

Year 4 Annual Report
Massachusetts Small MS4 General Permit
Reporting Period: July 1, 2021-June 30, 2022

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, 2021 and June 30, 2022 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)

Bacteria/Pathogens Chloride Nitrogen Phosphorus
 Solids/ Oil/ Grease (Hydrocarbons)/ Metals

TMDL(s)

In State:

Assabet River Phosphorus Bacteria and Pathogen Cape Cod Nitrogen
 Charles River Watershed Phosphorus Lake and Pond Phosphorus

Out of State:

Bacteria/Pathogens Metals Nitrogen 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 4 Requirements

- Developed a report assessing current street design and parking lot guidelines and other local
- requirements within the municipality that affect the creation of impervious cover, made it available as part of the SWMP, and:

- No updates were recommended
- Updates were recommended. The anticipated date or date of completion for updates is/was:

Recommendations were incorporated into the City's stormwater regulations on 5/17/21.

- Developed a report assessing local regulations to determine the feasibility of making green
- infrastructure practices allowable when appropriate site conditions exist, made it available as part of the SWMP, and:

- No updates were recommended
- Updates were recommended. The anticipated date or date of completion for updates is/was:

Recommendations were incorporated into the City's stormwater regulations on 5/17/21.

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

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

The Neponset River Watershed Association completed a code review for the City in August 2020 to identify recommendations and suggested changes to the City's stormwater regulations to promote LID practices, capture additional redevelopment project types to manage impervious surfaces, and incorporate water quality improvements. Several of these recommendations were incorporated into the updates to the City's stormwater

regulations that were adopted by City Council on May 17, 2021.

The City evaluates opportunities to reduce impervious cover and encourages the use of green infrastructure practices as part of municipal projects and during the review of private projects. The City completed an evaluation of all municipal parking lots in May 2018 and an evaluation of all municipal properties in August 2021 to identify potential retrofit opportunities. Prior to Permit Year 4, the City reviewed 40 municipal properties for potential retrofits to reduce impervious cover and improve stormwater treatment. Retrofit opportunities were ranked for the top 10 priority sites and conceptual designs were prepared for three projects. These projects were submitted for a s319 grant in June 2021, but were not funded. In December 2021 the City re-evaluated the project costs and approach in support of a future s319 grant. The City, with support from the Neponset Stormwater Partnership, plans to resubmit a s319 grant application in Spring 2023.

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:

https://www.quincyma.gov/departments/public_works/storm_drain_management_program/index.php

- Updated system map due in year 2 as necessary
- Provided training to employees involved in IDDE program within the reporting period
- Properly stored and disposed of catch basin cleanings and street sweepings so they did not discharge to receiving waters
- All curbed roadways were swept at least once within the reporting period
- Enclosed all road salt storage piles or facilities and implemented winter road maintenance procedures to minimize the use of road salt
- Implemented SWPPPs for all permittee owned or operated maintenance garages, public works yards, transfer stations, and other waste handling facilities
- 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 or provide any additional details, please use the box below:

The City developed a SSO reporting website and anyone can sign up for notifications.
https://www.quincyma.gov/departments/public_works/regulatory_compliance/sso_reports/index.php
<https://lp.constantcontactpages.com/su/3KXZPCb>

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:

Nitrogen (Combination of Impaired Waters Requirements and TMDL Requirements as Applicable)

Annual Requirements

*Public Education and Outreach**

- Distributed an annual message in the spring (April/May) that encourages the proper use and disposal of grass clippings and encourages the proper use of slow-release 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)

Nitrogen Source Identification Report

- Completed the Nitrogen Source Identification Report
 - The Nitrogen Source Identification Report is attached to the email submission
 - The Nitrogen Source Identification Report can be found at the following website:

https://www.quincyma.gov/departments/public_works/storm_drain_management_program/index.php

Potential structural BMPs

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 was tracked and the nitrogen removal by the BMP was estimated consistent with Attachment 1 to Appendix H. The BMP type, total area treated by the BMP, the design storage volume of the BMP and the estimated nitrogen 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:

The City completed an evaluation of all municipal parking lots in May 2018 and an evaluation of all municipal properties in August 2021 to identify potential retrofit opportunities. Prior to Permit Year 4, the City reviewed 40 municipal properties for potential retrofits to reduce impervious cover and improve stormwater treatment. Retrofit opportunities were ranked for the top 10 priority sites and conceptual designs were prepared for three projects. These projects were submitted for a s319 grant in June 2021, but were not funded. In December 2021 the City re-evaluated the project costs and approach in support of a future s319 grant. The City, with support from the Neponset Stormwater Partnership, plans to resubmit a s319 grant application in Spring 2023.

A Nutrient Source Identification Report (NSIR) for the City of Quincy was prepared in conjunction with the Neponset River Watershed Association and is dated June 18, 2021. This effort identified sites with the highest potential for retrofits and water quality improvement. The City completed an inventory of public properties that were considered in the NSIR and continued to evaluate its BMP database to combine this information to update nitrogen loading, BMP treatment, and identify potential retrofit opportunities.

Solids, Oil and Grease (Hydrocarbons), or Metals

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
 - The street sweeping schedule is attached to the email submission
 - The street sweeping schedule can be found at the following website:

https://www.quincyma.gov/departments/public_works/highway/street_sweeping.php

<https://cms7files1.revize.com/quincyma/Document%20Center/Department/Public%20Works/PSA%20Bulletin%20Board/Fall%20Winter%202022%20Newsletter.pdf>

- Prioritized inspection and maintenance for catch basins to ensure that no sump shall be more than 50 percent full; Cleaned catch basins more frequently if inspection and maintenance activities indicated excessive sediment or debris loadings

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 City deployed CityWorks and incorporated historic data from iData Collect to track catch basin inspection and cleaning activities. In Spring 2022 the City evaluated historical cleaning data to prioritize catch basin cleanings based on past sediment accumulation data that showed catch basins were 50% full or greater, priority watersheds and available budget.

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

The City continued work under the MassDEP Clean Water State Revolving Fund (SRF) loan for \$3.1M to complete conceptual design of priority outfall repairs, flood inundation modeling, flood mitigation alternative analysis, enhanced field survey and GIS mapping of the MS4. The majority of the MS4 compliance work supported by the SRF loan included IDDE activities within the reporting period. The progress of IDDE activities was reported separately to EPA as part of the October 2021 and April 2022 Consent Decree Compliance Reports. The next Compliance Report is due by the end of October 2022 and will include all IDDE activities through September 30, 2022.

The City built and deployed the asset management platform, CityWorks, within the reporting period to support MS4 compliance, data management, mapping updated, etc. Historic data integration and field data collection via the CityWorks platform will be complete in the beginning of PY5.

The City continues to invest in infrastructure projects to manage coastal storms, stormwater, and water quality improvements to receiving waters. Notable projects included the following during the reporting period:

- 1) Seawall Project (\$15M) along Sea St and Post Island Rd was completed.
- 2) Town Brook Culvert and Bigelow St Drainage Repairs (\$1.5M) was completed.
- 3) A portion of the Furnace Ave Flood Mitigation Project (Furnace Brook Restoration) was awarded and will go into construction in 2022. The Miller St, and Cross St Projects were not funded but DPW will continue to pursue funding.
- 4) City-wide Flood Studies: a conceptual model was developed for the Houghs Neck and Adams Shore areas. A conceptual alternatives analysis was completed for the Wollaston area and the City continued to develop flood models for the remainder of the City.
- 5) Houghs Neck / Willows Salt Marsh Study with the Army Corps of Engineers (ongoing). A culvert replacement design was advanced for the sewer dike.
- 6) Butler's Pond Dredging and Stormwater Improvements: dredging completed and stormwater improvements were completed with plantings in Spring 2022 and final plantings planned for Fall 2022.
- 7) Sailors Home Pond: algaecide and alum treatments completed in PY4, approximately 80 bags of leaves collected around pond by North Quincy High School ROTC students in December 2021.
- 8) Phragmites Management: NOI application has been filed and the abutters have been notified regarding the proposed herbicide treatment that will take place at Broad Meadows Marsh and Merrymount Park. These two sites were chosen because of their high ecological value and a relatively manageable amount of phragmites within both areas.
- 9) Harriet Ave Drainage Improvement Project (\$100K) was completed.

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:

The Neponset River no longer has a Dissolved Oxygen impairment, and the Furnace Brook has an additional impairment of Benthic Macro-invertebrates based on the 2018/2020 Integrated List of Waters. Previous changes to impairments based on the 2016 Integrated List of Waters were outlined in the September 2020 SWMP.

The progress of IDDE activities, including all outfall/interconnection data, was reported separately to EPA as part of the October 2021 and April 2022 Consent Decree Compliance Reports. The next Compliance Report is due by the end of October 2022 and will include all IDDE activities through September 30, 2022.

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: Maintain Educational Website

Message Description and Distribution Method:

The City of Quincy has partnered with the Neponset Stormwater Partnership to complete this BMP: Maintained a comprehensive educational website to serve the Neponset Stormwater Partnership service area as a primary resource for key information for all four target audiences.

Targeted Audience:

Responsible Department/Parties:

Measurable Goal(s):

Neponset Stormwater Partnership's Measureable Goal: Achieve at least 500 unique site visits every year.

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:

BMP: Operate Stormwater Hotline

Message Description and Distribution Method:

The City of Quincy has partnered with the Neponset Stormwater Partnership to complete this BMP: Operated a regional "stormwater hotline" to field questions and problem reports regarding stormwater from across the region. Responses were collected via a website form hosted at yourcleanwater.org, via email submissions to stormwater@neponset.org, and phone calls to 781-575-0354 x 300. Responses included answers to questions, additional information or follow up investigation, and/or referral of inquiries/reports to the appropriate municipalities as appropriate. Anonymity of inquiries was maintained as requested

Targeted Audience:

Responsible Department/Parties:

Measurable Goal(s):

Neponset Stormwater Partner's Measurable Goal: Provide immediate answers to inquiries generated by regionalized outreach activities.

Five contacts were made to the stormwater hotline this year related to septic tank cleaning (1), local pollution (3), and improper fertilizer use (1). NepRWA initially investigated the calls and contacted the appropriate municipality for follow-up. Calls were not provided specifically for the City of Quincy.

Message Date(s): Ongoing since May 1, 2018

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:Distribute Pet Waste Information with Dog Licenses

Message Description and Distribution Method:

Print pet waste cards and posters. Distribute to City clerks and have clerks insert cards when mailing back complete dog licenses. Display posters at the City Clerk's Office where dog license applications are received and distribute pet waste cards in person at the City Clerk's Office.

Targeted Audience: Residents

Responsible Department/Parties: Neponset Stormwater Partnership, Quincy City Clerk's Office

Measurable Goal(s):

Full participation of City clerks in order to reach 80% of dog owners annually with pet waste management information. Over the 5-year permit period, achieve a reduction in the number of pet waste bags found when cleaning catch basins. For this reporting period, a total of 10,400 cards were printed and distributed to City clerks.

Message Date(s): Materials were distributed to the City Clerk in December 2021 and disseminated to dog owners over the next several months.

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:Summer Pet Waste Campaign

Message Description and Distribution Method:

The City of Quincy published a post on their Twitter about the proper disposal of pet waste. The post included a link to the Neponset Stormwater Partnership's web page, which provides proper pet waste management

information, including: health problems that can stem from human interaction with pet waste, the environmental impacts of pet waste pollution in stormwater, and ways residents can prevent their pet's waste from polluting stormwater.

Targeted Audience: Residents, Businesses, Industry

Responsible Department/Parties: Neponset Stormwater Partnership, Quincy DPW

Measurable Goal(s):

The City retweeted the Neponset Stormwater Partnership's tweet. The city of Quincy has 8,182 followers on Twitter.

Message Date(s): June 8, 2022 on Twitter

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: Fall Leaf Waste Campaign

Message Description and Distribution Method:

The City of Quincy published a post on Facebook and Twitter pages about the proper management of leaf litter. The post included a link to the Neponset Stormwater Partnerships website page which provides proper yard waste disposal information, including how leaves and grass clippings can contribute to stormwater pollution and impact the natural environment, ways residents can help prevent the yard waste from polluting stormwater and specific information on how to dispose of yard waste in the City of Quincy.

Targeted Audience: Residents, Businesses, Industry

Responsible Department/Parties: Neponset Stormwater Partnership, Quincy DPW

Measurable Goal(s):

The City's October 13, 2021 Facebook post was "liked" 6 times by Facebook users. The November 2, 2021 Facebook post was "reacted" 10 times, "shared" 2 times and commented on 2 times by Facebook users.

Approximately 13,000 users currently "follow" the City of Quincy's Facebook page and can view the City's postings in their newsfeed.

Message Date(s): October 13, 2021 and November 2, 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:Spring Fertilizer and Grass Clipping Campaign

Message Description and Distribution Method:

The Neponset Stormwater Partnership posted to their Facebook and Twitter accounts about the harmful effects of phosphorus containing fertilizers. The posts included a link to the Neponset Stormwater Partnerships web page which provides proper yard maintenance information including how fertilizers can be transported into storm drain systems and surface water via stormwater runoff and thus polluting water waterways, fertilizer regulations, alternatives, and a “fertilizer calculator” that allows a user to enter several pieces of information and receive a suggested fertilizer application rate based on guidance from the NEIWPCCC Northeast Voluntary Turf Fertilizer Initiative. The social media message reached those in Quincy as a Quincy-focused group also shared the message.

Targeted Audience: Residents, Business, Industry

Responsible Department/Parties: Neponset Stormwater Partnership, Quincy DPW

Measurable Goal(s):

Participation by 100% of NSP communities and reach to at least 1,000 people in the NSP region through social media

A total of 13,000 people were reached through Facebook, with an additional 8,182 people reached through Twitter. The March 28, 2022 and April 6, 2022 NSP Facebook post received 14 likes, 1 comment and 2 shares. The March 28, 2022 NSP tweet had 1 comment, 10 retweets and 15 likes.

Message Date(s): March 28, 2022 and April 6, 2022

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: School Outreach Program

Message Description and Distribution Method:

Due to COVID-19, all lessons had to take place online over zoom or Google meet. Prepared new online PowerPoint-based watershed education curriculum for 5th grade students. Curriculum covered drinking water and stormwater infrastructure local water resources wastewater systems water conservation and stormwater pollution prevention techniques curriculum was designed and adapted with input from teachers and participating schools and aligned with the MA 5th grade science curriculum standards. The program was delivered at the individual classroom level over the course of one 60 minute online visit by a watershed educator. The educator was also provided teachers with follow up materials to share with students and their families. In addition to the elementary program a high school level program was conducted, wherein the watershed educator met several times online with art or media classes to educate them about stormwater and engage them in creating original artwork or outreach materials of their own design that were then shared with the community. Due to COVID-19 limitations Quincy high school students focused on digital posters that were shared with the public via social media and websites.

Targeted Audience: Residents

Responsible Department/Parties: Neponset Stormwater Partnership, Quincy Public Schools

Measurable Goal(s):

Reach at least 80% of households with 5th grade children in participating communities, and 100% positive feedback from participating classroom teachers.

Curing the 2021-2022 school year a total of 226 classrooms were visited one and 172 classrooms were visited twice, representing 95% of total 5th grade classrooms in participating communities and estimated 3,000 families. Feedback from teachers was exceedingly positive for the on-line presentations and materials.

Message Date(s): September 2021 through June 2022 (school year)

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: Outreach to Septic System Owners

Message Description and Distribution Method:

The Neponset Stormwater Partnership posted to their social media campaign was designed to coordinate with the U.S. EPA's SepticSmart Week in the month of September and included EPA-provided graphics. This campaign was directed at all septic system owners in member communities.

Targeted Audience: Septic System Owners

Responsible Department/Parties: Neponset Partnership, Quincy Health Department

Measurable Goal(s):

Reach 100% of known septic systems in member communities. All 9 septic system owners in the City were reached.

Message Date(s): September 20, 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 message was not included in the NOI due to the small number of septic systems in the City, but the Neponset Stormwater Partnership was able to include message in PY4 to septic system owners in Quincy.

BMP: Think Blue "Fowl Weather" Video

Message Description and Distribution Method:

Think Blue Massachusetts, on behalf of the Neponset Stormwater Partnership, ran a regional education advertising campaign targeting communities in the region, including Quincy. The campaign consisted of an

education video advertisement helping viewers visualize how pollution from pet waste, motor oil and trash become stormwater pollution. This advertisement was run from May 31 - June 17, 2022 on Facebook, Instagram and Youtube, and was targeted to coalition residents through account information and IP addresses. Think Blue Massachusetts "Flow Water" video (<http://thinkbluemassachusetts.org/>)

Targeted Audience: Residents

Responsible Department/Parties: Think Blue Massachusetts, Neponset Stormwater Partnership, Quincy DPW

Measurable Goal(s):

Reach a significant portion of the NSP service area population with stormwater awareness message in a highly engaging format. A total of 428,822 people in the NSP service area were reached via

Message Date(s): May 31- June 17, 2022

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: Regional Water Quality Forum

Message Description and Distribution Method:

Organized a public presentation on data from the 2021 Volunteer Water Quality Monitoring Program (Public Participation BMP 2). The presentation covered the results from the 2021 sampling season and how they fit into the broader context of long-term water quality trends in the watershed. Also discussed were remaining challenges facing various waterways in the Watershed, and actions individuals can take to address those challenges. Due to COVID protocols, the event was held via Zoom. Additionally, a recording of the presentation was posted on YouTube.

Targeted Audience: Residents

Responsible Department/Parties: Neponset Stormwater Partnership, Quincy DPW

Measurable Goal(s):

Deliver detailed site-specific water quality data to interested residents and local officials in addition to general "state of the watershed" information for broader audiences.

There were more than 70 registrants for the event. Additionally, a recording of the presentation was uploaded to YouTube, where it has gathered another 155 views to date.

Recording of the presentation: <https://www.youtube.com/watch?v=953ZerSmnnQ>

Message Date(s): February 1, 2022

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: Educational Outreach Evaluation

Message Description and Distribution Method:

Conducted a survey that was included in the general mailer to over 103K residents to determine the extent of the public's knowledge regarding stormwater pollution prevention and the impact of the outreach campaigns thus far. The survey also served as an educational opportunity, as information on why a particular answer was correct was revealed after the user submitted their responses. These feedback pieces also contained links to the pertinent webpages on the YourCleanWater.org website. The survey was also advertised via social media channels and various municipal email listservs. The intent is to repeat this survey regularly and monitor results over time.

Targeted Audience: Residents, Businesses, Institutions

Responsible Department/Parties: Neponset Stormwater Partnership, Quincy DPW

Measurable Goal(s):

Produce results to compare future surveys against. In the results, determine the number of respondents who recall seeing previous NSP outreach materials, and quantify the correct responses to basic stormwater pollution prevention questions.

The survey had 289 respondents. Of those, 86 recalled seeing NSP outreach materials on social media. The percentage of respondents who correctly answered the stormwater knowledge questions varied on each inquiry, but was generally about 85%-90%.

Message Date(s): Summer 2022

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: Education and Outreach to Residents

Message Description and Distribution Method:

Mail information about the stormwater management program as well as curbside waste & recycling, yard waste, street sweeping, and household hazardous waste disposal to every resident via the bi-annual "InfoLetter." Also make the information available online, on the City of Quincy DPW webpage.

The City of Quincy also posted a single-page summary of the Spring/Summer 2021 "InfoLetter" onto their Facebook page, which included: an update on a new City ordinance prohibiting plastic bags, spring street sweeping and yard waste collection schedules, Household Hazardous Waste Drop-Off Day information, various other helpful tips, and City contacts.

Targeted Audience: Residents

Responsible Department/Parties: Quincy DPW

Measurable Goal(s):

Full participation of the DPW to distribute the "InfoLetter." Over 30,000 Quincy residents were reached by the mailers.

The Spring/Summer 2022 "InfoLetter" summary Facebook post on April 19, 2022 was liked 12 times by Facebook users.

Approximately 13,000 Facebook users currently "follow" the City of Quincy's Facebook page and can view the City's postings in their newsfeed.

Message Date(s): Fall/Winter 2021, Spring/Summer 2022, Facebook post on April 19, 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: Additional Education and Outreach to Residents on Social Media Platforms

Message Description and Distribution Method:

The City of Quincy made several posts to social media platforms and the Quincy Access Television (QATV) to inform the public of activities that relate to stormwater pollution prevention, proper waste management, cleanup days, and MS4 compliance. Below are the activities posted in chronological order for PY3:

- 1) Household Hazardous Waste Drop-off Day: the City posted flyers to Facebook, Twitter, and Instagram several times leading up to the drop-off day. The flyer explained the drop-off process, all acceptable items, and how to safely handle hazardous materials.
- 2) Yard Waste Pickup: the City posted a calendar on Facebook when yard waste will be collected to encourage residents to properly dispose of their leaves, grass clippings, and branches. The post included information on how to properly prepare their waste for collection and how to attain a yard waste collection sticker.
- 3) Mass Works Grants Announcement toward infrastructure.
- 4) Street Sweeping: the City of Quincy posted a map on Facebook and Twitter to prepare residents for sweeping activities.
- 5) DPW Water/Sewer maintenance: DPW begun work across the City on water pipes, roads, sewer and seawalls, notes where maintenance was occurring, and that more information on the DPW website.
- 6) Earth Day: the City advertised an Earth Day zoom meeting on Facebook and Twitter discussing the importance of stormwater management, water pollution prevention, and the ongoing water quality improvement projects in Quincy. This was conducted in partnership with the Neponset River Watershed Association.
- 7) Cleaner Greener Quincy City Wide Clean-up Day: the City posted a video and flyer on Facebook and Twitter on several dates advertising the Clean-up Day. The video was also run on the Quincy Access Television channel to reach a wider audience. Residents could volunteer to help clean up their neighborhood, park, or beach. Collection materials were provided by the City of Quincy along with a free T-shirt. Follow-ups of the event were posted the same day, highlighting photos of groups of volunteers participating in the project.

8) World Ocean Day Post, noting to take a moment to understand the importance of protecting our oceans by protecting the Neponset River Watershed, which leads to the ocean. Some actions suggested to protect the ocean include reducing fertilizer and pesticide use, not leaving dog waste on the ground and picking up trash.
 9) Article on SSO, Quincy allegedly dumped sewage and 'untreated wastewater' into Boston Harbor. Not the city is facing a complaint. Retweet was from an article dated 3/15/2019.
 10) Podcast regarding infrastructure improvements.

Targeted Audience: Residents

Responsible Department/Parties: Quincy DPW, Department of Natural Resources, Mayor's Office

Measurable Goal(s):

Increase views, shares, comments, and likes on Facebook, Twitter, and YouTube and evaluate the overall increase in social media responses annually. The results for each message and post are summarized below:

- 1) 17 likes, 16 shares total for Facebook posts on 10/2/2021. 1 comment on Twitter on 9/24/2021. 16 likes on the Instagram post on 6/7/2022.
- 2) 65 likes, 6 comments and 41 shares on the Facebook post on 11/30/2021, 12/27/2021, 3/21/22. 3 comments and 10 likes on the Twitter post on 12/15/2021, 12/17/2021, 3/21/2022. 79 likes, and 4 comments on the Instagram post from 3/21/22.
- 3) 133 likes, 19 comments and 12 shares on Facebook posts from 12/16/2021.
- 4) 33 likes on the 3/22/22 Instagram post.
- 5) 29 likes on Facebook post from 3/23/2022.
- 6) 4 retweets, 8 likes, 1 comment on Twitter posts from 4/8/2022, 4/11/2022, 4/22/2022, and 4/23/2022. 19 reactions, 19 shares and 6 likes from the Facebook posts from 4/8/2022 and 4/22/2022. 29 Likes on Instagram post on 4/22/2022.
- 7) 1 retweet, 1 like on Facebook posts from 4/27/2022 and 5/2/2022. 74 likes and 1 comment from Instagram posts on 4/20/2022 and 4/27/2022.
- 8) 9 reactions to the Facebook post on 6/8/2022. 1 retweet, and 6 likes from Twitter post on 6/8/2022.
- 9) Retweeted on 6/8/2022, there was no reaction to the retweet.
- 10) 15 comments, 6 likes and 1 share on Facebook post from 6/23/22.

Message Date(s): See above.

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:

The City did not include all of these messages in the NOI, but is leveraging social media platforms to reach the general public.

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 City of Quincy made their SWMP available for review and comment at the Department of Public Works and posted on their website, https://www.quincyma.gov/departments/public_works/storm_drain_management_program/index.php.

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 Quincy Stormwater Management Committee continued to meet quarterly during PY4 via Zoom on September 21, 2021, January 11, 2022, and April 12, 2022.

The Quincy Department of Natural Resources organized a volunteer leaf cleanup program for the area around Sailors Home Pond to reduce leaf litter and nutrient loading to the pond. 80 bags of leaves were collected by North Quincy High School ROTC in December 2021.

Work began on the Butlers Pond dredging project with a volunteer effort to temporarily relocate turtles. The group worked with the Quincy Department of Natural Resources to obtain permits and relocate dozens of turtles between 8/19 and 8/23/21 in advance of dredging activities in Fall 2021. Between 6 and 12 volunteers were present each day and a turtle education event was held on 8/21/21 with approximately 50 participants. Volunteers were used to cut purple loosestrife growing around Bulter's Pond perimeter.

The Neponset River Watershed Association organized a volunteer-based river cleanup events with sites throughout the Neponset River Watershed on September 25, 2021, and April 23, 2022. At the fall event, approximately 400 volunteers worked at 12 locations to remove an estimated 400 bags of trash and debris, as well as 92 tires from various waterways, parks, and wetlands. The spring event expanded even further to include approximately 300 volunteers working at 14 locations to remove an estimated 350 bags of trash and debris.

The Neponset River Watershed Association organized a volunteer-based water quality monitoring program with 41 sites located throughout the Neponset River Watershed. Approximately 60 volunteers are involved in the program and it is operated under the terms of a DEP / EPA approved QAPP. The results are used to more meaningfully engage members of the public in implementation of the MS4 program, to better inform municipal IDDE efforts, to track overall progress in restoring stream health and attaining designated uses throughout the watershed, and to provide local data that provides meaningful context for public outreach and education programs.

The Neponset River Watershed Association organized a public presentation on data from the 2021 Volunteer Water Quality Monitoring Program. The presentation covered the results from the 2021 sampling season and how they fit into the broader context of long-term water quality trends in the watershed. Also discussed were remaining challenges facing various waterways in the Watershed, and actions individuals can take to address those challenges. Due to COVID protocols, the event was held via Zoom as part of NepRWA's "Watershed Wednesday" series of presentations, which was publicized across the entire NSP service area and drew

registrants from numerous communities. Additionally, a recording of the presentation was posted on YouTube, where it has gathered another 159 views.

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:

Work continued to incorporate historic inspection data related to the MS4 and work continued to update sanitary sewer system inspection data in the City's GIS database. The City continued to share mapping data with DCR via a Web-GIS group between the Quincy DPW and DCR.

The City purchased and developed Cityworks, an assessment management platform, to support MS4 compliance, data management, mapping updates, etc.

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 outfalls/interconnections screened **to date**.*

Percent of outfalls screened:

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

The progress of IDDE activities, including all outfall/interconnection data, was reported separately to EPA as

part of the October 2021 and April 2022 Consent Decree Compliance Reports. The next Compliance Report is due by the end of October 2022 and will include all IDDE activities through September 30, 2022.

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:

https://www.quincyma.gov/departments/public_works/storm_drain_management_program/index.php

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:

The progress of IDDE activities, including all catchment investigation activities, was reported separately to EPA as part of the October 2021 and April 2022 Consent Decree Compliance Reports. Field investigation activities continued throughout PY4 and catchment investigation reports will be provided in the next Compliance Report that is due by October 31, 2022.

The City continues to leverage staff trained in IDDE procedures to conduct opportunistic inspections of MS4 infrastructure during routine maintenance and repair responses to identify potential indicators of illicit discharges. The City also continues to evaluate sewer CCTV data to identify sewer pipe defects that may contribute illicit discharges to the MS4 to target future IDDE related investigations. During this permit year, the City investigated approximately 20,298 feet of drainage infrastructure and 27,016 feet of sewer infrastructure for cross-connections and pipe defects. No cross-connections were identified.]] The City also inspected and improved MS4 infrastructure by removing and resetting casting and inspection of catch basins, drainage manholes, and sewer manholes, contributing to the overall enhanced functionality of the MS4 and potential detection of sewer-related illicit discharges by concurrently conducting sewer improvements in MS4 areas.

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:

https://www.quincyma.gov/departments/public_works/storm_drain_management_program/index.php

*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 progress of IDDE activities, including all illicit discharge identification and removal activities, was reported separately to EPA as part of the October 2021 and April 2022 Consent Decree Compliance Reports. The next Compliance Report is due by October 31, 2022 and will include all IDDE activities through September 30, 2022.

Employee Training

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

A total of 6 DPW staff received training from Woodard & Curran on June 28, 2022 for Illicit Discharge Detection & Elimination, Pollution Prevention & Good Housekeeping, and the Stormwater Pollution Prevention Plan at the DPW Facility.

DPW staff and contractors involved in catch basin cleaning and inspection of the storm drain system received training on CityWorks platform on August 25, 2022.

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:

MCM5: Post-Construction Stormwater Management in New Development and Redevelopment

Ordinance or Regulatory Mechanism

Date update was completed (due in year 3):

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:

Retrofit Properties Inventory

Below, list the permittee-owned properties that could be modified or retrofitted with BMPs to mitigate impervious areas (at least 5):

The City reviewed 40 municipal properties for potential retrofits to reduce impervious cover and improve stormwater treatment. Retrofit opportunities were ranked for the following top 10 priority sites and conceptual designs were prepared for three projects:

1. Montclair Elementary School, 8 Belmont St (conceptual design completed)
2. Beechwood Knoll Elementary School, 225 Fenno St (conceptual design completed)
3. Snug Harbor Elementary School, 333 Palmer St (conceptual design completed)
4. Broadmeadows Middle School, 50 Calvin Rd
5. Merrymount Elementary School, 4 Agawam Rd
6. Monroe Playground, Pond St
7. Cleverly Court Field, 5 Cleverly Ct
8. Bradford Street Playground, 3 Bradford St
9. Copeland Street Fire Department, 182 Copeland St
10. Bernazzani Elementary School, 701 Furnace Brook Pkwy

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:

Number of catch basins cleaned:

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

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

Total number of catch basins:

If applicable:

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

The tonnage for catch basin cleanings and street sweepings are estimated based on weight slips and materials stored at the DPW Facility awaiting disposal.

The City continuously updates the priority of catch basin cleaning based on the results of prior cleaning activities. Catch basins that were >50% full during the PY3 period were cleaned first in PY4 and again in PY4 if they were still >50% full. The City also prioritized the cleaning of catch basins in the Spring of 2022 for those areas draining to beaches.

Street Sweeping

Report on street sweeping completed **during this reporting period** using one of the three metrics below.

Number of miles cleaned:

Volume of material removed: [Select Units]

Weight of material removed:

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:

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

The City maintains a SWPPP at the DPW Facility and corrective actions in Permit Year 4 included: litter

pickup, proper storage of waste containers, cleanup of minor equipment leaks, and closing and replacement of dumpster lids. The need for asphalt repairs around the truck wash area and replacement of the retention basin filter media at the inlet were identified and the DPW is working to secure funding for these improvements.

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.quincyma.gov/departments/public_works/storm_drain_management_program/index.php
https://www.quincyma.gov/departments/health/health_department_news/departments/health/health_department_news/beach_results.php

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:

A summary of outfall and interconnection monitoring data is maintained on the DPW website at https://www.quincyma.gov/departments/public_works/index.php.

During summer, the City of Quincy Health Department performs weekly water sampling at the City's beaches. The beaches are tested for Enterococcus to determine if conditions are acceptable for bathing/swimming. The most recent results show that only 9 of the 195 (4.6%) samples exceeded the bathing/swimming criteria.

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:

COVID-19 Impacts

Optional: If any of the above year 4 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 5 requirements summarized below. (Note: impaired waters and TMDL requirements are not listed below)

Yes, I agree

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)
- Identify additional permittee-owned properties that could potentially be modified or retrofitted with BMPs to reduce impervious areas so that the permittee maintains a minimum of 5 sites in their inventory, until such a time when the permittee has less than 5 sites remaining

Provide any additional details on activities planned for permit year 5 below:

Additional planned activities for PY5 are discussed throughout this annual report.



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:

Thomas P. Koch

Title: Mayor

Signature:



Date: 09/27/22

[Signatory may be a duly authorized representative]