Year 3 Annual Report

Massachusetts 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:	City of Quincy				
EPA N	PDES Permit Number: MAR041	081				
Primaı	ry MS4 Program Manager Con	tact Informati	ion			
Name:	Name: Paul Costello, P.E.			City Engineer		
Street A	Address Line 1: Public Works Bu	ilding				
Street A	Address Line 2: 55 Sea Street					
City:	Quincy	State: MA	Zip Co	ode: 02169		
Email:	pcostello@quincyma.gov		Phon	e Number: 617-3	376-1950	
Stormy	water Management Program (S	WMP) Inforn	nation			
SWMF	Cocation (web address): https://	www.quincym	a.gov/go	ovt/depts/pwd/dr	rain/default.htm	
Date S	WMP was Last Updated: Septem	nber 23, 2020				
If the S	SWMP is not available on the wel	please provid	e the ph	ysical 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

here: <u>https://</u> y	www.epa.gov/tmdl/region-1	<u>-impaired-waters-</u>	and-303d-lists-state	
Impairment(<u>(s)</u>			
_	⊠ Bacteria/Pathogens	☐ Chloride		☐ Phosphorus
	Solids/ Oil/ Grease (Hy	ydrocarbons)/ Meta	als	•
TMDL(s)				
In State:	☐ Assabet River Phospho	orus 🗵 Bac	teria and Pathogen	☐ Cape Cod Nitrogen
	☐ Charles River Watersh	ed Phosphorus	☐ Lake and Pond	Phosphorus
Out of State:	☐ Bacteria/Pathogens	☐ Metals	☐ Nitrogen	☐ Phosphorus
			Cl	ear Impairments and TMDLs
you have con	inpleted that permit requirer dditional information will b	nent fully. If you h	ave not completed a re	ch box you are certifying that equirement leave the box
•	ted and screened all outfalls	dinterconnections	(avaluding Problem an	d Evaluded outfalls)
-				•
	ed outfall/interconnection page inspections as necessary	Hoffity fallking base	ed on the information (conceied during the dry
	onstruction bylaw, ordinance ermit requirements	e, or other regulate	ory mechanism was up	dated and adopted consistent
any additional impacts of Contact attempt to consection 13.14 Disturbance	you would like to describe pal information, and/or if any OVID-19, please identify the implete the requirement, and 4 and 13.16 of the City of Q Ordinances) were amended May 17, 2021.	of the above year are requirement that I reason the require required unincy Municipal C	3 requirements could recould not be completed to the complete could not be corrected (Stormwater Man	not be completed due to the ed, any actions taken to appleted below: agement and Land
Annual Requ	irements			
Provid			eview and implementa	tion of SWMP and complied
⊠ Kept r	ecords relating to the permi	t available for 5 ye	ars and made available	e to the public
The SS	SO inventory has been upda	ted, including the	status of mitigation and	d corrective measures

This is not applicable because we do not have sanitary sewerThis is not applicable because we did not find any new SSOs

implemented

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/govt/depts/pwd/drain/default.htm
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
☑ Updated system map due in year 2 as necessary
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
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:
Bacteria/ Pathogens (Combination of Impaired Waters Requirements and TMDL Requirements as Applicable Annual Requirements

Page 3

Public Education and Outreach*

City of Quincy

- 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:

In previous permit years, messages to owners of septic systems were not developed or provided due to the small number of septic systems in the City. In PY3, however, the Neponset Stormwater Partnership was able to include a message via postcards to the 9 septic system owners in Quincy.

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)

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:

https://www.quincyma.gov/govt/depts/pwd/drain/default.htm

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 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. The City re-submitted an application for a s319 grant to complete the design and construction of a rain garden at the Montclair School.

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
 - 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 continued to use iData Collect to track catch basin inspection and cleaning activities. In Spring 2021 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 received a \$3.1M loan from the MassDEP Clean Water State Revolving Fund (SRF) to complete conceptual design of priority outfall repairs, flood inundation modeling, flood mitigation alternative analyses, enhanced field survey and GIS mapping of the MS4. The SRF loan includes a task focused on MS4 compliance to support IDDE activities, further evaluation of stormwater controls and opportunities to improve water quality, and the development of a Watershed Summary Report for the City. This project will build upon the City's current flood modeling, flood mitigation, and MS4 work.

The City evaluated software programs for asset management and a work order system in PY3, resulting in the recommendation and allocation of funding to purchase and develop Cityworks. This asset management platform will be developed in PY4 and will support MS4 compliance, data management, mapping updates, etc.

The City of Quincy and DCR met 6 times during PY3 to review and share interconnection data, mapping, and outfall ownership. Dates: 10/29/20, 12/1/20, 12/15/20, 2/24/21, 3/18/21, and 6/29/21

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

- 1) Seawall Project (\$15M) along Sea St and Post Island Rd (near completion)
- 2) Strand Stormwater Pump Station Rehabilitation (\$3M, completed)
- 3) Town Brook Culvert and Bigelow St Drainage Repairs (\$1.5M, in construction)
- 4) Hancock Lot Redevelopment, included stormwater BMPs and increased greenspace (\$45M, completed)
- 5) General McConnville Parkway Redevelopment, included stormwater BMPs and increased greenspace (\$35M, completed)
- 6) Furnace Ave, Miller St., and Cross St. Drainage and Flood Mitigation Project (designed and in permitting)
- 7) Houghs Neck Salt Marsh Study with the Army Corps of Engineers (ongoing, concept stage)
- 8) City-wide Flood Studies: Furnace Brook / Blacks Creek (completed); Wollaston Center (completed); and Broad St Outfall (completed and into construction)
- 9) Butler's Pond Dredging and Stormwater Improvements: turtle relocation permitting was completed and

trapping occurred between 8/19-8/23/21, Phase I of dredging to begin Fall 2021

10) Sailors Home Pond: algaecide and alum treatments completed in PY3, 122 bags of leaves collected around pond by Boy Scouts in Nov. and Dec. 2020

11) Pharagmites Management: RDA filed for management in the Merrymount Area

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?					

YesNo

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

The number and ownership of the outfalls has been revised based on the City's dry weather inspections and our continued work with the Massachusetts Department of Conservation and Recreation (DCR). Based on our observations, the receiving waters and impairments associated with the revised number of outfalls remains unchanged.

The revised number of outfalls is 276, of which an estimated 188 are owned by the City of Quincy, 77 are owned by the DCR and 11 are private. All of the outfalls have been inspected and 50 were observed to have flow in dry weather conditions. These 50 outfalls have undergone water quality testing and have been prioritized for catchment investigations, some of which were completed in PY3.

In addition, the City completed inspections of 69 interconnection locations (DMHs) in PY3. Of these, 31 DMHs were observed to have flow (sometimes from multiple pipes within each DMH) in dry conditions and underwent water quality tested.

The above data, as well as historical data, is being incorporated into the City's IDDE Plan addendum and catchment investigation reports that will be submitted to EPA by the end of October 2021.

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 : 14
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: Residents, Businesses, Industry and Developers
Responsible Department/Parties: DPW working with Neponset Stormwater Partnership
Measurable Goal(s):
Neponset Stormwater Partnership's Measurable Goal: Achieve at least unique 500 site visits every year.
This year, there were 4,386 site visitors and 8,257 unique page views. This represents a 23% and 47% increase over last year's metrics, respectively. Site visitor and page view quantities 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: 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: Residents, Businesses, Industry and Developers

Day - 11 Day - 4 Day - 1 Day -
Responsible Department/Parties: DPW working with Neponset Stormwater Partnership
Measurable Goal(s):
Neponset Stormwater Partnership's Measurable Goal: Provide immediate answers to inquiries generated by regionalized outreach activities.
Seven contacts were made to the stormwater hotline this year related to flooding (1), local pollution (2), and response to outreach materials (4). 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 completed 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 9,100 cards were printed and distributed to City clerks.
Message Date(s): Materials were distributed to the City Clerk in December 2020 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:

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BMP: Summer Pet Waste Campaign

City of Quincy

Message Description and Distribution Method:

The City of Quincy published a post on their Twitter page about the proper disposal of pet waste. The post

City of Quincy Page 10 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 7,791 followers on Twitter. Message Date(s): July 2 and July 6, 2020 on Twitter Message Completed for: Appendix F Requirements ⊠ Appendix H Requirements ⊠ Was this message different than what was proposed in your NOI? Yes O 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 their Facebook and Twitter pages about the proper management of leaf litter. The post included a link to the Neponset Stormwater Partnership's web 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 their 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 September 23, 2020 Facebook post was "liked" 16 times, "shared" 4 times, and commented on 1 time by Facebook users. Approximately 12,579 Facebook users currently "follow" the City of Quincy's Facebook page and can view the City's postings in their newsfeed. Message Date(s): September 23, 2020 and October 8-18, 2020 Appendix F Requirements ⊠ Appendix H Requirements ⊠ Message Completed for: Was this message different than what was proposed in your NOI? Yes O No •

If yes, describe why the change was made:

BMP: Spring Fertilizer and Grass Clipping Campaign

Message Description and Distribution Method:

Targeted Audience: Residents Businesses Industry

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 Partnership's 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 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 NEIWPCC Northeast Voluntary Turf Fertilizer Initiative. The social media message reached those in Quincy, as a Quincy-focused group also shared the message.

Tangeted Tradence. Testachus, Businesses, 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 5,736 people were reached through Facebook, with an additional 2,886 people reached through Twitter. The April 8, 2021 NSP Facebook post received 27 shares and 9 likes. The NSP tweet had 10 retweets and 3 likes.
Message Date(s): April 8-18, 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:
Was this message different than what was proposed in your NOI? Yes ○ No ●

BMP: School Outreach Program

Message Description and Distribution Method:

Due to COVID-19, all lessons had to take place on-line over Zoom or Google Meet. Prepared new on-line 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 in 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 on-line visits by a watershed educator. The educator 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 on-line 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, high school students Quincy focused on digital posters that were shared with the public via social media and websites.

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 educational video advertisement helping viewers visualize how pollution from pet waste, motor oil and trash become stormwater pollution. This advertisement was run from May 17th-June 4th, 2021 on Facebook, Instagram, and YouTube, and was targeted to coalition residents through account information and IP addresses. Think Blue Massachusetts "Fowl Water" video (https://www.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 a stormwater awareness message in a highly engaging format. A total of 499,638 people in the NSP service area were reached via 123,472 Facebook/Instagram "impressions." Via YouTube, there were 320,031 impressions. Additionally, there were 56,135 Spanish Language impressions. A survey found that 16% of respondents recalled seeing the campaign, which is slightly down from 2020 results, but within the survey margin of error. Additionally, respondents who saw the ad were more likely to recognize that stormwater directly enters local waterways (50%) than those who did not recall the ad (36%). Finally, those who recall the ad were more likely to describe stormwater has having "major" or "some" impact on waterways (53%) than those who do not recall the ad (27%).
Message Date(s): May 17 to June 4, 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: Regional Water Quality Forum Message Description and Distribution Method:
Organized a public presentation on data from the 2020 Volunteer Water Quality Monitoring Program (Public Participation BMP 2). The presentation covered the results from the 2020 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 attendees from numerous communities. Additionally, a recording of the presentation was posted on YouTube.

Targeted Audience: Residents

Responsible Department/Parties: Neponset Stormwater Partnership, Quincy DPW

City of Quincy	Page 14
Measurable Goal(s):	
Deliver detailed site-specific water quality data to interested residents and local officials in addition to "how to" information for broader audiences.	general
There were 74 registrants for the event. Additionally, a recording of the presentation was uploaded to YouTube, where it has gathered another 139 views to date.	
Recording of the presentation: https://www.youtube.com/watch?v=xb4d18oGwzg	
Message Date(s): January 13, 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: Educational Outreach Evaluation	
Message Description and Distribution Method:	
Conduct a survey to determine the extent of the public's knowledge regarding stormwater pollution proportion and the impact of the outreach campaigns thus far. The survey also served as an educational opportunitinformation on why a particular answer was correct was revealed after the user submitted their respons These feedback pieces also contained links to the pertinent webpages on the YourCleanWater.org web The survey was advertised via social media channels and various municipal email listservs. The intent repeat this survey regularly and monitor results over time.	ity, as ses. osite.
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 recall seeing previous NSP outreach materials, and quantify the correct responses to basic stormwater pollution prevention questions.	
The survey has 184 respondents. Of those, 59 recalled seeing NSP outreach materials on social media percentage of respondents who correctly answered the stormwater knowledge questions varied on each inquiry, but was generally about 85%-90%.	
Message Date(s): January-March 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: Business Association Outreach

Message Description and Distribution Method: Reached out to individual business associations to inquire if they would be able to share stormwater pollution prevention outreach aimed at the general business community with their membership. Provided an outreach piece to the associations that respond affirmatively. The NSP Outreach Committee reviewed and revised the prepared outreach prior to distribution. Targeted Audience: Businesses Responsible Department/Parties: Neponset Stormwater Partnership, Quincy DPW Measurable Goal(s): Reach out to all known business associations and provide outreach to all who agree to share it. Seven business associations were contacted. Two agreed to share business-focused stormwater outreach pieces. Outreach was created and provided to those two associations (Neponset River Regional Chamber and Quincy Chamber of Commerce). Message Date(s): Outreach shared on June 29, 2021 Appendix F Requirements Appendix H Requirements Message Completed for: Was this message different than what was proposed in your NOI? Yes O 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 2021 "InfoLetter" summary Facebook post on March 17, 2021 was shared 2 times, liked

3 times, and commented on 1 time by Facebook users.

of the event were posted the same day, highlighting photos of groups of volunteers participating in the project. 7) YouTube (4/22/21), QATV (4/22/21), and Facebook (5/4/21) postings for Earth Day 2021 zoom video link

Neponset River Watershed Association. The presentation covered the importance of stormwater management, water pollution prevention tips, and information about ongoing water quality improvement projects happening

and recording of a video presentation by the City of Quincy's Department of Natural Resources and the

8) Facebook post for June 17, 2021 podcast with Mayor Koch regarding the EPA Consent Decree.

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

in the City.

Targeted Audience: Residents

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) 43 shares, 19 likes, and 7 comments total for Facebook posts on 9/28/2020, 10/1/2020, 5/26/2021, 6/2/2021, 6/3/2021, and 6/4/2021. 7 likes and 5 retweets total on Twitter on 5/26/21, 6/2/2021, and 6/3/2021. 11 likes on the Instagram post on 6/3/21.
- 2) 4 likes and 2 comments on the 11/16/2020 Facebook post
- 3) 53 shares, 59 likes, and 17 comments total for Facebook posts on 9/8/2020, 11/10/2020, and 3/25/2021
- 4) 5 shares, 5 likes, and 6 comments on 4/5/2021 Facebook. 2 likes on Twitter on 4/5/2021.
- 5) 8 shares and 11 likes on Facebook posts on 4/16/21 and 4/22/21. 3 likes and 4 retweets on Twitter on 4/22/2021.
- 6) 3 shares and 3 likes for the video posted on Facebook on 4/27/21. 79 shares, 146 likes, and 4 comments total for the flyer posted on Facebook on 4/7/21, 4/9/21, 4/10/21, 4/26/21, 4/30/21, and 5/1/21. 5/1/21 follow-up posts on Facebook received 10 shares, 182 likes, and 2 comments. 14 likes and 4 retweets total for Twitter on 4/9/2021, 4/26/2021, 4/30/2021, and 5/1/2021. 5/1/21 follow-up tweet received 13 likes and 1 comment.
- 7) 2 shares and 5 likes on Facebook. 17 views on YouTube.
- 8) 3 comments, 2 shares, 2 likes, 1 sad on Facebook post

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 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/govt/depts/pwd/drain/default.htm

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

Describe any other public involvement or participation opportunities conducted **during this reporting period**: The Quincy Stormwater Management Committee continued to meet quarterly during PY3 via Zoom on

September 22, 2020, December 15, 2020, March 23, 2021, and June 22, 2021.

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. 122 bags of leaves were collected by Boy Scouts in Nov. and Dec. 2020.

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. The Mayor discussed the Butlers Pond restoration project on "AM Quincy", which was broadcast on the Quincy Access Television on April 13, 2021.

The Neponset River Watershed Association organized a volunteer-based river cleanup events with sites throughout the Neponset River Watershed on September 28, 2020, and April 17, 2021. At the fall event, approximately 300 volunteers worked at 12 locations to remove an estimated 10 tons of trash and debris from various waterways, parks, and wetlands. The spring event expanded even further to include approximately 400 volunteers working at 16 locations to remove an estimated 28 tons 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 2020 Volunteer Water Quality Monitoring Program. The presentation covered the results from the 2020 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 74 registrants from numerous communities. Additionally, a recording of the presentation was posted on YouTube, where it has gathered another 139 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 bed	cause we DO NOT have sanitary sewer
Below, report on the number of SSOs identified in the M	IS4 system and removed during this reporting period .
Number of SSOs identified: 6	
Number of SSOs removed: 6	

MS4 System Mapping

Optional: Provide additional status information regarding your map:

Work began 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 coordinated with DCR to share mapping data and created a Web-GIS group to share data between the Quincy DPW and DCR.

The City evaluated software programs for asset management and a work order system in PY3, resulting in the recommendation and allocation of funding to purchase and develop Cityworks. This asset management platform will be developed in PY4 and will 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.

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•	110	Cattails	* * * * *	IIIDPCCC	-

- O The outfall screening data is attached to the email submission
- The outfall screening data can be found at the following website:

https://www.quincyma.gov/govt/depts/pwd/drain/default.htm

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

Number of outfalls screened: 145

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

Percent of outfalls screened: 100

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

A total of 357 outfall locations were screened from PY1 through PY3. It has been determined that 81 outfalls have been abandoned for a new outfall total of 276. Of the existing 276 outfalls an estimated 188 are City owned, 77 are owned by the DCR and 11 are private.

The City of Quincy and DCR met 6 times during PY3 to review and share interconnection data, mapping, and outfall ownership. Dates: 10/29/20, 12/1/20, 12/15/20, 2/24/21, 3/18/21, and 6/29/21

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.

- O 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/govt/depts/pwd/drain/default.htm

Below, report on the number of catchment investigations completed during this reporting period.
Number of catchment investigations completed this reporting period: 6
Below, report on the percent of catchments investigated to date.
Percent of total catchments investigated: 30
Optional: Provide any additional information for clarity regarding the catchment investigations below:
Catchment investigations were completed following the priority areas in the City's October 2020 and January 2021 IDDE Plan addenda. Catchment investigation reports are posted on the DPW website at https://www.quincyma.gov/govt/depts/pwd/drain/default.htm.
Desktop review of historical catchment investigations and recent interconnection and outfall screening data began for catchments discharging to Wollaston Beach and Sagamore Creek. Field investigation activities are scheduled for PY4 and catchment investigation reports will be available by October 31, 2021.
Limited catchment investigations were conducted at the interconnection locations with the DCR MS4 along Quincy Shore Drive and Furnace Brook Parkway to evaluate conditions upstream of the interconnection in some instances. This information will be included in the catchment investigation reports referenced above.
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 4,542 feet of drainage infrastructure and 39,300 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 MS areas.
IDDE Duoguoss
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. One 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:
• The illicit discharge removal report can be found at the following website:
https://www.quincyma.gov/govt/depts/pwd/drain/default.htm
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: 1
Number of illicit discharges removed: 1

Number of site plan reviews completed: 26
Number of inspections completed: 20
Number of enforcement actions taken: 6

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

emorement actions.				

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: 30

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

Since 2016 as-builts have been required as a standard condition of Special Permits and Site Plan Review Permits. As-builts also need to be submitted electronically and are reviewed before occupancy permits are issued.

All projects subject to the Stormwater Management and Land Disturbance Ordinance are required to submit a Stormwater Management Plan, Erosion and Sediment Control Plan, and Operations & Maintenance Plan as part of their permit application. Upon project completion, a final report, including as-built construction plans, are required to be sent to the Department of Public Works to ensure Stormwater Management BMPs have been constructed in accordance with City standards and meet design and performance criteria.

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:

The Neponset Stormwater Partnership and Metropolitan Area Planning Commission previously completed an analysis of zoning and other local bylaws in partial fulfillment of the Street Design and Parking Lot Report and Green Infrastructure Report requirements of the permit. This is viewed as an ongoing task, as the NSP also plans to update this information before the end of year four of the MS4 Permit.

As discussed in the PY2 report, the City assessed 17 City-owned parking lots to evaluate site lighting, pavement areas, and ADA compliance. They received a 604B grant to develop conceptual designs for 3 stormwater BMPs to retrofit these areas and resubmitted a 319 grant application in PY3 for construction at one location. The City also secured a SRF loan in PY3 to support an evaluation of retrofit and green infrastructure opportunities City-wide that will be conducted in PY4-PY5.

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:

The City secured a SRF loan in PY3 to support an evaluation of retrofit and green infrastructure opportunities City-wide that will be conducted in PY4-PY5 and consider the progress to date to evaluate existing BMP.

Retrofit Properties Inventory

Describe the status of the inventory, due in year 4 of the permit term, of permittee-owned properties that could be modified or retrofitted with BMPs to mitigate impervious areas and report on any properties that have been modified or retrofitted:

As discussed above and in the PY2 report, the City assessed 17 City-owned parking lots to evaluate site lighting, pavement areas, and ADA compliance. They received a 604B grant to develop conceptual designs for 3 stormwater BMPs to retrofit these areas and resubmitted a 319 grant application in PY3 for construction at one location. The City also secured a SRF loan in PY3 to support an evaluation of retrofit and green infrastructure opportunities City-wide that will be conducted in PY4-PY5.

NSP and MAPC have developed tools and conducted field evaluations of potential stormwater retrofit locations toward satisfaction of the Retrofit Property Inventory requirement, and the NSP aims to make sure this requirement is fully satisfied for all communities before year four of the MS4 Permit. The MAPC / NSP Retrofit Evaluation Tool consists of the following three main components:

- 1) The first prioritizes properties based on soil type, estimated recharge capacity, estimated pollutant load (based on the pollutant the user is targeting), AUL site presence, wetland presence, wellhead protection zone presence, sewer outfall / pipe presence, parcel impervious context, land use, and % impervious. The user can also filter out parcels with certain characteristics, such as parcels that are privately owned, to further refine their search. The tool can then output a ranked list of parcels for further on-the-ground inspection.
- 2) The second component is a mobile GIS field collection form using ESRI's Survey 123 smartphone app that can be used to complete the on-the-ground inspection. It allows for the user to confirm conditions in the field and identify constraints and opportunities that may not be evident from available GIS data, and to rank the sites based on feasibility of constructing a BMP retrofit on the site. The user can also collect photos of noteworthy aspects of the site.
- 3) The third component of the tool allows the user to export the field inspection data into a single page fact sheet describing each site, detailing pertinent information, and showing any collected photographs. The sheets could then be assembled into a "BMP opportunity catalog" that contains the field inspection results of all visited parcels.

This tool can be used to provide information about offsite mitigation opportunities for redevelopment projects that are unable to meet the runoff standards. The fact sheets can also be used by the City to identify opportunities to meet their Appendix H and demonstration practice permit obligations.

Pilot testing of the tool was completed in year 3. Due to staffing changes, the tool has not yet been distributed, but a workshop will be held early in Year 4 to train municipal staff on its use. ArcGIS Online users may access the tool, define which pollutant they would like to target, filter out any undesirable parcel characteristics, and receive a list of sites for potential visits. They can then continue with site inspection using the mobile form.

MCM6: Good Housekeeping

Catch Basin Cleaning

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

Total volume or mass of material	removed from all catch basins	s: 820.64	tons
Number of catch basins cleaned:	3,540		
Number of catch basins inspected	: 3,843		

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

Total number of catch basins: 9,064

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 City continued to use iData Collect to track catch basin inspection and cleaning activities. In Spring 2021 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.

Street Sweeping

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

• Number of miles cleaned:	231	
O Volume of material remove	ed:	[Select Units]
O Weight of material remove	d: 360.81	tons

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:	2
I I	

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

The City maintains a SWPPP at the DPW Facility and corrective actions following the 3Q 2020 inspection included closing a dumpster lid, relocating waste oil containers to the proper storage area, relocation of a cold patch stockpile, and cleaning of the sediment forebay for the retention basin. Corrective actions identified during the 2Q 2021 inspection included sweeping of paved areas, consolidation of universal waste storage

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containers, and	d closing dumpster lids.
_	Additional Information r Study Results ny other stormwater or receiving water quality monitoring or studies conducted during the
reporting perio	od not otherwise mentioned above, where the data is being used to inform permit compliance or eness must be attached.
0	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/govt/depts/pwd/drain/default.htm https://www.quincyma.gov/govt/depts/health/hdnews/beach_results.htm
	ring or studies were conducted on your behalf or if monitoring or studies conducted by other eported to you, a brief description of the type of information gathered or received shall be w:
	outfall and interconnection monitoring data is maintained on the DPW website at https://aa.gov/govt/depts/pwd/drain/default.htm.
The beaches ar most recent res Monitoring dat	er, the City of Quincy Health Department performs weekly water sampling at the City's beaches. The tested for Enterococcus to determine if conditions are acceptable for bathing/swimming. The sults show that only 6 of the 141 (4%) samples exceeded the bathing/swimming criteria. It was collected by the US EPA and DCR for outfalls and interconnections in Quincy during lata will be included in the catchment investigation reports that will be completed by October 31.
2021 and uploa	aded to the DPW website at https://www.quincyma.gov/govt/depts/pwd/drain/default.htm.
Additional Inf	<u>formation</u>
-	er any additional information relevant to your stormwater management program implementation orting period. Include any BMP modifications made by the MS4 if not already discussed above:
<u>COVID-19 Im</u>	<u>ıpacts</u>
please identify	ny of the above year 3 requirements could not be completed due to the impacts of COVID-19, which the requirement that could not be completed, any actions taken to attempt to complete the and reason the requirement could not be completed below:

City of Quincy	1 agc 20

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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

C:+-- C O--:--

- 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

- Insp	pect all permitte	e owned treatm	nent structure	es (excluding	catch basins)	
Provide any a	additional detai	ls on activities	planned for p	permit year 4	below:	
Additional pl	lanned activities	s for PY4 are d	iscussed thro	ughout this a	nnual 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
	(Signatory may be a duly authorized representative)	Date:	09/24/21

Note: When prompted during signing, save the document under a new file name.

Annual Report Submission

Please submit the form electronically via email to both EPA and MassDEP by clicking on one of the links below or using the email addresses listed below. Please ensure that all required attachments are included in the email and not attached to this PDF.

EPA: MassDEP:

Paper Signature:

If you did not sign electronically above, you can print the signature page by clicking the button below.

Print Signature Page

Optional: If you did not sign electronically above, you may lock the form by clicking the "Lock Form" button below which will prompt you to save the locked version of the form. Save this locked version under a new file name.

Lock Form