

# Neponset Stormwater Partnership Annual Progress Report July 1, 2019 through June 30, 2020

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#### Introduction

The Neponset Stormwater Partnership (NSP) is a regional stormwater collaborative which brings together communities in and around the Neponset River Watershed area. NSP members work together to reduce stormwater pollution and streamline compliance with the Small Municipal Separate Storm Sewer System permit (MS4 permit) which is issued jointly by the Environmental Protection Agency (EPA) Region 1 and the Massachusetts Department of Environmental Protection (MassDEP).

This report covers activities completed by the NSP during the period July 1, 2019 to June 30, 2020, which coincides with the FY20 work plan for the NSP.

This report is generally organized by the six minimum control measures (MCMs) outlined by the MS4 permit, subject to the caveat that some activities do not fit neatly into the framework established by the minimum control measures.

#### **Participating Communities and Organizations**

The following communities and other organizations were active members of the NSP during the reporting period:

- Foxborough
- Medfield
- Westwood
- Dedham
- Milton
- Norwood
- Canton
- Quincy
- Stoughton
- Sharon
- Randolph
- Metropolitan Area Planning Council (MAPC)

In addition, Avon participated on a limited basis in the activities specifically noted below.

The Neponset River Watershed Association serves as the overall coordinator for the NSP and coordinates or leads the implementation of many of the NSP's priority tasks.

Unless otherwise noted, all participating communities were included in each of the tasks or activities described below.

#### **Project Funding**

Funding for the NSP during the reporting period was provided by matching contributions from the participating municipalities, grant funds provided by the MAPC, and other matching grants and donations assembled by NepRWA.

#### **Note About Utilizing the NSP Annual Report**

The NSP Annual Report provides a summary of all the work undertaken by the NSP during the report period. Some of this work, particularly in the areas of Public Education and Public Participation, is directly applicable to our member communities' EPA annual reporting requirements.

In the Public Education and Participation sections of the NSP Annual Report, content has been formatted in a manner consistent with the format of the EPA annual report template. Because the NSP is a regional program, these sections are written from a "regional" perspective rather than "town-by-town" perspective. Where additional details of community-specific efforts are known, we have included these in summary form for those communities that prefer to report on a community-specific basis.

In past communication, EPA has endorsed the concept of a regional Education SWMP, and also a regional Education Annual Report. In other words, if a community is relying on the NSP to meet its Public Education requirements, they do not need to carefully justify community-specific results from the regional implementation activities, provided that the community was actively participating.

Therefore, if a community has incorporated the NSP Regional Outreach and Education SWMP into its own municipal SWMP by reference, they can satisfy the education reporting requirement by referencing the NSP Annual Report by including the URL in their own annual report.

If a community has not adopted the NSP Regional Outreach and Education SWMP by reference, it may pick and choose from among the NSP's completed education activities and add them directly to their own municipal EPA annual report.

Lastly, any number of other NSP activities may be indirectly or partially applicable to a community's MS4 reporting requirements. These activities include areas such as

- Staff training that occurs during NSP meetings and workshops
- Technical assistance on bylaws, green infrastructure or IDDE tools
- Water quality data which may be relevant to IDDE
- Evaluation and construction of stormwater retrofit opportunities

Because these areas do not neatly match the applicable EPA reporting requirements for all NSP communities, they have not been formatted to correspond to the EPA annual report template. Rather, they are simply provided as brief narrative or bullets. However, NSP communities may still want to pick and choose activities in these sections that they would like to use to supplement their EPA annual report.

#### **MCM1 Public Education**

Numerous tasks were completed in the area of Public Education and Participation, including the continued development of a regional outreach program that produces educational pieces for all participating members to use.

Samples of outreach materials described below are either linked in the narrative (if available on the internet) or are included in the Appendix at the end of this document.

The NSP's public education work is strongly supported by the communities and individuals that have volunteered to serve on the NSP Public Education Sub-Committee, including Laura Smead of Canton and Virginia LeClair of Dedham.

#### **Public Education BMP 1: Maintain Educational Website**

<u>Description:</u> 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.

<u>Target Audience:</u> Residents, Businesses, Industry and Developers

Measurable Goals: Achieve at least unique 500 site visits every year.

Results: This year, there were 3,562 site visitors and 5,614 unique

page views.

<u>Date(s):</u> Ongoing since May 1, 2018

(TMDL):

Applies to Appendix F

Yes (pet waste, fertilizers, leaves and grass clippings,

septic)

Applies to Appendix H Yes (pet waste, fertilizers, leaves and grass clippings,

(WQ Limited Waters): septic)

Example Materials: www.yourcleanwater.org

#### Public Education BMP 2: Operate Stormwater Hotline

<u>Description:</u> 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 <a href="mailto:stormwater@neponset.org">stormwater@neponset.org</a>, 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.

<u>Target Audience:</u> Residents, Businesses, Industry and Developers

Measurable Goals: Provide immediate answers to inquiries generated by

regionalized outreach activities.

Results: Eight contacts were made to the stormwater hotline this

year.

Four were general concerns about pollution sources or water quality issues that were forwarded to the

corresponding town.

Another call related a specific concern about a local pollution source. NepRWA was able to launch a small-scale outreach campaign addressing the concern, while also passing the report along to the corresponding town for any

further follow-up.

One call requested further explanation after water quality monitoring results were published in a local paper. NepRWA provided a detailed explanation while also connecting the caller to stormwater officials in their town.

Lastly, two calls requested that NepRWA provide a presentation to their group focusing on information in a recent outreach pieces (both callers were from the same group). NepRWA presented to the group (Westwood Garden Club) on October 24, 2019. The event was attended by approximately 30 people.

Date(s): Ongoing since May 1, 2018

Applies to Appendix F N/A

(TMDL):

Applies to Appendix H N/A

(WQ Limited Waters):

Example Materials: N/A

#### Public Education BMP 3: Distribute Pet Waste Information With Dog Licenses

<u>Description:</u> Educational "rack cards" regarding proper pet waste

disposal were printed and provided to town clerks' offices in

member towns to include with dog license renewal

requests, either in person or via mail. In towns where online renewal is either available or the only renewal method offered, online graphics that link to the pet waste page of the NSP website were provided. Posters, which were also used last year, were determined to be ineffective since many of the dog license renewals are completed by mail.

All NSP municipalities participated. The following

distribution numbers were based on the number of licensed dogs per NSP town. The number of rack cards distributed correlated to the number of dogs licensed per town to ensure all dog owners received the message, although

some towns had leftover cards from last year.

<u>Target Audience:</u> Residents

Measurable Goals: Participation by 100% of Town 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 in the member communities that

track this information.

Results: A total of 11,700 cards were printed and distributed to

Town Clerks. These cards, along with some leftover cards from the previous year, combined for a total of 14,000 cards for an estimated population of 16,100 dogs

(estimated 87% reached).

Date(s): Materials were distributed to Town Clerks in December

2019 and disseminated to dog owners over the next

several months.

Applies to Appendix F

(TMDL):

Yes

Applies to Appendix H

(WQ Limited Waters):

Yes

Example Materials: Appendix A-1

#### **Public Education BMP 4: Summer Pet Waste Campaign**

Description: Prepared a social media campaign directed at the

proper disposal of pet waste consisting of social media posts, flyers/posters, and informational postcards. The social media materials were posted to the Neponset River Watershed Association's Facebook and Twitter Accounts and Neponset Stormwater Partnership member communities were asked to "share/retweet" it on their own Facebook and/or Twitter accounts. The pet waste section of the NSP website was updated and electronic copies of the campaign flyer/poster and informational postcard was provided for towns to print and use during public events or post on their websites.

<u>Town-Specific</u> Canton: The social media message was shared on the Town of Canton Facebook page and in the Everything Canton

Canton Facebook page and in the Everything Canton and Canton Bulletin Board Facebook groups. The information was also added to an edition of the Canton

Citizen (local newspaper with approximately 1000 subscribers).

Dedham: The information was shared/posted to the following

social media accounts: Green Dedham, Dedham Trails, Dedham Board of Health, and Dedham DPW. Copies of the flyer were also distributed at Town Hall, in Dedham Square, and at local coffee shops. The information was posted to the Dedham website and submitted to the Dedham Times (local newspaper) for inclusion in a

subsequent edition.

Foxboro: The social media posts were shared on Town-run

accounts.

Medfield: The social media post was shared on the Town's Twitter

account and posters were printed and placed at Town

Hall and the Town library.

Milton: The social media post was shared on Town-run

accounts. A link to the pet waste section of the NSP website was also placed on the Town's Stormwater

website.

Norwood: Different (non-NSP) materials addressing this issue

were used and circulated as a bill stuffer.

Quincy: The social media post was shared on the Town's

Facebook account.

Randolph: Randolph was not yet a member of the NSP when this

campaign was launched. Outreach was addressed

through other (non-NSP) means.

Sharon: The social media post was shared on Town-run

accounts.

Stoughton: Rack cards were placed for visitors in Town Hall, the

> Council on Aging/Youth Commission office, and the Town library. A PDF copy of the flyer was also posted on the Town's Engineering Department website.

Materials concerning this issue were also added to the "Stormwater Development Package" for developers and

builders. Social media posts were also shared on

Stoughton Recreation's Facebook account.

Westwood: 150 flyers were printed and distributed at Westwood

Day, a local festival.

Target Audience: Residents, Businesses, Industry

Participation by 100% of NSP communities and reach to Measurable Goals:

at least 1,000 people in the NSP region through social

media.

All NSP communities participated by redistributing one Results:

or more of the campaign materials, or by using

previously prepared materials, with most communities participating in multiple distribution methods. A total of 8,996 people were reached through Facebook, with an

additional 4,462 people reached through Twitter.

Date(s): August 15-21, 2019

Applies to Appendix F

(TMDL):

Yes

Applies to Appendix H (WQ Yes

Limited Waters):

Appendix A-2 Example Materials:

#### Public Education BMP 5: Fall Leaf Waste Campaign

Description:

Prepared a social media campaign directed at the proper disposal of leaf waste consisting of two social media posts each to Facebook and Twitter and an informational flyer/poster. The social media messages were posted to the Neponset River Watershed Association's Facebook and Twitter Accounts and Neponset Stormwater Partnership member communities were asked to "share/retweet" it to their own Facebook and/or Twitter accounts. The leaf and yard waste section of the NSP website was updated with detailed local information on yard waste disposal options. An electronic copy of the leaf campaign flyer/poster was provided for towns to use during public events or to post on their websites.

<u>Town-Specific</u> Canton: <u>Details:</u>

The posts were shared on the following social media accounts/groups: Canton Planning Board, Everything Canton, Canton Bulletin Board and Canton Walk, Bike, and Hike Committee. Flyers were shared with the Board of Selectman's Office and the Con Com. Information was shared with a local publication (the Canton Citizen) for use as an online article and in an upcoming edition (approximately 1000 subscribers). Flyers were also shared with the Canton Association of Business and Industry for inclusion in their newsletter (approximately 90 subscribers). Copies of the flyer were also left at the Town Hall entry door for visitors to see and take.

Dedham:

The social media posts were shared on the account pages for Sustainable Dedham and Dedham Trails. The information was also included in the rotating banner message on the Town's homepage. Flyers were also printed for distribution at libraries, post offices, coffee shops, etc.

Foxboro:

The social media posts were shared on the Town's Facebook and Twitter accounts. Information was also posted on the Town's website.

Medfield:

The information was posted on the Town's website as a "Public Works News Flash," which linked to information from the NSP website.

Milton: The social media posts were shared on the Town's

Facebook and Twitter accounts.

Norwood: Different (non-NSP) materials addressing this issue

were used and circulated as a bill stuffer.

Quincy: The social media posts were shared on the City's

Facebook page.

Randolph: The social media posts were shared on several town-

run accounts (Town of Randolph, Turner Free Library, Community Center, The Hub at Stetson Hall). Flyers

were also printed and provided to many Town

buildings/departments with common public interaction (e.g. Clerk's Office, Library, Town Manager's Office, etc.). The information was also posted to the Town's website, which generates an automatic email to anyone

on the Town's email list.

Sharon: The social media posts were shared on Town accounts

and the information was also posted on the Town's website. Flyers were printed for use in the office.

Stoughton: Flyers were posted at Town Hall, the Library, and the

Council on Aging office. The flyer was also digitally posted to the town's website and the social media messages were shared on the Stoughton Recreation

Facebook page.

Westwood: Flyers were printed and handed out at a recycling event

on 10/19/19. The social media posts were shared on the Town's accounts and the information was reproduced to

be included in the 10/24/19 edition of the Town's

newsletter (the Westwood Wire). A copy of the flyer was

also posted to the Town's website.

<u>Target Audience:</u> Residents, Businesses, Industry

Measurable Goals: Participation by 100% of NSP communities and reach to

at least 1,000 people in the NSP region through social

media.

Results: All NSP communities participated by redistributing one

or more of the campaign materials, or by using previously prepared town materials, with most communities participating in multiple distribution methods. The four social media posts (two on Facebook and two on Twitter) reached a total of 16,408 people through Facebook and 6,378 people through Twitter.

<u>Date(s):</u> October 10, 2019 and October 24, 2019

Applies to Appendix F

(TMDL):

Yes

Applies to Appendix H (WQ

Limited Waters):

Yes

Example Materials: Appendix A-3

#### Public Education BMP 6: Spring Fertilizer and Grass Clipping Campaign

<u>Description:</u> Prepared an outreach campaign regarding proper use

(or abstention from use) of fertilizer consisting of social media posts and an interactive "fertilizer calculator" on the NSP website. Social media posts were made on the Neponset River Watershed Association's Facebook and Twitter Accounts and Neponset Stormwater Partnership member communities were asked to "share/retweet" it to

member communities were asked to "share/retweet" it to their own Facebook and/or Twitter accounts. The fertilizer and lawn care section of the NSP website was updated, and a new webpage was created to host a

"fertilizer calculator" that allows a user to enter several pieces of information and returns a suggested fertilizer application rate based on guidance from the NEIWPCC Northeast Voluntary Turf Fertilizer Initiative. No physical materials (flyers, posters, etc.) were produced for this campaign as most Town Halls and municipal events

were closed/cancelled due to COVID.

<u>Town-Specific</u> Canton:

Details:

The social media post was shared on the Town of

Canton Facebook page.

Dedham: The social media posts were shared on Dedham Trails

and Sustainable Dedham accounts. The town also included the information, including web links, in a stormwater pollution prevention-themed article submitted to Dedham's "Town Hall Talks" newsletter.

Foxboro: The social media post was shared on the Foxborough

Conservation Commission Facebook account.

Medfield: The social media post was shared on the Town's Twitter

account.

Milton: The social media message was shared on the Town of

Milton Twitter and Milton DPW Facebook pages. The information and associated links were also added to the Stormwater Management section of the Town's website and was also posted under "News & Announcements" on the DPW and Stormwater Management pages.

Norwood: The social media message was shared on the Town's

Twitter page.

Quincy: The social media message was shared on the City's

Twitter page.

Randolph: The social media message was shared on the Randolph

Community Programs, Turner Free Library, and The

Hub at Stetson Hall Facebook pages.

Sharon: The social media message was shared on the Town's

Facebook and Twitter pages.

Stoughton: The social media message was shared on the

Stoughton DPW and Stoughton Recreation Facebook pages. Links to the pertinent NSP web pages were added to the "Stormwater Resources" section of the

Town's website.

Westwood: The social media message was posted on the Town's

Facebook and Twitter pages. The information was also included in the "DPW Wire" (a newsletter) and posted

under "News Items" on the Town's website.

<u>Target Audience:</u> Residents, Businesses, Industry

Measurable Goals: Participation by 100% of NSP communities and reach to

at least 1,000 people in the NSP region through social

media.

Results: All NSP communities participated by redistributing one

or more of the campaign materials with most communities participating in multiple distribution

methods. A total of 4,704 people were reached through Facebook, with an additional 3,132 people reached through Twitter.

Date(s): April 23, 2020

Applies to Appendix F

(TMDL):

Yes

Applies to Appendix H (WQ Yes

Limited Waters):

Example Materials: Appendix A-4

#### **Public Education BMP 7: Paid Facebook Advertising**

Description: A Facebook advertising campaign mimicking one of the

regular social media outreach campaigns was piloted tested. Facebook ads regarding proper fertilizer use were designed for every participating community (Canton,

Dedham, Foxborough, Medfield, Milton, Randolph, Sharon,

Stoughton, and Westwood). These ads were nearly

identical to the educational posts designed as part of the Spring outreach activity (Public Education BMP 6). The ads were set up to be shown to pertinent groups in each town. For example, this ad targeted homeowners that were at least 25 years old. Results of the pilot test's reach were then compared to the reach of the previous social media post on the same topic to determine if Facebook ads are a

viable option for future outreach.

Target Audience: Residents

Measurable Goals: Conduct a pilot test of Facebook advertising and compare

the reach results to the analogous social media outreach

post.

Results: The ad ran for 12 days reached approximately 61,776

people, compared to the original social media post that reached 4,704 people. The ad also generated 1,229 clicks through to the NSP's fertilizer and yard waste management page. It was determined that Facebook ads were a useful tool for outreach and may be used in conjunction with the regular outreach campaigns in the future. However, it may be more effective to distribute the available ad budget for

each town across several campaigns (leaves, dog waste, fertilizer) rather than concentrating them on a single campaign. This will be an area for further experimentation in the future.

<u>Date(s):</u> June 19 – June 30, 2020

Applies to Appendix F

(TMDL):

Yes

Applies to Appendix H

(WQ Limited Waters):

Yes

Example Materials: N/A

#### **Public Education BMP 8: School Outreach Program**

Description:

Prepared a hands-on watershed education curriculum for 4th or 5th grade students. Curriculum covered drinking water and stormwater infrastructure, local water resources, wastewater systems, water conservation, and stormwater pollution prevention techniques, and incorporated slides, videos, models, and hands-on activities. Curriculum was designed and adapted with input from teachers in participating schools and aligned with the MA 5<sup>th</sup> grade science curriculum standards. The program was delivered at the individual classroom level over the course of one (Quincy) or two (Foxborough, Milton, Canton, Sharon, Stoughton, Dedham and Westwood), 60-minute visits by a watershed educator. The educator also provided students with a water use / pollution prevention checklist and summary of the program for students to take home and review with their families. In addition to the elementary program a limited number of high school level programs were conducted in Norwood and Canton, wherein the watershed educator visited several times 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 are then shared with the community. Canton students designed, built, and painted rain barrels for auction and Norwood students worked on educational posters. Due to the spring 2020 COVID restrictions, schools were shut down and some scheduled school visits during this period could not occur. In lieu of these visits, the educator created digital materials for teachers to use in

their virtual classrooms.

Target Audience: Residents

Measurable Goals: Reach at least 80% of households with 4th or 5th grade

children in participating communities, and 100% positive

feedback from participating classroom teachers.

Results: During the 2019-2020 school year a total of 107

classrooms were visited once and 49 classrooms were visited twice, representing 79% of total 4th or 5th grade classrooms in the participating communities and an estimated 2,000 families. The COVID pandemic and subsequent school shut down prevented educators from completing all visits as scheduled. Online materials were viewed over 400 times for use in virtual learning situations. Feedback from teachers has been positive on both the in-

class presentation and the online materials.

<u>Date(s):</u> September 2019 through June 2020 (school year)

Applies to Appendix F

(TMDL):

N/A

Applies to Appendix H

(WQ Limited Waters):

N/A

Example Materials: Appendix A-5

Website for Online Materials:

https://www.neponset.org/classroom-resources-water-

education/

#### **Public Education BMP 9: Regional Education Mailing**

<u>Description:</u> An educational mailing was prepared and mailed to all

addresses in participating communities. The mailing was an 11x17 trifold brochure that highlighted general stormwater pollution prevention tips. The mail piece referenced key information on fertilizer, pet waste, yard waste, and litter and referred readers to additional information available at yourcleanwater.org and the stormwater hotline. The mailing was distributed to all business and residential addresses in

the participating communities (Avon, Canton, Dedham,

Foxborough, Medfield, Milton, Randolph, Sharon,

Stoughton and Westwood) totaling approximately 86,000

mailing addresses in all.

<u>Target Audience:</u> Residents

Measurable Goals: Reach 100% of addresses in participating towns, including

those who do not use social media or follow town

government communication channels.

Results: 100% of addresses in the target area were reached,

including all businesses, residential addresses, and PO

Boxes (86,000 addresses total).

Date(s): June 5, 2020

Applies to Appendix F

(TMDL):

Yes

Applies to Appendix H

(WQ Limited Waters):

Yes

Example Materials: Appendix A-6

#### Public Education BMP 10: Outreach to Septic System Owners

<u>Description:</u> Prepared an outreach campaign directed at all septic

system owners in member communities. Effective outreach was designed to be efficiently delivered to the target audience. The campaign was carried out in different ways in different towns, depending on the prevalence of septic systems within the town. In Canton, Foxborough, Medfield, and Stoughton, septic systems are relatively common, so a rack card was designed and sent to all addresses in the town as a bill stuffer. In Dedham, Milton, Norwood, Quincy, Randolph, and Westwood, septic systems are much less common, so a postcard was designed and sent to all properties that utilized a septic system, according to the records kept by each town's Board of Health. In Sharon, septic is also nearly universal, and an edition of the Water Department quarterly newsletter was prepared with a septic theme and distributed to all water service customers. All outreach pieces (the rack card, the postcard, and the

newsletter) contained similar information regarding the care

and maintenance of septic systems.

<u>Target Audience:</u> Septic System Owners

Measurable Goals: Reach 100% of known septic systems in member

communities.

Results: 1,317 postcards were mailed directly to addresses where

septic systems are present. 36,421 rack cards were included as bill stuffers and sent to all residents in towns where septic systems are common. Lastly, a town-wide, septic-themed newsletter was sent to all residents of Sharon. These methods reached 100% of the known septic

systems in each town.

<u>Date(s):</u> March 2020 (various specific dates depending on outreach

method, billing cycle, etc.)

Applies to Appendix F

(TMDL):

Yes

Applies to Appendix H

(WQ Limited Waters):

Yes

Example Materials: Appendix A-7

#### Public Education BMP 11: "Problem Area" Outreach

<u>Description:</u> Prepared specific, targeted outreach campaign designed to

correct known stormwater pollution issues in particular areas. The list of "problem areas" was compiled from the knowledge of Town officials as well as communications via the stormwater hotline. The best method to address many issues was determined to be storm drain marking, which is described in the Public Education BMP 12. One issue that was reported on the hotline this year regarded concern over the residents' treatment of a wetland area along Atherton Street in Milton, including issues with yard waste,

pet waste, and chemical lawn treatments. This was

addressed through an educational mailer to all residents in the vicinity that included a letter to each identified address describing the issue and a specifically-designed outreach piece that contained stormwater pollution prevention tips that were pertinent to the issues reported by the caller. The letter and outreach were sent to 8 residences.

<u>Target Audience:</u> Residents

Measurable Goals: Respond to identified "problem areas" with methods

designed to correct specific pollution-generating behaviors.

Results: Responded to one issue that was reported through the

hotline via direct outreach. Several other "problem areas" were identified but were not easily addressed through traditional outreach. Instead, these will be addressed through the storm drain marking program (Storm Drain

Marking BMP 12 below).

Date(s): September 19, 2019

Applies to Appendix F Yes

(TMDL):

Applies to Appendix H Yes

(WQ Limited Waters):

Example Materials: Appendix A-8

#### **Public Education BMP 12: Storm Drain Marking**

<u>Description:</u> A program through which volunteers are able to mark storm

with a full launch planned for the following year. The program will consist of providing volunteers with all materials and information they need to carry out the task. Aluminum medallions will be attached to the curb or pavement adjacent to storm drains using construction adhesive. The medallions have one of 3 messages "No Dumping, Only Rain in the Drain," "Drains to Neponset," or "No Dumping, Drains to Ocean." Additional medallion variations such as "Drains to Charles" may be developed as the program ramps up. Volunteers will be able to pick

drains with educational messages was piloted this year.

areas with high pedestrian traffic or areas with known issues that can be addressed by storm drain marking (such

the areas they'd like to mark, but will be encouraged to pick

as a high prevalence of improper pet waste disposal). Records of which catch basins have been marked will be

maintained by the NSP.

<u>Target Audience:</u> Residents, Businesses, and Institutions

Measurable Goals: Conduct a pilot project for the storm drain marking activity.

Results: The pilot test was completed on June 24, 2020. Tweaks

were made to the program and associated instructions based on feedback. These changes will be finalized, and the program will be opened to the public in the next permit

year.

<u>Date(s):</u> Pilot test completed on June 24, 2020

Applies to Appendix F

(TMDL):

Yes

Applies to Appendix H

(WQ Limited Waters):

Yes

Example Materials: Appendix A-9

#### Public Education BMP 13: Think Blue "Fowl Weather" Video

Description: Partnered with MA Statewide Municipal Stormwater

Coalition to secure MassDEP grant funding to distribute "Fowl Weather" advertising campaign, which helps viewers visualize how motor oil, pet waste, and trash become stormwater pollution. The campaign was operated on

Facebook, Instagram, and YouTube.

<u>Target Audience:</u> Residents

Measurable Goals: Reach a significant portion of the NSP service area

population with a stormwater awareness message in a

highly engaging format.

Results: A total of 504,123 people in the NSP service area were

reached via 260,039 Facebook/Instagram "impressions." Via YouTube, there were 244,084 impressions. A survey found that 17% of respondents recalled seeing the

campaign in past years, which is continuing an upward trend from 8% and 15% in 2018 and 2019, respectively.

Date(s): May 16 to June 5, 2020

Applies to Appendix F N/A

(TMDL):

Applies to Appendix H N/A

(WQ Limited Waters):

Example Materials:

Appendix A-10

#### Public Education BMP 14: Regional Water Quality Forum

<u>Description:</u> Organized an evening public presentation on data from the

2019 Volunteer Water Quality Monitoring Program (Public Participation BMP 2). The presentation covered the results from the 2019 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. The event was held at the Canton Public Library, was publicized across the entire NSP service area and drew attendees

from numerous communities. In addition, the presentation was broadcasted on the local cable news network and a link to the recording was shared on social media. Canton, Dedham, Westwood, Foxborough and Milton participated in

this task.

Target Audience: Residents

Measurable Goals: Deliver detailed site-specific water quality data to interested

residents and local officials in addition to general "how to"

information for broader audiences.

Results: Presenters estimated 50 people in attendance for the

presentation, however only 29 names were captured on the

sign-in sheet.

Date(s): February 6, 2020

Applies to Appendix F

(TMDL):

N/A

Applies to Appendix H

(WQ Limited Waters):

N/A

Example Materials: N/A

#### Public Education BMP 15: Regional Water Quality Data Reports and Press Releases

<u>Description:</u> Organized data from the 2018 Volunteer Water Quality

Monitoring Program (Public Participation BMP 2) into townspecific reports and press releases. These materials were provided to each town to aid in the dissemination of the results of the water quality monitoring program to residents

and/or the media.

<u>Target Audience:</u> Residents, Businesses, Institutions

Measurable Goals: Produce materials for each participating town to use in

disseminating the results of this year's water quality

monitoring program.

Results: A report and press release were each prepared for all 5

participating towns (Canton, Dedham, Foxborough, Milton,

and Westwood).

Date(s): July 2019

Applies to Appendix F N/A

(TMDL):

Applies to Appendix H N/A

(WQ Limited Waters):

Example Materials: Appendix A-11

Full reports available upon request

#### **MCM 2: Public Participation**

#### **General Public Participation Activities**

 Provided a representative to participate in the meetings of the Quincy Stormwater Advisory Committee.

Public Participation BMP 1: River Clean Up Day

Organized a volunteer-based river cleanup event with sites in Milton, Quincy, and Canton (and Boston) on September 21, 2019. Approximately 150 volunteers participated and removed an estimated 6.5 tons of trash and debris from various waterways, parks, and wetlands. Another cleanup day was planned for the spring, but it was cancelled due to the COVID pandemic.

Public Participation BMP 2: Volunteer Water Quality Monitoring Program
Organized a volunteer-based water quality monitoring program with sites in Canton,
Foxborough, Milton, Dedham and Westwood located on the Neponset River and/or
tributaries of the Neponset River. Approximately 25 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.

#### **Public Participation BMP 3: Regional Water Quality Forum**

Organized an evening public presentation on the 2019 water quality data collected in the Neponset River Watershed. The presentation covered the results from the 2019 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. The event was held at the Canton Public Library, was publicized across the entire NSP service area, and drew approximately 29 attendees from numerous communities. In addition, the presentation was broadcasted on the local cable news network and a link to the recording was shared on social media.

#### MCM 3: Illicit Discharge Detection and Elimination

#### Illicit Discharge Detection and Elimination BMP 1: IDDE Training

Provided IDDE training to staff in 4 towns. Medfield and Sharon were given a comprehensive training covering how to conduct outfall screenings and catchment investigations, how to spot and track illicit discharges, and how to ensure they are corrected. Nine municipal staff attended this training on January 23, 2020. Quincy and Milton were given a simpler "awareness" training that covered identifying and reporting illicit discharges as well as some general information on IDDE activities that were being conducted by 3<sup>rd</sup> parties. Nine municipal staff and two 3<sup>rd</sup> party contractors attended this training on January 30, 2020.

#### MCM 4: Construction Erosion and Sediment Control

#### **Construction Erosion and Sediment Control BMP 1: Existing Bylaw and Regulation Review**

Existing stormwater bylaws and regulations in all member communities were reviewed to assess compliance with current MS4 requirements as well as recommended best practices. Areas where updates were needed were identified and shared with the towns. In some cases, new draft bylaws and regulations were provided. The Town of Milton adopted an updated bylaw on June 15, 2020. Updates in other towns have been delayed due to COVID-related impacts.

#### MCM 5: New Development and Redevelopment

#### New Development and Redevelopment BMP 1: Existing Bylaw and Regulation Review

Existing stormwater bylaws and regulations in all member communities were reviewed to assess compliance with current MS4 requirements as well as recommended best practices. Areas where updates were needed were identified and shared with the towns. In some cases, new draft bylaws and regulations were provided. The Town of Milton adopted an updated bylaw on June 15, 2020. Updates in other towns have been delayed due to COVID-related impacts.

New Development and Redevelopment BMP 2: Zoning and Bylaw Analysis
NSP and MAPC have previously completed 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 year four of the MS4 Permit.

New Development and Redevelopment BMP 3: Evaluation of Retrofit Tools NSP and MAPC have developed tools and conducted field evaluations of potential stormwater retrofit tools 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. See below for a full description of the MAPC / NSP Retrofit Evaluation Tool completed this year.

#### MCM 6: Good Housekeeping and Pollution Prevention

There were no applicable NSP activities for this MCM during the permit year.

#### **Activities Not Corresponding to an MCM**

#### Appendix F/H Related Activity: BMP Prioritization Tool

NSP and Metropolitan Area Planning Council continued work on an interactive ArcGIS-based BMP prioritization tool to help towns and other users locate, inspect, and track opportunities for the construction of stormwater BMP retrofits and/or off-site stormwater mitigation projects.

It consists of 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 town to identify opportunities to meet their Appendix H and demonstration practice permit obligations.

This permit year, final adjustments were made to the tool and pilot testing was conducted. In the current permit year, the tool will become publicly available and a workshop will be offered to all NSP members where they can learn to use the first component of the tool with guidance from staff that worked on designing it. ArcGIS Online users will be able to 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.

#### **General Coordination and Training**

The activities in this category do not fit neatly into the six MCMs and/or apply to multiple MCMs and so have been aggregated under this heading.

Because of COVID, the NSP held three meetings during the reporting period rather than its usual four. Meetings included training opportunities for staff of the participating communities through guest presentations, staff presentations, inter-municipal information sharing, and discussion. The Spring meeting was cancelled due to the COVID pandemic, but meetings have since resumed through the use of Zoom. The major presentation topics during the reporting period included:

- MS4 Permit Q&A with EPA
- MAPC Flood Damage Claim Study Highlighting a New Approach to Understanding Flooding
- Year 2 MS4 Permit Requirements and Q&A with MassDEP
- Introduction to the MAPC/NepRWA BMP Prioritization Tool
- Tour of a Recently Completed BMP Installation

In addition to these meetings, various stormwater-related webinars and training opportunities were shared with NSP members via regular emails that compiled listings for such events in a uniform format.

The NSP also provided delegates to participate in the meetings of the MA Statewide Municipal Stormwater Coalition (Statewide Coalition) during the project period:

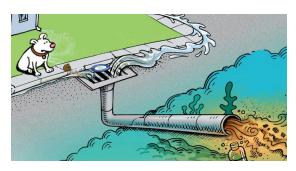
 Participants on behalf of the NSP included Ian Cooke, NepRWA Executive Director, Kerry Snyder, NepRWA Advocacy Director, Patrick Hogan, NepRWA Water Resource Specialist, , and Hillary Waite, Milton Stormwater Coordinator. This Page Intentionally Blank

Appendix <i>A</i>	A-1: Example Ma		n BMP 4

#### Dog owners we need your help!

Dog waste that's left on the ground is a public health issue that you can help prevent.

When dog waste is not picked up by owners, rain water and snow melt washes the bacteria and parasites from the waste into stormdrains, which then lead directly to local streams, ponds, and lakes.



Bacteria and parasites from dog waste cause water quality problems that affect drinking water resources, recreation, and wildlife.

Every time you walk your dog, please:

- carry a bag to pick up pet waste,
- dispose of waste in a trash can,
- never toss anything down a stormdrain!

Your Department of Public Works thanks you for helping to keep local waterways clean.



Let's keep it clean out there!

Not only is dog waste gross to look at, it can cause significant health issues, including:

- Campylobacteriosis: A bacterial infection that causes diarrhea in humans.
- Giardiasis: A protozoan infection of the small intestine that can cause diarrhea, cramping, fatigue, and weight loss.
- Salmonellosis: Symptoms include fever, muscle aches, headache, vomiting & diarrhea.
- Toxocariasis: An animal to human infection that is caused by roundworms found in the intestines of dogs. The parasite can cause vision loss, rash, fever or cough, and is a particular threat to children exposed to parasite eggs in sand and soil.

An easy way to avoid these health issues is to just pick up after your dog. It's a simple thing to do and it makes a big difference for all of us!





### Learn how we're improving water quality in your town. www.nepwater.org

Your town is part of the Neponset Stormwater Partnership, which aims to help communities reduce water pollution, and save money while doing so.

Please contact the Neponset River Watershed Association for more information. staff@neponset.org (781) 575-0354

Appe	ndix A-2: Contents:	Example Facebook I			



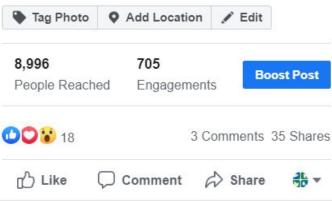
## Do the right thing and always pick it up!

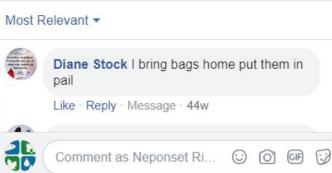


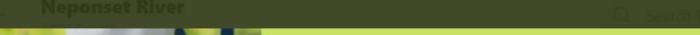
Published by Ian Cooke [?] · August 15, 2019 · 🚱

Be a good neighbor! Leaving pet waste on the ground is not only rude, it's unhealthy for dogs and humans.

When you walk your dog, make sure to carry a plastic bag with you so that you can pick up the waste and dispose of it in a trash can (never in a storm drain). www.YourCleanWater.org/residents/pet-waste

















carry a plastic bag with you when you walk your dog, so that you can pick up the waste and dispose of it in a trash can (never in a storm drain). YourCleanWater.org/residents/ pet-... #scoopthepoop

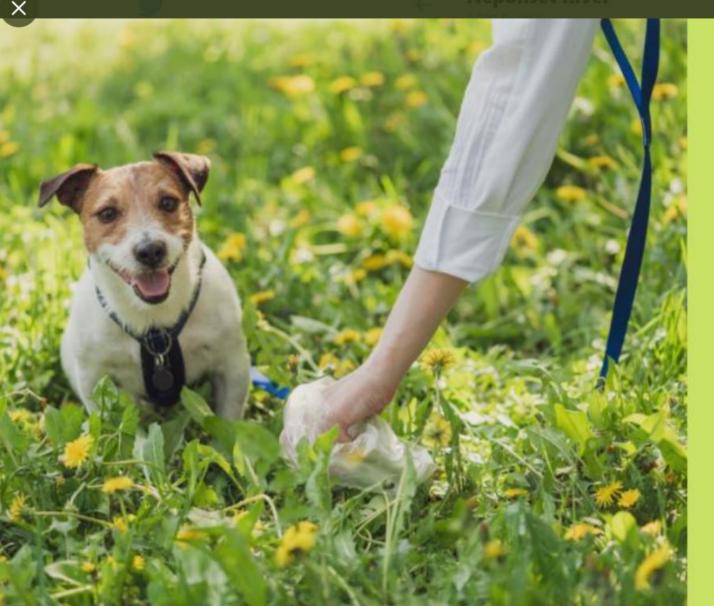
Be a good neighbor! Always

:41	PM	· Aug	21	2019	· Twitter	Web App

#neponsetriver #stormwater

#thinkbluemassachusetts

l View Twe	et activity		
8 Retweets	<b>6</b> Likes		
Q	17	$\bigcirc$	<b></b>







#### It's Your Responsibility as a Dog Owner

When you walk your dog, make sure to carry a plastic bag with you so that you can pick up the waste and dispose of it in a trash can (and never in a storm drain).

Dog waste carries high levels of harmful E. coli bacteria and other pathogens. When dog waste is left on the ground, the bacteria and pathogens can wash into storm drains and enter local waterways, which impacts recreational opportunities, like swimming, fishing, and boating.

#### It's a Really **Big Deal**

Dogs produce a lot of waste, which over time, can pose a health threat to swimmers, wildlife, and water quality.

The Environmental Protection Agency estimates that two or three days' worth of droppings from a population of about 100 dogs would contribute enough bacteria to temporarily close a bay and all watershed areas within 20 miles of it to swimming and shell fishing.

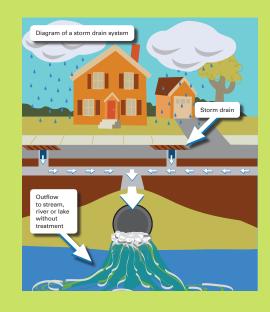
Fecal waste-contaminated water can cause people to have serious health problems.

Deliberately leaving pet waste on the ground is not only unpleasant and unhealthy, it's often punishable by fines.

> Picking up after your dog is the right thing to do. It reduces the spread of disease and helps protect our local water resources.

> > Learn about steps we're taking to help prevent stormwater pollution in the community at

YourCleanWater.org



8: Example Matei Facebook Post, Seco		



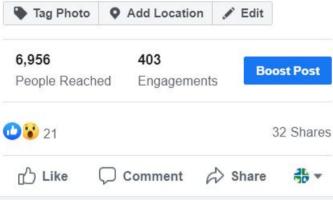
## Rake up leaves to prevent flooding!





Published by Ian Cooke [?]
October 10, 2019

As you begin to rake your leaves, please consider that any leaves that are left on the pavement can clog storm drains and flood your neighborhood. #RakeLeaves #PreventFlooding www.YourCleanWater.org/leaves



Comment as Neponset Ri... © @ @ @





Wondering what to do with your fall leaves? You can bag them, compost them, or mulch them -- just keep them away from the street.

Any leaves left on pavement can clog storm drains and flood your neighborhood. #RakeLeaves

#PreventFlooding YourCleanWater.org/leaves

1:32 PM · Oct 24, 2019 · Twitter Web App

Ill View Tweet activity

7 Retweets and comments 1 Like











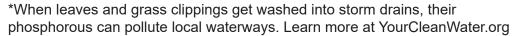
## Rake up leaves to prevent flooding!

Any leaves that are left on the pavement can clog storm drains and flood your neighborhood.

### To prevent flooding (and reduce water pollution\*):

- Rake your leaves and grass clippings away from the road, sidewalk, driveway and wetlands.
- Bag the leaves and grass clippings for town pickup (or drop the bags off at your town dump) - or -
- Compost your leaves and grass clippings and use it as free fertilizer or -
- Mow your leaves with a mulching mower and let them stay them on the lawn as a natural fertilizer.







Appendix A-4: Exan Contents: Facebook F		





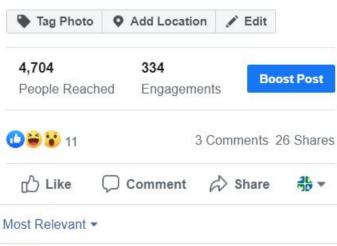
Published by Ian Cooke [?] - April 23 - 3

'P' or Phosphorus (on the Periodic Table of Elements) is very harmful to our waterways!

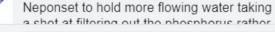
In Massachusetts, it's such a big problem that it's illegal to add any phosphorus fertilizer to your lawn without a soil test saying that it's needed.

So whatever you do, don't 'P' on your lawn!

For more tips about responsible lawn care, visit www.yourcleanwater.org/lawn



Ken Southwood Cut and dredge the upper



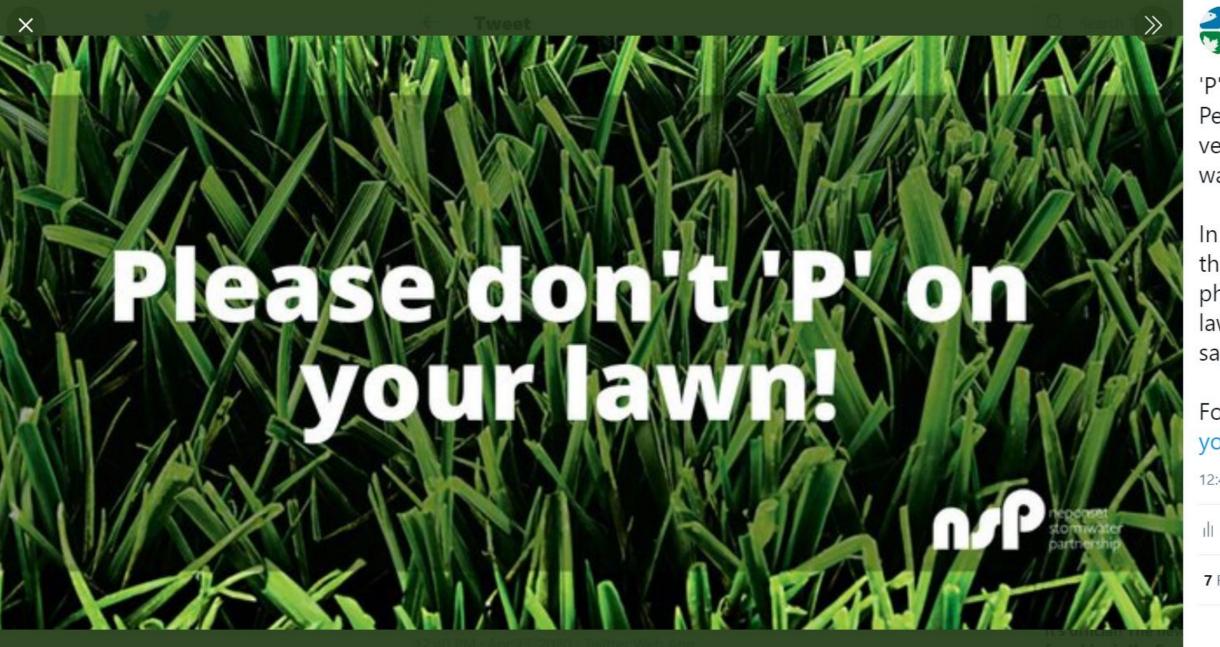














'P' or Phosphorus (on the Periodic Table of Elements) is very harmful to our waterways!

In MA it's such a big problem that it's illegal to add any phosphorus fertilizer to your lawn without a soil test that says it's needed.

For more lawn care tips visit yourcleanwater.org/lawn

12:40 PM · Apr 23, 2020 · Twitter Web App

| View Tweet activity

7 Retweets and comments 4 Likes











About

Residents

**Businesses** 

Construction

Industry

Member Resources

Report a Problem

### FERTILIZER CALCULATOR

Home / Fertilizer Calculator



### Fertilizer Application Calculator

This calculator was created using guidelines from the New England Interstate Water Pollution Control Commission's Voluntary Turf Fertilizer Initiative. Complete all required cells to calculate the amount of fertilizer to apply to your lawn for your given conditions.

Nitrogen Content of Fertilizer\*

This is the first of three numbers on your bag of fertilizer. For example, if your bag is marked "10-0-5," enter "10" into this field, as your fertilizer is 10% nitrogen.

Phosphorus Content of Fertilizer\*

This is the second of three numbers on your bag of fertilizer. For example, if your bag is marked "10-0-5," enter "0" into this field, as your fertilizer is 0% phosphorus. NOTE: By Massachusetts state law, this number should be "0" unless you have a soil test stating phosphorus is needed on your lawn.

Potassium Content of Fertilizer\*

This is the third of three numbers on your bag of fertilizer. For example, if your bag is marked "10-0-5," enter "5" into this field, as your fertilizer is 5% potassium. Enter as a whole number.

#### My lawn has environmentally sensitive features

Check this box if your lawn is near water bodies, located within a wellhead protection zone, near private wells, near coastal zones, has steep topography, overlays a single source aquifer, contains exposed bedrock, or has sandy soil.

Prescribed Nitrogen Application Rate From Your Soil Test (in Pounds/1000 Square Feet)\*

Soil tests usually state lawn application rates in "Pounds/1000 Sq. Ft.", but if your application rate is stated in "Pounds/Acre," divide that number by 43.56 to convert it to "Pounds/1000 Sq. Ft."

Size of Your Lawn (in Acres)\*

If you don't know, you can use Google Earth's "Measure" tool (google.com/earth) and outline the lawn to be fertilized to find the area. Remember to leave out impervious surfaces, such as your house or driveway.

Your results will appear below when all fields are completed.					
Optimum Number of Application Events					
This is the number of application events you should have throughout the growing season.					
Pounds of Fertilizer to be Applied Evenly at Each Application Event					
About   What is Stormwater?   Think Blue Massachusetts Partner					
Developed by Think Up Themes Ltd. Powered by WordPress.					

Appendix A-5: Example Materials for Public Education BMP	8
Contents: Classroom Handout	

## It's important that everyone does their part to conserve water.

With increased droughts, aging infrastructure and a growing population, we all need to use water more wisely.

Save money, preserve your drinking water and protect waterways with these simple tips.

Check off the actions your family plans to take!

- Turn the faucet OFF when brushing your teeth, scrubbing hands, and washing dishes.
- Take shorter showers. You can do it!
- If taking a bath, plug the bathtub before turning on the water. Adjust the temperature as the tub fills.
- Don't use the toilet as a trashcan.
- Make sure dishwashers and clothes washers are fully loaded before using them.
- Fix leaky faucets and toilets. It adds up!
- Upgrade appliances with water efficient toilets, showerheads, faucets and clothes washers.
- Check with your city or town for toilet or clothes washer rebates.
- Landscape with drought tolerant, native plants and grass, and reduce irrigation.
- Never water your lawn or play in a sprinkler during a drought.
- Always follow the outdoor water restrictions issued by your city or town.



www.neponset.org | 781-575-0354

Working in partnership with your community.



### We need your help to protect and save water every day!



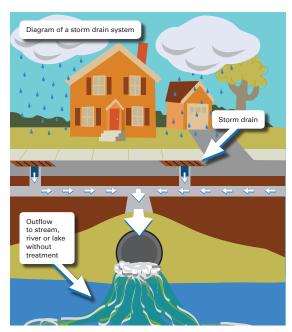


## We're working with your community to help protect and preserve your water.

Your student recently participated in a Water Education Program with the Neponset River Watershed Association, in partnership with your local Water/Public Works Department.

Topics included local water resources, infrastructure, conservation, stormwater and pollution.

**Next steps.** This brochure offers suggestions on how your family can help prevent water pollution and conserve water. Ask your student what they learned in class—and discuss what you can do to improve water efficiency at home!



Anything that goes down a storm drain or gets washed off the street will be quickly carried to the nearest waterway and discharged without treatment.

## Your family can help to prevent common sources of water pollution.

Check off the actions your family plans to take!
Never put anything down a storm drain.
ALWAYS pick up after your pet and throw it into a trash can. Poop is full of bacteria and fertilizer, and is a big source of water pollution.
Use lawn fertilizers sparingly, if at all. Keep it off pavement and never use more than the directions call for.
Wash your car where the soap will run off into the grass, rather than into the storm drain.
Don't pile grass clippings, leaves or yard waste near pavement, storm drains or wetlands. Phosphorus in yard waste creates water issues.
Redirect downspouts and sprinklers toward grass/shrubs/gardens so that water doesn't run onto pavement and into a storm drain.
Never discharge pool water directly into a storm drain. Allow two weeks for chlorine to evaporate, then drain it into the lawn.
Choose permeable pavers or crushed stone for patios, walkways and driveways, so rain soaks into the ground instead of running off.
Bonus Tips
Never pour medication or hazardous chemicals down the sink or toilet. <i>Medicine should be disposed of at your Police Dept. or thrown in your trash. Chemicals can go to your Public Works Dept. (Call in advance.)</i>
Use ice melt sparingly and choose a product that is non-toxic to pets, plants and wildlife.
Reduce toxic chemical use. Try organic house cleaning and lawn care products.

For more information, visit YourCleanWater.org

email stormwater@neponset.org or call the

Stormwater Hotline 781-575-0354 x300.

Appendix A-6:	Example Materials Contents: Regional Mai	ucation BMP 9

### **We Work Together for Clean Water**

Your town is a leader in the effort to end water pollution and ensure that you and your family—and generations to come—can enjoy clean water.

As a member of the Neponset Stormwater Partnership (NSP), they have made a strong commitment toward a healthy future.

NSP aims to help towns and cities reduce water pollution, comply with federal pollution reduction requirements, and save money through regional cooperation.

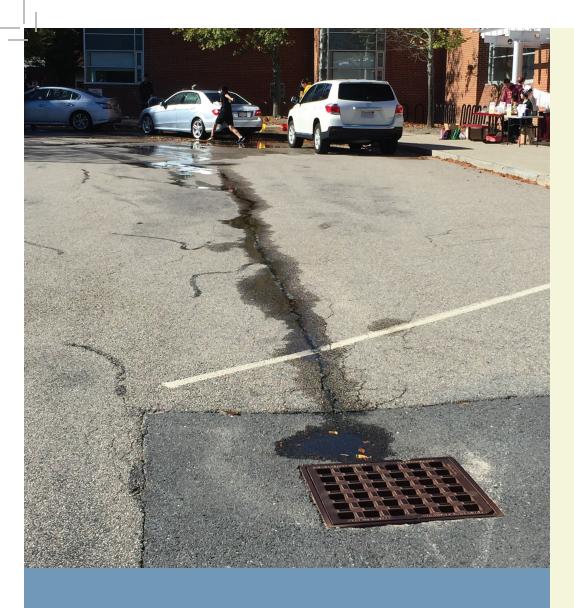
Learn more at YourCleanWater.org





Avon • Canton • Dedham • Foxborough • Medfield • Milton
Norwood • Quincy • Randolph • Sharon • Stoughton • Westwood
with the Neponset River Watershed Association
and the Metropolitan Area Planning Council





Contaminated runoff pollutes the Neponset, Charles, and Taunton Rivers—and our oceans.

You can help solve the problem.

#### Reduce Fertilizer Use

Fertilizers (nitrogen and phosphorus) are good for plants but bad for water pollution.

When fertilizer runoff gets into ponds, streams, and rivers, it causes toxic aquatic habitat and fish kills.

Take steps to protect waterways:

- Never fertilize before a rainstorm.
   Rain will carry the fertilizer away, wasting your money and polluting waterways.
- Leave grass clippings on the lawn with a mulching mower. Clippings are free natural fertilizer.
- Keep clippings, leaves and yard waste off of the pavement and away from storm drains and wetlands.
- Use slow-release fertilizers instead of fast-release fertilizers.
- Test your soil to determine the exact needs of your lawn and avoid overfertilizing.
- Check to see if your business or lawn service complies with the MA turf fertilizer law.



Half of all lawn owners fertilize their lawn, but only 10—20% get regular soil tests. (Center for Watershed Protection, 1999). An inexpensive soil test can reduce unnecessary fertilizer use and save you money on lawn care fees.



Visit **YourCleanWater.org/lawn** for step-by-step instructions to get a detailed soil report with targeted fertilizer recommendations for your exact lawn.

### Pick Up After Your Dog

When dog poop is left on the ground, rain and snow wash it into storm drains that empty directly into local streams, ponds, beaches, and drinking water sources.

Not only is dog waste gross to step in, it can also cause significant health issues, including Giardiasis, Salmonellosis, and Toxocariasis.

### Every time you walk your dog, please:

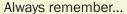
- Carry a bag or scooper to pick up pet waste,
- Dispose of the bag or waste in a trash can,
- Never toss anything down a storm drain!

In many communities, dog owners can be fined for failing to scoop the poop.



#### Don't Litter

Trash that blows, washes, or is dumped into wetlands, waterways, and storm drains ends up in our rivers and flows to the ocean—and runoff is the main source of plastic pollution in our oceans.



- Storm drains are not trash cans!
   Never throw or pour anything in a storm drain. It's illegal!
- Litter left on the street will wash into the nearest storm drain.
- Yard waste is trash, too! Never dump it in or near a storm drain, stream, or wetland.
- Keep dumpsters and trash cans closed and ensure container drainage ports are plugged at all times. Open dumpsters and cans fill with rain, which leaks out as highly polluted "dumpster juice" and attracts rats.

#### Do Your Part!

Your local waterways and groundwater are an important source of drinking water, recreation, and wildlife habitats.

Follow the steps in this brochure to reduce pollutants at your home or business and to protect local waterways.

Visit **YourCleanWater.org** to learn more about stormwater.



### **Report Water Pollution**

If you see any signs of pollution affecting a storm drain or a waterway report it to the Stormwater Pollution Hotline:

781-575-0354 x300 YourCleanWater.org/report





Appendix A-7: Example Materials for Public Education BMP  10
Contents: Rack card used as a bill stuffer, Post card mailed directly to residents (front and back), and Town of Sharon newsletter

# Do Your Part, Be Septic Smart!

## Maintain Your Septic System to Avoid Expensive Repairs!

Neglected septic systems are expensive to repair and pollute ponds, waterways and even drinking water.

Properly maintained systems will provide years of low cost sewage service.



#### **Pump It Out Regularly!**

A septic system doesn't make solid waste magically disappear. Solids are captured in the septic tank and must be regularly removed to keep the leachfield from clogging. A \$300 pump-out every-other year is a lot smarter than \$30,000 for a new leachfield!

- Have a septic hauler inspect and pump your tank every two or three years
- Some towns mandate a two-year schedule

#### **Remove the Garbage Disposal**

Garbage disposal waste breaks down slower than other septic system waste and is a leading cause of septic system failures. Compost food scraps instead for a healthier system. If you must use a garbage disposal, have your tank pumped annually.

#### **Give it a Healthy Diet**

Harsh chemicals can kill the beneficial bacteria that make your system work. Chemicals also pass through your septic system and pollute waterways and drinking water.

Limit harsh cleaning chemicals and antibacterial products

- Spot-clean with bleach instead of full strength bleach products
- Clear clogged drains with a plunger, a snake or boiling water
- Dispose of paint, motor oil, unused medications at your town's Hazardous Waste Collection Day

#### **Avoid Costly Clogs**

Your system is designed to handle waste and toilet paper, not:

- Cooking fats, oils, or grease
- Tampons or sanitary napkins
- Paper towels and "flushable" wipes (which are not actually flushable)
- Disposable diapers, cat litter, cigarette butts, etc.

#### **Give Your System a Rest**

Upgrade to water-efficient toilets, showerheads, faucet aerators, and clothes washers to reduce water use, give your septic system a rest—and lower your water bills.

Many towns offer rebates for water efficient appliances. Check your town website or neponset.org/rebates for more details.

Learn how to spot a failing septic system and more at YourCleanWater.org/septic or give us a call at 781-575-0354 x300

This message is from your city or town, in partnership with the nonprofit Neponset River Watershed Association. Learn more at neponset.org







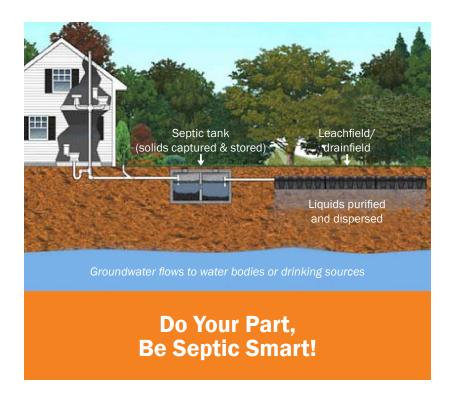
Neponset River Watershed Association in partnership with your City or Town 2173 Washington Street Canton, MA 02021



Non-Profit Org. U.S. Postage PAID Boston, MA Permit No. 54080

Current Resident 47 CURTIS ST Westwood, MA 02090

Neponset River Watershed Association in partnership with your City or Town 2173 Washington Street Canton, MA 02021



Non-Profit Org. U.S. Postage PAID Boston, MA Permit No. 54080

Current Resident 40 Alden Street Dedham, MA 02026

## Maintain Your Septic System to Avoid Expensive Repairs!

Neglected septic systems are expensive to repair and pollute ponds, waterways and even drinking water.

Properly maintained systems will provide years of low cost sewage service.



#### **Pump It Out Regularly!**

A septic system doesn't make solid waste magically disappear. Solids are captured in the septic tank and must be regularly removed to keep the leachfield from clogging. A \$300 pump-out every-other year is a lot smarter than \$30,000 for a new leachfield!

- Have a septic hauler inspect and pump your tank every two or three years
- Some towns mandate a two-year schedule

#### **Remove the Garbage Disposal**

Garbage disposal waste breaks down slower than other septic system waste and is a leading cause of septic system failures. Compost food scraps instead for a healthier system. If you must use a garbage disposal, have your tank pumped annually.

#### **Give it a Healthy Diet**

Harsh chemicals can kill the beneficial bacteria that make your system work. Chemicals also pass through your septic system and pollute waterways and drinking water.

- Limit harsh cleaning chemicals and antibacterial products
- Spot-clean with bleach instead of full strength bleach products
- Clear clogged drains with a plunger, a snake or boiling water
- Dispose of paint, motor oil, unused medications at your town's Hazardous Waste Collection Day

#### **Avoid Costly Clogs**

Your system is designed to handle waste and toilet paper, not:

- Cooking fats, oils, or grease
- Tampons or sanitary napkins
- Paper towels and "flushable" wipes (which are not actually flushable)

• Disposable diapers, cat litter, cigarette butts, etc.

#### **Protect Your Investment**

Know where your tank and leachfield are located. Don't park, build, dig, or plant trees on them. Get your system's design plans at your town's Board of Health.

#### **Give Your System a Rest**

Upgrade to water-efficient toilets, shower-heads, faucet aerators, and clothes washers to reduce water use, give your septic system a rest—and lower water bills.

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This message is from your city or town, in partnership with the nonprofit Neponset River Watershed Association. More at neponset.org





SHARON'S WATER CONSERVATION NEWSLETTER

Spring 2020

#### It's Up to YOU to Maintain Your Septic System

Regular maintenance is critical in order to avoid expensive repairs and to keep groundwater, streams and ponds healthy. Below is some basic information on with how septic systems work. If you have any questions, please contact Kevin Davis, Health Agent for Engineering, 784-1525 x2317

#### **Inspect and Pump**

- Conventional septic systems need an inspection by a professional at least every 3 years.
- Alternative septic systems, like mound systems, should be inspected annually.
- Septic tanks should be pumped when recommended by an inspector (generally every 3-5 years).

The number of occupants in your home, the amount of water you use, and the size of your septic tank will determine exactly how often you need to pump.

If you don't know what type of septic system you have, check with the Sharon Board of Health.

#### How to Live with a Septic System

#### **Limit Your Chemical Use**

Beneficial bacteria are important for a healthy septic system. Anything that goes down the drain that kills bacteria can harm your septic system.

- Limit your use of harsh chemicals and antibacterial products such as bleach, ammonia and drain cleaners. Spot-clean with bleach instead of cleaning with full strength bleach products.
- Clear clogged drains with a plunger, boiling water, or a drain snake instead of chemicals.
- Never put paint, motor oil, pesticides or other household hazardous wastes down the drain. Bring them to the Town's Hazardous Waste Collection Day.

#### **Treasure Your Toilet**

There are some things that just shouldn't be flushed, whether you have a septic tank or sewer system. Make sure that you never flush these items, which are often the cause of major clogs and costly repairs:

- Tampons and sanitary napkins
- Disposable diapers
- Wipes (there is no such thing as a flushable wipe)
- Paper towels
- Cat litter
- Cigarette butts

#### **Avoid Garbage Disposals**

Septic systems rely on bacteria to break down solids. Garbage disposal waste breaks down a lot slower than other matter that goes down the drain and can overload and harm a septic tank. For that reason, using garbage disposals with septic systems is discouraged. The better solution? Compost your food scraps.

Finally, never pour fats, oil or grease down a drain, whether you have a septic system or not. These products create clogs which can be very disruptive and expensive to repair.

#### **Conserve Water**

Water efficient toilets, showerheads, faucets, clothes washers and dishwashers limit the amount of water that enters a septic system and helps with overall performance.

Maintain your septic system to protect your home, prevent costly repairs, and preserve our local water resources.

#### Message from the Sharon Superintendent of Public Works

The Town of Sharon water pricing structure must ensure the longterm financial integrity



of the Water Department, which will enable us to provide safe, reliable, sustainable water services into the future.

Replacement costs have been largely underaccounted in many Commonwealth Water Utility budgets, resulting in water rates that have not reflected the true cost of providing water service.

The Sharon Water Department is not alone in facing the costs to maintain and replace the aging water mains, which in about 20% of the Town exceed 100 years in age and in over half the Town exceed 70 years in age.

As a result, the proposed rate structure has a significant structural change: revenue raised via the fixed component of each bill will now cover capital project costs while revenue raised via consumption will be used to cover operating costs of the Department.

In the past, most of our revenue was collected on a volumetric basis (charge-per-unit-sold). However, most of our costs are fixed, i.e., the cost of many basic infrastructure needs are constant regardless of demand.

Finally, protecting the affordability of water for basic needs (drinking, cooking, and sanitation) remains a key social function of water utilities, even as more discretionary uses are targeted for conservation. Determining water prices and rate structures is a multi-faceted task that must simultaneously support several underlying goals

With that in mind, our plan this upcoming summer is to complete the Heights main replacement program, replace the storage tank off Massapoag Avenue and construct an emergency connection to the MWRA via Norwood. As these projects progress, more details will be discussed at public meetings and posted on the Department web page.

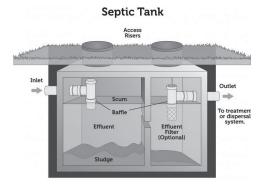
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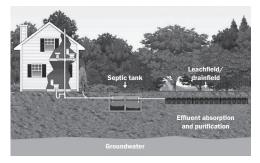
Eric Hooper Sharon Superintendent of Public Works 781-784-1525

#### **How a Septic System Works**

Septic systems are underground wastewater treatment structures that use a combination of nature and proven technology to treat wastewater from household plumbing produced by bathrooms, kitchen drains, and laundry.

A typical septic system consists of a septic tank and a drainfield or leachfield.





The septic tank separates oils, grease, and solids from liquids (wastewater). Solids settle to the bottom of the tank where they are "digested" by bacteria. (This is the stuff that gets pumped out of the tank.)

Wastewater exits the tank into the leachfield, where it travels through perforated pipes and percolates through the soil. This process removes bacteria, viruses, and nutrients from the wastewater, before it discharges to groundwater.

#### **Protect Your Leachfield**

Never place anything heavy on top the leachfield, such as a patio, swimming pool, shed—or a parked car. Heavy items can compact the soil and crush the underground pipes.

#### Failure symptoms: Mind the signs!

A foul odor is not always the first sign of a malfunctioning septic system. Call a septic professional if you notice any of the following:

- Wastewater backing up into household drains.
- Bright green, spongy grass on the leachfield, especially during dry weather.
- Pooling water or muddy soil around your septic system or in your basement.
- A strong odor around the septic tank and leachfield.

Malfunctioning septic systems can discharge bacteria, viruses, and chemicals. When these pollutants are released, they eventually enter streams, rivers, lakes, and more—harming local ecosystems by killing native plants, fish, and shellfish.

#### Outdoor Water Use Restrictions May 1—Oct. 1, 2020

Lawn sprinklers, either underground or hose fed, must adhere to the following schedule:

Odd numbered homes:

Mon. & Thurs.—6pm to 8pm only

Even numbered homes:

Tues. & Fri.—6pm to 8pm only

Exemptions to this policy may be granted for newly installed lawns for up to 14 days.

Residents may use one hand held hose, fitted with a spray nozzle, without restriction.

Violators will be cited and subject to a surcharge on their next water bill.

Violations will carry forward for 3 years.

- 1st offense Warning
- 2nd offense \$50.00
- 3rd offense \$100.00
- 4th offense/subsequent offenses \$300.00

To report water violations or request an exemption call the Sharon Water Dept. 781-784-1525 x2315

#### Plan a Water Smart Landscape this Spring

- Reduce lawn areas with trees, shrubs, perennials, ground cover, pervious patios.
- Use only native, drought tolerant plants.
- Place organic mulch around trees and plants to reduce evaporation.
- Don't overwater your lawn. Just one inch of water per week from rain or irrigation is enough to keep a lawn green.



### Is your water use under 55 Gallons Per Capita Daily (GPCD)?

NO. OF HOUSEHOLD OCCUPANTS

						_	_	-
	1	2	3	4	5	6	7	8
2,000	22	11	7	5	4	4	3	3
3,000	33	16	11	8	7	5	5	4
4,000	44	22	15	11	9	7	6	5
5,000	55	27	18	14	11	9	8	7
6,000	66	33	22	16	13	11	9	8
7,000	77	38	26	19	15	13	11	10
8,000	88	44	29	22	18	15	13	1
9,000	99	49	33	25	20	16	14	12
10,000	110	55	37	27	22	18	16	14
11,000	121	60	40	30	24	20	17	1:
12,000	132	66	44	33	26	22	18	10
13,000	142	71	47	36	28	24	20	18
14,000	152	77	51	38	31	26	22	19
15,000	164	82	55	41	33	27	23	2
16,000	175	88	58	44	35	29	25	22
17,000	186	93	62	47	37	31	27	23
18,000	197	99	66	49	39	33	28	2:
19,000	208	104	69	52	42	35	30	20
20,000	219	110	73	55	44	37	31	2
21,000	230	115	77	58	46	38	33	29
22,000	241	121	80	60	48	40	34	30
23,000	252	126	84	63	50	42	36	32
24,000	263	132	88	66	53	44	38	33
25,000	274	137	91	68	55	46	39	34
26,000	285	142	95	71	57	47	41	30
27,000	296	148	99	74	59	49	42	3′
28,000	307	153	102	77	61	51	44	38
29,000	318	159	106	79	64	53	45	40
30,000	329	164	110	82	66	55	47	4
31,000	340	170	113	85	68	57	49	42
32,000	351	175	117	88	70	58	50	44
33,000	362	181	121	90	72	60	52	45
34,000	373	186	124	93	75	62	53	4
35,000	384	192	128	96	77	64	55	48
36,000	395	197	132	99	79	66	56	49
38,000	418	209	139	104	84	70	60	52
40,000	438	219	146	110	88	73	63	55
42,000	462	231	154	115	92	77	66	58
44,000	484	242	161	121	97	81	69	60
46,000	505	253	168	126	101	84	72	63
48,000	527	264	176	132	105	88	75	66
50,000	548	274	183	137	110	91	78	68

Gallons used in 3 months

Compare your water bill to this chart to see how your usage compares to the Sharon average of 55 gallons per person per day.

## Expanded Rebate Program (ends June 1)

Residents may receive up to \$200 for a High Efficiency Toilet of 1.28gpf or less and \$200 for a Clothes Washer with an EnergyStar Water Factor of 4.0 or less.

FREE showerheads, faucet aerators and rain sensors are also available at the Water Dept.

For updated terms and conditions, please visit townofsharon.net/water-division

Sharon Water Department 217R S. Main St., Sharon, MA 02067 781-784-1525 x2315

Hours: Mon-Wed. 8am-5pm; Thurs. 8am-8pm; Fri. 8am-12:30pm



sharonwater.com

Appendix A-8: Example Materials for Public Education BMP
Contents: Letter to residents in the area of concern, Educational flyer that was included with letter



September 19, 2019

Dear Atherton Street Neighbor,

Your town is part of the Neponset Stormwater Partnership, a regional group of municipal employees, scientists, and engineers who are working together to reduce water pollution in their communities. One important step in helping to keep local waterways clean is to educate people about what's causing the pollution in the first place.

Near your residence, there is a wetland area along Atherton Street that is an important part of the ecosystem in Milton. It's home to a diverse number of plants and animals, and helps to clean surface water before it reaches Pine Tree Brook. This feature, as well as other waterways throughout your neighborhood, is susceptible to pollution from nearby residences and needs to be protected. When performing maintenance on your own property, please consider taking the following actions to help prevent water pollution and flooding in your neighborhood.

- Always collect yard waste and compost or properly dispose of it through your town's yard waste service. You can find Milton's yard waste schedule at **townofmilton.org/trash-recycling-and-yard-waste-information**
- Do not dump leaves, grass clippings, or other waste in or around any wetlands, waterways, or storm drains as doing
  so is illegal. If you use a landscaping company for yard maintenance, ensure they are properly disposing of all yard
  waste. Leaves and grass clippings are loaded with phosphorus, which can cause harmful algae and cyanobacteria
  blooms in waterways. These blooms are unsightly and can be toxic to people, pets, and wildlife. Learn more at
  mass.gov/news/algae-information
- Always pick up after your pet and dispose of the waste in a trash can (never in a storm drain). Pet waste contains bacteria and parasites, which can be washed into local waterways when the waste is left on the ground.
- Get your lawn tested to make sure fertilizers are needed before applying them, and consider alternative solutions to
  minimize the use of pesticides. Fertilizers and pesticides are often not needed to maintain a well established lawn.
  You can save money and reduce water pollution by using only what is needed or using none at all. Whether you
  maintain your lawn yourself or use a landscaping company, ensure that all materials are chosen and used responsibly.
  Learn more at YourCleanWater.org/lawn

If you notice instances of pollution like these, you can report them to the Neponset Stormwater Partnership by either calling **781-575-0354 x300** or using the online form at **YourCleanWater.org/report** 

Thank you for protecting our natural resources. To find out more about the Neponset Stormwater Partnership, and to learn other ways you can prevent water pollution around your home and business, please visit **YourCleanWater.org** 

Ian Cooke

Executive Director, Neponset River Watershed Association

The Neponset Stormwater Partnership aims to reduce the cost and increase the effectiveness of municipal stormwater management programs through regional cooperation and resource sharing. Partners include the towns of Canton, Dedham, Foxborough, Medfield, Milton, Norwood, Quincy, Sharon, Stoughton, and Westwood, along with the Metropolitan Area Planning Council (MAPC), and the Neponset River Watershed Association.



Simple changes can make a big difference in your community. Please consider taking the following actions to help prevent water pollution and flooding in your neighborhood.

1. Always collect yard waste and compost—or dispose of it through your town's yard waste service.

Do not dump leaves, grass clippings, or other waste in or around any wetlands, waterways, or storm drains as doing so can cause water pollution and flooding—and it's illegal.

You can find Milton's yard waste schedule at **townofmilton.org/ trash-recycling-and-yard-waste-information** 

If you use a landscaping company for yard maintenance, ensure that they are properly disposing of all yard waste— and that all materials are used responsibly.

Learn more at YourCleanWater.org/lawn

- Always pick up after your pet and dispose of the waste in a trash can (never in a storm drain). Pet waste contains bacteria and parasites, which can be washed into local waterways when the waste is left on the ground.
- 4. Get your lawn tested to make sure fertilizers are needed before applying them, and consider alternative solutions to minimize the use of pesticides.

Fertilizers and pesticides are often not needed to maintain a well established lawn. You can save money and reduce water pollution by using only what is needed—or using none at all.







**Call the Hotline!** We're here to help! If you notice any instances of pollution in your neighborhood, you can report it to the Neponset Stormwater Partnership by either calling **781-575-0354 x300** or using the online form at **YourCleanWater.org/report** 



Contents: Photos of storm drain after marking activity







Contents: Advertising report from the MA Statewide Municipal Stormwater Coalition detailing performance in NSP communities



### **Neponset Stormwater Partnership**

Fiscal Year 2020 Educational Advertisement Campaign Report

On behalf of the members of the Neponset Stormwater Partnership, Think Blue Massachusetts ran an educational advertising campaign from May 16th to June 5th, 2020. The "Fowl Water" advertisement helps viewers visualize stormwater pollution from motor oil, pet waste, and trash become stormwater pollution.

We selected Facebook and Instagram sponsored video and YouTube pre-roll advertisements because these channels offer superior "bang for the buck" to cable and broadcast television. They provide granular reporting that helps demonstrate what was accomplished.

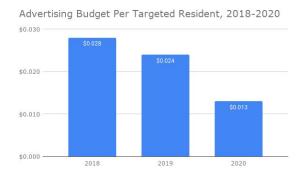
This effort helps coalition members meet their requirements to "document in each annual report the messages for each audience; the method of distribution; the measures/methods used to assess the effectiveness of the messages, and the method/measures used to assess the overall effectiveness of the education program."



View the ad at <a href="http://bit.ly/tbm-fowl-water">http://bit.ly/tbm-fowl-water</a>

#### **Advertising Budget**

Our advertising budget for the campaign worked out to approximately 1.3 cents per resident. Campaign budgets have been falling year over year:



This year's campaign occurred during the COVID-19 lockdowns. The silver lining is that our advertising placement costs were lower and our message was shown to a semi-captive audience.

#### **Post Campaign Survey Highlights**

At the close of the advertising campaign, we surveyed Massachusetts residents in the areas where the campaign ran:

- 17% of residents surveyed recalled seeing the ads, up from 15% in 2019 and 8% in 2018.
- Those who recall the ad are more likely to recognize that stormwater goes directly to local waterways (52%) than those who do not recall the ad (32%).
- Those who recall the ad are more likely to describe stormwater has having "major" or "some" impact on waterways (49%) than those who do not recall the ad (31%).

Full survey results are available at www.thinkbluemassachusetts.org



## FY 2020 Campaign Performance

Facebook and Google provided us with aggregate information for the region served by the stormwater coalition. We have allocated the impressions among each city on a proportional basis, using U.S. Census estimates of the population of each municipality.

Your municipality can use these numbers as your measurable goal for MCM1 in your Year 2 annual report.

Town	Facebook/Instagram Impressions	YouTube Ad Impressions	Total
Canton	28,773	27,008	55,781
Dedham	33,849	31,772	65,620
Foxborough	22,277	20,910	43,187
Medfield	17,142	16,090	33,232
Milton	36,036	33,825	69,861
Sharon	23,503	22,061	45,565
Stoughton	38,071	35,735	73,806
Norwood	38,961	36,571	75,532
Westwood	21,427	20,112	41,539
	260,039	244,084	504,123





Contents: Press releases for 2018 data, Hometown Weekly article based on press release, Foxborough Reporter article based on press release

July 25, 2019

For further information contact: Chris Hirsch, Environmental Scientist

Neponset River Watershed Association, Canton, MA 02021

781-575-0354 ext. 302 | hirsch@neponset.org

#### Local Watershed Group's Report Claims Stormwater Pollution is Harming Waterways in Canton, MA

Volunteers with the Neponset River Watershed Association (NepRWA), a local environmental non-profit, have been monitoring water quality in Canton for more than 20 years. In their most recently published report, the watershed association claims that stormwater pollution is driving the nutrient and bacteria problems observed in the town's waterbodies.

Chris Hirsch, the Association's Environmental Scientist stated, "Our 2018 results show that, across the board, bacteria and phosphorus levels in Canton's waterways were much higher, reaching harmful levels, when it had recently rained. At one site in Canton, E.coli levels were almost 25 times higher during wet weather. At another site, phosphorus levels were 4 times higher following rain. This is a big deal because E.coli can make streams unsafe for recreation, and excess phosphorus can wreak havoc on aquatic habitats and the wildlife that depend on them"

Stormwater pollution occurs when rain or snowmelt washes pollutants off of streets, yards, construction sites, etc. into our local streams and ponds. "It's a common misconception that the storm drains you see on your street lead to a treatment plant of some kind. In reality, the vast majority of those drains are connected to pipes that transport the rainwater directly to the nearest waterbody, completely untreated," Hirsch continued. This misconception was made apparent by last year's "poop gate" incident when the Canton Department of Public Works discovered a quarter-mile long blockage of bagged dog waste that someone had been dumping into the storm drain system.

The Town of Canton has been working with the Association and neighboring communities through the Neponset Stormwater Partnership to comply with new requirements from EPA to reduce polluted stormwater runoff. Under the new requirements, which apply throughout eastern Massachusetts, the Town must implement numerous pollution reduction measures, such as more frequent street sweeping, new rules for land developers, and checking for and eliminating sewer and septic leaks.

Commenting on the town's efforts, Charles Aspinwall, the Canton Town Administrator said, "The Town of Canton applied for a MS4 General permit (stormwater) in June 2018 to the US EPA and the permit has been issued to the Town. The Permit requires Canton to produce a Stormwater Management Plan which the Town is currently implementing. Canton has now joined with the Neponset Stormwater Partnership to implement many of the program elements. Through this partnership, Canton intends to participate in many non-mandatory programs such as water quality sampling and school education programs.

The goals of our program are to provide public education, provide for public participation, eliminate illicit discharges, manage stormwater entering the MS4, and provide for good housekeeping on municipal properties."

Mike Trotta, the Canton DPW Director is charged with overseeing compliance efforts, and said: "The EPA's permit requirements are a significant step up from the last permit, but we are currently on schedule and our greater stormwater efforts will greatly benefit the residents of Canton and the environment."

Hirsch added, "While pollution of surface streams and ponds can in some cases affect groundwater quality, the issues identified here do not directly affect the Town of Canton's drinking water supply which depends primarily on local groundwater wells and meets strict treatment and testing requirements."

For the full report on the health of Canton's waterways, and for more information about how you can help reduce the amount of polluted runoff coming from your property visit the Neponset Stormwater Partnership website, at <a href="https://www.yourcleanwater.org">www.yourcleanwater.org</a>.

###

7/29/2019

For further information contact: Chris Hirsch, Environmental Scientist

Neponset River Watershed Association

Canton, MA 02021 781-575-0354 ext. 302 hirsch@neponset.org

Local Watershed Group's Report Claims Stormwater Pollution is Causing Water Quality Problems in Dedham, MA

Volunteers from Dedham with the Neponset River Watershed Association (NepRWA), a local environmental non-profit, have been monitoring the water quality of Mother Brook at Washington St in Dedham, for more than 20 years. In their most recently published report, the watershed association claims that stormwater pollution is driving much of the bacteria problems observed in Mother Brook. Chris Hirsch, the Association's environmental scientist stated, "2018 was a really bad year for Mother Brook at our sampling site. Bacteria levels were nearly 10 times higher than they typically are. During rain storms, *E.coli* levels sky rocketed to over 30 times their normal levels. This is a big deal because *E.coli* can make waterways unsafe for recreation."

Their report claims that, "discharges from the transfer station, a nearby goose colony, and stagnated flow during downstream dam maintenance may have caused a perfect storm of *E.coli* contamination." The Dedham transfer station has since been shut down, as of June 2019. The town cited, "serious structural and environmental safety issues" in a report posted on their website. "So far this summer we've seen *E.coli* levels that have been safe enough for swimming," added Hirsch.

Stormwater pollution occurs when rain or snowmelt washes pollutants off of streets, yards, construction sites, etc. into our local streams and ponds. "It's a common misconception that the storm drains you see on your street lead to a treatment plant of some kind. In reality, the vast majority of those drains are connected to pipes that transport the rainwater directly to the nearest waterbody, completely untreated," Hirsch continued.

The Town of Dedham has been working with the Association and neighboring communities through the Neponset Stormwater Partnership to comply with new requirements from EPA to reduce polluted stormwater runoff. Under the new requirements, which apply throughout eastern Massachusetts, the Town must implement numerous pollution reduction measures, such as more frequent street sweeping, new rules for land developers, and checking for and eliminating sewer and septic leaks. Public education about stormwater pollution is another major requirement. Joe Flanagan, the Dedham DPW Director is charged with overseeing compliance efforts, and said, "the DPW and the Town are committed to continuing our efforts to improve the water quality of our impaired waterways through our diligent street sweeping and catch basin cleaning operations coupled with the our assistance with the various clean-up days sponsored and run by our local and regional groups each year who care as much about keeping our waterways clean."

For the full report on the health of Dedham's waterways, and for more information about how you can help reduce the amount of polluted runoff coming from your property, visit the Neponset Stormwater Partnership website, at www.yourcleanwater.org.

###

[INSERT DATE]

For further information contact: Chris Hirsch, Environmental Scientist

Neponset River Watershed Association

Canton, MA 02021 781-575-0354 ext. 302 hirsch@neponset.org

Local Watershed Group's Report Claims Stormwater Pollution is Causing Water Quality Problems in Milton, MA

Volunteers with the Neponset River Watershed Association (NepRWA), a local environmental non-profit, have been monitoring water quality in Milton's rivers and streams for more than 20 years. In their most recently published report, the watershed association claims that stormwater pollution is driving much of the nutrient and bacteria problems observed in the town's waterbodies. Chris Hirsch, the Association's environmental scientist stated, "Our 2018 results show that, across the board, bacteria and phosphorus levels in Milton's waterways were much higher, reaching harmful levels, when it had recently rained. At one site in Milton, *E.coli* levels were over 15 times higher during wet weather. Town wide, phosphorus concentrations were about 70% higher when it rained. This is a big deal because *E.coli* can make waterways unsafe for recreation, and excess phosphorus can wreak havoc on aquatic habitats and the wildlife that depend on them"

Stormwater pollution occurs when rain or snowmelt washes pollutants off of streets, yards, construction sites, etc. into our local streams and ponds. "It's a common misconception that the storm drains you see on your street lead to a treatment plant of some kind. In reality, the vast majority of those drains are connected to pipes that transport the rainwater directly to the nearest waterbody, completely untreated," Hirsch continued.

The Town of Milton has been working with the Association and neighboring communities through the Neponset Stormwater Partnership to comply with new requirements from EPA to reduce polluted stormwater runoff. Under the new requirements, which apply throughout eastern Massachusetts, the Town must implement numerous pollution reduction measures, such as more frequent street sweeping, new rules for land developers, and checking for and eliminating sewer and septic leaks. Public education about stormwater pollution is another major requirement. Hillary Waite, the Milton Environmental Coordinator is charged with overseeing compliance efforts, and said "Milton is a leader in prioritizing water quality. Through our stormwater utility, we have been able to fund important projects, including the construction of treatment structures at the police station and our illicit discharge detection and elimination programs. Every step we take helps improve the health of our local streams and the Neponset River."

For the full report on the health of Milton's waterways, and for more information about how you can help reduce the amount of polluted runoff coming from your property, visit the Neponset Stormwater Partnership website, at www.yourcleanwater.org.

[INSERT DATE]

For further information contact: Chris Hirsch, Environmental Scientist

Neponset River Watershed Association

Canton, MA 02021 781-575-0354 ext. 302 hirsch@neponset.org

Local Watershed Group's Report Claims Stormwater Pollution is Causing Water Quality Problems in Westwood, MA

Volunteers with the Neponset River Watershed Association (NepRWA), a local environmental non-profit, have been monitoring water quality in Westwood's rivers and streams for more than 20 years. In their most recently published report, the watershed association claims that stormwater pollution is driving much of the bacteria problems observed in the town's waterbodies. Chris Hirsch, the Association's environmental scientist stated, "Our 2018 results show that, across the board, *E.coli* bacteria levels in Westwood's waterways were much higher, reaching harmful levels, when it had recently rained. At one site in Westwood, *E.coli* levels were almost 25 times higher during wet weather. This is a big deal because *E.coli* can make waterways unsafe for recreation."

Stormwater pollution occurs when rain or snowmelt washes pollutants off of streets, yards, construction sites, etc. into our local streams and ponds. "It's a common misconception that the storm drains you see on your street lead to a treatment plant of some kind. In reality, the vast majority of those drains are connected to pipes that transport the rainwater directly to the nearest waterbody, completely untreated," Hirsch continued.

The Town of Westwood has been working with the Association and neighboring communities through the Neponset Stormwater Partnership to comply with new requirements from EPA to reduce polluted stormwater runoff. Under the new requirements, which apply throughout eastern Massachusetts, the Town must implement numerous pollution reduction measures, such as more frequent street sweeping, new rules for land developers, and checking for and eliminating sewer and septic leaks. Public education about stormwater pollution is another major requirement.

For the full report on the health of Westwood's waterways, and for more information about how you can help reduce the amount of polluted runoff coming from your property, visit the Neponset Stormwater Partnership website, at www.yourcleanwater.org.

July 25, 2019

For further information contact: Chris Hirsch, Environmental Scientist

Neponset River Watershed Association, Canton, MA 02021

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#### Crackrock Pond in Foxboro Found Clean Enough to Swim in, but Who Would Dare to?

Volunteers with the Neponset River Watershed Association (NepRWA), a local environmental non-profit, have been monitoring water quality in Crackrock Pond, located in Foxborough near the Lane Property on North St. for over 20 years. The Pond is in the headwaters of the Neponset River which gets its start in the Neponset Reservoir. In 2018, the average *E.coli* concentrations in Crackrock Pond were less than half of the level determined to be safe for swimming, meaning the pond was cleaner than some Boston beaches last year. But, take one glance at the neon green blooms that cover the pond every summer, and you'll likely have second thoughts about taking a dip.



Crackrock Pond in the summer of 2018

"Excessive amounts of phosphorus, a key fertilizer for plants, is driving the impressive blooms, and foul smells coming from Crackrock Pond," says Chris Hirsch, NepRWA environmental scientist. According to the Association's recently published report, on the water quality of Crackrock Pond, phosphorus levels were almost ten times the level EPA considers healthy for ponds. Hirsch claimed, "The pond's high phosphorus level is not only causing ugly blooms, but it's also depleting the supply of oxygen in the water, which aquatic animals depend on to breathe."

The high concentration of phosphorus in Crackrock Pond is likely, in part, the legacy of past discharges upstream in the Neponset Reservoir. However, Ian Cooke, the Association's Executive Director observed "our results also suggest that stormwater runoff from the nearby landscape is contributing to the problem." Major sources of phosphorus in the landscape include lawn and agricultural fertilizer, yard waste, and erosion from exposed soils. Cooke added "something will need to be done to remove or sequester the phosphorus that is cycling within the pond, but preventing new stormwater inputs of

phosphorus is a major piece of the restoration puzzle. Preventing stormwater pollution is critical to protecting other ponds and waterways in Foxborough from a similar fate."

The Town of Foxborough has been working with the Association and neighboring communities through the Neponset Stormwater Partnership to comply with new requirements from EPA to reduce polluted stormwater runoff. Under the new requirements, which apply throughout eastern Massachusetts, the Town must implement numerous pollution reduction measures, such as more frequent street sweeping, new rules for land developers, and checking for and eliminating sewer and septic leaks. Educating the public about stormwater pollution is another requirement.

Chris Gallagher, the Foxborough Town Engineer is charged with overseeing compliance efforts, and said "the new permit requirements are a significant new obligation for our small department, but we are making progress and the outcome of our efforts will benefit all residents in Foxboro."

Robert Worthley, the Foxborough Water Superintendent commented, "The Water Department greatly appreciates the work of the Neponset River Watershed Association. The main goal of wellhead protection is to prevent contaminates from reaching the sources of our drinking water. If contaminates are prevented, then additional expensive treatment is not needed to remove them. NepRWA's efforts to reduce phosphate, will have the effect in a reduction of algae, which greatly improves water quality characteristics of taste and odor, and reduces issues with contaminates, such as cyanotoxins"

Chris added, "The Town has also been working with the Neponset Reservoir Association to add treatment devices prior to the stormwater discharges into the Reservoir. The Association has a project out to bid to install a device called a "Jelly Fish" filter into the drainage system with the main goal of removing phosphorus. "

For the full report on the health of Crackrock Pond, and for more information about how you can help reduce the amount of phosphorus coming off of your property visit the Neponset Stormwater Partnership website, at www.yourcleanwater.org.

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### NepRWA claims pollution driving water woes

Volunteers with the Neponset River Watershed Association (NepRWA), a local environmental non-profit, have been monitoring water quality in Westwood's rivers and streams for more than 20 years. In their most recently published report, the watershed association claims that stormwater pollution is driving much of the bacteria problems observed in the town's waterbodies.

Chris Hirsch, the Association's Environmental Scientist stated: "Our 2018 results show that, across the board, E.coli bacteria levels in Westwood's waterways were much higher, reaching harmful levels, when it had recently rained. At one site in Westwood, E.coli levels were almost 25 times higher during wet weather. This is a big deal, because E.coli can make waterways unsafe for recreation."

Stormwater pollution occurs when rain or snowmelt washes pollutants off of streets, yards, construction sites, etc. into local streams and ponds. "It's a common misconception that the storm drains you see on your street lead to a treatment plant of some kind. In reality, the vast majority of those drains are connected to pipes that transport the rainwater directly to the nearest waterbody, completely untreated," Hirsch continued.

The Town of Westwood has been working with the Association and neighboring communities through the Neponset Stormwater Partnership to comply with new requirements from EPA to reduce polluted stormwater runoff.

Under the new requirements, which apply throughout eastern Massachusetts, the Town must implement numerous pollution reduction measures, such as more frequent street sweeping, new rules for land developers, and checking for and eliminating sewer and septic leaks. Public education about stormwater pollution is another major requirement.

For the full report on the health of Westwood's waterways, and for more information about how to help reduce the amount of polluted runoff coming from your property, visit the Neponset Stormwater Partnership website at www.yourcleanwater.org.

- Westwood (Http://Www.Hometownweekly.Net/Category/Westwood/)
- **August 22, 2019**
- Hometown Weekly Staff (Http://Www.Hometownweekly.Net/Author/Hometown-Weekly-Staff/)
- Association's Environmental Scientist (Http://Www.Hometownweekly.Net/Tag/Associations-Environmental-Scientist/), Chris Hirsch (Http://Www.Hometownweekly.Net/Tag/Chris-Hirsch/)

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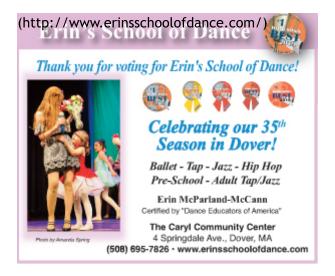


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### Report on health of Crackrock Pond available

FOXBORO REPORTER STAFF 7 hrs ago



The Kerr-Carpenter-Haigis house marker submitted

While volunteers with the Neponset River Wat Crack Rock Pond make it safe for swimming, i its North Street shores.

E. coli concentrations in the pond in 2018 were swimming, the association said in a press rele



But its unappealing neon green color and awful smell, thanks to a algae bloom that endangers the wildlife, keeps swimmers at bay.



"Excessive amounts of phosphorus, a key fertilizer for plants, is driving the impressive blooms, and foul smells coming from Crackrock Pond," said Chris Hirsch, an environmental scientist with the Neponset River Watershed Association, which has been monitoring the water quality in the pond for more than 20 years.

According to the association's recently published report, on the water quality of Crackrock Pond, phosphorus levels were almost ten times the level EPA considers healthy for ponds.

"The pond's high phosphorus level is not only causing ugly blooms, but it's also depleting the supply of oxygen in the water, which aquatic animals depend on to breathe," Hirsch said.

The association's report says the high concentration of phosphorus is likely the legacy of past discharges upstream in the Neponset River. However, there are concerns that landscaping runoff, which includes fertilizer, is also contributing to the problem.

"Our results also suggest that stormwater runoff from the nearby landscape problem," said Ian Cooke, the association's ex remove or sequester the phosphorus that is cy inputs of phosphorus is a major piece of the recritical to protecting other ponds and waterway





Town officials and the association have been working together, along with neighboring communities through the Neponset Stormwater Partnership to comply with new requirements from the Environmental Protection Agency to reduce polluted stormwater runoff.

Under the new requirements, the must implement pollution reduction measures, such as more frequent street sweeping, new rules for land developers, and checking for and eliminating sewer and septic leaks. Educating the public about stormwater pollution is another requirement.

"The new permit requirements are a significant new obligation for our small department, but we are making progress and the outcome of our efforts will benefit all residents in Foxboro," said Town Engineer Chris Gallagher.

For the full report on Crackrock Pond, and for more information about to prevent phosphorus runoff, visit www.yourcleanwater.org.

