

Year 3 Annual Report
New Hampshire Small MS4 General Permit
Reporting Period: July 1, 2020-June 30, 2021

Please DO NOT attach any documents to this form. Instead, attach all requested documents to an email when submitting the form

Unless otherwise noted, all fields are required to be filled out. If a field is left blank, it will be assumed the requirement or task has not been completed. Please ONLY report on activities between July 1, 2020 and June 30, 2021 unless otherwise requested.

Part I: Contact Information

Name of Municipality or Organization:

EPA NPDES Permit Number:

Primary MS4 Program Manager Contact Information

Name: Title:

Street Address Line 1:

Street Address Line 2:

City: State: Zip Code:

Email: Phone Number:

Stormwater Management Program (SWMP) Information

SWMP Location (web address):

Date SWMP was Last Updated:

If the SWMP is not available on the web please provide the physical address:

Part II: Self-Assessment

First, in the box below, select the impairment(s) and/or TMDL(s) that are applicable to your MS4. Make sure you are referring to the most recent EPA approved Section 303(d) Impaired Waters List which can be found here: <https://www.epa.gov/tmdl/region-1-impaired-waters-and-303d-lists-state>

Impairment(s)			
<input type="checkbox"/> Bacteria/Pathogens	<input checked="" type="checkbox"/> Chloride	Nitrogen	<input checked="" type="checkbox"/> Phosphorus
<input checked="" type="checkbox"/> Solids/ Oil/ Grease (Hydrocarbons)/ Metals			
TMDL(s)			
<input checked="" type="checkbox"/> Bacteria and Pathogen	Chloride	<input checked="" type="checkbox"/> Lake and Pond Phosphorus	
Clear Impairments and TMDLs			

Next, check off all requirements below that have been completed. **By checking each box you are certifying that you have completed that permit requirement fully.** If you have not completed a requirement leave the box unchecked. Additional information will be requested in later sections.

Year 3 Requirements

- Inspected and screened all outfalls/interconnections (excluding Problem and Excluded outfalls)
- Updated outfall/interconnection priority ranking based on the information collected during the dry weather inspections as necessary
- Post-construction bylaw, ordinance, or other regulatory mechanism was updated and adopted consistent with permit requirements

Optional: If you would like to describe progress made on any incomplete requirements listed above, provide any additional information, and/or if any of the above year 3 requirements could not be completed due to the impacts of COVID-19, please identify the requirement that could not be completed, any actions taken to attempt to complete the requirement, and reason the requirement could not be completed below:

-Dry Weather Outfall Screening: The City has attempted to inspect all 647 known stormwater outfalls and interconnections within the urbanized area during dry weather. In cases where an outfall could not be found, the location was revisited again when there was less vegetation. In the event it still could not be located, or was inaccessible, the upgradient catch basin or manhole was inspected for dry weather flows. Seven of the new outfalls to culverted streams could not be accessed due to tacked manhole covers and incorrect mapping. These are being revisited over the summer/fall. The City is now in the process of identifying and investigating data gaps in its stormwater infrastructure mapping (e.g., missing piping, unknown connectivity). Any new outfalls found during this process will be inspected during dry weather conditions and incorporated into the priority ranking.

-Updated Outfall Priority Ranking: The outfall priority ranking was updated as the investigations were performed with priority placed on revisiting outfalls with signs of illicit discharges to collect additional information for prioritization of drainage areas for catchment investigations. A new prioritization table and map was created and incorporated into an updated IDDE Plan in September 2021.

-Post-Construction Ordinance and Regulations: The City took a three-pronged approach in updating its regulations to incorporate the post-construction requirements of the Permit. Updates focused on the City's

Stormwater Ordinance and accompanying regulations, Subdivision and Site Plan Review regulations and the City's Standard Specifications.

The design, inspection and maintenance requirements of the MS4 Permit were incorporated into DPW's Standard Specifications for Road, Drain, & Sewer Construction (revised June 30, 2021). The Standard Specifications require, and the City requests, long term maintenance agreements (LTMA's) and as-built drawings. Developers are required to comply with these specifications when submitting Subdivision or construction plans for review.

The City updated its Subdivision and Site Plan Review Regulations to require all subdivision and site plan review projects to meet the requirements of the Stormwater Ordinance/Stormwater Regulations Manual and Standard Specifications. This captures all development and redevelopment projects that go through Planning Subdivision and Site Plan review. These updates were adopted on June 3, 2021.

The City's Stormwater Ordinance and accompanying regulations were updated to regulate any project that disturbs 0.5 acres of land or more that does not go through Subdivision or Site Plan review with the Planning Board. Nearly all projects are expected to go through Planning. The Stormwater Regulations Manual requires projects to meet the design, inspection and maintenance requirements in DPW's Standard Specifications. The Storm Water Regulations Manual was amended and effective as of June 30, 2021. The Stormwater Ordinance revisions are being reviewed by the Board of Mayor and Alderman (BMA) and should be adopted by the first week of November 2021; however, projects are adequately regulated through the other processes noted above.

Annual Requirements

- × Provided an opportunity for public participation in review and implementation of SWMP and complied with State Public Notice requirements
- × Kept records relating to the permit available for 5 years and made available to the public
- × The SSO inventory has been updated, including the status of mitigation and corrective measures implemented
 - This is not applicable because we do not have sanitary sewer
 - This is not applicable because we did not find any new SSOs
 - The updated SSO inventory is attached to the email submission
 - The updated SSO inventory can be found at the following website:
- × Properly stored and disposed of catch basin cleanings and street sweepings so they did not discharge to receiving waters
- × Provided training to employees involved in IDDE program within the reporting period
- × All curbed roadways were swept at least once within the reporting period
- × Updated system map due in year 2 as necessary
- × Implemented SWPPPs for all permittee owned or operated maintenance garages, public works yards, transfer stations, and other waste handling facilities
- × Enclosed all road salt storage piles or facilities and implemented winter road maintenance procedures to minimize the use of road salt
- × Updated inventory of all permittee owned facilities as necessary

- × O&M programs for all permittee owned facilities have been completed and updated as necessary
- × Implemented all maintenance procedures for permittee owned facilities in accordance with O&M programs
- × Implemented program for MS4 infrastructure maintenance to reduce the discharge of pollutants
- × Inspected all permittee owned treatment structures (excluding catch basins)

Optional: If you would like to describe progress made on any incomplete requirements listed above, provide any additional information, and/or if any of the above annual requirements could not be completed due to the impacts of COVID-19, please identify the requirement that could not be completed, any actions taken to attempt to complete the requirement, and reason the requirement could not be completed below:

Due to staffing issues associated with COVID-19, SWPPP action items are being planned for completion over the next reporting period.

Bacteria/ Pathogens (Combination of Impaired Waters Requirements and TMDL Requirements as Applicable)

Annual Requirements

*Public Education and Outreach**

- × Annual message was distributed encouraging the proper management of pet waste, including noting any existing ordinances where appropriate
- × Permittee or its agents disseminated educational material to dog owners at the time of issuance or renewal of dog license, or other appropriate time
- × Provided information to owners of septic systems about proper maintenance in any catchment that discharges to a water body impaired for bacteria

** Public education messages can be combined with other public education requirements as applicable (see Appendix H and F for more information)*

Optional: If you would like to describe progress made on any incomplete requirements listed above or provide any additional details, please use the box below:

Chloride Impairment

Annual Requirements

Optional: If you would like to describe progress made on any incomplete requirements listed above or provide any additional details, please use the box below:

A Salt Reduction Plan was drafted in June 2021 and included identification of parking lots with 10 or more spaces. The plan will be fully implemented by the end of Year 5. The City reported its salt usage for winter 2020-2021 on the UNHT2 site on 9/14/21. The City also incorporated requirements for salt storage, application and reporting at commercial and industrial properties into its Stormwater Regulations Manual and requirements for salt and snow storage in its DPW Standard Specifications.

Phosphorus Impairment

Annual Requirements

*Public Education and Outreach**

- × Distributed an annual message in the spring (April/May) encouraging the proper use and disposal of grass clippings and encouraging the proper use of slow-release and phosphorus-free fertilizers
- × Distributed an annual message in the summer (June/July) encouraging the proper management of pet waste, including noting any existing ordinances where appropriate
- × Distributed an annual message in the fall (August/September/October) encouraging the proper disposal of leaf litter

* *Public education messages can be combined with other public education requirements as applicable (see Appendix H and F for more information)*

Good Housekeeping and Pollution Prevention for Permittee Owned Operations

Increased 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)

Potential structural BMPs

Any structural BMPs already existing or installed in the regulated area by the permittee or its agents was tracked and the phosphorus removal by the BMP was estimated consistent with Attachment 3 to Appendix F. The BMP type, total area treated by the BMP, the design storage volume of the BMP and the estimated phosphorus removed in mass per year by the BMP were documented.

- The BMP information is attached to the email submission
- The BMP information can be found at the following website:

Optional: If you would like to describe progress made on any incomplete requirements listed above or provide any additional details, please use the box below:

Increased Street Sweeping - The City performs street sweeping on municipal roads at least once a year and implements a City-wide leaf collection program in lieu of a fall sweeping. The combined sweeping and leaf collection program satisfies the requirements of the permit for phosphorus impaired watersheds.

Structural Stormwater BMPs - A portion of the Merrimack River was listed as impaired for phosphorus on the 2018 303(d) list finalized in 2020, requiring tracking and calculation of phosphorus removals for BMPs in this watershed. The City is working on the phosphorus removal calculations for BMPs in this watershed, which will be used in its Phosphorus Reduction Plan. The calculations were delayed as the City was waiting for the GIS land use layer and pollutant load calculations prepared by UNH in coordination with the NHLMV Stormwater Coalition to complete this work. This information was received in August 2021.

City-owned BMPs within the regulated MS4 were inspected during Permit Year 3. The BMP inspection report and logs are included in Appendix G of the SWMP posted on the City's Stormwater website.

Solids, Oil and Grease (Hydrocarbons), or Metals Impairment(s)

Annual Requirements

Good Housekeeping and Pollution Prevention for Permittee Owned Operations

- × Increased street sweeping frequency of all municipal owned streets and parking lots to a schedule that targets areas with potential for high pollutant loads

Optional: If you would like to describe progress made on any incomplete requirements listed above or provide any additional details, please use the box below:

Increased Street Sweeping - The City has impairments for lead (Black Brook-Hardy Brook), iron (Little Cohas-Unnamed Brook) and aluminum (Merrimack River) only. Increased sweeping was determined not to be necessary for metals impaired watersheds as these areas are not observed to accumulate more sediment and debris than other areas within the City.

Lake and Pond Phosphorus TMDL

× Completed the funding source assessment

Optional: If you would like to describe progress made on any incomplete requirements listed above or provide any additional details, please use the box below:

The funding source assessment and a status of the progress of the LPCPs are included in Appendix K of the Updated SWMP posted on the City's Stormwater website.

Optional: Use the box below to provide any additional information you would like to share as part of your self-assessment:

As outlined in our Year 2 Annual Report, the MS4 Permit requires the City to achieve a significant reduction in phosphorus loads to waters with phosphorus TMDLs, a significant portion of which comes from existing privately developed properties and Interstate 93 that discharge to the City's MS4 or directly to surface waters. These existing private properties are currently not subject to stormwater permits and are not regulated to reduce their share of phosphorus contributions to TMDL waters. Instead, the City is responsible for achieving phosphorus reductions from these private developments because these developments are located within Manchester's MS4. The City continues to recommend a state or federal level stormwater permit for existing large commercial, industrial and institutional properties located within TMDL watersheds, similar to that in Vermont or that proposed for the Charles River Watershed in Massachusetts, with the same phosphorus or more stringent reduction requirements that the MS4 permitted communities are required to achieve to help mitigate impacts from existing development.

Part III: Receiving Waters/Impaired Waters/TMDL

Have you made any changes to your lists of receiving waters, outfalls, or impairments since the NOI was submitted?

- Yes
 No

If yes, describe below, including any relevant impairments or TMDLs:

Updated 2018 303(d) list of impaired waters includes a phosphorus impairment for the Merrimack River.

The City maintains an ongoing online GIS database of dry weather inspection results, which includes the identification and location of any new outfalls and any impairments of the receiving water. These new outfalls are also incorporated into the updated outfall priority ranking included in the IDDE Plan. Fifty eight new outfalls were identified during the dry weather investigations performed through Permit Year 3, including 30 that discharge to a long culverted stream (e.g., watercourse that has been enclosed underground). These long culverted streams were originally mapped as part of the drainage network, but have been clarified as long culverted streams with outfalls mapped where the stormwater drainage network connects to the long culverted stream.

Part IV: Minimum Control Measures

Please fill out all of the metrics below. If applicable, include in the description who completed the task if completed by a third party.

MCM1: Public Education

Number of educational messages completed **during this reporting period:**

Below, report on the educational messages completed **during this reporting period**. For the measurable goal(s) please describe the method/measures used to assess the overall effectiveness of the educational program.

BMP: Septic System Outreach

Message Description and Distribution Method:

EPD leaves "Get Pumped" magnets and brochures at the WWTF front desk for septic haulers to take and distribute to their customers. In conjunction with Septic Smart Week (September 14 to 18, 2020), posts were made to the Urban Ponds Facebook page on 9/17/2020 and 9/18/2020.

Targeted Audience:

Responsible Department/Parties:

Measurable Goal(s):

Number of materials distributed (This reporting period, 12 of 60 magnets/brochures have been picked up). Number of people reached, engagements, and likes to Facebook post (82 people reached, 2 engagements, 1 share, 1 like for post on 9/17/2020 and 83 people reached, 5 engagements, 1 share, 3 likes for post on 9/18/2020).

Message Date(s):

Message Completed for: Appendix F Requirements × Appendix H Requirements ×

Was this message different than what was proposed in your NOI? Yes No

If yes, describe why the change was made:

Education to septic owners was not specifically called out in the NOI, but does apply to a small percentage of City residents.

BMP: Scoop the Poop Pet Waste Management Summer Message

Message Description and Distribution Method:

The Scoop the Poop pledge was published in the Sunday edition of the Union Leader and posted on the Manchester Urban Ponds Facebook page on 7/5/2020. The posting included a link and QR code to take the Scoop the Poop pledge. The Scoop the Poop fact sheet is permanently posted at the Manchester Urban Ponds Kiosks. The City also distributes an education fact sheet with dog license registration form.

Targeted Audience:

Responsible Department/Parties:

Measurable Goal(s):

Readership for Union Leader (166,000 people). Number of people reached, engagements, and likes to Facebook post (104 people reached, 13 engagements, 7 likes). Number of Kiosk postings (10 postings). Number of Scoop the Poop pledges (13 pledges).

Message Date(s): Ongoing (fact sheets), 7/5/2020 (newspaper article and Facebook post)

Message Completed for: Appendix F Requirements × Appendix H Requirements ×

Was this message different than what was proposed in your NOI? Yes No

If yes, describe why the change was made:

BMP: Rake it or Leave it Leaf Litter Fall Message

Message Description and Distribution Method:

An article outlining proper disposal of leaf litter was published in the Sunday edition of the Union Leader on 10/4/2020 and published in the Hippo Press on 10/15/2020. The information was posted on the Manchester Urban Ponds Facebook page on 10/15/2020. The Rake it or Leave it - Leaf Litter fact sheet is permanently posted at the Manchester Urban Ponds Kiosks.

Targeted Audience: Residents, Businesses, Institutions and Commercial Facilities

Responsible Department/Parties: DPW-EPD

Measurable Goal(s):

Readership for Union Leader (166,000 people) and for Hippo Press (34,000 people). Likes to Facebook post (5 likes). Number of Kiosk postings (10 postings).

Message Date(s): Ongoing (fact sheets), 10/4/2020 (newspaper article), 10/15/2020 (newspaper article and Facebook post)

Message Completed for: Appendix F Requirements Appendix H Requirements ×

Was this message different than what was proposed in your NOI? Yes No

If yes, describe why the change was made:

BMP: Green Grass Clippings/Fertilizer Spring Message

Message Description and Distribution Method:

An article outlining proper disposal of grass clippings and proper application of fertilizer was published in the Sunday edition of the Union Leader on 4/11/2021. A post to the Urban Pond Facebook feed with the same message was posted on 4/13/2021. The Green Grass Clean Water fact sheet is permanently posted in the Manchester Urban Ponds Kiosks. A Manchester Ink Article titled "City parks to get organic makeover" was shared to the Urban Ponds Facebook feed on 9/14/2020. This article discusses the #Playfree zones and alternatives to pesticides that will be used at the Manchester parks funded by a donation.

Targeted Audience: Residents, Businesses, Institutions and Commercial Facilities

Responsible Department/Parties: DPW-EPD

Measurable Goal(s):

Readership for Union Leader (166,000 people). Number of people reached, engagements, and likes to Facebook post (3 shares, 2 likes for post on 4/13/21 and 107 people reached, 47 engagements, 6 shares, 17 likes, and 2 comments for post on 9/14/2020). Number of Kiosk postings (10 postings).

Message Date(s): Ongoing (fact sheets), 4/11/2021 (newspaper article), 4/13/2021 and 9/14/2020 (Facebook post)

Message Completed for: Appendix F Requirements Appendix H Requirements ×

Was this message different than what was proposed in your NOI? Yes No

If yes, describe why the change was made:

BMP: Catch Basin Cleaning Message Share

Message Description and Distribution Method:

A message to keep storm drains clear along with contact information for Public Works was posted on Mayor Joyce Craig's twitter page and shared on the Manchester Urban Pond Facebook feed on 7/8/2020.

Targeted Audience: Residents, Businesses, Institutions and Commercial Facilities

Responsible Department/Parties: DPW-EPD

Measurable Goal(s):

Number of people reached, engagements, and likes to Facebook post (99 people reached, 9 engagements, 3 likes).

Message Date(s): 7/8/2020

Message Completed for: Appendix F Requirements Appendix H Requirements

Was this message different than what was proposed in your NOI? Yes No

If yes, describe why the change was made:

Catch basin cleaning education was not included as a message in the NOI, however, has been added to increase awareness of the function of the drainage system and importance of keeping it functional to prevent flooding.

BMP:Urban Pond History Exhibit

Message Description and Distribution Method:

An exhibit titled "Manchester's Urban Ponds: Past, Present, and Future" was located at the Millyard Museum's State Theater gallery from 7/24/2020 through 11/28/2020. The exhibit included a mixture of historic

photographs and artifacts with new photographs and information on the Manchester Urban Pond Restoration Program. This exhibit also included an entire section on stormwater pollution education with outreach materials similar to those posted in Urban Pond Kiosks. A message with information on the exhibit was announced on the 93.5 Radio Channel on 7/16/2020 and the radio message was shared on the Urban Ponds Facebook Feed on 7/22/2020. An article was posted in NH Magazine with the exhibit information on 8/5/2020 and the article was shared on the Urban Ponds Facebook feed on 8/5/2020. An article was posted in the Union Leader with the exhibit information on 8/6/2020 and the article was shared on the Urban Ponds Facebook feed on 8/7/2020. Information on the exhibit was shared again to the Urban Ponds Facebook feed on 8/13/2020 and 9/9/2020.

Targeted Audience: Residents

Responsible Department/Parties: DPW-EPD

Measurable Goal(s):

Number of attendees at exhibit (823 attendees). Number of listeners for radio message (1,600 listeners). Readership for NH Magazine (110,000 people) and Union Leader (143,000 people). Number of people reached, engagements, and likes to Facebook post (142 people reached, 41 engagements, 11 likes, 7 comments for post on 7/22/2020, 118 people reached, 24 engagements, 4 shares, 11 likes for post on 8/5/2020, 66 people reached, 18 engagements, and 5 likes, 7 comments for post on 8/13/2020, and 286 people reached, 82 engagements, 1 share, and 25 likes for post on 9/9/2020).

Message Date(s): 7/24/20 through 11/28/2020 (exhibit), 7/16/20 (radio message), 8/5/2020 and 8/6/2020 (newspaper articles), 7/22/2020, 8/5/2020, 8/13/2020, 9/9/2020 (Facebook post)

Message Completed for: Appendix F Requirements Appendix H Requirements

Was this message different than what was proposed in your NOI? Yes No

If yes, describe why the change was made:

This message was not originally proposed in the NOI, however, has been added to increase awareness of the City's urban ponds and associated stormwater pollution issues, which are also subject to phosphorus TMDLs.

BMP:Solid Waste Guide

Message Description and Distribution Method:

The 2021 City of Manchester Solid Waste Guide provides information to residents and businesses regarding disposal of their solid waste including a calendar for pick up of yard waste, hazardous waste disposal days, and other pick ups. The guide also includes educational messages on the proper disposal of household hazardous waste to prevent contamination of ground and surface waters, and on keeping leaves and brush out of the street and drainage system. This guide was posted to the Urban Pond Facebook page on 3/16/2021. Solid and Yard Waste Composting brochures were sent to customers with water bills between 4/1/2021 and 6/30/2021.

Targeted Audience: Residents, Businesses, Institutions and Commercial Facilities

Responsible Department/Parties: DPW-EPD, NHDES

Measurable Goal(s):

Number of shares/likes/comments to Facebook post (3 shares, 5 likes, 3 comments); Number of brochures sent

with water bills (25,000)

Message Date(s): 3/16/2021 (Facebook post); 4/1/2021 through 6/30/2021 (brochures with water bills)

Message Completed for: Appendix F Requirements Appendix H Requirements

Was this message different than what was proposed in your NOI? Yes No

If yes, describe why the change was made:

BMP:Hazardous Waste and Yard Waste Message

Message Description and Distribution Method:

A post about Manchester's Hazardous Waste and yard waste drop off locations and hours was made to the Urban Ponds Facebook page on 10/4/2020. A post on common household hazardous wastes was made to the Urban Ponds Facebook page on 5/7/2021.

Targeted Audience: Residents

Responsible Department/Parties: DPW-EPD, NHDES

Measurable Goal(s):

Likes/comments on Facebook post (5 likes and 2 comments on 10/4/2020 post and 4 likes on 5/7/2021 post)

Message Date(s): 10/4/2020 and 5/7/2021

Message Completed for: Appendix F Requirements Appendix H Requirements

Was this message different than what was proposed in your NOI? Yes No

If yes, describe why the change was made:

BMP:What Plants are Growing Webinar Message

Message Description and Distribution Method:

A message about the What Plants are Growing in the Lake Webinar was posted to the Urban Ponds Facebook page on 6/16/2021. The webinar will occur during Year 4.

Targeted Audience: Residents

Responsible Department/Parties: DPW-EPD

Measurable Goal(s):

Shares/likes on Facebook post (1 share and 2 likes)

Message Date(s): 6/16/2021

Message Completed for: Appendix F Requirements Appendix H Requirements

Was this message different than what was proposed in your NOI? Yes No

If yes, describe why the change was made:

This was added to promote awareness on problem vegetation.

BMP: Stormwater Pollution Control for Industrial Facilities Fact Sheet

Message Description and Distribution Method:

A Fact Sheet outlining stormwater pollution control measures for industrial facilities was mailed to 46 facilities on 6/22/2021. The fact sheet included practices to minimize or prevent exposure of pollutants to stormwater and requirements for tracking and reducing winter salt levels.

Targeted Audience: Industrial facilities

Responsible Department/Parties: DPW-EPD

Measurable Goal(s):

Number of fact sheets delivered (43 of 46 fact sheets received).

Message Date(s): 6/22/2021

Message Completed for: Appendix F Requirements Appendix H Requirements

Was this message different than what was proposed in your NOI? Yes No

If yes, describe why the change was made:

BMP: General Stormwater Pollution Messages

Message Description and Distribution Method:

General information on stormwater pollution in Manchester was permanently posted at the Manchester Urban Ponds Kiosks. Fact sheets posted at the kiosks are entitled "Just Remember," "What Can You Do to Reduce Stormwater Runoff and Pollution," and "The Basics of Stormwater." An article entitled, "River at risk: Forest Society film explores vital need for Merrimack River conservation" was posted to the Manchester Urban Ponds Facebook page on 9/27/2020.

Targeted Audience: Residents

Responsible Department/Parties: DPW-EPD

Measurable Goal(s):

Number of kiosk postings (10 postings of "Just Remember" fact sheet and 9 postings of both the "What Can You Do to Reduce Stormwater Runoff and Pollution" and "The Basics of Stormwater" fact sheets). Number

of shares and likes on Facebook post (2 shares and 5 likes).

Message Date(s): Ongoing (fact sheet postings), 9/27/2020 (Facebook post)

Message Completed for: Appendix F Requirements Appendix H Requirements

Was this message different than what was proposed in your NOI? Yes No

If yes, describe why the change was made:

Expanded distribution of messages to kiosk postings.

Add an Educational Message

MCM2: Public Participation

Describe the opportunity provided for public involvement in the development of the Stormwater Management Program (SWMP) **during this reporting period:**

The SWMP is published on Manchester's website (<https://www.manchesternh.gov/Departments/Environmental-Protection/Stormwater/Stormwater-Management-Program>) and available for public review. A hard copy of the SWMP is also available at the EPD office at 300 Winston Street, Manchester, NH.

Was this opportunity different than what was proposed in your NOI? Yes No

Describe any other public involvement or participation opportunities conducted **during this reporting period:**

The SWMP webpage provides a link to an EPD phone number and email encouraging residents to provide any comments/concerns on the current SWMP. No comments were received in Year 3.

MCM3: Illicit Discharge Detection and Elimination (IDDE)

Sanitary Sewer Overflows (SSOs)

Check off the box below if the statement is true.

This SSO section is NOT applicable because we DO NOT have sanitary sewer

Below, report on the number of SSOs identified in the MS4 system and removed **during this reporting period.**

Number of SSOs identified:

Number of SSOs removed:

MS4 System Mapping

Optional: Provide additional status information regarding your map:

The City used a real-time GIS platform during dry weather outfall inspections that allowed changes identified in the field to be recorded directly into an online GIS, including more accurate outfall locations, identification of new outfalls, and relabeling of structures misidentified as outfalls. All known outfalls and interconnections were visited by the end of Permit Year 3. The City is now in the process of identifying and investigating data gaps in its stormwater infrastructure mapping (e.g., missing piping and connectivity) and will continually update its mapping as these data gaps are filled.

Screening of Outfalls/Interconnections

If conducted, please submit any outfall monitoring results from this reporting period. Outfall monitoring results should include the date, outfall/interconnection identifier, location, weather conditions at time of sampling, precipitation in previous 48 hours, field screening parameter results, and results from all analyses. Please also include the updated inventory and ranking of outfalls/interconnections based on monitoring results.

- No outfalls were inspected
- The outfall screening data is attached to the email submission
- The outfall screening data can be found at the following website:

*Below, report on the number of outfalls/interconnections screened **during this reporting period.***

Number of outfalls screened:

*Below, report on the percent of total outfalls/ interconnections screened **to date.***

Percent of outfalls screened:

Optional: Provide additional information regarding your outfall/interconnection screening:

The City has attempted to inspect all 647 known MS4 outfalls and interconnections during dry weather, with 430 outfalls screened in Year 3. In cases where an outfall could not be found, the location was revisited again when there was less vegetation. In the event it still could not be located, or was inaccessible, the upgradient catch basin or manhole was inspected for dry weather flows as a proxy for the outfall. The City has a number of long culverted streams where stormwater drainage networks discharge directly into the culvert at a junction structure such as a manhole or catch basin. The junction structure discharge points into the culverted stream were mapped as new outfalls this period. Seven of the new outfalls to long culverted streams could not be accessed due to tacked manhole covers and incorrect mapping. These are being revisited over the fall during activities to fill in mapping data gaps.

Catchment Investigations

If conducted, please submit all data collected during this reporting period as part of the dry and wet weather investigations. Also include the presence or absence of System Vulnerability Factors for each catchment.

- No catchment investigations were conducted
- The catchment investigation data is attached to the email submission
- The catchment investigation data can be found at the following website:

Below, report on the number of catchment investigations completed **during this reporting period**.

Number of catchment investigations completed this reporting period:

Below, report on the percent of catchments investigated **to date**.

Percent of total catchments investigated:

Optional: Provide any additional information for clarity regarding the catchment investigations below:

No catchment investigations were completed during this reporting period, however, the City did begin investigating some of the potential illicit discharge flows to segregate where the flows may be coming into the system and evaluating key junction structures in the process. This was also performed for the illicit discharge identified at Kelley Street during Year 2, which required tracing of the flow through the piping network to identify and eliminate the source.

IDDE Progress

If illicit discharges were found, please submit a document describing work conducted over this reporting period, and cumulative to date, including location source; description of the discharge; method of discovery; date of discovery; and date of elimination, mitigation, or enforcement OR planned corrective measures and schedule of removal.

- No illicit discharges were found
- The illicit discharge removal report is attached to the email submission
- The illicit discharge removal report can be found at the following website:

Below, report on the number of illicit discharges identified and removed, along with the volume of sewage removed **during this reporting period**.

Number of illicit discharges identified:

Number of illicit discharges removed:

Estimated volume of sewage removed: gallons/day

Below, report on the total number of illicit discharges identified and removed to date. At a minimum, report on the number of illicit discharges identified and removed **since the effective date of the permit (July 1, 2018)**.

Total number of illicit discharges identified:

Total number of illicit discharges removed:

Optional: Provide any additional information for clarity regarding illicit discharges identified, removed, or planned to be removed below:

The removal report for DOU-109404 was included with the Year 2 report. This was found in Year 2 and repaired in July of Year 3. The City has begun investigating other dry weather flows with water quality parameters above the illicit discharge indicator benchmarks.

Employee Training

Describe the frequency and type of employee training conducted **during this reporting period**:

Employee training was conducted on May 12, 2021 at the Manchester Highway Department offices at 475 Valley Street. Training focused on Water Pollution, MS4 Permit Requirements, IDDE Program Requirements, Illicit Discharge Investigations, Sanitary Sewer Overflows, and Good Housekeeping. Approximately thirteen City of Manchester employees from DPW-EPD attended the training. A training log is included in Appendix J of the Illicit Discharge Detection Plan posted on the City's Stormwater website.

Employee training was conducted on May 24, 2021 at the Bridge Street Maintenance Center. Training focused on Water Pollution, MS4 Permit Requirements, and the Stormwater Pollution Prevention Plan. Approximately six City of Manchester employees from DPW-EPD, Highway Division, and Parks and Recreation attended the training.

MCM4: Construction Site Stormwater Runoff Control

*Below, report on the construction site plan reviews, inspections, and enforcement actions completed **during this reporting period**.*

Number of site plan reviews completed:

Number of inspections completed:

Number of enforcement actions taken:

Optional: Enter any additional information relevant to construction site plan reviews, inspections, and enforcement actions:

The City completed 24 site plan reviews for development/redevelopment projects. The City performed 110 site inspections and reviewed 207 inspection reports prepared by third party inspectors.

When performing construction site inspections, the City discusses any observed issues with the Contractor at the time of the inspection. These are resolved through the inspection process, limiting the need for formal enforcement actions. Of the 110 site inspections performed by the City, minor issues were noted during 4 of the inspections and resolved with the Contractor and major issues were observed during 1 inspection and resolved with the Contractor.

MCM5: Post-Construction Stormwater Management in New Development and Redevelopment**As-built Drawings**

*Below, report on the number of as-built drawings received **during this reporting period**.*

Number of as-built drawings received:

Optional: Enter any additional information relevant to the submission of as-built drawings:

Requested 16 as-built drawings during this reporting period as part of the long term maintenance agreement.

Street Design and Parking Lots Report

Describe the status of the street design and parking lots assessment due in year 4 of the permit term, including any planned or completed changes to local regulations and guidelines:

A preliminary review of the City of Manchester's existing bylaws and applicable regulations to assess current street design and parking lots was conducted in Year 2. The review will be completed and fully documented in Year 4.

Green Infrastructure Report

Describe the status of the green infrastructure report due in year 4 of the permit term, including the findings and progress towards making the practice allowable:

A preliminary review of the City of Manchester's existing bylaws and applicable regulations to assess allowing for green infrastructure was conducted in Year 2. The review will be completed and fully documented in Year 4.

MCM6: Good Housekeeping

Catch Basin Cleaning

*Below, report on the number of catch basins inspected and cleaned, along with the total volume of material removed from the catch basins **during this reporting period.***

Number of catch basins inspected: 1,770

Number of catch basins cleaned: 1,567

Total volume or mass of material removed from all catch basins: 900 cubic yards

Below, report on the total number of catch basins in the MS4 system.

Total number of catch basins: 7,623

If applicable:

Report on the actions taken if a catch basin sump is more than 50% full during two consecutive routine inspections/cleaning events:

Two consecutive routine inspections have not occurred to date. The City cleans its catch basins by Ward and there are approximately 11,000 catch basins in the City (7,623 in the MS4 and the remainder in the combined sewer area). Catch basins in the combined sewer area are also inspected and cleaned as part of the on-going

cleaning program.

Street Sweeping

Report on the number of miles swept **during this reporting period** below.

Number of miles cleaned: 3,109

Report either the volume or weight of street sweeping materials collected **during this reporting period** below.

Volume of material removed: 1,900 cubic yards

Weight of material removed: [Select Units]

Stormwater Pollution Prevention Plan (SWPPP)

Below, report on the number of site inspections for facilities that require a SWPPP completed **during this reporting period**.

Number of site inspections completed: 3

Describe any corrective actions taken at a facility with a SWPPP:

The Bridge Street Maintenance Center SWPPP was finalized in October 2020, with three quarterly inspections performed after completion.

Additional Information

Monitoring or Study Results

Results from any other stormwater or receiving water quality monitoring or studies conducted during the reporting period not otherwise mentioned above, where the data is being used to inform permit compliance or permit effectiveness must be attached.

- Not applicable
- The results from additional reports or studies are attached to the email submission
- The results from additional reports or studies can be found at the following website(s):

<https://www.manchesternh.gov/Departments/Environmental-Protection/Pond-Restoration/Water-Quality-Data>

If such monitoring or studies were conducted on your behalf or if monitoring or studies conducted by other entities were reported to you, a brief description of the type of information gathered or received shall be described below:

Water quality testing of five Manchester ponds is performed under the State's Volunteer Lake Assessment Program (VLAP). VLAP establishes a volunteer-driven lake sampling program to assist NHDES in evaluating lake water quality, and provides volunteer monitors and lake residents with reports on lake health. Ponds tested under the program include Crystal Lake, Dorrs Pond, Nutts Pond, Pine Island Pond and Stevens Pond, which are monitored for alkalinity, Chlorophyll-a, Chloride, Color, Conductivity, Total Phosphorus, Transparency, Turbidity and pH. Annual reports of the monitoring results are posted on the City's and NHDES's websites.

Additional Information

Optional: Enter any additional information relevant to your stormwater management program implementation during the reporting period. Include any BMP modifications made by the MS4 if not already discussed above:

-MCM3: SSOs - Three of the four SSOs reported are associated with the CSO system and will be addressed with the City's CSO program.

-MCM3: Screening of Outfalls - The City has visited all 647 known MS4 outfall locations through Permit Year 3. If an outfall could not be found, it was revisited in a second attempt to locate it during low vegetation conditions. 97 outfalls could not be found or accessed in the field. In 90 of these cases, the upgradient structure was inspected for the presence of illicit discharge indicators and dry weather flows. Seven (new outfalls to long culverted streams identified in June 2021) could not be accessed due to tacked manhole covers and incorrect mapping and are being revisited over the fall. Of the 647 outfalls/interconnections visited, 72 were found to be shorter culverts (e.g., road crossings) or pipe inlets (not outfalls), 26 were found not to exist, and 58 were newly identified and mapped including discharges to long culverted streams.

-MCM6: CB Cleaning - The reported number of catch basins inspected and cleaned under MCM1 includes catch basins within and outside of the City's MS4. The City has approximately 11,000 catch basins that it cleans on a rotating cycle. Approximately 7,600 of these are part of the MS4.

-MCM6: Street Sweeping - The reported miles of streets swept represent lane miles and include streets within and outside of the City's MS4 and also accounts for multiple sweepings of the same road.

-Other Stormwater Programs - The City has evaluated stormwater conveyance channels and culverts for maintenance needs and is in the process of prioritizing these for further investigation, design repair and maintenance to be implemented during the 2022 fiscal year. Proper maintenance of these structures can help prevent erosion, flooding and road damage that can impact water quality and cost more to address once they become a problem.

COVID-19 Impacts

Optional: If any of the above year 3 requirements could not be completed due to the impacts of COVID-19, please identify the requirement that could not be completed, any actions taken to attempt to complete the requirement, and reason the requirement could not be completed below:

Activities Planned for Next Reporting Period

Please confirm that your SWMP has been, or will be, updated to comply with all applicable permit requirements including but not limited to the year 4 requirements summarized below. (Note: impaired waters and TMDL requirements are not listed below)

Yes, I agree

- Develop a report assessing current street design and parking lot guidelines and other local requirements within the municipality that affect the creation of impervious cover
- Develop a report assessing existing local regulations to determine the feasibility of making green infrastructure practices allowable when appropriate site conditions exist

- Identify a minimum of 5 permittee-owned properties that could potentially be modified or retrofitted with BMPs to reduce impervious areas

Annual Requirements

- Annual report submitted and available to the public
- Annual opportunity for public participation in review and implementation of SWMP
- Keep records relating to the permit available for 5 years and make available to the public
- Properly store and dispose of catch basin cleanings and street sweepings so they do not discharge to receiving waters
- Annual training to employees involved in IDDE program
- Update inventory of all known locations where SSOs have discharged to the MS4
- Continue public education and outreach program
- Update outfall and interconnection inventory and priority ranking and include data collected in connection with the dry weather screening and other relevant inspections conducted
- Implement IDDE program
- Review site plans of construction sites as part of the construction stormwater runoff control program
- Conduct site inspection of construction sites as necessary
- Inspect and maintain stormwater treatment structures
- Log catch basins cleaned or inspected
- Sweep all curbed streets at least annually
- Continue investigations of catchments associated with Problem Outfalls
- Implemented SWPPPs for all permittee owned or operated maintenance garages, public works yards, transfer stations, and other waste handling facilities
- Review inventory of all permittee owned facilities in the categories of parks and open space, buildings and facilities, and vehicles and equipment; update if necessary
- Review O&M programs for all permittee owned facilities; update if necessary
- Implement all maintenance procedures for permittee owned facilities in accordance with O&M programs
- Implement program for MS4 infrastructure maintenance to reduce the discharge of pollutants
- Enclose all road salt storage piles or facilities and implemented winter road maintenance procedures to minimize the use of road salt
- Review as-built drawings for new and redevelopment to ensure compliance with post construction bylaws, regulations, or regulatory mechanism consistent with permit requirements
- Inspect all permittee owned treatment structures (excluding catch basins)

Provide any additional details on activities planned for permit year 4 below:

Part V: Certification of Small MS4 Annual Report 2021

40 CFR 144.32(d) Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate 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, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: Title:

Signature:
[Signatory may be a duly authorized representative] Date: