP: Map of Storm Sewer System

See Illicit Discharge Detection and Elimination (IDDE) Plan

BMP: IDDE Program

See Illicit Discharge Detection and Elimination (IDDE) Plan

BMP: Employee Training

See Illicit Discharge Detection and Elimination (IDDE) Plan

MCM 4
Construction Site Stormwater Runoff Control
Permit Part 2.3.5

BMP: Sediment and Erosion Control Ordinance

Completed (by May 1, 2008)

Ordinances Link or Reference:

Section 153-14A(3)(d) of the City of Dover Site Review Regulations and the City of Dover, New Hampshire, Community Services - Construction Guidelines, Permits, Rules and Regulations
(<https://www.dover.nh.gov/government/city-operations/community-services/index.html>)

Department Responsible for Enforcement:

Community Services Department through inspections, ultimately Planning Department through revoking approved Site Plan Approval if approved practices are not being followed.

BMP: Site Plan Review Procedures

Written procedures completed (by year 1)

Document Name and/or Web Address:

Section 153-14 of the City of Dover Site Review Regulations outlines applicability and review process.

Department Responsible for Enforcement:

The Planning Department initiates the review process. Review for stormwater related items is conducted by a representative from the Community Services (engineering) Department.

Description:

Review proposed projects to ensure adherence to the established applicable regulations.

Measurable Goal(s):

Conduct site plan review of 100% of projects according to the procedures outlined above.

BMP: Site Inspections and Enforcement of Sediment and Erosion Control Measures Procedures

Completed (by year 1)

Document Name and/or Web Address:

Section 153-14 of the City of Dover Site Review Regulations and the City of Dover, New Hampshire, Community Services - Construction Guidelines, Permits, Rules and Regulations
(<https://www.dover.nh.gov/government/city-operations/community-services/index.html>)

Department Responsible for Enforcement:

Community Services Department through inspections, ultimately Planning Department through revoking approved Site Plan Approval if approved practices are not being followed.

Description:

Inspect construction sites to ensure adherence to the established applicable regulations.

Measurable Goal(s):

Inspect 100% of construction sites as outlined in the above document and take enforcement actions as needed.

MCM 5

Post Construction Stormwater Management in New Development and Redevelopment

Permit Part 2.3.6

BMP: Post-Construction Ordinance

Completed (by year 2)

Town Ordinances Link or Reference: Section 153-14 of the City of Dover Site Review Regulations.

Department Responsible for Enforcement: Community Services Department through inspections, ultimately Planning Department through revoking approved Site Plan Approval if approved practices are not being followed.

BMP: Street Design and Parking Lot Guidelines Report

Completed (by year 4)

Document Name and/or Web Address: Section 153-14 of the City of Dover Site Review Regulations requires minimum parking standards apply. City of Dover Complete Streets and Traffic Calming Standards require the use of green infrastructure be incorporated into the design or redesign of City streets.

Department Responsible for Enforcement: The Planning Department and Community Services (engineering) Department.

Description: The Planning Department and Community Services (engineering) Department.

Measurable Goal(s): Recommendations are implemented by year 4 with progress reported annually.

BMP: Stormwater Treatment Structures Inspection and Maintenance Procedures

Written Document Completed (by year 3)

Document Name and/or Web Address: Process is outlined in this SWMP document.

Responsible Department/Parties: Community Services Department

Description: Structural stormwater BMPs will be inspected annually at a minimum and maintained as needed.

Basic inspection forms are as follow, each BMP inspection will be completed and a copy of the inspection will be logged as an inspection work order in the City of Dover VueWorks asset management plan. Work required for BMP’s will be logged as a service request for the Public Works Highway Department to address.

Measurable Goal(s): Inspect and Maintain 100% of treatment structures to ensure property function.

BMP: Green Infrastructure Report

Completed (by year 4)

Document Name and/or Web Address:

Department Responsible for Enforcement:

Description: Community Services has reviewed site plan regulations as well as complete street guidelines to ensure that code is not in conflict with the MS4 goals.

Measurable Goal(s): Recommendations are implemented by year 4 with progress reported annually.

BMP: List of Municipal Retrofit Opportunities

Completed (by year 4)

Document Name and/or Web Address:

Department Responsible for Enforcement:

Description: Through the progression of accepting the EPA Total Nitrogen General Permit, the City of Dover has committed to creating and following a list of projects focused on retrofitting existing properties to improve stormwater, and more particularly Nitrogen Loading to the Great Bay. Additionally, NHDES in collaboration with UNHSC created Pollutant Hot Spots – Priority Ranked Parcel Summary Report, from which we were able to develop a Nitrogen Source Identification Report which will further enable us to plan projects in the future.

Measurable Goal(s): The list is completed by year 4 and updated as needed.

MCM 6

Good Housekeeping and Pollution Prevention for Permittee Owned Operations

Permit Part 2.3.7

PERMITTEE OWNED FACILITIES

Requirements Due by Year 2

Description: Dover has established procedures to address the proper use, storage, and disposal of pesticides, herbicides, and fertilizers (PHF) including minimizing the use of these products in accordance with manufacturer's instructions; trash management; pet waste disposal; waterfowl management; and erosion and poor vegetative cover and as outlined in Section 2.3.7.1 a. of the MS4 permit.

Municipal Parks and Open Space Inventory

The following is a list of properties covered by these procedures and include all municipal and county facilities where fertilizers are stored, mixed, applied, recycled, or disposed of, and at municipal properties in which lawns or vegetation are mowed, trimmed, and maintained (e.g. parks, golf courses, and open space properties) located within the MS4 area. This inventory shall be updated annually during SWMP review.

LOCATION	AREA sq ft	Contractor	Lawn Mowing	Landscaping	Fertilizing	Pesticide/Herbicide	Trash Mgmt	Pet Waste	Waterfowl Mgmt.	Other Mgmt.
Willand Pond	15,612		x				x	x	x	
Miracle Mile (only 1 side from hospital to Glenwood Ave)	5,703		x				x	x	x	
Glenwood & Whittier (strip on stop sign side of road)	5,256		x				x	x	x	
Sixth & Whittier	4,648		x				x	x	x	
Sixth & Glenwood (2 corners)	3,185		x				x	x	x	
Sixth and Indian Brook Drive (both corners)	14,000		x				x	x	x	
262 Sixth St- (grass strip btwn Fire Station & Liberty Mutual)	14,300		x				x	x	x	
262 Sixth St North End Fire Station	57,326		x		x	x	x	x	x	
Garrison Hill Park	153,000		x				x	x	x	
Amanda Howard Park	18,000		x				x	x	x	
Tuttle Lane and Middle Rd int	560		x				x	x	x	
Austin Tuttle Cemetery	22,225		x				x	x	x	
Gerrish Rd and Spur Rd (island)	6,200		x				x	x	x	
Pinkham Cemetery (near New Bellamy Lane)	11,737		x				x	x	x	
Roberts Cemetery	35,360		x				x	x	x	
Court St/Back Rd/Middle Rd island near cemetery	2,100		x				x	x	x	
Venture Drive	192,158		x				x	x	x	
Production Drive	10,770		x				x	x	x	
Park St Park	45,738		x	x			x	x	x	
Central Avenue & Jenness St	6,500		x				x	x	x	
Jenness St Hill	3,400		x				x	x	x	
Stark Ave by Dover sign	30,225		x	x			x	x	x	
Stark Ave across from Watson Lane	30,225		x				x	x	x	

Locust St & Central Ave	700		x				x	x	x	
Rutland @ Central to 1st house (by old RR tracks)	1,393		x				x	x	x	
Store 24 - behind guardrail	5,575		x				x	x	x	
Durham Rd - by school lights (near bridge)	5,217		x				x	x	x	
Morningside Park - ballfield	153,000		x				x	x	x	
Guppy Park (Pool, Arena)			x				x	x	x	
Guppy Park - Dover Sign			x	x			x	x	x	
Portland Ave (grass strip)	6,596		x				x	x	x	
Atlantic and Cocheco St (island)	2,752		x				x	x	x	
Hancock Park	74,555		x				x	x	x	
Portland & Chapel St	3,380		x				x	x	x	
Orchard St lot	29,226		x	x			x	x	x	
Henry Law Park (front & pool areas)(back parking lot to Washington St)	102,024		x	x	x	x	x	x	x	
Public Works Facility Mast Rd	68,163		x	x			x	x	x	
Bellamy Park & parking lot (Camp Sun & Fun)	141,625		x				x	x	x	
Washington & Arch	1,950		x				x	x	x	
Strip across from Arch St - on Washington up to Highland St	3,276		x				x	x	x	
Washington & Fourth	21,360		x				x	x	x	
River St(canoe launch to bridge)	10,880		x				x	x	x	
George St (island)	200		x	x			x	x	x	
Applevale Park	48,478		x				x	x	x	
Back River & Mast Rd	6,840		x				x	x	x	
Path - Back River Rd to Danielle Lane-	10,712		x				x	x	x	

1 pass each side of pass										
Spruce Lane & Mast Rd	4,166		x				x	x	x	
2 Islands @ Spruce Lane & Back River Rd	1,400		x				x	x	x	
Island @ Piscataqua & Drew Rd	3,317		x				x	x	x	
Veterans Center	9,400		x				x	x	x	
Bellamy Park around footbridge	3,150		x				x	x	x	
Bellamy Rd & Hartswood Rd	1,500		x				x	x	x	
Hartswood Rd - fence line	19,000		x				x	x	x	
Bellamy/Rt 155 (left side)	18,900		x				x	x	x	
Central Ave @ RR tracks across fm Dunkin Donuts	770		x				x	x	x	
Main St (both sides)	3,450		x				x	x	x	
School St parking lot	1,002		x				x	x	x	
Upper Square	19,000		x	x	x	x	x	x	x	
Railroad station	35,298		x	x			x	x	x	
Chestnut St Lot by Dover Delight	890		x				x	x	x	
1st St Parking Lot	1,520		x				x	x	x	
Green St	2,215		x				x	x	x	
City Hall	5,800		x	x	x	x	x	x	x	
Library	44,548		x	x	x	x	x	x	x	
McConnell Center	64,768		x	x	x	x	x	x	x	
Arena - (done by contractor - Bob Meserve)		x	x				x	x	x	
Central & Glenwood - (done by Walgreens)		x	x				x	x	x	
Fish Ladder - (usually done by Mill Building)		x	x				x	x	x	
Tolend & Whittier - (done by Dover Housing Authority)		x	x				x	x	x	

Weeks Lane&Central - (by traffic light box-done by Pizza Hut)		x	x				x	x	x	
Crosby Rd entrance - done by contractor - Bob Sherwood		x	x				x	x	x	
Drew Cemetery - Garrison Rd - done by contractor - Bob Meserve		x	x				x	x	x	
Henry Law Park - done by contractor		x	x				x	x	x	
Shaws Lane Ballfields - done by contractor - L&H Landscape Co.2009		x	x	x	x		x	x	x	
<u>BALLFIELDS</u>										
Garrison School ballfields & playground area - done by Bob Meserve		x	x	x	x		x	x	x	
Guppey Ball field - done by contractor - Bob Meserve		x	x				x	x	x	
Horne St School - done by contractor - Bob Meserve		x	x				x	x	x	
Long Hill Park multipurpose field - done by contractor - Bob Meserve		x	x	x	x		x	x	x	
Maglaras Park - done by contractor - Bob Meserve		x	x	x	x		x	x	x	
Sullivan Drive - done by contractor - Bob Meserve		x	x	x	x		x	x	x	
Woodman Park - done by contractor - Bob Meserve		x	x	x	x		x	x	x	
Morningside Park - done on		x	x							

Tuesday - by city crew										
<u>ADOPT A SPOT</u>				x			x	x	x	x
Chestnut & Central				x			x	x	x	x
Glenwood & Whittier				x			x	x	x	x
Immigrant Park				x			x	x	x	x
Pierce St & Broadway				x			x	x	x	x
Rte 108 & Back River Rd Islands				x			x	x	x	x
St. John & Broadway				x			x	x	x	x
Tuttle Square				x			x	x	x	x

Responsible Department/Parties: City of Dover, Community Services/ Facility and Grounds

Training:

City staff does not handle or apply chemicals such as fertilizers or pesticides etc. so no specific training provided for this. Each year there is safety and operation training on the mowers. The mowing is kept to a weekly schedule, and clippings are left in place.

All contractors involved in Parks and Open Spaces operations are provided the information in this section of the SWMP. See City mowing and treatment bids outlining required practices, and list of all used chemical treatments.

Best Management Practices

The following best management practices (BMPs) aim to minimize the concentration of nitrogen and phosphorus in stormwater runoff:

Lawn Maintenance

Landscape Maintenance

- Mulch-mow grasses whenever possible; grass clippings are a natural fertilizer.
- Sweep grass clippings from sidewalks or streets back onto grassy areas.
- Dispose of organic wastes by composting whenever possible. When composting is not possible, dispose of organic wastes at an approved disposal facility. In both cases, ensure that runoff from sites does not enter a waterway.
- Do not wash down or dispose of lawn clippings, leaves, tree trimmings, or other landscape waste in a storm drain, drainage ditch, or open body of water.
- Consider landscape design that utilizes native, drought tolerant vegetation.

See following link for contractor requirements as outlined in the bid documents.

https://online2.dover.nh.gov/search/mow/public/1/deptnum/3/cab/Bids_and_Requests_for_Proposal

Application of Fertilizers

- Properly calibrate all fertilizer application equipment to ensure proper application rate.

- Time the application of fertilizers to coincide with the manufacturer's recommendation for best results.
- Consider using fertilizers with low or no levels of phosphorus.
- Consider use slow release fertilizers.

See following link for contractor requirements as outlined in the bid documents.

https://online2.dover.nh.gov/search/turf/public/1/deptnum/3/cab/Bids_and_Requests_for_Proposal

Storage and Handling of Fertilizers

- Store and mix fertilizers inside a covered area that has an impervious (i.e. hard or paved) surface, preferably indoors, so that spills or leaks will not contact soils or waters.
- Do not handle or dispose of fertilizers, pesticides, herbicides, or fungicides in or near storm drains, irrigation ditches, or surface water.
- Dispose of excess or leftover chemicals according to the instructions on the label, preferably on the target pest, vegetated area, or as hazardous waste.

Trash Management

- Routinely pick up any trash bags left along trails, parks, or streets.
- Empty trash cans and dumpsters regularly.
- Keep lids on all trash cans and dumpsters.

Pet Waste Cleanup

- Post signs in areas concerning the proper disposal of pet wastes.

Waterfowl Waste Management

- Discourage waterfowl from living in stormwater infrastructure.

Erosion and Poor Vegetative Cover

- Install temporary sediment and erosion control stabilization measures as needed.
- Re-establish grass or native plants, especially within 50 ft of a surface water.

Measurable Goal(s): Implement the BMP's on 100% of the parks and open spaces.

BMP: Buildings and Facilities Operations and Maintenance Procedures

Requirements Due by Year 2

Description: Evaluate the use, storage, and disposal of petroleum products and other potential stormwater pollutants. Provide employee training as necessary, ensure that Spill Prevention Plans are in place. Develop management procedures for dumpsters and other waste management equipment. Sweep lots and areas surrounding the facilities clean to reduce runoff of pollutants in accordance with Section 2.3.7.1 b. of the MS4 permit.

Municipal Buildings and Facilities Inventory

The following is a list of properties covered by these procedures and include all schools, municipal offices, police and fire stations, municipal pools, parking garages, etc. located within the MS4 area. This inventory shall be updated annually during SWMP review.

LOCATION	Address	Services Contracted	Trash Management	Building Maintenance	Pollutant Storage	Petroleum Storage	Other Mgmt.
McConnell Center	61 Locust St / 30 St Thomas St		x	x	x		
Indoor Pool	6 Washington St		x	x	x		
Guppey Park /Jenny Thompson Outdoor Pool	150 Portland Ave		x	x	x		
Ice Arena	110 Portland Ave		x	x	x		
Shaws Lane Rec bldg 2009	3 Shaws Lane		x	x			
Metal Storage bldg	River St		x	x			
Bellamy Park Bldg	23 Bellamy/48 Knox Marsh Rd		x	x			
Public Parking Garage	46 Orchard St						
Police Facility	46 Orchard St		x	x			
South End Fire Station	25 Durham Rd		x	x	x		
Central Fire Station	9-11 Broadway		x	x	x		
North End Fire Station 2009	262 Sixth St		x	x	x		
Veteran's Bldg	156 Back River Rd		x	x			
Pine Hill F&G Facility	Court Street		x	x	x	x	
City Hall	288 Central Ave		x	x			
PW Facility	271 Mast Rd		x	x	x		
Recycling Center	265 Mast Rd		x	x	x		
Dover Public Library	73 Locust St		x	x			
Transportation Center & Platform	32 Chestnut St		x	x			
WWTP Admin Bldg-Process Bldg	484 Middle Rd		x	x			
WWTP Blower Building	484 Middle Rd		x	x	x		
WWTP Composting Facility	484 Middle Rd		x	x	x		
Woodman Park School	11 Towle Avenue	x	x	x			
Horne Street School	78 Horne Street	x	x	x			
Garrison School	50 Garrison Road	x	x	x			
Middle School	16 Daley Drive	x	x	x			
Dover High/CTC	25 Alumni Drive	x	x	x			
Barn	25 Alumni Drive	x	x	x			
Alternative Sch	50 Alumni Dr	x	x	x			
Tin Shed	Bellamy Rd	x	x	x			

Bouchard Water Plant	104 French Cross Rd		x	x	x		
Griffin Water Treatment Plant	355 Mast Rd		x	x	x		
Lowell Ave Water Treatment Plant	11 Lowell Ave		x	x	x		
Lowell Ave NEPZ Water Booster Station	16 Lowell Ave		x	x			
River St Pumping Station	31 River St		x	x	x		
Well Smith - Cummings	40 Smithwell Rd		x	x	x		
Well Campbell	128 Glen Hill Rd		x	x	x		
Well Calderwood chem	110 Glen Hill Rd		x	x	x		
Well Calderwood pump	110 Glen Hill Rd		x	x			
Well Hughes	19 Old Stage		x	x	x		
Well House Griffin	355 Mast Rd		x	x			
Well Willand Pond	24 New Rochester Rd		x	x	x		
Well Ireland	275 Mast Rd		x	x	x		
Isinglas Recharge Pump House	Glen Hill Rd		x	x			
W/W Pumping Station COCHECO	25 Coheco St		x	x			
W/W Pumping Station EVERGREEN	31 Sullivan DR		x	x			
W/W Pumping Station CRANBROOK	16b Cranbrook Ln		x	x			
W/W Pumping Station STRAFFORD	56a New Rochester Rd		x	x			
W/W Pumping Station HAMPSHIRE	47 Hampshire Cir		x	x			
W/W Pumping Station CTY FARM LIFT	County Farm Rd		x	x			
W/W Pumping Station WATSON	5 Sandpiper Ln		x	x			
W/W Pumping Station CROSBY	182 Crosby Rd		x	x			
W/W Pumping Station MAST	135 Mast Rd		x	x			
W/W Pumping Station SPRUCE	5a Spruce Ln		x	x			
W/W Pumping Station MIDDLE SCHL	18 Daley Dr		x	x			
W/W Pumping Station IRELAND	275 Mast Rd		x	x			
W/W Pumping Station MILL	60 Mill St		x	x			

W/W Pumping Station CHARLES	25 Charles St		x	x	x		
W/W Pumping Station MT PLEASANT	18 Back Rd		x	x			
W/W Pumping Station BRICKYARD	22A Issac Lucas Cir		x	x			
W/W Pumping Station VARNEYBROOK	89 Gerrish Rd		x	x	x		
W/W Pumping Station BOSTON	12 Boston Harbor Rd		x	x			
W/W Pumping Station LEIGHTON WAY	14 Leighton Way		x	x			

Responsible Department/Parties: See Table

Training:

Annual maintenance procedures training will be made available to employees involved in Municipal Building and Facilities operations. Training and procedures included as part of custodian annual performance review, or at time of hire. All contractors involved in Building and Facilities operations are provided the information in this section of the SWMP.

Best Management Practices

The following best management practices (BMPs) will be implemented at all municipally owned or operated buildings and facilities located within the MS4 area:

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

All liquid and solid waste must be disposed of properly. Some of the most common sources of pollution at municipal facilities are a result of littering, improper collection of debris, and improper disposal of solid or liquid waste.

- All waste and recycling receptacles must be leak-tight with tight-fitting lids or covers.
- Keep lids on dumpsters and containers closed at all times unless adding or removing material.
- Do not locate dumpsters over or adjacent to catch basins.
- Clean up any liquid leaks or spills with dry cleanup methods.
- Arrange for waste or recycling to be picked up regularly and disposed of at approved disposal facilities.
- Never place hazardous materials, liquids, or liquid-containing wastes in a dumpster or recycling or trash container.
- Conduct periodic inspections of solid and liquid waste storage areas to check for leaks and spills.

Building Maintenance

- Sweep parking lots and keep areas surrounding facilities clean to reduce runoff of pollutants.

Storage of Petroleum Products and Potential Pollutants

- Evaluate the use, storage and disposal of petroleum products and other potential stormwater pollutants.
- Routinely inspect buildings and facilities for areas of potential discharges or leaks.

Spill Response

- Ensure that spill prevention plans are in place (these should be included for maintenance garages, public works yards, transfer stations and other waste handling facilities see individual SWPPPs).
- Notify the facility's supervisor immediately and ensure that other staff and/or members of the public are aware of the spill and removed from the spill area as appropriate.
- Coordinate with fire department as necessary.
- For large oil spills, NHDES Petroleum Spill Response program will be notified immediately at (603) 271-3644 and an emergency response contractor would be called in.
- Materials and equipment necessary for spill cleanup may include but are not limited to brooms, dust pans, mops, rags, gloves, goggles, kitty litter, sand, sawdust, and plastic and metal trash containers specifically for the purpose.

Measurable Goal(s): Implement the BMP's on 100% of buildings and facilities.

BMP: Vehicles and Equipment Operations and Maintenance Procedures

Requirements Due by Year 2

Description: The City of Dover has established procedures for the storage of permittee vehicles. Vehicles with fluid leaks shall be stored indoors and containment shall be provided. Evaluate fueling areas owned by the permittee or used by permittee vehicles. Procedures have been established to ensure that vehicle wash waters are not discharged to municipal stormdrains or surface waters. Procedures have been established as outlined below and in accordance with Section 2.3.7.1.c of the MS4 permit.

Responsible Department/Parties: City of Dover, Community Services – Fleet Services and Fire Department

Training: Annual maintenance procedures training will be made available to employees involved in Vehicle Equipment operations.

Best Management Practices The following best management practices (BMPs) will be implemented for all municipally owned or operated vehicles and equipment:

Vehicle Storage

- Vehicles with fluid leaks shall be stored in doors or containment shall be provided until repaired.

Vehicle Maintenance

- Conduct routine inspections of heavy equipment and vehicles to proactively identify maintenance needs or potential leaks.
- Pre and Post trip inspections are completed each time heavy equipment is used.
- Perform routine preventive maintenance to ensure heavy equipment and vehicles are operating optimally.

- Recycle or dispose of waste properly and promptly.
- Sweep and pick up trash and debris as needed.
- Do not dump any liquids or other materials outside, especially near or in storm drains or ditches.

Fueling

- Fueling areas owned or operated by the municipality should be covered if possible.
- Fueling areas should be evaluated to ensure that pollutants (e.g., gasoline or oil) do not enter the MS4.
- The City of Dover currently utilizes the NHDOT fueling facility or Irving Gas Station.

Vehicle Washing Procedures

Outdoor washing of municipal vehicles should be avoided. Vehicle wash waters shall not be discharged to the MS4 or to surface waters.

- The City of Dover has a large wash bay for any heavy equipment that directs all water to the sanitary sewer system.
- Smaller vehicles including all police vehicles are washed at commercial car wash facilities with recycled waters.

In locations such as the fire stations, where no alternative wash system is available, and full containment of wash water cannot be achieved, adhere to the following procedures:

- Avoid discharge of any wash water directly to the storm drainage system or surface water (e.g., stream, pond, or drainage swale)
- Grassy and pervious (porous) surfaces may be used to promote direct infiltration of wash water, providing treatment before recharging groundwater and minimizing runoff to an adjacent stormwater system. Pervious surfaces or other infiltration-based systems should not be used within wellhead protection areas or within other protected resources.
- Minimize the use of water to the extent practicable.
- Where the use of detergent cannot be avoided, use of a biodegradable, phosphate-free detergent is preferred.
- Minimize engine or undercarriage cleaning.

Measurable Goal(s): Implement the BMP’s on 100% of the vehicles.

INFRASTRUCTURE

BMP: Catch Basin Cleaning Program

Written Document Completed (by year 1)

Document Name and/or Web Address:

Process is outlined in this SWMP document.

Responsible Department/Parties:

Community Services Department

Description:

The City of Dover performs routine inspections, cleaning and maintenance of approximately 3,075 catchbasins that are located within the MS4 regulated area. The city will implement the following catch basin inspection and cleaning procedures to reduce the discharge of pollutants from the MS4.

- Routine inspection and cleaning of catch basins. Catch basins should be cleaned such that they are no more than 50 percent full at any time. The city has inspected all

catchbasins and established a schedule of bi-annual inspection and cleaning to meet the “50 percent” goal.

- If a catch basin sump is more than 50 percent full during two consecutive routine inspections or cleaning events, the finding will be documented, the contributing drainage area will be investigated for sources of excessive sediment loading, and to the extent practicable, contributing sources will be addressed. If no contributing sources are found, the inspection and cleaning frequency will be increased.
- Catch basins located near construction activities (roadway construction, residential, commercial, or industrial development or redevelopment) will be inspected and cleaned more frequently if inspection and maintenance activities indicate excessive sediment or debris loadings (i.e., catch basins more than 50 percent full). Priority will also be given to catch basins that discharge to impaired waters.
- The following information will be included in each annual report:
 - Any action taken in response to excessive sediment or debris loadings
 - Total number of catch basins
 - Number of catch basins inspected
 - Number of catch basins cleaned
 - Total volume or mass of material removed from catch basins.

Measurable Goal(s): All catch basins are cleaned in accordance to the document above such that no catch basin is more than 50% full at any given time.

BMP: Street Sweeping Program

Written Document Completed (by year 1)

Document Name and/or Web Address:

Process is outlined in this SWMP document.
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Responsible Department/Parties:

Community Services Department

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

- All streets with the exception of rural uncurbed roads with no catch basins or high-speed limited access highways will be swept and/or cleaned a minimum of once per year in the spring (following winter activities such as sanding).
- More frequent sweeping will be considered for targeted areas based on pollutant load reduction potential, inspections, pollutant loads, catch basin cleaning or inspection results, land use, impaired waters, or other factors.
- More frequent sweeping is required for municipally-owned streets and parking lots in areas that discharge to certain nutrient-impaired waters. Sweeping must be performed in these areas a minimum of two times per year, once in the spring (following winter activities such as sanding) and at least once in the fall (Sept 1 – Dec 1; following leaf fall)
 - NOTE that due to staffing issues in the Highway Department, the City is unable to sweep all curbed streets in the fall post-leaf drop. As allowed by Appendix H of the permit, the City of Dover has chosen to implement a fall leaf litter collection program to effectively minimize leaf litter in lieu of the post-leaf drop sweeping.
- For rural uncurbed roadways with no catch basins and limited access highways, the

city will either meet the minimum frequencies above, or develop and implement an inspection, documentation, and targeted sweeping plan outlining reduced frequencies within two (2) years of the effective date of the permit and submit such plan with its year one annual report.

- The following information will be included in each annual report:
 - Number of miles cleaned, or the volume or mass of material removed

Measurable Goal(s): Annually sweep 100% of all streets and municipal parking lots in accordance with the schedule listed above.
Provide curb-side leaf removal in the fall.

BMP: Winter Road Maintenance Program

Written Document Completed (by year 1)

Document Name and/or Web Address: Salt Reduction Plan

Responsible Department/Parties: Community Services Department

Description: Salt Reduction Plan

Measurable Goal(s): Fully implement Salt Reduction Plan.

BMP: Stormwater Treatment Structures Inspection and Maintenance Procedures

Written Document Completed (by year 1)

Document Name and/or Web Address: Process is outlined in this SWMP document.

Responsible Department/Parties: Community Services Department

Description: Structural stormwater BMPs will be inspected annually at a minimum and maintained as needed.

Measurable Goal(s): Inspect and Maintain 100% of treatment structures to ensure property function.

BMP: SWPPP

Written Document Completed (by year 2)

Document Name and/or Web Address:

Mast Road Facility SWPPP Facility and Grounds SWPPP
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Responsible Department/Parties:

Community Services Department

Description:

Develop and implement a SWPPP for all municipally owned or operated facilities in accordance with Section 2.3.7.2 of the MS4 permit.

Measurable Goal(s):

Implement SWPPP's for the Mast Road Public Works and Recycling Center Facility, and the Facility and Grounds Court Street Facility.

Annual Evaluation

Year 1 Annual Report

Document Name and/or Web Address:

<https://www.epa.gov/npdes-permits/regulated-ms4-new-hampshire-communities>

Year 2 Annual Report

Document Name and/or Web Address:

<https://www.epa.gov/npdes-permits/regulated-ms4-new-hampshire-communities>

Year 3 Annual Report

Document Name and/or Web Address:

<https://www.epa.gov/npdes-permits/regulated-ms4-new-hampshire-communities>

Year 4 Annual Report

Document Name and/or Web Address: TBD

Will be posted on the EPA website. <https://www.epa.gov/npdes-permits/regulated-ms4-new-hampshire-communities>

Year 5 Annual Report

Document Name and/or Web Address: TBD

Will be posted on the EPA website. <https://www.epa.gov/npdes-permits/regulated-ms4-new-hampshire-communities>

Year X Annual Report

Document Name and/or Web Address: TBD

Will be posted on the EPA website. Link to website to be included once completed.

TMDLs and Water Quality Limited Waters

Bacteria/Pathogens

Per 2018 303d list the following waterbodies are water quality limited where Bacteria is the cause of impairment:

Applicable Receiving Waterbody(ies) as listed in applicable 303d lits			Name

Per Appendix H the following water bodies are subject to a Bacteria TMDL. Please note that updated lists of waterbodies with TMDLs are not provided within this document. The permit states that, “Approved TMDLs” for discharges from the permittee’s MS4 are those that have been approved by EPA as of the issuance date of this permit.” (Section 2.2.1.a). TMDLs that had been approved at the time of the permits issuance will continue to follow the requirements outlined in Appendix F. Any waterbodies that received TMDLs after the issuance of the permit are required to meet the requirements outlined in Appendix H. These waterbodies have been identified in the note sections.:

Applicable Receiving Waterbody(ies) as listed in 2017 approved Appendix H			Name
NHEST600030406-01	E*01	SALMON FALLS RIVER	Enterococcus
			Fecal Coliform
NHEST600030608-01	E*01	COCHECO RIVER	Enterococcus
			Fecal Coliform
NHEST600030903-01-01	E*01-01	BELLAMY RIVER NORTH	Fecal Coliform
NHEST600030903-01-03	E*01-03	BELLAMY RIVER SOUTH CLEMENT POINT	Fecal Coliform
NHEST600030903-01-04	E*01-04	BELLAMY RIVER SOUTH	Fecal Coliform
NHEST600030904-06-15	E*06-15	LOWER LITTLE BAY GENERAL SULLIVAN BRIDGE	Fecal Coliform
NHEST600030904-06-18	E*06-18	LOWER LITTLE BAY	Fecal Coliform
NHEST600031001-01-01	E*01-01	UPPER PISCATAQUA RIVER- NH-NORTH	Fecal Coliform
NHEST600031001-01-03	E*01-03	UPPER PISCATAQUA RIVER- NH-SOUTH	Fecal Coliform
NHIMP600030903-02	I*02	BELLAMY RIVER - SAWYERS MILL DAM POND	Escherichia coli
NHLAK600030405-03	L*03	WILLAND POND	Escherichia coli
NHLAK600030608-01	L*01	FRESH CREEK POND	Escherichia coli

NHRIV600030608-02	R*02	BLACKWATER BROOK- CLARK BROOK	Escherichia coli
NHRIV600030608-03	R*03	COCHECO RIVER - UNNAMED BROOK	Escherichia coli
NHRIV600030608-04	R*04	REYNNERS BROOK	Escherichia coli
NHRIV600030608-05	R*05	COCHECO RIVER	Escherichia coli
NHRIV600030608-06	R*06	INDIAN BROOK	Escherichia coli
NHRIV600030608-11	R*11	FRESH CREEK	Escherichia coli
			Escherichia coli
NHRIV600030608-14	R*14	UNNAMED TRIB. TO COCHECO RIVER, DOVER (FROM LANDFILL)	Escherichia coli
NHRIV600030608-16	R*16	JACKSON BROOK	Escherichia coli
NHRIV600030902-13	R*13	JOHNSON CREEK - GERRISH BROOK	Escherichia coli
NHRIV600030903-08	R*08	BELLAMY RIVER - KELLY BROOK - KNOX MARSH BROOK	Escherichia coli
NHRIV600030903-09	R*09	BELLAMY RIVER - UNNAMED BROOK	Escherichia coli
NHRIV600030903-11	R*11	VARNEY BROOK - CANNEY BROOK	Escherichia coli
			Escherichia coli
NHRIV600030903-13	R*13	GARRISON BROOK	Escherichia coli

Annual Requirements Beginning Year 1

Rank outfalls to these receiving waters as high priority for IDDE implementation in the initial outfall ranking (see IDDE Plan for ranking)

Annual message encouraging the proper management of pet waste, including noting any existing ordinances where appropriate as outlined in this SWMP

Nitrogen Impairment

Per Section 2.2.2 the City of Dover is listed as having discharges within the watershed of impaired waterbodies or their tributaries where the cause of impairment is due to nitrogen. Because the entire MS4 area is within this watershed, the applicable BMP's are being implemented throughout the entire watershed and not only focused on individual receiving waterbodies listed in the 303d list. Please note that there have been no changes to the list of waterbodies having total nitrogen impairments or draining to total nitrogen impaired waters supplied by EPA in the MS4 permit.

Annual Requirements Beginning Year 1

Rank outfalls to these receiving waters as high priority for IDDE implementation in the initial outfall ranking (See IDDE Plan for ranking).

Distribute an annual message that encourages the proper use and disposal of grass clippings and encourages the proper use of slow-release fertilizers as outlined in this SWMP.

Distribute an annual message encouraging the proper management of pet waste, including noting any existing ordinances where appropriate as outlined in this SWMP.

Distribute an annual message encouraging the proper disposal of leaf litter as outlined in this SWMP.

Establish requirements for the use of slow release fertilizers on permittee owned property currently using fertilizer, in addition to reducing and managing fertilizer use as provided in part 2.3.7.1.

Establish procedures to properly manage grass cuttings and leaf litter on permittee property, including prohibiting blowing organic waste materials onto adjacent impervious surfaces.

Increase street sweeping frequency of all municipal owned streets and parking lots subject to Permit part 2.3.7.a.iii.(c) to a minimum of two times per year (spring and fall) as included in this SWMP. OR implement a fall leaf litter collection program to effectively minimize leaf litter on impervious surfaces and in stormwater drainage structures.

Any structural BMPs listed in Table 3 of Attachment 1 to Appendix F already existing or installed in the regulated area by the permittee or its agents shall be tracked and the permittee shall estimate the nitrogen removal by the BMP consistent with Attachment 1 to Appendix F.

Requirements Due by Year 2

The requirement for adoption/amendment of the permittee's ordinance or other regulatory mechanism shall include a requirement that new development and redevelopment stormwater management BMPs be optimized for nitrogen removal.

Requirements Due by Year 4

Complete a Nitrogen Source Identification Report. The City of Dover has created a Nitrogen Source Identification Report and Appendix D of the Municipal Alliance for Adaptive Management's Adaptive Management Plan.

Retrofit inventory and priority ranking under 2.3.6.1.b. includes consideration of BMPs to reduce nitrogen discharges.

Requirements Due by Year 5

Evaluate all permittee-owned properties identified as presenting retrofit opportunities or areas for structural BMP installation under Permit part 2.3.6.d.ii or identified in the Nitrogen Source Identification Report that are within the drainage area of the impaired water or its tributaries.

Complete a listing of planned structural BMPs and a plan and schedule for implementation.

Phosphorus Impairment

Per Section 2.2.2 the City of Dover is listed as having discharges within the watershed of impaired waterbodies or their tributaries due to phosphorus. However, per 2018 303d list there are NO waterbodies within Dover listed as water quality limited where Phosphorus is the cause of impairment.

Solids, Oil and Grease (Hydrocarbons), or Metals Impairments

Per 2018 303d list the following waterbodies are water quality limited where Solids, Oil and Grease, or Metals are the cause of impairment:

Applicable Receiving Waterbody(ies) as listed in applicable 303d list			Name
NHST600030608-01	E*01	COCHECO RIVER	Benzo(a)pyrene (PAHs)
NHRIV600030608-14	R*14	UNNAMED TRIB. TO COCHECO RIVER, DOVER (FROM LANDFILL)	Iron

Annual Requirements Beginning Year 1

Rank outfalls to these receiving waters as high priority for IDDE implementation in the initial outfall ranking (See IDDE Plan for ranking).

Increase street sweeping frequency of all municipal owned streets and parking lots to a schedule to target areas with potential for high pollutant loads as prescribed by this SWMP.

Prioritize inspection and maintenance for catch basins to ensure that no sump shall be more than 50 percent full; Clean catch basins more frequently if inspection and maintenance activities indicate excessive sediment or debris loadings as prescribed by this SWMP.

Requirements Due by Year 2

Stormwater management systems designed on commercial and industrial land use area draining to the water quality limited water body shall incorporate designs that allow for shutdown and containment where appropriate to isolate the system in the event of an emergency spill or other unexpected event. Note that the impairments are for Benzo(a)pyrene (PAHs) which typically come from organic matter, and for Iron which is specifically linked to a nearby landfill. Shutdown requirements are not appropriate to address listed impairments.

Chloride Impairment

Per 2018 303d list the following waterbodies are water quality limited where Chloride is the cause of impairment:

Applicable Receiving Waterbody(ies) as listed in applicable 303d list			Name
NHRIV600030608-06	R*06	INDIAN BROOK	Chloride
NHRIV600030608-15	R*15	BERRY BROOK	Chloride

Annual Requirements Beginning Year 1

Rank outfalls to these receiving waters as high priority for IDDE implementation in the initial outfall ranking (See IDDE Plan for ranking).

Requirements Due by Year 3

Develop a Salt Reduction Plan.

Requirements Due by Year 4

Continue implementation of the Salt Reduction Plan.

Requirements Due by Year 5

Fully implement the Salt Reduction Plan.