

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:

EPA NPDES Permit Number:

Primary MS4 Program Manager Contact Information

Name: Title:

Street Address Line 1:

Street Address Line 2:

City: State: Zip Code:

Email: Phone Number:

Stormwater Management Program (SWMP) Information

SWMP Location (web address):

Date SWMP was Last Updated:

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

Part II: Self-Assessment

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

Impairment(s)			
<input checked="" type="checkbox"/> Bacteria/Pathogens	<input type="checkbox"/> Chloride	<input type="checkbox"/> Nitrogen	<input checked="" type="checkbox"/> Phosphorus
<input checked="" type="checkbox"/> Solids/ Oil/ Grease (Hydrocarbons)/ Metals			
TMDL(s)			
<i>In State:</i>	<input type="checkbox"/> Assabet River Phosphorus	<input type="checkbox"/> Bacteria and Pathogen	<input type="checkbox"/> Cape Cod Nitrogen
	<input type="checkbox"/> Charles River Watershed Phosphorus	<input type="checkbox"/> Lake and Pond Phosphorus	
<i>Out of State:</i>	<input type="checkbox"/> Bacteria/Pathogens	<input type="checkbox"/> Metals	<input checked="" type="checkbox"/> Nitrogen
			<input type="checkbox"/> Phosphorus
			Clear Impairments and TMDLs

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

Year 3 Requirements

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

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

Outfall screenings and samplings are approximately 90-95% complete. The Town has existing bylaws in place that address IDDE, construction, and post-construction. The Town is in the midst of a full review of its existing bylaws and recommendations for changes to streamline the bylaws and ensure full compliance with the current permit.

Annual Requirements

- Provided an opportunity for public participation in review and implementation of SWMP and complied with State Public Notice requirements
- Kept records relating to the permit available for 5 years and made available to the public
- The SSO inventory has been updated, including the status of mitigation and corrective measures implemented
 - This is not applicable because we do not have sanitary sewer

- This is not applicable because we did not find any new SSOs
- The updated SSO inventory is attached to the email submission
- The updated SSO inventory can be found at the following website:

- Properly stored and disposed of catch basin cleanings and street sweepings so they did not discharge to receiving waters
- Provided training to employees involved in IDDE program within the reporting period
- All curbed roadways were swept at least once within the reporting period
- Updated system map due in year 2 as necessary
- 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, 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:

As noted below in MCM 6, catch basin inspections are proceeding slowly due to a lack of available resources. DPW will continue to seek funding and resources to meet these requirements.

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:

As part of its efforts to address bacteria impairments, the Town also installed dog waste receptacles at several locations within Town parks and conservation areas.

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:

N/A. See below.

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 permit does not require tracking of existing BMPs for municipalities subject to Nitrogen TMDL requirements (Appendix F, part B.I.1.c.iii). No new structural BMPs have been installed to date, but any such BMPs will be tracked as they are installed.

-All streets and parking lots were swept at least once; current resources do not allow for systematic sweeping of all roads twice per year in order to comply with the Long Island Sound Nitrogen TMDL

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

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

Good Housekeeping and Pollution Prevention for Permittee Owned Operations

- Increased street sweeping frequency of all municipal owned streets and parking lots subject to Permit part 2.3.7.a.iii.(c) to a minimum of two times per year (spring and fall)

Potential structural BMPs

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

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

N/A. See below.

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 permit does not require tracking of existing BMPs for municipalities with discharges to water quality limited waterbodies and their tributaries where phosphorus is the cause of the impairment (Appendix H, part II.I.c.iii.). No new structural BMPs have been installed to date, but any such BMPs will be tracked as they are installed.

-All streets and parking lots were swept at least once; current resources do not allow for systematic sweeping of certain roads twice per year in order to comply with the impaired waters requirement.

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:

-As noted above and in more detail below in MCM 6, catch basin inspections are proceeding slowly due to a lack of available resources. DPW will continue to seek funding and resources to meet these requirements.

-All streets and parking lots were swept at least once; current resources do not allow for systematic sweeping of certain roads twice per year in order to comply with the impaired waters requirement.

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

The Town is a member of the Connecticut River Stormwater Committee. Additional details regarding the committee's activities, particularly education and outreach are available in the regional report on the Think Blue CT River website. <https://thinkblueconnecticutriver.org/>

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:

There have been no new changes. Previously, the Town updated its list of receiving waters to reflect the following:

- Discharges to Porter Lake that were not reflected in NOI have been added. Porter Lake is impaired for Excessive Algae (Appendix G: Total Phos.), non-native aquatic plants, and Aquatic Plants (macrophytes). Latter two are “No Monitoring Required” in Appendix G
- Longmeadow Brook is now listed as impaired for E. coli, Total Phosphorus, and Turbidity
- Connecticut River segment 34-05 is no longer considered impaired for TSS as of the publishing of the Massachusetts Year 2016 Integrated Waters List.
- All waters are listed as subject to the Long Island Sound TMDL.

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:1. Think Blue Connecticut River Website

Message Description and Distribution Method:

The Think Blue Connecticut River website is at the core of all regional messaging about stormwater. The website at www.thinkblueconnecticutriver.org does the following:

- Covers major areas of messaging about reducing polluted stormwater flows, including lawn and yard care, pet waste management, car care, controlling soil erosion, soaking up the rain, and septic system care
- Addresses the key 4 audiences plus educators
- Serves as the “landing place” for information on nearly all social media messaging

Targeted Audience:

Responsible Department/Parties:

Measurable Goal(s):

A total of 3,196 people visited the Think Blue Connecticut River website during Year 3 and spent an average of 1 minute, 38 seconds on viewing a total of 3,940 pages on stormwater best practices.

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:

As indicated in previous annual reports, the website was not mentioned in the NOI, but with development now completed is most central to all messaging in the region.

BMP:2. Cigarette butts – residents

Message Description and Distribution Method:

Materials and messaging for this campaign to reduce cigarette butt litter were developed in Year 2. Due to a general sense among members that messaging would get lost in the mix given far greater public concern with the Covid-19 pandemic, actual launch of campaign messaging occurred in Year 3. At the heart of the campaign is an image of a baby bird with a cigarette butt in its mouth. PVPC obtained permission for use of this image through the photographer who is associated with the Florida Audubon Society. The campaign

includes:

- Image of baby bird with cigarette butt in its mouth with message (as shown below)
- Large decals (2x3 feet) for public works vehicles throughout the region, including Longmeadow's "jet" truck which is on the road nearly every week day.
- Web page with additional information on cigarette butt litter and link to informational video from Canadian Broadcast System
- Press release to local media
- Facebook advertisement and post shared with MA Audubon and the Connecticut River Conservancy that links to resources on Think Blue Connecticut River website

While the DPW truck decals were anticipated to have great success, there were important lessons learned. In some cases, the decals were too large for certain trucks. One idea for the future is to print two sizes of decals. Also, some stormwater committee members found that once they had decals in hand, they did not have support for putting the decals on trucks. Some then used the decals to make banners or signs that got posted in various locations.

The Think Blue Connecticut River web location for more information is at: <https://thinkblueconnecticutriver.org/wp-content/uploads/2020/07/cigarette-butt-bird.pdf>

Targeted Audience: Residents, but really all audiences in the Connecticut River Stormwater Committee region

Responsible Department/Parties: PVPC staff and member municipalities

Measurable Goal(s):

Decals on Public Works vehicles and public spaces had a roughly estimated 40,000 views per month in each community. Stormwater Committee members counted views of decals using a simple Excel calculator tool that PVPC developed based on methodology from the outdoor advertising sector (see calculator tool in table next page). Several members commented that the calculator seems to yield high numbers.

The Facebook advertisement reached 17,720 people identified as “smokers” and was shown 31,937 times; 152 smokers clicked on the link to check out the landing pages and there were 62 reactions. Facebook estimates that 4,330 viewers recall the campaign advertisement.

The posting on PVPC’s Facebook page shows 20 shares that include Stormwater Committee members, the Connecticut River Conservancy, and Massachusetts Audubon Society’s Arcadia Sanctuary.

The Springfield Republican, which printed an article and followed with an editorial estimates its audience at 83,000 readers.

Message Date(s): Decals were displayed throughout Year 3 in each member municipality, Facebook ad ran for 9 days, from May 20 to 28, and PVPC’s Facebook post went up on May 21.

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:

Postponed to Year 3 and rather than messaging through use of PVTA bus panels, decided to message with large decals on public works vehicles throughout the region, which was supplemented with press release, Facebook messaging, and Think Blue Connecticut River website information on cigarette butts.

BMP: 3. Dumpster waste and avoiding contaminated flows message - businesses

Message Description and Distribution Method:

Materials and messaging for this campaign on dumpster waste and avoiding contaminated flows were developed in Year 2, but strategy further evolved in Year 3 given constraints presented with messaging to Boards of Health during a pandemic. Rather than try to meet regionally or individually, strategy pivoted to notifying Boards of Health about the issue and availability of flyers through the membership of the Massachusetts Health Officers Association. The campaign included:

- Update to the Think Blue Connecticut River Website to include:
 - o Flyer to inform Boards of Health on proactive regulatory and educational steps to curb stormwater pollution from dumpsters
 - o Flyer for Boards of Health for use as part of routine interactions with retail complexes, restaurants/food establishments, and apartment complexes
 - o Check list for Boards of Health (developed by Town of Palmer Conservation Agent) to use when inspecting restaurants and looking at dumpsters and oil storage
- An article prepared for the Massachusetts Health Officers Association (MHOA). Initially planned for publication in MHOA's newsletter, MHOA sent the article as a special e-mail blast to their 650 members. They also sent the information with a request for distribution to members of the Massachusetts Environmental Health Association (MEHA), Massachusetts Association of Health Boards (MAHB), and Western Massachusetts Public Health Association (WMPHA).
- A presentation that was to be given at Western Mass Health Officers Association/MassDEP annual spring seminar focused on environmental health was not used in the end, but remains at the ready once the pandemic subsides.

Targeted Audience: Businesses, institutions and commercial facilities

Responsible Department/Parties: PVPC staff and member municipalities

Measurable Goal(s):

An e-mail about Think Blue Connecticut River resources on dumpsters for Boards of Health went to the full membership of the Massachusetts Health Officers Association, 650 people.

Analytics from the Think Blue Connecticut River website show a total of 84 people retrieved PDF resources posted on dumpster waste.

Message Date(s): The article went to the 650 members of the MHOA on March 24, 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:

Aside from postponing message to Year 3, we learned in the process of developing the campaign that

distribution of flyers directly to dumpster companies to provide to customers was not going to be a fruitful strategy. Better to work with Boards of Health to inform them and then get them to distribute the information to dumpster companies (who are allowed/permitted by boards to operate in the community) and to businesses when health agents are doing routine inspections. The education and outreach effort became two pronged and now includes an additional flyer specifically for Boards of Health.

Given Covid-19 and the demands on Boards of Health during this time, the committee pursued a two pronged approach for Year 3:

- Post information on Think Blue Connecticut River website with the two PDF documents/flyers on dumpsters, along with a checklist for Boards of Health to use when inspecting restaurants and looking at dumpsters and oil storage.
- Prepare article for MA Health Officers Association Executive Director to announce resources about dumpsters to memberships in the Western MA Public Health Association and the MA Environmental Health Association.

With the continuation of the pandemic into Year 3 programming, communities recommending holding off on individual visits with boards of health. It is hoped that visits might occur at a time when the pandemic is not demanding so much attention from local boards of health.

BMP: 4. New MS4 development standards and erosion and sediment control - developers

Message Description and Distribution Method:

PVPC staff hosted a Think Blue Connecticut River table at the day-long virtual Western Massachusetts Developers' Conference held on October 21, 2020. The 3-d virtual booth featured hyperlinks to key documents, video, and websites, along with an opportunity for attendees to chat and collect documents for their "swag bags" from booths. The booth was organized as follows with links to resources:

About Us – link to Think Blue CT River <https://thinkblueconnecticutriver.org/about-us/>

Erosion & Sediment Control Resources

1. Rhode Island Handbook Excerpt on Project Phasing
2. EPA Construction Industry Brochure
3. Site Inspection Checklist for Use by Pioneer Valley Municipalities

New Stormwater Management Standards Resources

4. Construction and Post Construction Requirements Excerpt from MA MS4 Permit and Recent Settlement Agreement
5. Video Presentation on MS4 Permit from Sept. 10, 2020 Valley Development Council Meeting
6. Low Impact Development Checklist for Use by Pioneer Valley Municipalities

Chat with Us

The Think Blue Connecticut River booth was well attended by developers with a total of 71 visiting the virtual booth. Through participation in this conference, PVPC now has a list of the developers who attended the

conference, which will prove helpful for future outreach.

Targeted Audience: Developers (construction)

Responsible Department/Parties: PVPC staff and member municipalities

Measurable Goal(s):

Think Blue Connecticut River Booth Summary

Total Visits: 71

Documents Viewed: 68

Videos Viewed: 7

Document Views

1-rhode-island-handbook-excerpt-on-project-phasing-pdf1602957915.pdf -- 11

2-epa-construction-industry-brochure-pdf1602957934.pdf -- 14

3-site-inspection-checklist-for-use-by-pioneer-valley-municipalities-pdf1602957970.pdf -- 16

4-construction-and-post-construction-requirements-excerpt-from-ma-ms4-permit-and-recent-settlement-agreement-pdf1602958004.pdf -- 13

6-low-impact-development-checklist-for-use-by-pioneer-valley-municipalities-pdf1602958025.pdf -- 14

Video Views

PVPC MS4 Permit Presentation -- 7

Tab Clicks

Think Blue Massachusetts -- 6

Think Blue Connecticut River -- 5

Message Date(s): October 21, 2020

Message Completed for: Appendix F Requirements Appendix H Requirements

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

If yes, describe why the change was made:

Due to the Covid-19 pandemic, this messaging was moved to Year 3 and done virtually as a booth as offered by the Conference.

BMP: 5. Erosion and sediment control - developers

Message Description and Distribution Method:

To get some messaging out to developers for Year 2, municipal members agreed that it makes good sense to distribute a letter on municipal letterhead and an EPA brochure on erosion and sediment control to drainlayers operating within their communities. This was a strategy used by Tewksbury Public Works Director Arthur Marcos, kindly shared his draft letter language. PVPC staff developed a contact list for drain layers operating in the region, updated Mr. Marcos' letter and sent those materials along with the EPA brochure on erosion and sediment control for member use.

Some 72 drain layers have been identified in the region.

Targeted Audience:

Responsible Department/Parties:

Measurable Goal(s):

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: 6. Fleet maintenance to avoid spills and leaks – industrial facilities

Message Description and Distribution Method:

Targeted Audience:

Responsible Department/Parties:

Measurable Goal(s):

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: 7. Proper disposal of leaf litter - residents

Message Description and Distribution Method:

Messaging for this campaign was adapted from a series of four Be a Leaf Hero social media posts developed by the Cape Cod Commission, which PVPC customized for the Connecticut River Stormwater Committee. The social media posts provide a series of tips and all tips contain a link to a page on the Think Blue Connecticut River website with more in-depth content and links. See website page at: https://thinkblueconnecticutriver.org/be-a-leaf-hero/?fbclid=IwAR2GSWZHw5iHqFUKLAzUWxxlu_iVOI7Az-gcPE42T7xEQayjdyylLbwKlko. The content seeks to promote better practices with leaf litter and build understanding about potential contamination of stormwater with leaf litter.

Initial efforts to run 4 boosted Facebook posts failed, so the Committee's consultant ran one ad on Google instead. PVPC did run the 4 leaf litter posts as part of its regional Facebook page, but these could not be boosted by zip code as had been done previously due to new restrictions. Shares on these posts included stormwater committee member municipalities and the Massachusetts Audubon Society's Arcadia Sanctuary in the region.

PVPC had also prepared a door hanger for member communities to print and distribute in areas where leaf litter is problematic. These did not, however, get used at this time since stepping onto private property to distribute door hangers did not seem safe with the continuation of the Covid-19 pandemic.

Targeted Audience: Residents

Responsible Department/Parties: PVPC staff and member municipalities

Measurable Goal(s):

Google ad that had a total of 78,056 impressions and which drew 110 clicks to the website landing page.

There were 244 views of the Leaf Hero landing page with analytics indicating that the average time spent by visitors on that resource page was an average of 3 minutes and 10 seconds. There were a total of 192 clicks to download posted PDF resources.

Message Date(s): Google ad ran from October 28 to November 4; PVPC Facebook posts began on October 29 and ran through November 4.

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 change to this messaging began in Year 2, where initially the plan had been for one social media post and press release. Given the cohesion of these social media messages as a whole, the Connecticut River Stormwater Committee decided to run the full series, instead of a media release, and developed a Think Blue Connecticut River web page on best practices to which all posts could link.

BMP: 8. Importance of soil test, proper use of fertilizers, disposal of grass clippings - residents**Message Description and Distribution Method:**

Social media ad and post, using idea of keeping lawns safe for families. The link provided in the social media post connects to the Think Blue Connecticut River web page on lawn and yard care, which lays out important

best practices and links to useful resources, including a video by Paul Tukey, organic lawn care celebrity, as well as guides to popular lawn care chemicals and their hazards. Link to Think Blue Connecticut River is: <https://thinkblueconnecticutriver.org/lawn-and-yard-care/>
PVPC also provided members with a flyer to distribute locally.

Targeted Audience: Residents

Responsible Department/Parties: PVPC staff and member municipalities

Measurable Goal(s):

The Facebook ad reached 38,160 individuals in Stormwater Committee communities who match “gardening,” “home improvement,” or “do it yourself” identifiers. Of this number, Facebook estimates that 7,200 people will recall the ad. Ninety-nine people clicked on the “Learn More” button to go the Think Blue Connecticut River landing page on lawn care.

The Facebook post in the region was shared by several Stormwater Committee communities, helping to drive the number of views on the website landing page to a total of 161 with analytics indicating that the average time spent by visitors on that resource page was 1 minute and 42 seconds. There were a total of 132 downloads on the posted PDF resources.

Message Date(s): Facebook ad ran for 6 days, from June 25th to June 30th; PVPC posted the regional Facebook message on June 23.

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:

Proposed work had included creating a brochure. Instead, work entailed improving the Think Blue Connecticut River web page on lawn care so that information and resources are all more readily available during Covid-19.

BMP: 9. Proper management of pet waste – residents and businesses

Message Description and Distribution Method:

Pet waste messaging in Year 3 was multifaceted at both the time of licensing and summer messaging. All messaging is based on the “Think picking up Spike’s poop is gross? Try swimming in it,” and aimed at driving people to the pet waste pick up pledge on the Think Blue Connecticut River website.

Before time of licensing messaging, PVPC surveyed municipal clerks/dog officers to understand what might be the most effective methods for messaging. Based on the responses, PVPC provided a variety of tools directly to municipal clerks to help them in getting out the pet waste message during time of licensing, including flyers in different sizes based on envelope sizes used in corresponding with dog owners, and an electronic message to be placed on the local licensing web page (something we learned that most municipalities now have). While several communities made use of the flyers, PVPC noted that uptake of the electronic element (shown in image below) on local licensing web pages in Year 3 was limited across member communities. For Year 4, Stormwater committee members will make a push with their municipal clerks/dog officers to make better use of this element at time of licensing.

Elements for Year 3 also included a social media ad on Google at time of licensing.

For summer messaging, internal and external ads have been running on the PVTA buses in the region. This investment is aimed at covering both the residential and business audience in Year 3. PVTA bus ads ran on buses operating out of three different garages in the region: Springfield Garage, Northampton Garage, and UMass Garage. There were a total of 6 panels run on the outside of buses and 12 panels in the interiors. To supplement the summer messaging on pet waste, a Facebook ad will run just after Labor Day, in early September.

Targeted Audience: Residents and Businesses (for Year 3)

Responsible Department/Parties: PVPC staff and member municipalities

Measurable Goal(s):

The Google ad placed at time of licensing reached 19,227 people identified as dog owners in targeted communities with 34 people clicking through to the pet waste pick up pledge. It is not clear yet whether this poorer performance in Year 3 compared to Year 2 has to do with the difference between Google and Facebook or advertising versus boosting posts by zip code (with 4 Facebook posts boosted by zip code in Year 2, we reached 15,552 people who followed through with 406 clicks).

PVTA estimates that the bus panels displayed through a three-month period have produced more than 1.5 million impressions.

Numbers from the supplemental Facebook ad are not yet available.

During Year 3, Think Blue Connecticut River pet waste page on the website had 700 page views with the analytics indicating that the average time spent by visitors on that resource page was 2 minutes and 3 seconds. Of the total 390 people who clicked on the pet waste pledge, there were about 100 new people who made the commitment to pick up pet waste in Year 3. PVPC's social media consultant has recommended a few adjustments to the pledge form to help increase likelihood of people pledging: better explain why important to pledge, and how data requested will be used. These changes have been made for Year 4.

Message Date(s): -Time of licensing, Google ad ran for 11 days, February 8 through 19, 2021
 -PVTA bus ads ran late June to September 2021
 -Facebook ad ran week of September 13 through 17, 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:

The NOI/SWMP indicated pet waste messaging only in summer months as PVPC understood that messaging under the Appendixes could be combined. EPA has indicated that additional messaging to dog owners "at time of licensing" is required. Messaging at time of licensing was added, starting in Year 2, along with additional messaging on pet waste during "stay at home" orders with the pandemic (given the increased visibility of associated problems).

If yes, describe why the change was made: To provide additional messaging.

The NOI/SWMP indicated pet waste messaging only in summer months as PVPC understood that messaging under the Appendixes could be combined. EPA has indicated that additional messaging to dog owners "at time of licensing" is required. Messaging at time of licensing was added, starting in Year 2, along with

additional messaging on pet waste during “stay at home” orders with the pandemic (given the increased visibility of associated problems).

BMP: 10. Proper septic system care - residents

Message Description and Distribution Method:

PVPC again timed messaging on septic system care to coincide with EPA’s Septic Smart Week with two posts on its Facebook page. These posts provided a link to a great infographic on septic system maintenance. Unfortunately, these posts could not be boosted, but member communities with septic system users were encouraged to share posts on their local Facebook sites.

PVPC also reissued a draft letter for distribution by Boards of Health to septic system owners. Several communities used this letter in Year 2, and another community used the letter in Year 3. Others noted that it remains difficult for Boards of Health to help with such messaging give the Covid-19 pandemic. It is important to note too that among Connecticut River Stormwater Committee, there are several member communities that are highly urbanized with no properties presumed to be using septic systems for sanitary waste disposal.

Targeted Audience: Residents

Responsible Department/Parties: PVPC staff and member municipalities

Measurable Goal(s):

Facebook posts drew a total of 20 “shares.” There were a total of 42 views of the Think Blue Connecticut River website septic system landing page with people spending an average of 50 seconds. Of that total, 32 people clicked to the septic system infographic to learn more.

Message Date(s): September 16 and 17, 2020

Message Completed for: Appendix F Requirements Appendix H Requirements

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

If yes, describe why the change was made:

The NOI/SWMP indicated septic system messaging would be done in Year 3 only as MS4 permit language in Appendix H was not entirely clear on the timing of this message. EPA has since indicated that septic system messaging must occur each year and the Connecticut River Stormwater Committee has adjusted accordingly.

BMP: 11. Proper disposal of leaf litter - businesses

Message Description and Distribution Method:

Mailing to landscapers in the region that promotes best practices and identifies locations for proper disposal of leaf litter. Best practices noted in letter are:

- Keep leaves off of driveways and roadways where they can easily wash into storm drains and contribute to higher nutrient flows during the fall season.
- Use a mulching mower. By mulching the leaves into the lawn, you avoid having to rake/blow and bag and you offer a way to manage autumn leaves while providing your client with free fertilizer. Mulched leaves put nutrients back into the ground and reduce the overall need for more soluble fertilizer products, which present greater problems for our local waterways.

• Alternatively, if your client has an existing compost pile, you can recommend that they consider allowing you to add leaves to the pile. Leaves provide a critically important element (carbon) to the composting process, making for a more soil enriching product to be used in the next growing season. Be sure compost piles are located away from streams, lakes, or storm drains as these decomposing materials and nutrients could easily leach to these water resources.

Targeted Audience: Businesses, institutions and commercial facilities

Responsible Department/Parties: PVPC staff and member municipalities

Measurable Goal(s):

Mailing to 150 professional land care companies operating in Stormwater Committee member municipalities

Message Date(s): October 30, 2020

Message Completed for: Appendix F Requirements Appendix H Requirements

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

If yes, describe why the change was made:

BMP: 12. Importance of soil test, proper use of fertilizers, disposal of grass clippings - businesses

Message Description and Distribution Method:

Rather than continue with idea of hosting stand-alone workshop for land care companies in the region (which would likely draw only a few professionals), PVPC staff coordinated with UMass-Amherst Cooperative Extension to “piggyback” by presenting messaging at the "Virtual Spring Kickoff for Landscapers Education Program 2021” on March 26, 2021. The aim was to reach the businesses that are caring for lawns in the Connecticut River region and across Massachusetts. Eighty lawn care professionals from across Massachusetts attended the session. PVPC spoke about the condition of rivers and streams, the ongoing work to reduce stormwater pollutions, the water quality implications of lawn care nutrients, and the importance of better practices. Better practice messaging for landscapers focused on two practices that Cooperative Extension staff advised would be most resonant:

- Test your client’s soil before applying any fertilizers
- Mulch mow grass clippings into the lawn in order to help soil retain moisture and to recycle nutrients, which can help reduce need for future fertilizer applications

Targeted Audience: Businesses, institutions and commercial facilities

Responsible Department/Parties: PVPC staff and member municipalities

Measurable Goal(s):

Workshop invitation mailing to 130 professional land care companies operating in Stormwater Committee member municipalities

Message Date(s): March 26, 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 in-person workshop had been planned for April 1 and an invitation issued to landscapers in the region. With the emergence of Covid-19 the workshop was going to be moved to the Zoom virtual meeting platform, but there was little interest expressed from landscapers. Mary Owen of UMass Extension and Hotze Wijnja of MassDAR recommended cancellation of the event as the industry was in upheaval with the pandemic. Also, the audience here was intended to be large institutions with lawns, but some difficulty in identifying these places in practice. For year 3, plan to conduct workshop and invite both these audiences.

BMP: 13. Fowl Water messaging through state-wide campaign

Message Description and Distribution Method:

On behalf of the members of the Connecticut River Stormwater Committee, Think Blue Massachusetts ran an educational advertising campaign using the 30-second video entitled, "Fowl Water." The "Fowl Water" advertisement helps viewers visualize how stormwater runoff carrying motor oil, pet waste, and trash pollutes local waterways. Each campaign entailed sponsored video on Facebook and Instagram and pre-roll advertisements on YouTube. See the video at: <http://bit.ly/tbm-fowl-water>

To measure the effectiveness of this campaign, Water Words that Work conducted an on-line panel survey of residents in areas where advertisements ran.

The full survey is available at:

https://5f19efc0-6724-487e-8188-1ad9d05d4ac5.filesusr.com/ugd/e78125_f42fdf228ee24360a4c569be2bfcf8f7.pdf

Targeted Audience: Residents and businesses/institutions/commercial facilities

Responsible Department/Parties: Think Blue Massachusetts and Water Words that Work

Measurable Goal(s):

Water Words that Work reports that within the Connecticut River Stormwater Committee region the campaign resulted in an estimated:

211,881 Facebook and Instagram impressions

471,252 YouTube ad impressions

83,101 Spanish language impressions

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:

This message is a welcome addition to our program for Year 3 and will be part of the region's SWMP update.

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 Stormwater Management Program is posted on the Town's website for public review and comment.

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:**

-As of July 1, 2019, Longmeadow residents can bring household hazardous waste to New England Disposal Technologies in Westfield year-round at no cost for the first \$50 of material dropped off. Information about the new hazardous waste program is posted to the Town's website.

-An all volunteer "Longmeadow Earth Day" was held on April 11, 2021 for Town-wide cleanup of public properties and streams. 2,800 pounds of trash was collected, plus 600 pounds of bottles and cans for recycling, and additional paint cans and oil that were disposed of as hazardous waste.

-Public meetings dealing with environmental issues were held in connection with the Town's Open Space and Recreation Plan. A Public Visioning Session was held of July 8, 2020. A specific goal outlined in the Open Space and Recreation Plan is "Implement stormwater education and outreach in accordance with MS4 requirements." In conjunction with this goal, the Town identified as possible actions to consider using Project WET curricular materials for education and outreach and coordinate with school curriculum during Water Week to sponsor a public education program such as a lecture or festival. Another stated goal was to conduct a Town-wide assessment of stormwater infiltration that looks at the soils and canopy cover of existing porous areas in relation to rainfall.

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:

MS4 system mapping was updated to include receiving water and impairment information tied to specific outfalls. An impaired waters layer has also been added. Pipe sizes and conditions are being added as this data is collected.

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:

Catchment Investigations

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

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

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

Number of catchment investigations completed this reporting period:

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

Percent of total catchments investigated:

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

The Town's written IDDE plan, including all catchment investigation procedures, had not been completed on time, but is now finalized.

IDDE Progress

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

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

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

Number of illicit discharges identified:

Number of illicit discharges removed:

Estimated volume of sewage removed: gallons/day

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

Total number of illicit discharges identified:

Total number of illicit discharges removed:

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

A connection between the Bliss Park Pool (Reynolds Pool) and a receiving water was rerouted to drain to the sanitary sewer. As the pool has not been in use, there were no active discharges occurring.

Employee Training

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

On August 26, 2020, four DPW staff participated in a hands-on IDDE training focused on outfall screening and sampling procedures. These staff were trained to carry out the screening and sampling work which is now largely complete.

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:

Five projects were reviewed by the Conservation Commission as Notices of Intent under the MA Wetlands Protection Act. An additional five projects were reviewed as Requests for Determination of Applicability. No site plans were reviewed by Planning Board during the reporting period.

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

As-built Drawings

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

Number of as-built drawings received:

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

The Town is awaiting as-builts for two recent projects, the new DPW facility and the new Adult Center.

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:

This task is not yet started. The Town anticipates being on track for completion by the end of Year 4.

Green Infrastructure Report

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

This task is not yet started. The Town anticipates being on track for completion by the end of Year 4.

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:

This task is not yet started. The Town anticipates being on track for completion by the end of Year 4.

MCM6: Good Housekeeping

Catch Basin Cleaning

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

Number of catch basins inspected:

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:

N/A

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:
- 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:

Two inspections were conducted at the new DPW facility on Dwight Road once it opened (1/13 and 6/10, both under dry conditions). The Town was seeing an issue with cigarette butts around one of the catch basins at the new DPW facility. In response, sand buckets were put in place as butt receptacles. This has corrected the problem.

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):

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:

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:

During Year 3, the Town revised the "Facilities Inventory and Operations & Maintenance Plan" and it was posted on the Town website on Feb 2021: <https://www.longmeadow.org/DocumentCenter/View/5322/Facilities-Inventory-and-Operations--Maintenance-Plan>

While the Town did not achieve full completion of Year 3 requirements, progress was made on most tasks, and the Town is diligently moving toward compliance. The Town Engineer hired during Year 2 has taken on responsibility for many of the MS4 requirements and is continuing to work with Town staff and the Town's consultants to chart out a path that will bring the Town into full permit compliance.

With regard to catch basin cleaning and inspection, the Town put out a bid for this work and bids came back higher than the funds allocated by the Town's capital planning process. The Town continues to look for resources to support this work. The Town was also part of a joint effort through the Pioneer Valley Planning Commission to bid shared services for this work across many communities; PVPC received no responses to their request for bids. DPW will continue to seek funding and resources to meet these requirements.

COVID-19 Impacts

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

The Town is still experiencing high staff turnover that began in the midst of the COVID-19 pandemic. These staffing shortages continue to hinder the Town's ability to complete labor-intensive permit requirements, such as street sweepings and IDDE work. The Town did not hold a formal good housekeeping training because of restrictions on gathering staff in a single space.

Activities Planned for Next Reporting Period

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

Yes, I agree

- Develop a report assessing current street design and parking lot guidelines and other local requirements within the municipality that affect the creation of impervious cover
- Develop a report assessing existing local regulations to determine the feasibility of making green infrastructure practices allowable when appropriate site conditions exist
- Identify a minimum of 5 permittee-owned properties that could potentially be modified or retrofitted with BMPs to reduce impervious areas

Annual Requirements

- Annual report submitted and available to the public
- Annual opportunity for public participation in review and implementation of SWMP
- Keep records relating to the permit available for 5 years and make available to the public
- Properly store and dispose of catch basin cleanings and street sweepings so they do not discharge to receiving waters
- Annual training to employees involved in IDDE program
- Update inventory of all known locations where SSOs have discharged to the MS4
- Continue public education and outreach program
- Update outfall and interconnection inventory and priority ranking and include data collected in connection with the dry weather screening and other relevant inspections conducted

- Implement IDDE program
- Review site plans of construction sites as part of the construction stormwater runoff control program
- Conduct site inspection of construction sites as necessary
- Inspect and maintain stormwater treatment structures
- Log catch basins cleaned or inspected
- Sweep all curbed streets at least annually
- Continue investigations of catchments associated with Problem Outfalls
- Implemented SWPPPs for all permittee owned or operated maintenance garages, public works yards, transfer stations, and other waste handling facilities
- Review inventory of all permittee owned facilities in the categories of parks and open space, buildings and facilities, and vehicles and equipment; update if necessary
- Review O&M programs for all permittee owned facilities; update if necessary
- Implement all maintenance procedures for permittee owned facilities in accordance with O&M programs
- Implement program for MS4 infrastructure maintenance to reduce the discharge of pollutants
- Enclose all road salt storage piles or facilities and implemented winter road maintenance procedures to minimize the use of road salt
- Review as-built drawings for new and redevelopment to ensure compliance with post construction bylaws, regulations, or regulatory mechanism consistent with permit requirements
- Inspect all permittee owned treatment structures (excluding catch basins)

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

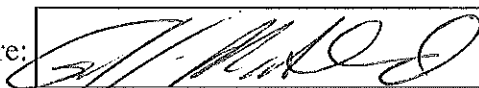
Part V: Certification of Small MS4 Annual Report 2021

40 CFR 144.32(d) Certification

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

Name:

Title:

Signature: 

Date:

[Signatory may be a duly authorized representative]