

Stormwater Management Program (SWMP)

TOWN OF MERRIMACK, NEW HAMPSHIRE



Permit Years 1 & 2

Prepared By:
Town of Merrimack, New Hampshire

EPA NPDES Permit Number NHR041018

Certification

Authorized Representative:

The authorization letter is:

☒ Attached to this document (document name listed below):

Merrimack NH Authorization Letter

☐ Publicly available at the website:

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

Printed Name

Dawn Tuomala – Town Engineer

Signature

Dawn Tuomala

Date

6/30/2020

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.

Town Specific MS4 Background (optional)

Due to COVID-19, items within the Stormwater Management Program have been delayed because of the lack of public meetings and social distancing requirements.

Small MS4 Authorization

The NOI was submitted on

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|-----------------|
| September, 2018 |
|-----------------|

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

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|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| https://www3.epa.gov/region1/npdes/stormwater/nh/tms4noi/merrimack.pdf |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|

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

| |
|--------------|
| May 14, 2019 |
|--------------|

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

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|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| https://www3.epa.gov/region1/npdes/stormwater/nh/tms4noi/merrimack-auth.pdf |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Stormwater Management Program Team

SWMP Team Coordinator:

Position/Title: Dawn Tuomala, Deputy DPW Director/Town Engineer
Department: Public Works Administration
Phone Number: (603) 424-5137
Email Address: dtuomala@merrimacknh.gov

SWMP Team:

Position/Title: Robert Price, Planning and Zoning Administrator
Department: Community Development
Phone Number: (603) 424-3531
Email Address: rprice@merrimacknh.gov

Position/Title: Lori Barrett, Operations Manager
Department: Highway and Equipment Maintenance Division
Phone Number: (603) 423-8551
Email Address: lbarrett@merrimacknh.gov

Position/Title: John Manuel, Fire Marshal
Department: Fire Department
Phone Number: (603) 424-3690
Email Address: JMA@merrimacknh.gov

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.

| Waterbody segment that receives flow from the MS4 | Number of outfalls into receiving water segment | Chloride | Chlorophyll-a | Dissolved Oxygen/ DO Saturation | Nitrogen | Oil & Grease/ PAH | Phosphorus | Solids/ TSS/ Turbidity | E. coli | Enterococcus | Other pollutant(s) causing impairments |
|---------------------------------------------------|-------------------------------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|-------------------------------------|--------------------------|------------------------------------------------------------|
| MERRIMACK RIVER | 13 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| BABOOSIC LAKE | 6 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| BABOOSIC BROOK (RIDDLE BROOK) | 22 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Benthic-Macroinvertebrate Bioassessments, Oxygen Dissolved |
| HORSESHOE POND | 3 | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| SOUHEGAN RIVER | 13 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Aluminum, Oxygen Dissolved |
| NATICOOK LAKE | 7 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Non-Native Aquatic Plants |
| NATICOOK BROOK | 12 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| PENNICHUCK BROOK (HARRIS, BOWER'S, HOLTS PONDS) | 2 | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Iron, Oxygen Dissolved |
| OTHER UNNAMED WATERWAYS | 10 | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
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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: Septic System Maintenance

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|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description: | Pamphlet that describes the timeline of how home owners should maintain and replace their septic systems, distributed by Merrimack Wastewater Treatment Facility. |
| Targeted Audience: | Septic System Owners |
| Responsible Department/Parties: | Wastewater Treatment Facility |
| Measurable Goal(s): | To make residents are aware of water quality impacts from septic systems, the importance of maintaining septic systems and how to maintain them. EPA and NHASH handed out to the haulers to be given to the residents of the town. |
| Message Date: | July 1, 2018 to June 30, 2019 |

BMP: Pet Waste Disposal

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|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description: | Pamphlet that teaches pet owners about the environmental damage caused by unattended pet waste, distributed in various town office locations and during town events. |
| Targeted Audience: | Pet Owners |
| Responsible Department/Parties: | Public Works Administration and the Highway Division |
| Measurable Goal(s): | Dog owners and/or dog walkers are aware of the potential water quality impacts from pet waste, local pet waste ordinances, and how to dispose of pet waste properly. |
| Message Date: | Summer, time of license renewal, Year Round |

BMP: Grass and Fertilizer

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|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description: | Informational pamphlet that describes the harmful impacts of the over-application of fertilizer on stormwater runoff, waterbodies, and animal life. |
| Targeted Audience: | Residential &/or Business |
| Responsible Department/Parties: | Public Works Administration |
| Measurable Goal(s): | Lawn care enthusiasts' residents understand the potential water quality impacts from fertilizer and improper disposal of grass clippings and are aware of the proper lawn care management techniques for reducing those impacts. Measurement includes materials distribution methods and numbers. |
| Message Date: | Spring |

BMP: Disposal of Leaf and Grass Clippings

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|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description: | Pamphlet that informs the public of how to properly clean up their yard and dispose of the collected leaves and grass clippings, distributed at various town office locations and during town events. |
| Targeted Audience: | Residential, Business & Institutions |
| Responsible Department/Parties: | Public Works Administration and Highway Division |
| Measurable Goal(s): | Residents are aware of the water quality impacts of yard waste dumping near or in water bodies and safe alternatives for yard waste disposal. |
| Message Date: | Fall 2019 |

Requirement Year 2

BMP: Septic System Maintenance

| | |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description: | Pamphlet that describes the timeline of how home owners should maintain and replace their septic systems, distributed by Merrimack Wastewater Treatment Facility to haulers for the residents of Merrimack. |
| Document Location: | https://www4.des.state.nh.us/nh-ms4/?page_id=54 |
| Targeted Audience: | Septic System Owners |
| Responsible Department/Parties: | Public Works Administration and Wastewater Treatment Facility Divisions |
| Measurable Goal(s): | To make residents aware of water quality impacts from septic systems, the importance of maintaining them, and to reduce the number of septic failures due to poor homeowner maintenance. |
| Message Date: | July 1, 2019 to June 30, 2020 |

BMP: Pet Waste Disposal

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|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description: | Distribution and promotion of pamphlet with proper pet waste management, impacts of improper management, pet waste ordinance, and disposal requirements messaging. Distributed with each dog license (4,500 total) and posted at trail head kiosk to reduce the amount of unattended dog waste. |
| Document Location: | https://www.merrimacknh.gov/sites/g/files/vyhlf3456/f/uploads/dog_waste_brochure.pdf |
| Targeted Audience: | Pet Owners |
| Responsible Department/Parties: | Public Works Administration and the Highway Divisions |
| Measurable Goal(s): | Pamphlet that teaches pet owners about the environmental damage caused by unattended pet waste, distributed at various town locations and at events along with each dog license. |
| Message Date: | July 1, 2019 to June 30, 2020 |

BMP: Grass and Fertilizer

| | |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description: | Informational pamphlet outlining recommendations to keep lawns healthy while reducing water quality impacts. It describes the harmful impacts of the over-application of fertilizer on stormwater runoff and waterbodies. |
| Document Location: | https://www.merrimacknh.gov/sites/g/files/vyhlf3456/f/uploads/green_glass_clear_water.pdf |
| Targeted Audience: | Residential, Business & Industrial |
| Responsible Department/Parties: | Public Works Administration |
| Measurable Goal(s): | Distribution of 175 pamphlets during various town events and at various town facilities. Lawn care enthusiasts' residents understand the potential water quality impacts from fertilizer and improper disposal of grass clippings and are aware of the proper lawn care management techniques for reducing those impacts. |
| Message Date: | July 1, 2019 to June 30, 2020 |

BMP: Disposal of Leaf and Grass Clippings

| | |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description: | Pamphlet that informs the public of how to properly clean up their yard and dispose of the collected leaves and grass clippings, and distributed at various Town facilities and functions. Includes the impacts from yard waste to waterbodies, alternatives to dumping yard waste, and laws against dumping yard waste and laws against dumping yard waste in or near waterbodies. |
| Document Location: | https://www.merrimacknh.gov/sites/g/files/vyhlf3456/f/uploads/yard_waste.pdf |
| Targeted Audience: | Residential, Business & Industrial |
| Responsible Department/Parties: | Public Works Administration and Highway Division |
| Measurable Goal(s): | Residents are aware of the water quality impacts of yard waste dumping near or in water bodies and safe alternatives for yard waste disposal. The goal is to reduce the amount of waste that is placed in the wetlands. |
| Message Date: | July 1, 2019 to June 30, 2020 |

BMP: Stormwater Information for Businesses

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|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description: | A pamphlet that informs business owners about stormwater maintenance. Includes information on ice prevention materials, building maintenance, and lawn maintenance. Distribution of pamphlets is through various town offices, pre-construction meetings and the stormwater website. |
| Document Location: | |
| Targeted Audience: | Businesses |
| Responsible Department/Parties: | Public Works Administration |
| Measurable Goal(s): | Businesses are aware of the water quality impacts of improper stormwater maintenance. |
| Message Date: | Spring & Summer 2020 |

BMP: Construction Guide to Stormwater Permit

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|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| Description: | A pamphlet that guides developers through the stormwater permit program. Will also be handed out during pre-construction meetings. |
| Document Location: | |
| Targeted Audience: | Developer/Construction |
| Responsible Department/Parties: | Public Works Administration |
| Measurable Goal(s): | Developers are aware of the water quality impacts of improper stormwater maintenance. |
| Message Date: | Spring & Summer 2020 |

Requirement Year 3

BMP: Pet Waste Disposal Infomercial

Description: TBD

Targeted Audience: Pet Owners

Responsible Department/Parties:

Measurable Goal(s): TBD

Message Date: TBD

BMP: Grass and Fertilizer

Description: TBD

Targeted Audience: Residential &/or Business

Responsible Department/Parties:

Measurable Goal(s): TBD

Message Date: Spring

BMP: Disposal of Leaf and Grass Clippings Infomercial

Description: TBD

Targeted Audience: Residential &/or Business

Responsible Department/Parties:

Measurable Goal(s): TBD

Message Date: Fall

BMP: What Can You Flush Into the Sewer System?

Description: TBD

Targeted Audience: Industrial

Responsible Department/Parties:

Measurable Goal(s): TBD

Message Date: Fall

Requirement Year 4

BMP: Pet Waste Disposal

Description: TBD

Targeted Audience: Pet Owners

Responsible Department/Parties:

Measurable Goal(s): TBD

Message Date: TBD

BMP: Septic System Maintenance

Description:

Targeted Audience: Septic System Owners

Responsible Department/Parties:

Measurable Goal(s):

Message Date: TBD

BMP: Grass and Fertilizer

Description: TBD

Targeted Audience: Residential &/or Business

Responsible Department/Parties:

Measurable Goal(s): TBD

Message Date: Spring

BMP: Disposal of Leaf and Grass Clippings

Description: TBD

Targeted Audience: Residential &/or Business

Responsible Department/Parties:

Measurable Goal(s): TBD

Message Date: Fall

BMP: TBD

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|----------------------------------------|------------------------|
| Description: | TBD |
| Targeted Audience: | Developer/Construction |
| Responsible Department/Parties: | |
| Measurable Goal(s): | TBD |
| Message Date: | Fall |

Requirement Year 5

BMP: Grass and Fertilizer

Description: TBD

Targeted Audience: Residential &/or Business

Responsible Department/Parties:

Measurable Goal(s): TBD

Message Date: Spring

BMP: Pet Waste Disposal

Description: TBD

Targeted Audience: Pet Owners

Responsible Department/Parties:

Measurable Goal(s): TBD

Message Date: TBD

BMP: TBD

Description: TBD

Targeted Audience: Industrial

Responsible Department/Parties:

Measurable Goal(s): TBD

Message Date: Fall

BMP: Disposal of Leaf and Grass Clippings

Description: TBD

Targeted Audience: Residential &/or Business

Responsible Department/Parties:

Measurable Goal(s): TBD

Message Date: Fall

BMP: TBD

| | |
|----------------------------------------|------------|
| Description: | TBD |
| Targeted Audience: | Businesses |
| Responsible Department/Parties: | |
| Measurable Goal(s): | TBD |
| Message Date: | Spring |

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:

Public Works Administration office

Responsible Department/Parties: Merrimack Public Works Administration

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

BMP: Public Participation in Stormwater Management Program Development

Description: The SWMP will be posted on the Town website with direction where to make comments. Presentations are made periodically before the Town Council and there is a period for questions and comments.

Responsible Department/Parties: Merrimack Public Works Administration

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

The municipality is establishing legal authority as outlined in the IDDE Plan. Presently under Town Code Chapter 167-5, authority is given to the Code Enforcement Officer and the Planning & Zoning Administration.

https://www.merrimacknh.gov/sites/g/files/vyhlf3456/f/file/file/stormwater_ord_chapt_167.pdf

BMP: Sanitary Sewer Overflow (SSO) Inventory

The Town of Merrimack does not and has never had a combined storm and sewer system. The notification was made to the EPA in the NOI that stated that these have always been separate systems. The EPA sent an authorization letter in May 2019.

<https://www3.epa.gov/region1/npdes/stormwater/nh/tms4noi/merrimack.pdf>

Number of SSO's identified this year: 0

Number of SSO's removed this year: 0

BMP: Map of Storm Sewer System

The map of the storm sewer systems and associated outfalls is in the Town GIS system. Copies can be provided upon request from the Department of Public Works.

BMP: IDDE Program

The Merrimack Town Code Chapter 167 will be revised by adding IDDE ordinance into the code. A written draft IDDE regulation has been developed and will need to be adopted by the Planning Board. This has been delayed due to COVID-19.

Initial outfall identification, characterization, and prioritization has been completed and included in the IDDE plan. Dry weather sampling has begun and the results are available at Public Works Administration.

Since July 1, 2017:

Number of illicit discharges identified: 0

Number of illicit discharges removed: 0

BMP: Employee Training

As part of their normal training schedule, employees will now have IDDE training added including information on how to identify illicit discharges and SSO's.

MCM 4
Construction Site Stormwater Runoff Control
Permit Part 2.3.5

BMP: Sediment and Erosion Control OrdinanceCompleted (by May 1, 2008) ☐**Ordinances Link or Reference:**

Town Chapter 167:

https://www.merrimacknh.gov/sites/g/files/vyhlf3456/f/file/file/stormwater_ord_chapt_167.pdf**Department Responsible for Enforcement:**

Community Development and Health Department

BMP: Site Plan Review ProceduresWritten procedures completed (by year 1) ☐**Document Name and/or Web Address:**

Site Plan Regulations:

https://www.merrimacknh.gov/sites/g/files/vyhlf3456/f/uploads/siteplanregulations_adopied-090319.pdf**Department Responsible for Enforcement:**

Merrimack Community Development

Description:

Formal written procedures for review of site plan and subdivision plans/projects for compliance with stormwater management regulations. The Site Plan Regulations were approved in September 2019 and the Subdivision Regulations are currently in the process of being updated.

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 ProceduresCompleted (by year 1) ☒**Document Name and/or Web Address:**

Construction Standards

Department Responsible for Enforcement:

Merrimack Public Works Administration and Community Development

Description:

The contractors are required to hire a third party to provide the weekly reports and any storm events greater 0.25". Reports are to be sent to Community Development. Additional, spot site inspections for the enforcement of sediment and erosion control measure procedures are conducted as needed between the Public Works Administration and Community Development. Provisions have been written into the site plan regulations for third party reviews if needed.

Measurable Goal(s):

Construction sites reviewed by Community Development 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 OrdinanceCompleted (by year 2) ☒

Town Ordinances Link or Reference:

Town Code Chapter 167:

https://www.merrimacknh.gov/sites/g/files/vyhlf3456/f/file/file/s/tormwater_ord_chapt_167.pdf

Department Responsible for Enforcement:

Community Development

BMP: Street Design and Parking Lot Guidelines ReportCompleted (by year 4) ☐

Document Name and/or Web Address:

https://www.merrimacknh.gov/sites/g/files/vyhlf3456/f/uploads/siteplanregulations_adopied-090319.pdf

Draft 2020 Road and Drainage Construction Standards

Department Responsible for Enforcement:

Public Works Administration

Description:

Measurable Goal(s):

Recommendations are implemented by year 4 with progress reported annually.

BMP: Green Infrastructure ReportCompleted (by year 4) ☐

Document Name and/or Web Address:

TBD

Department Responsible for Enforcement:

TBD

Description:

Measurable Goal(s):

Recommendations are implemented by year 4 with progress reported annually.

BMP: List of Municipal Retrofit OpportunitiesCompleted (by year 4) ☐

Document Name and/or Web Address:

TBD

Department Responsible for Enforcement:

TBD

Description:

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

BMP: Parks and Open Spaces Operations and Maintenance Procedures

Written Document Completed (by year 2) ☐

Document Name and/or Web Address:

Responsible Department/Parties:

Merrimack Public Works Administration & Highway Divisions

Description:

Establish 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 Section 2.3.7.1.a of the MS4 permit.

Measurable Goal(s):

Implement the SOP on 100% of the parks and open spaces.

BMP: Buildings and Facilities Operations and Maintenance Procedures

Written Document Completed (by year 2) ☐

Document Name and/or Web Address:

Responsible Department/Parties:

Merrimack Public Works Administration & Highway Divisions

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.

Measurable Goal(s):

Implement the SOP on 100% of buildings and facilities.

BMP: Vehicles and Equipment Operations and Maintenance Procedures

Written Document Completed (by year 2) ☐

Document Name and/or Web Address:

Responsible Department/Parties:

Merrimack Public Works Highway Division

Description:

Establish procedures for the storage of permittee vehicles. Vehicles with fluid leaks shall be stored indoors or containment shall be provided. Evaluate fueling areas owned by the permittee or used by permitted vehicles. Establish procedures to ensure that vehicle wash waters are not discharged to municipal storm drains or surface waters.

Measurable Goal(s):

Implement the SOP on 100% of vehicles and equipment.

INFRASTRUCTURE

BMP: Catch Basin Cleaning Program

Written Document Completed (by year 1) ☐

Document Name and/or Web Address:

| |
|-----------------------------------------------------|
| Merrimack Highway Department Maintenance Procedures |
|-----------------------------------------------------|

Responsible Department/Parties:

| |
|-----------------------------------------|
| Merrimack Public Works Highway Division |
|-----------------------------------------|

Description:

The Merrimack Department of Public Works Highway Division performs routine inspections, cleaning, and maintenance of the catch basins that are located within the MS4 regulated area. The Highway Department 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 Highway Division will initially inspect all catch basins within the regulated area within two (2) years of the effective date of the permit to evaluate sediment or debris accumulation and establish optimal inspection and maintenance frequencies 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:** Merrimack Highway Department Maintenance Procedures**Responsible Department/Parties:** Merrimack Public Works Highway Division

Description: The Merrimack Department of Public Works Highway Division 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)
- For rural uncurbed roadways with no catch basins and limited access highways, the Highway Department will either meet the minimum frequencies above, or develop and implement an inspection, documentation, and targeted sweeping plan outlining reduced frequencies within two (2) year 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.

BMP: Winter Road Maintenance Program**Written Document Completed** (by year 1) ☐**Document Name and/or Web Address:** Merrimack Highway Department Maintenance Procedures**Responsible Department/Parties:** Merrimack Public Works Highway Division

Description: The Merrimack Department of Public Works Highway Division will implement the following winter maintenance procedures to reduce the discharge of pollutants from the MS4:

- Minimize the use and optimize the application of sodium chloride and other salt (while maintaining public safety) and consider opportunities for use of alternative materials.
- Optimize sand and/or chemical application rates through the use, where practicable, of automated application equipment (e.g., zero velocity spreaders), anti-icing and pre-wetting techniques, implementation of pavement management

systems, and alternate chemicals. Maintain records of the application of sand, anti-icing and/or de-icing chemicals to document the reduction of chemicals to meet established goals.

- Prevent exposure of deicing product (salt, sand, or alternative products) storage piles to precipitation by enclosing or covering the storage piles. Implement good housekeeping, diversions, containment or other measures to minimize exposure resulting from adding to or removing materials from the pile. Store piles in such a manner as not to impact surface water resources, groundwater resources, recharge areas, and wells
- Provide training for municipal employees on winter roadway maintenance procedures.

Measurable Goal(s): Evaluate at least one salt/chloride alternative for use in the municipality. Monitor salt usage by the Town of Merrimack.

BMP: Stormwater Treatment Structures Inspection and Maintenance Procedures

Written Document Completed (by year 1) ☐

Document Name and/or Web Address:

Responsible Department/Parties:

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:

Responsible Department/Parties:

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): Develop and implement SWPPP's for 100% of municipally owned facilities.

Annual Evaluation

Year 1 Annual Report

Document Name and/or Web Address:

<https://www3.epa.gov/region1/npdes/stormwater/nh/reports/2019/merrimack-nh-ar19.pdf>

Year 2 Annual Report

Document Name and/or Web Address:

Year 3 Annual Report

Document Name and/or Web Address: TBD

Year 4 Annual Report

Document Name and/or Web Address: TBD

Year 5 Annual Report

Document Name and/or Web Address: TBD

Year X Annual Report

Document Name and/or Web Address: TBD

TMDLs and Water Quality Limited Waters

Bacteria/Pathogens

Combination of Impaired Waters Requirements and TMDL Requirements as Applicable

| Applicable Receiving Waterbody(ies) as listed in Appendix F of the MS4 permit and provided in the most recent approved list of impaired waterbodies. | TMDL/Impairment Name (if applicable) |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| Merrimack River | Escherichia coli (Bacteria) |
| Baboosic Brook | Escherichia coli (Bacteria) |
| Souhegan River | Escherichia coli (Bacteria) |
| Naticook Lake | Escherichia coli (Bacteria) |
| Pennichuck Brook | Escherichia coli (Bacteria) |

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

Phosphorus Impairment

| Applicable Receiving Waterbody(ies) | TMDL/Impairment Name (if applicable) |
|--------------------------------------------|-------------------------------------------------|
| Baboosic Lake | |
| Horseshoe Pond | |
| | |

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 and phosphorus-free 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 in the encouraging the proper disposal of leaf litter as outlined in this SWMP.
- 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 outlined in this plan.
- Establish procedures to properly manage grass cuttings and leaf litter on permittee property, including prohibiting blowing organic waste materials onto adjacent impervious surfaces.
- Retrofit inventory and priority ranking under 2.3.6.1.b. shall include consideration of BMPs to reduce phosphorus discharges.
- Any structural BMPs listed in Table 3 of Attachment 1 to Appendix H already existing or installed in the regulated area by the permittee or its agents shall be tracked and the permittee shall estimate the phosphorus removal by the BMP consistent with Attachment 1 to Appendix H. Document the BMP type, total area treated by the BMP, the design storage volume of the BMP and the estimated phosphorus removed in pass per year by the BMP in each annual report.

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 phosphorus removal.

Requirements Due by Year 4

- Complete a Phosphorus Source Identification Report.
- The document name (if attached) and/or web address is/are: TBD
- Retrofit inventory and priority ranking under 2.3.6.1.b. shall include consideration of BMPs that infiltrate stormwater where feasible.

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 Phosphorus 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.

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

| Applicable Receiving Waterbody(ies) | TMDL/Impairment Name (if applicable) |
|-------------------------------------|-----------------------------------------|
| Souhegan River | Aluminum |
| Pennichuck Brook | 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.

Lake and Pond Phosphorus TMDL

| Applicable Receiving Waterbody(ies) | PCP Complete | TMDL/Impairment Name (if applicable) |
|------------------------------------------------|--------------------------|-------------------------------------------------|
| None | <input type="checkbox"/> | |
| | <input type="checkbox"/> | |
| | <input type="checkbox"/> | |

Chloride TMDL

| Applicable Receiving Waterbody(ies) | TMDL/Impairment Name (if applicable) |
|-------------------------------------|-----------------------------------------|
| None | |
| | |
| | |

Annual Requirements Beginning Year 1

- Develop and implement a Chloride Reduction Plan.