



C O N N E C T I C U T R I V E R

*S t o r m w a t e r C o m m i t t e e*

MS4 Permit Year 4  
Annual Report for Public Education and Outreach  
MCM 1 and additional requirements in Appendixes F and H

July 1, 2021 through June 30, 2022

September 15, 2022

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The Connecticut River Stormwater Committee annual report provides a summary of all the work undertaken during the July 1, 2021 to June 30, 2022 reporting period. All of this work is directly applicable to all member communities' EPA annual reporting requirements.

Content has been formatted in a manner consistent with the format of the EPA annual report template for Year 4. Because the Connecticut River Stormwater Committee is a regional partnership program, these sections are written from a "regional" perspective rather than municipality-by-municipality. Additional details of community-specific efforts are reported in each municipality's annual report.

In communication with PVPC, who facilitates the coalition, EPA has endorsed and encouraged a regional Annual Reporting approach whereby Connecticut River Stormwater Committee member communities can satisfy the Public Education and Outreach reporting requirement (within MCM 1 and Appendixes F and H) by referencing the coalition's annual report with a url link in their own annual report.

## Introduction

### 1. Coalition Purpose and Membership

The Connecticut River Stormwater Committee is an intergovernmental compact of 19 municipalities, the University of Massachusetts-Amherst, and the Pioneer Valley Planning Commission organized to work cooperatively in meeting US EPA Municipal Separate Storm Sewer System Permit (“MS4 Permit”) requirements for stormwater education and outreach. Facilitated and staffed by the Pioneer Valley Planning Commission, the Committee also works together to meet other permit compliance activities where appropriate and needed. Work for the group is funded through annual dues paid by each member, including PVPC, and through occasional grants. Member communities are shown in Table 1 below.

**Table 1: Connecticut River Stormwater Committee Member Communities**

Member Community	Committee Representatives and Departments
Agawam	Tracy DeMaio and Mike Albro, Department of Public Works
Belchertown	Steve Williams, Department of Public Works and Erica Lerner, Conservation Department
Chicopee	Quinn Lonczak, Department of Public Works
East Longmeadow	Bruce Fenney and Tom Christensen, Department of Public Works
Easthampton	Dan Murphy, Department of Public Works
Granby	Dave Derosiers, Highway Department
Hadley	Scott McCarthy, Department of Public Works, Carolyn Brennan, Town Administrator
Holyoke	Kris Baker and Robert Peirent, Department of Public Works
Longmeadow	Craig Markham and Tim Keane, Department of Public Works
Ludlow	Jim Goodreau, Department of Public Works
Northampton	Doug McDonald, Department of Public Works
Palmer	Sarah Fortune, Conservation Department
South Hadley	Melissa LaBonte, Department of Public Works
Southampton	Randall Kemp, Highway Department
Southwick	Randall Brown and Jon Goddard, Department of Public Works
Springfield	Vacant
West Springfield	Connor Knightly, Department of Public Works
Westfield	Joe Kietner and Casey Berube, Department of Public Works
Wilbraham	Tonya Basch and Dena Grochmal, Department of Public Works
University of Massachusetts - Amherst	Neils LaCour, Campus Planning Department, and Terri Wolejko, Environmental and Hazardous Materials Management Services Department

## 2. Water Quality Considerations in the Region

All Connecticut River Stormwater Committee communities are subject to additional MS4 permit requirements in Appendix F based on waters that are tributaries to the Long Island Sound, which has an approved TMDL for nitrogen.<sup>1</sup> Some member communities are also subject to additional MS4 permit requirements based on the following:

- Lakes and ponds with approved TMDLs for phosphorous (additional requirements within Appendix F of the MS4 permit)
- Waterbodies and their tributaries that are impaired for water quality due to phosphorous (additional requirements within Appendix H of the MS4 permit)
- Waterbodies and their tributaries that are impaired for water quality due to bacteria or pathogens (additional requirements within Appendix H of the MS4 permit)
- Waterbodies and their tributaries that are impaired for water quality due to solids (total suspended solids) (additional requirements within Appendix H of the MS4 permit)

It is important to note that the MS4 permit stipulates that certain additional requirements for public education and outreach messaging in the appendixes can be combined where appropriate. Specifically, Appendix H part I and II as well as Appendix F part A.III, A.IV, A.V, B.I, B.II and B.III.

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<sup>1</sup> TMDL = identifies the Total Maximum Daily Load of nitrogen that can be discharged, in this case to Long Island Sound, without significantly impairing the health of the Sound.

## Annual Report Part II: Self-Assessment

### 1. Education and Outreach on Bacteria/Pathogens

- √ Annual Message encouraging the proper management of pet waste, including noting any existing ordinances where appropriate
- √ Disseminated educational material to dog owners at time of issuance or renewal of dog license, or other appropriate time
- √ Provided information to owners of septic systems about proper maintenance

***See in sections below numbered: 8, 9, and 12***

### 2. Education and Outreach on Nitrogen and Phosphorous (combined)

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

***See in sections below numbered: 6, 7, 10, and 11***

## Annual Report Part IV: MCM 1 – Public Education and Outreach

### 1. *Think Blue Connecticut River* Website

Message description and distribution method: The *Think Blue Connecticut River* website is at the core of all regional messaging about stormwater. The website at [www.thinkblueconnecticutriver.org](http://www.thinkblueconnecticutriver.org) does the following:

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

Targeted audiences: Residents, business/institutional/commercial, developers, and industrial

Responsible Department/Parties: PVPC staff and Connecticut River Stormwater Committee members

Measurable goal(s): A total of 2,114 people visited the *Think Blue Connecticut River* website during Year 4 and spent an average of 36 seconds on viewing pages on stormwater best practices. Beyond the web analytics reported below on specific messages, there were the following views of the general audience pages on the *Think Blue Connecticut River* website,

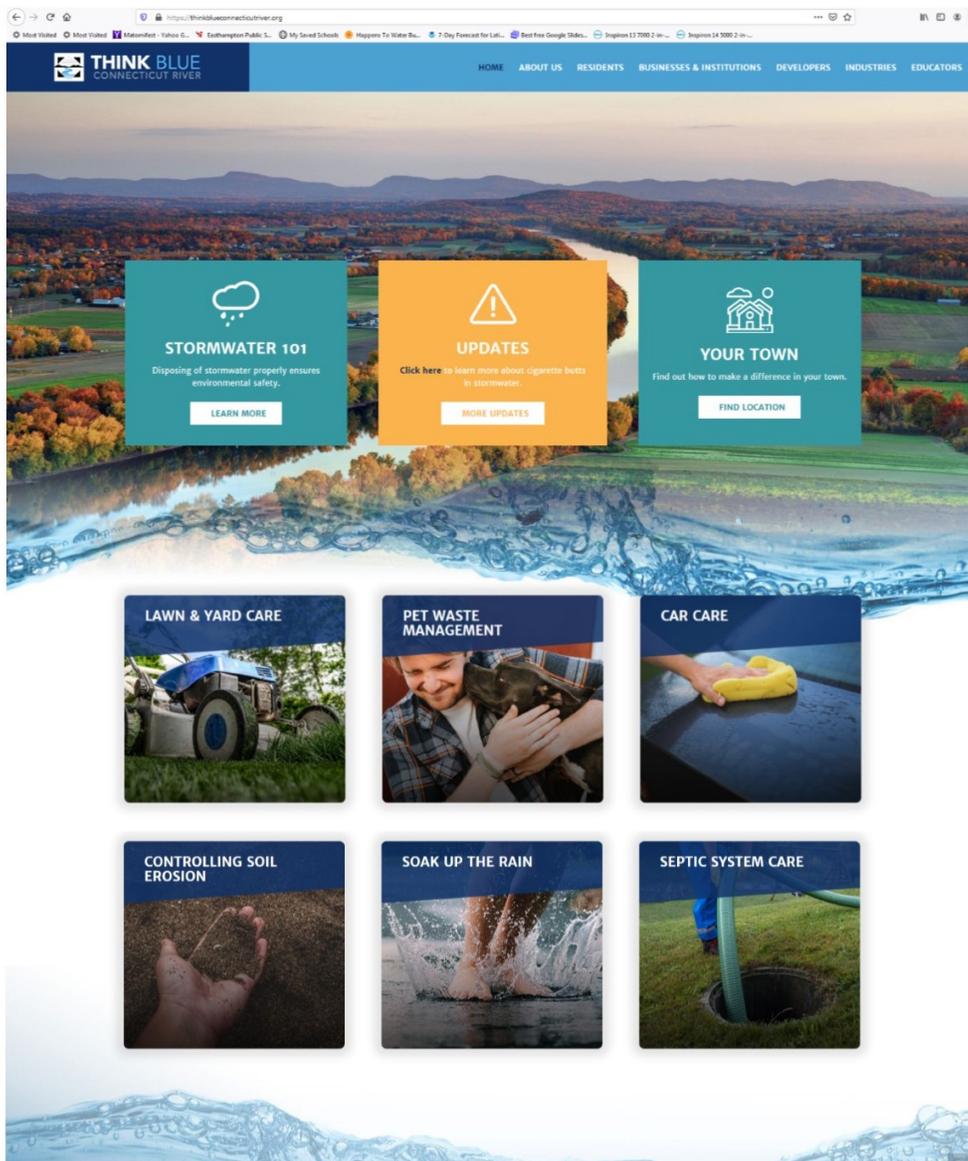
with businesses and educators each spending an average of 1.5 minutes looking at material. Residents views = 58; Businesses and Institutions views = 51; Developers views = 29; Industries views = 29; and Educators views = 39.

Message dates: July 1, 2021 through June 30, 2022

Message completed for: Appendix F requirements  Appendix H requirements

Was message different than what proposed in your NOI/SWMP? Yes  No

If yes, describe why the change was made: As indicated in previous annual reports, the website was not mentioned in the NOI and SWMP, but with development now completed is most central to all messaging in the region.



2.

## 2. Nip Bottles – Residents

Message description and distribution method: Materials and messaging for this campaign to reduce nip bottles litter were developed in Year 4. The campaign, however, will be launched starting early in Year 5 to capture the largest audience possible, including students that come to the region for university studies.

PVPC staff took a staged photo of nip bottles along a stream bank that will serve as the image for this campaign and worked with Connecticut River Stormwater Committee membership to refine the message itself. The campaign includes:

- Message displayed on internal and external signs on PVTA buses servicing the region in both English and Spanish
- Web page on *Connecticut River Think Blue* website with additional information on nip bottle litter
- Social media mini ad campaign that links to information on Think Blue CT River web page to be shared with large membership organizations in the region
- Press release to local media

**THINK SMALL DOESN'T MATTER?**



**LITTLE THINGS ADD UP.**

**Help keep our waters clean...put your nip in the trash.**

[ThinkBlueConnecticutRiver.org](http://ThinkBlueConnecticutRiver.org)

## ¿CREE QUE LO PEQUEÑO NO IMPORTA?



**ESAS COSITAS SE ACUMULAN.**

**Ayude a mantener nuestras aguas limpias...tire sus botellitas en la basura**

**[ThinkBlueConnecticutRiver.org](http://ThinkBlueConnecticutRiver.org)**

*Messages above will run early in Year 5 on the sides of PVRTA buses in the region along with smaller – sized messages in bus interiors.*

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

Responsible department/parties: PVPC staff and Connecticut River Stormwater Committee members

Measurable goal(s):  
To be reported in Year 5 report.

Message dates: To be reported in Year 5 report.

Was message different than what proposed in your NOI/SWMP? Yes  No

If yes, describe why the change was made: Campaign has not yet started, but one adjustment made to increase reach of campaign includes translation of PVRTA bus panels ads into Spanish. Furthermore, the SWMP had indicated messaging would occur in Year 4, but we have decided to push to Year 5 to reach wider audience (when area colleges back in session).

### 3. Installation of Hooded Catch Basins - Businesses

Message description and distribution method: To reduce the wash of residue fuels from impervious surfaces into local waters, messaging to commercial and business owners with large parking lots involved development and distribution of a letter on the benefits of retrofitting with hooded deep sump catch basins and an offer of technical assistance from local public works officials. PVPC staff provided the draft letter to member communities to be customized and sent to local property owners.

Staff also drafted an article with similar content for publication in *Business West* and is working with the publication on best approach, perhaps as op-ed from the Stormwater Committee.

**LETTER TO SEND TO INDUSTRIAL AND COMMERCIAL PROPERTY OWNERS WITH LARGE PARKING LOTS - *Print on muni/organizational letterhead***

**DATE**, 2022

Hello,

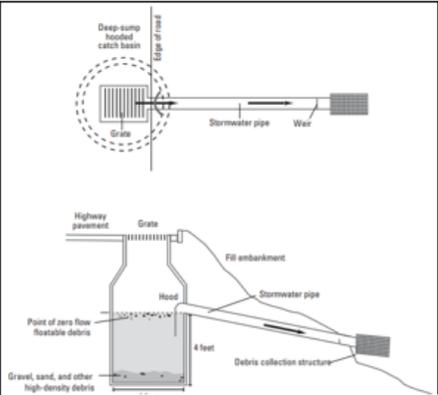
**YOUR MUNI NAME** is now subject to more stringent federal stormwater permit requirements. Along with 23 other communities here in the Pioneer Valley, we must find ways to reduce sending contaminated storm flows to local rivers, streams, and lakes.

Business owners like you can help us in this effort through proper maintenance and upkeep of your property. Parking lots in particular can be a source of pollutants when rainfall washes away oil and grease from cars, trash, and deicing materials such as salt and sand.

In most parking lots, a curb and gutter system directs the rainfall that flows over a parking lot to either an opening in the gutter covered by a grate, or an opening in the curb covered by a top slab. The rainfall and any pollutants picked up along the way then flow into a catch basin, which is essentially a box below ground that connects to the storm sewer system.

One important option to improve the quality of storm flows from your parking lot is to retrofit or replace existing catch basins with hooded deep sump catch basins (Figure 1).

Deep sump catch basins are designed to capture sand and other sediment, litter, and floatables, including oil and grease. The four-to-six-foot deep sump provides an area for sediments to settle. By capturing sediment and other pollutants, deep sump catch basins can improve stormwater quality compared to older catch basins without sumps or hoods.



*Figure 1: Schematic of a Deep Sump Hooded Catch Basin (from Effectiveness of Catch Basins Equipped with Hoods in Highway Runoff, Southeast Expressway, Boston, Massachusetts, 2008-2009, USGS).*

**Please know DPW/Highway Department staff here in Town/City YOUR MUNI NAME** is available to provide technical assistance regarding sizing and design considerations for deep sump catch basins with hoods as needed – please reach out to **contact information**.

As a business owner in **YOUR MUNI NAME**, your commitment to proper maintenance and upkeep of your parking lot translates to important reductions in polluted stormwater flows.

Sincerely,

**Name/Title**

p.s. The Massachusetts Clean Water Toolkit has additional information on deep sump catch basins here: <https://megamanual.geosyntec.com/npsmanual/deepsumpcatchbasin.aspx>. The Connecticut River Stormwater Committee, of which **YOUR MUNI NAME** is a member, also has some helpful information regarding stormwater pollution prevention at: <https://thinkblueconnecticutriver.org/>

Targeted audience: Business, institutions, commercial, and industrial facilities

Responsible department/parties: PVPC staff and Connecticut River Stormwater Committee members

Measurable goal(s): Member communities reported that the letter was sent to 31 property owners in South Hadley and 241 property owners in East Longmeadow. Agawam revised the letter into a flyer, and sent the flyer to 13,557 residents (including both households and businesses) as an insert to a publication being sent out.

Message dates: Letters were sent between June 1 and June 30, 2022. The article in *Business West* is anticipated to be published in the first part of Year 5.

Was message different than what proposed in your NOI/SWMP? Yes  No

If yes, describe why the change was made: To optimize engagement with this audience, decided to add preparation and submission of an article to *Business West*. Furthermore, the work under this message will extend into Year 5 to respond to insights provided by Northampton: that letter ought to go beyond installation of hooded catch basins and recommend retrofit with planted green infrastructure facilities in parking lots. Both the letter and the article for *Business West* are being modified to include this additional recommendation for Year 5. Communities can opt to send out this updated letter in Year 5.

Note that to better target industrial facilities, will plan to mail updated letter directly to those industries in region that have multi-sector general permits.

#### **4. Low Impact Development Technologies and Strategies Workshop - Developers**

Message description and distribution method: PVPC had several conversations with staff from the Center for Watershed Protect to prepare for a developers workshop in Western Massachusetts that would highlight new development standards in the MS4 permit and updated MA Stormwater Handbook, advance better site design practices, and promote several important new tools, including the 5 to 7 green infrastructure stormwater control measure template designs that PVPC and partner communities are developing with an engineering consultant thanks to a Section 604b grant from MassDEP. Stormwater Committee members agreed to postpone the workshop to Year 5 when it is hoped an updated Stormwater Handbook will be issued and the stormwater control measure design templates will be completed.

Targeted audience: Developers

Responsible department/parties: PVPC staff and Connecticut River Stormwater Committee members

Measurable goal(s): Number of people reached, including:

# attending workshop  
results from post workshop survey

Message dates: Now planned for Year 5

Was message different than what proposed in your NOI/SWMP? Yes  No

If yes, describe why the change was made: The workshop had been planned for Year 4, but given that it will be important to promote new development standards as part of the workshop, it seemed important to await issuance of the draft stormwater handbook. The workshop has been postponed to Year 5.

## 5. Installation of Hooded Catch Basins – Industrial Facilities

See description in #3 above.

## 6. Proper Disposal of Leaf Litter - Residents

Message description and distribution method: PVPC reprised messaging used previously based on a *Be a Leaf Hero* social media posts developed by the Cape Cod Commission, but now customized for the Connecticut River Stormwater Committee.

The social media posts provide a series of tips and all tips contain a link to a page on the *Think Blue Connecticut River* website with more in-depth content and links. See website page at: <https://thinkblueconnecticutriver.org/be-a-leaf-hero/>. The content seeks to promote better practices with leaf litter and build understanding about potential contamination of stormwater with leaf litter.

PVPC also prepared a PDF document for member communities use on their municipal websites.

Targeted audience: Residents

Responsible department/parties: PVPC staff and Connecticut River Stormwater Committee members

Measurable goal(s):

The Facebook ad was shown 101,008 times to 18,800 people, approximately 5 times per person, which drew 73 clicks to the website landing page.

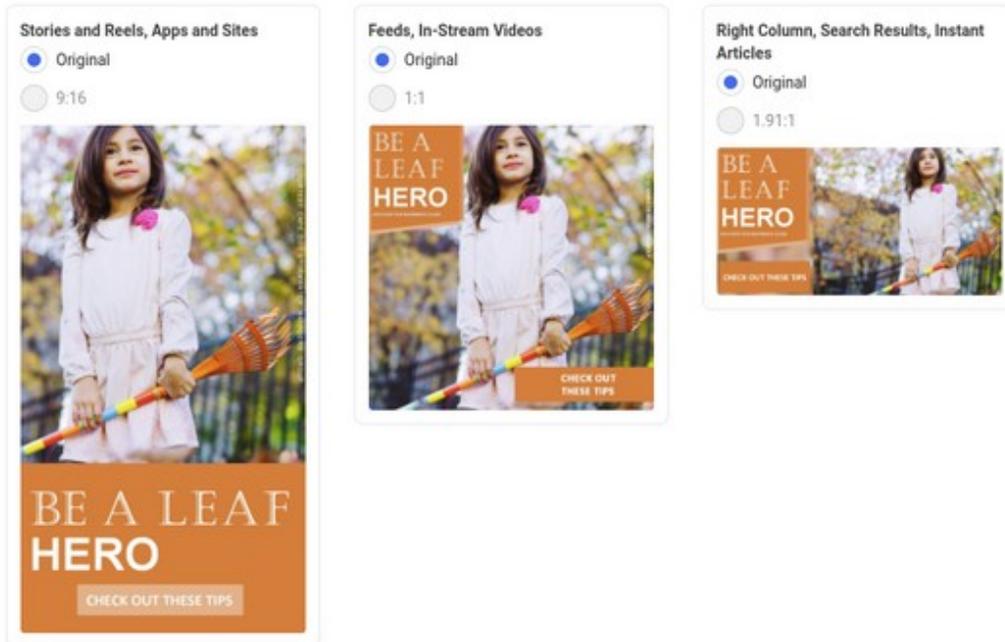
Analytics for the *Think Blue Connecticut River* website, indicate that there were a total of 104 views of the Leaf Hero landing page with average time spent by visitors on that resource page at 2 minutes and 27 seconds, and 97 clicks to download posted PDF resources.

Message dates: Facebook ad ran from October 22 to October 29,2021.  
PVPC Facebook message was posted October 19, 2021.

Message completed for: Appendix F requirements ✓ Appendix H requirements ✓

Was message different than what proposed in your NOI/SWMP? Yes ✓ No

If yes, describe why the change was made: The change to this messaging began in Year 2, where initially the plan had been for one social media post and press release. Given the other elements we have learned are important to social media messaging, especially a call to action, we also developed a *Think Blue Connecticut River* web page on best practices to which posts could link.



*Above are the Facebook ads that ran in the fall of 2021.*



Pioneer Valley Planning Commission

October 19, 2021 · 🌐



Leaves washing with the next rainfall from our driveways and streets into storm drains will spike our local rivers and streams with nutrients. Be a leaf hero and prevent nutrient enriched flows that can harm local waters.

Check out these tips: <https://thinkblueconnecticutriver.org/be-a-leaf-hero/>



👍 You and 10 others

13 Shares

👍 Like

💬 Comment

➦ Share

*Above is the regional PVPC Facebook post that was liked and shared by others in the region.*

CLEAN WATER  
BEGINS WITH YOU



## KEEP FALLEN LEAVES OUT OF STREETS

Leaves raked or blown into streets will leach nutrients into stormwater runoff and contribute to pollution in our local waterways. Leaf litter can also plug storm drains and increase flooding issues.

### Better options:

- Mulch leaves in place with your lawnmower to put valuable nutrients back into the soil
- Gather leaves and other "yard waste" into a compost pile and let overwinter and decompose for use as fertilizer next growing season
- Dispose of your leaves locally.

Find out where at :

<https://thinkblueconnecticutriver.org/wp-content/uploads/2020/10/4.-Muni-disposal-resources-updated-10-23-20.pdf>

# BE A LEAF HERO

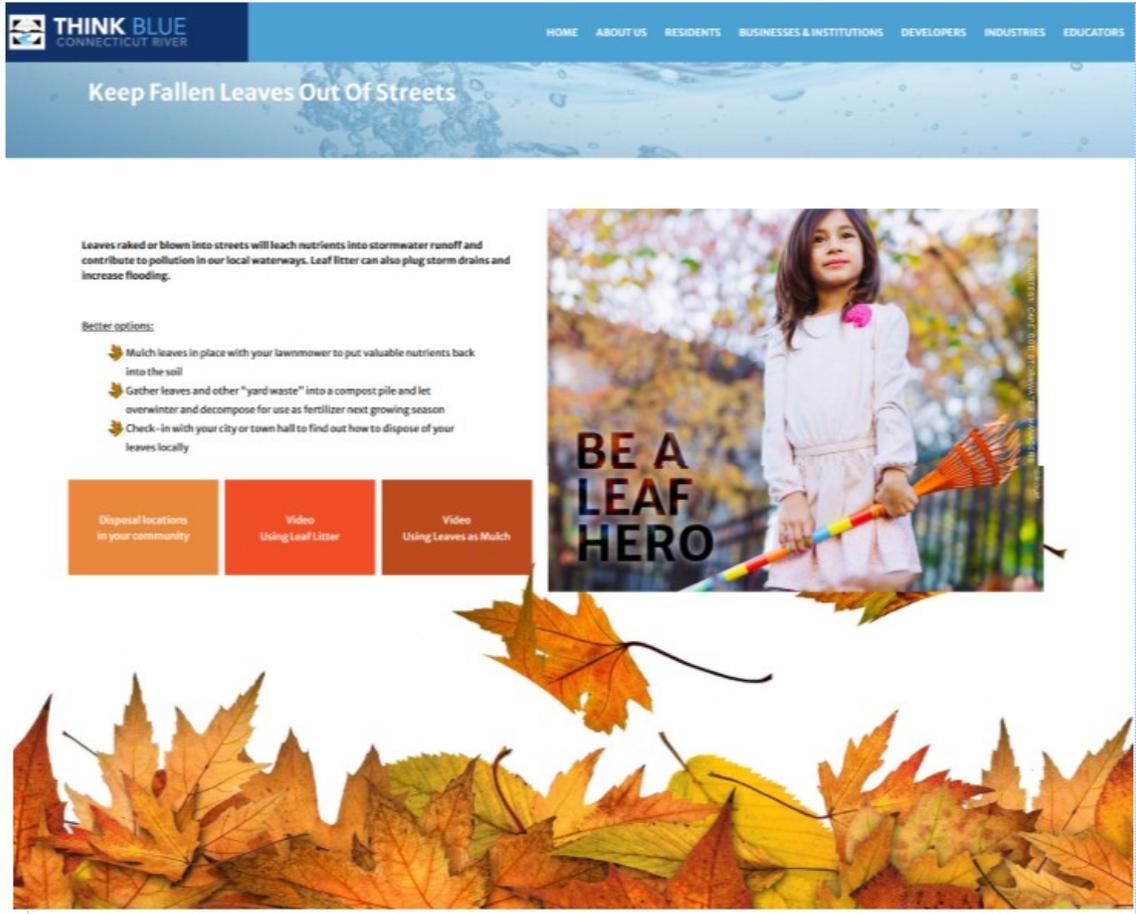
For more tips and information visit:  
**ThinkBlueConnecticutRiver.org**

ADAPTED COURTESY CAPE COD STORMWATER MANAGERS GROUP

### What is Stormwater Pollution?

It's the toxic mix of bacteria, chemicals, metals, nutrients and other contaminants that washes over pavement and other impervious surfaces and flows down storm drains to our waterways.

*This above image and text were provided to members to post on municipal websites.*



*Above is the Think Blue Connecticut River website landing page on leaf litter, where social media clicks take the audience to additional information, including a list of disposal locations in Stormwater Committee communities and two instructional videos.*

## 7. Importance of Soil Test, Proper Use of Fertilizers, Disposal of Grass Clippings - Residents

Message description and distribution method: A social media ad and regional Facebook post, using idea of keeping lawns safe for families, were central to messaging on lawn care in Year 4. The link provided in the social media post connects to the *Think Blue Connecticut River* web page on lawn and yard care, which lays out important best practices and links to useful resources, including a video by Paul Tukey, organic lawn care celebrity, as well as guides to popular lawn care chemicals and their hazards. The link to *Think Blue Connecticut River* is: <https://thinkblueconnecticutriver.org/lawn-and-yard-care/>.

PVPC reached out to eight large garden centers in the region to see if they would be willing to share the Facebook ad on their own pages. Of those contacted, only Randall's Farm in Ludlow responded and shared the Facebook ad both on their own Facebook page and on their website. The Facebook page for Randall's Farm has 9,561 followers.



*Above is the regional PVPC Facebook post that was liked and shared by others in the region, including Randall's Farm, a regional garden center in Ludlow, the Connecticut River Conservancy, and MassAudubon Sanctuary-Arcadia.*



*The above Facebook advertisement ran for 7 days in June of Year 4.*

Targeted audience: Residents

Responsible department/parties: PVPC staff and Connecticut River Stormwater Committee members

Measurable goal(s): The Facebook ad reached 19,744 individuals who match “gardening,” “home improvement,” or “do it yourself” identifiers in Connecticut Stormwater Committee

zip codes. Two-hundred seventy-three people clicked on the “Learn More” button to go the *Think Blue Connecticut River* landing page on lawn care. Social media consultants noted that the audience tended to be older women and younger men (18 to 65 range) and that there was lots of engagement from mobile devices.

The PVPC Facebook post in the region was shared by several Stormwater Committee communities, as well as Randall’s Farm in Ludlow, which has 9,561 followers, MassAudubon Sanctuary at Arcadia, with 6,600 followers, and Connecticut River Conservancy, with 7,100 followers. Despite the many followers who likely saw these posts, the likes and shares indicated from these other organizations was limited.

Analytics for the *Think Blue Connecticut River* website, indicate that there were a total of 105 views on the website landing page, with average time spent by visitors on that resource page at 1 minute and 27 seconds, and 81 downloads of posted resources. The number of views indicated in the website analytics does not jibe with the social media click counts on the “Learn More” button. PVPC will confer with the social media and website consultants to determine what may be occurring so that this issue is resolved for Year 5.

Message dates: Facebook ad ran for 7 days, from May 31<sup>st</sup> through June 7<sup>th</sup>; PVPC posted the regional Facebook message on May 26<sup>th</sup>. Randall’s Farm shared the Facebook post on their page on June 21<sup>st</sup>, and on their website from June 15<sup>th</sup> through June 30<sup>th</sup>.

Message completed for: Appendix F requirements  Appendix H Requirements

Was message different than what proposed in your NOI/SWMP? Yes  No

If yes, describe why the change was made: Proposed work had included creating a fact sheet and social media post on the Think Blue website. Over the course of the permit term to date, the social media work became more sophisticated and work has become a bit more targeted with use of advertising that makes use of zip codes and certain terms defining users. Advertising and posts include a call to action as well to “learn more,” which aims to get people to the Think Blue website content on lawn care.

## 8. Proper Management of Pet Waste – Residents

Message description and distribution method: Pet waste messaging in Year 4 was multifaceted at both the time of licensing and during the summer. All messaging is based on the “Think picking up Spike’s poop is gross? Try swimming in it,” and aimed at driving people to the pet waste pick up pledge on the *Think Blue Connecticut River* website.

### *At time of licensing*

Based on a survey of municipal clerks/dog officers done in Year 3 about what might be the most effective methods for messaging through their licensing process, PVPC provided Towns an electronic message to be placed on the local licensing web page (something we learned that most municipalities now have) and an electronic postcard that could be printed and used in tandem with license distributions. To stress the importance of placing the message on dog licensing pages, PVPC sent an e-mail note with attachments to municipal clerks and licensing officers with a cc and referral to their respective Stormwater Committee representatives.

The Connecticut River Stormwater Committee had also planned to run a Facebook ad during this period, but the social media firm contracted for this work withdrew from its contract with PVPC. PVPC scrambled to find a new firm to handle social media advertising on stormwater, but locating and contracting with a new firm did not occur until spring of Year 4.



### **JOIN PIONEER VALLEY DOG OWNERS BY TAKING THE PUP (PICK UP POOP) PLEDGE!**

Here in the Valley, we have about 47,000 dogs that together produce more than 17.5 tons of waste per day. Dog poop left on the ground — or thrown down a storm drain— washes with the next rainfall straight to our rivers and lakes. The cumulative impacts of improper waste disposal make our local waters unsafe. Show that you care and take the PUP Pledge to help keep our waters BLUE.

#### **TAKE THE PUP (Pick Up Poop) PLEDGE!**

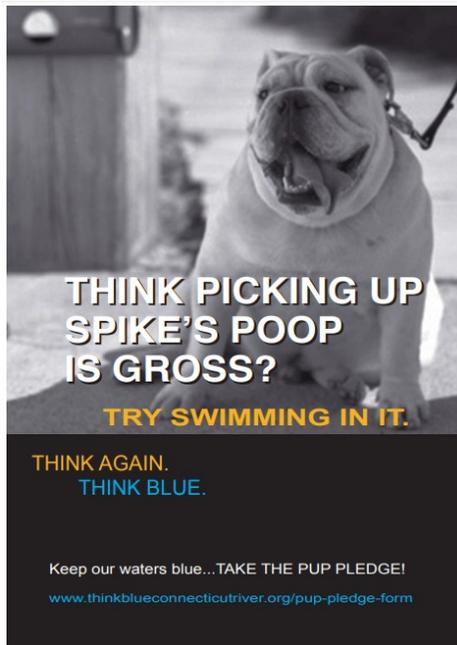
Follow the web link, or scan the QR code to access the pledge.

[www.thinkblueconnecticutriver.org/pup-pledge-form](http://www.thinkblueconnecticutriver.org/pup-pledge-form)



SCAN ME

*PVPC provided the above electronic message to be placed on municipal dog licensing web pages in member communities.*



**JOIN PIONEER VALLEY DOG OWNERS BY TAKING THE PUP (PICK UP POOP) PLEDGE!**

Here in the Valley, we have about 47,000 dogs that together produce more than 17.5 tons of waste per day. Dog poop left on the ground — or thrown down a storm drain— washes with the next rainfall straight to our rivers and lakes. The cumulative impacts of improper waste disposal make our local waters unsafe. Show that you care and take the PUP Pledge to help keep our waters BLUE.

**TAKE THE PUP (Pick Up Poop) PLEDGE!**



SCAN ME

Follow the web link, or scan the QR code to access the pledge.

[www.thinkblueconnecticutriver.org/pup-pledge-form](http://www.thinkblueconnecticutriver.org/pup-pledge-form)

*Messaging was slightly modified as shown above to also serve members communities as a postcard for distribution with dog licenses.*

Following are the links to dog licensing pages in member communities where information has been posted:

<https://www.agawam.ma.us/206/Animal-Control>

<https://easthamptonma.gov/163/City-Clerk-Elections>

<https://www.granby-ma.gov/town-clerk/pages/dog-license-information>

<https://www.southhadley.org/784/Dog-Licenses>

<https://www.townofwestspringfield.org/government/departments/town-clerk/dog-license>

Other communities are in process of posting information or using post cards and flyers instead. For example, East Longmeadow town clerk’s office has distributed approximately 1,000 pet waste postcards with pet licensing is requests; Longmeadow town clerk’s office distributes a pet waste flyer in issuing license renewals; and Northampton distributed printed pet waste postcards via the city clerk's office.

*During summer months*

Summer messaging included running a Facebook ad and preparing and distributing a media release to once again drive people in the region to the pick up poop pledge on the *Think Blue Connecticut River* website. Given the audience reached through the Facebook ad in July—largely women over 55—the Committee’s social media consultant planned to post another ad to Instagram in September in an effort to test reach to a younger audience. PVPC also included pet waste information in the August edition of the Pioneer Valley Progress Report, which goes to 1,876 people.

Targeted audience: Residents

Responsible department/parties: PVPC staff and Connecticut River Stormwater Committee members

Measurable goal(s): The Facebook ad reached 16,180 individuals in Stormwater Committee communities who match “pets at home” and “dog walking,” identifiers in the Connecticut Stormwater Committee zip codes. Three hundred seventy-four people clicked on the “Pledge Here” button to go to the Pick Up Poop pledge on the *Think Blue Connecticut River* website. Social media consultants noted that the audience tended to be women over 55 and 80% of those accessing the ad did so through mobile devices.

The August media release went to 17 news outlets including, The Valley Advocate, Daily Hampshire Gazette, WWLP, WHMP, Western Mass News, New England Public Media, Westfield News, WAMC, Country Journal, Springfield Republican, Amherst Bulletin, The Register (Ludlow & Indian Orchard), Ware River News, Agawam Advertiser News, Chicopee Register, Belchertown Sentinel, Holyoke Sun. The Register turned the media release into a lead news story on the front page of their August 24<sup>th</sup> issue, relating the media release information to the work of volunteers working to clean up local ponds. See news article at: <https://www.register.turley.com/lr-archives/LUD082422.pdf>

These efforts led to 53 new Pick Up Poop pledges in Year 4 to a total of 275. Analytics for the *Think Blue Connecticut River* website, indicate that there were another 183 people went to the pet waste landing page on the *Connecticut River Think Blue* website with average time spent by visitors on that resource page at 1 minute and 8 seconds, and 40 downloads of posted PDF resources. Note that the number of clicks in social media on the pledge did not translate to follow through pledges on the website. PVPC will work with both the web and social media consultants in Year 5 to determine if additional refinements could help.

Message dates: The Facebook ad ran for 7 days, from July 29 to August 5. The media release was issued August 19. The Instagram ad has been delayed due to Facebook/Instagram identify confirmation obstacles for the social media consultants, possibly due to the upcoming election. We anticipate clearance to run the add on Instagram before the end of September.

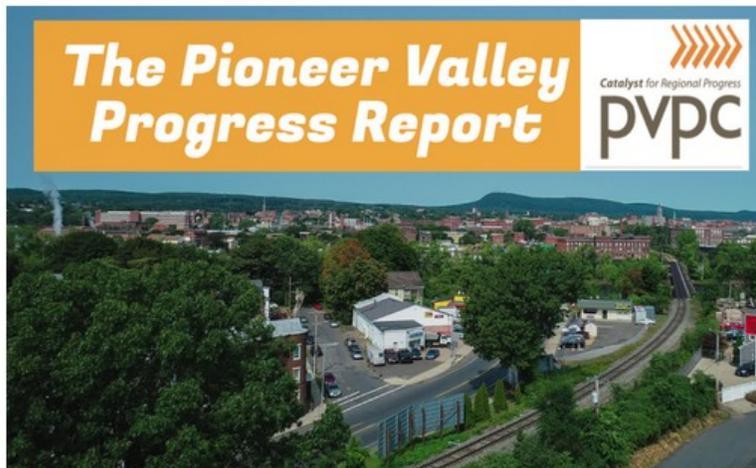
Message completed for: Appendix F requirements ✓ Appendix H requirements ✓

Was message different than what proposed in your NOI/SWMP? Yes ✓ No  
The NOI/SWMP indicated pet waste messaging only in summer months as PVPC understood that messaging under the Appendixes could be combined. EPA has indicated that additional messaging to dog owners “at time of licensing” is required. Messaging at time of licensing was added, starting in Year 2, along with additional messaging on pet waste during “stay at home” orders with the pandemic (given the increased visibility of associated problems). For

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



Above is the ad that ran on Facebook in Year 4 and planned for Instagram. And below is the pet waste messaging that ran in the Pioneer Valley Progress Report.



### Take the PUP (pick up poop) pledge!

Help ensure that your pet's waste does not wash with the next storm into drain pipes that flow to a nearby stream, river, or lake.

By taking this pledge, you agree to join others in your community to help keep waters Blue.

I pledge to:

- clean up after my dog(s), even in my own yard
- carry pet waste bags on walks
- dispose of waste in a trash bin and never in a street drain
- encourage others to clean up after their own pets



**FOR IMMEDIATE RELEASE**  
August 19, 2022

**CONTACT**  
Patty Gambarini, PVPC Chief Environment  
Planner. [pgambarini@pvpc.org](mailto:pgambarini@pvpc.org)

### **PROPER PET WASTE DISPOSAL CAN IMPROVE LOCAL WATER QUALITY**

Many of the rivers and streams in the Pioneer Valley have pathogens like *E. coli*, that exceed safe water quality standards.

U.S. Environmental Protection Agency (EPA) and Massachusetts' Department of Environmental Protection (MassDEP) findings show that pet waste is a major source of these contaminants. When it rains, pet waste on the ground dissolves and can flow to the nearest street drain which connects directly to local waters.

There are an estimated 47,000 dogs in the Pioneer Valley that produce some 17.5 tons of dog waste per day. One gram of dog waste can contain 23 million fecal bacteria, and spread giardia, salmonella, and parasites to other pets and humans as well.

Under the Clean Water Act, the region has made important strides toward fishable and swimmable waters, but pollution from pet waste continues to be a concern. A survey conducted by the Pioneer Valley Planning Commission in 2019 shows that some pet owners believe pet waste is a natural fertilizer and so leave it where it falls or toss it into nearby woodlands. Other pet owners pick up waste using plastic bags, but then throw those fecal filled plastic bags into nearby street drains.

Not only do the bags break down and the contents contaminate local waters, but the bags in street drains create a maintenance headache for our public works personnel.

To help reach the objective of fishable and swimmable waters, members of the Connecticut River Stormwater Committee, a regional coalition of 19 municipalities and UMass-Amherst – staffed by the Pioneer Valley Planning Commission (PVPC) – are undertaking a multi-faceted public engagement campaign to remind pet owners of the importance of responsible pet waste management.

PVPC staffer Patty Gambarini notes, “Most people just need a reminder that leaving their dog’s waste on the ground can result in contamination of favorite boating, fishing, and swimming areas. With some prompting and a dose of humor that reminds them that there is indeed no ‘poop fairy’ to pick up your dog’s feces, people ought to be more conscientious about proper disposal of dog waste.”

For more information and to join others in taking the PUP (Pick Up Poop) Pledge and keeping our local waters clean, see the Connecticut River Think Blue pet waste page at: <https://thinkblueconnecticutriver.org/pet-waste-management/>.

###



*Above is the media release sent to 17 news outlets in the region.*

## 9. Proper Septic System Care - Residents

Message description and distribution method: PVPC again timed messaging on septic system care to coincide with EPA's Septic Smart Week, from September 20 to 24, with a Facebook ad and regional post to its Facebook page. These posts provide a link to a great infographic on septic system maintenance developed by Whatcome County Public Works and Health Department.

Targeted audience: Residents

Responsible department/parties: PVPC staff and Connecticut River Stormwater Committee members

Measurable goal(s): The Facebook ad were shown 5,458 times to 2,897 people whose interest matches "Septic Tank" in Connecticut Stormwater Committee zip codes. Facebook's estimated ad recall is that 550 of them could remember the ad two days later.

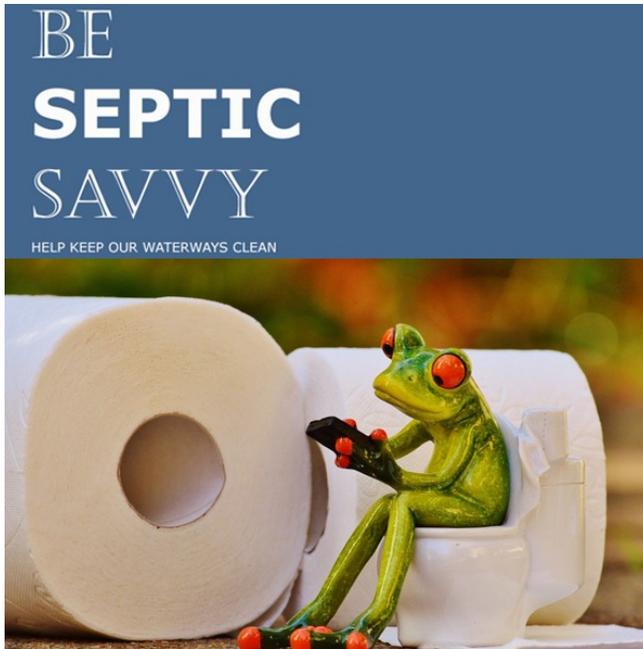
The regional Facebook post drew a total of 16 "shares," including member communities. There were a total of 142 views of the *Think Blue Connecticut River* website septic system landing page with people spending an average of 1 minute and 31 seconds. Analytics indicate that there were 214 clicks to download information.

Message dates: The Facebook ad ran between September 20 and 24, 2021

Message completed for: Appendix F requirements Appendix H requirements

Was message different than what proposed in your NOI/SWMP? Yes  No

If yes, describe why the change was made: The NOI/SWMP indicated septic system messaging would be done in Year 3 only as MS4 permit language in Appendix H was not entirely clear on the timing of this message. EPA has since indicated that septic system messaging must occur each year and the Connecticut River Stormwater Committee has adjusted accordingly, starting in Year 2.



*Above is the ad that ran on Facebook during Septic Smart week.*

 **Pioneer Valley Planning Commission**  
 September 21, 2021 · 🌐

The Connecticut River Stormwater Committee wants to remind you that proactive septic maintenance can save you money and help protect the health of your community and environment. Make sure to evaluate your tank every 1-3 years and pump when solids reach 1/3 of tank volume.

For more tips, visit: <https://thinkblueconnecticutriver.org/septic-system-care/>



 You and 7 others 16 Shares

*Above is the regional Facebook post.*

## 10. Proper Disposal of Leaf Litter - Businesses

Message description and distribution method: This year, PVPC continued the fruitful relationship with the UMass Extension program to reach the landscaper and landcare business and commercial audience with best practices messaging on disposal of leaf litter. An article appeared at the top of the October UMass *Hort Notes* e-newsletter, which is geared toward professional landscapers, who make up the bulk of the audience, with additional audience segments that include entities that work with professional landscapers (distributors, materials suppliers, nurseries, etc.) as well as Master Gardener/hobbyist types.

Best practices noted in the article are:

- Keep leaves off of driveways and roadways where they can easily wash into storm drains and contribute to higher nutrient flows during the fall season.
- Use a mulching mower. By mulching the leaves into turf areas, you avoid having to rake/blow and bag and you offer a way to manage autumn leaves while providing clients with free fertilizer. Mulched leaves recycle nutrients and reduce the overall need for applied fertilizer, which can help to reduce nutrient loading for local rivers, streams, and lakes.
- Alternatively, if your client has an existing compost pile, you can recommend that they consider allowing you to add leaves to the pile. Leaves provide a critically important element (carbon) to the composting process, making for a more soil enriching product to be used in the next growing season. Be sure compost piles are located away from streams, lakes, or storm drains as these decomposing materials and nutrients could easily reach these water resources.

Targeted audience: Businesses/institutions/commercial facilities

Responsible department/parties: PVPC staff and Connecticut River Stormwater Committee members

Measurable goal(s): UMass *Hort Notes* newsletter goes to 31,362 landscapers and associated land care businesses across Massachusetts

Message dates: October 2021

Message completed for: Appendix F requirements  Appendix H requirements

Was message different than what proposed in your NOI/SWMP? Yes  No

If yes, describe why the change was made: Year 4 messaging in the NOI/SWMP indicated would involve reprise and update of the Year 2 mailing to landscapers in the region that lists locations for proper disposal of commercial leaf litter. This letter or some iteration of it was issued three years in a row so aimed to do something slightly different. Year 5 program will return to use of letter with landscapers in region.

## Hort Notes 2021 Vol. 32:8

October 1

**A monthly e-newsletter from UMass Extension for landscapers, arborists, and other Green Industry professionals, including monthly tips for home gardeners.**

To read individual sections of the message, click on the section headings below to expand the content:

### **A Message for Landscape Practitioners from the Be a Leaf Hero Campaign**



Get a fresh start this fall with better management of leaf litter. Here are three great approaches:

- Keep leaves off of driveways and roadways where they can easily wash into storm drains and contribute to higher nutrient flows during the fall season.
- Use a mulching mower. By mulching leaves into turf areas, you avoid having to rake/blow and bag and you offer a way to manage autumn leaves while providing clients with free fertilizer. Mulched leaves recycle nutrients and reduce the overall need for applied fertilizer, which can help to reduce nutrient loading for local rivers, streams, and lakes.
- Alternatively, if your client has an existing compost pile, you can recommend that they consider allowing you to add leaves to the pile. Leaves provide a critically important element (carbon) to the composting process, making for a more soil enriching product to be used in the next growing season. Be sure compost piles are located away from streams, lakes, or storm drains as these decomposing materials and nutrients could easily reach these water resources.

These three best practices are consistent with local efforts in many communities, under the *Be a Leaf Hero* campaign, to improve water quality in local rivers, streams, lakes, and coastal waters. Many lawn care practices can contribute to storm flows that are especially high in nutrients. Improper use and disposal of leaves, as well as grass clippings and fertilizers, can put nitrogen and phosphorous into storm runoff that enters local waters. These polluted flows promote the growth of algae and reduce dissolved oxygen, impacting recreational uses, such as swimming and fishing, and quality of habitat for wildlife.

Do your part and start anew with better land care practices this fall. For more information see: <https://thinkblueconnecticutriver.org/be-a-leaf-hero/> and <https://ag.umass.edu/landscape/fact-sheets/yard-waste-management-in-massachusetts>

From the municipalities collaborating on Think Blue Connecticut River and Think Blue Massachusetts.

PVPC staff coordinated with UMass Extension to place the above article in the October Hort Notes newsletter. For the full newsletter issue, see: <https://ag.umass.edu/landscape/newsletters/hort-notes/hort-notes-2021-vol-328>

## **11. Importance of Soil Test, Proper Use of Fertilizers, Disposal of Grass Clippings - Businesses**

For spring messaging on best landcare practices, PVPC staff again collaborated with UMass Cooperative Extension to reach the businesses that are caring for lawns. A newsletter piece published in the May 6 Landscape Message recommended:

Lean into the spring season with better lawn care practices. Here are two great strategies:

Leave grass clippings where they fall. Of course, you want to leave things nice and neat for your clients, but let them know that grass clippings left on the lawn will decompose, returning valuable nutrients back into the soil. This will save them money by reducing the need for applied fertilizer and promote a healthier lawn. To make best use of this free, natural

fertilizer: mow high according to the grass species and use of the turf, do not remove more than 1/3 of the blade per mowing event, and mow when grass is dry.

Test your client's soil. A soil test lets you know more specifically what your client's lawn and garden need for nutrients so that you don't waste time and money. UMass Extension provides soil testing services. See: <http://umass.edu/soiltest> Opt for slow-release nitrogen sources if possible, and time applications properly to best align maximum nutrient availability from applied fertilizer with favorable growth periods, to promote maximum nutrient uptake and minimize potential loss.

Targeted audience: Business/institutions/commercial facilities

Responsible department/parties: PVPC staff and Connecticut River Stormwater Committee members

Measurable goal(s): Newsletter is e-mailed to a list of approximately 13,000 landcare professionals, as well as posted on UMass Extension's Facebook feed, which has approximately 3,200 followers.

Message dates: May 6

Message completed for: Appendix F requirements  Appendix H Requirements

Was message different than what proposed in your NOI/SWMP? Yes  No

If yes, describe why the change was made: Ongoing Covid-19 pandemic required adjusting from in-person workshop for Garden Center staff. To obtain access to likely most robust audience, worked with UMass Cooperative Extension to get notice out to landcare professionals.

## Landscape Message: May 6, 2022

May 6, 2022

Issue: 5

*UMass Extension's Landscape Message is an educational newsletter intended to inform and guide Massachusetts Green Industry professionals in the management of our collective landscape. Detailed reports from scouts and Extension specialists on growing conditions, pest activity, and cultural practices for the management of woody ornamentals, trees, and turf are regular features. The following issue has been updated to provide timely management information and the latest regional news and environmental data.*

**The Landscape Message will be updated weekly in May. The next message will be posted on May 13. To receive immediate notification when the next Landscape Message update is posted, be sure to [join our e-mail list](#)**

### **A Lawn Care Message from the Pioneer Valley Planning Commission**

Achieving beautiful, functional lawns is possible using practices consistent with local efforts in many communities to improve water quality in local rivers, streams, lakes, and coastal waters. Improper lawn care practices can contribute to storm flows that are especially high in nutrients. Negligent use and disposal of grass clippings and fertilizers can put nitrogen and phosphorous into storm runoff that enters local waters. These polluted flows promote the growth of algae and reduce dissolved oxygen, impacting recreational uses, such as swimming and fishing, and quality of habitat for wildlife.

Lean into the spring season with better lawn care practices. Here are two great strategies:

**Leave grass clippings where they fall** - Of course, you want to leave things nice and neat for your clients, but let them know that grass clippings left on the lawn will decompose, returning valuable nutrients back into the soil. This will save them money by reducing the need for applied fertilizer and promote a healthier lawn. To make best use of this free, natural fertilizer: mow high according to the grass species and use of the turf, do not remove more than 1/3 of the blade per mowing event, and mow when grass is dry.

**Test your client's soil** - A soil test lets you know specifically what your client's lawn and garden need for nutrients so that you don't waste time and money. UMass Extension provides soil testing services. See: <http://umass.edu/soiltest>. Opt for slow release nitrogen sources if possible, and time applications properly to best align maximum nutrient availability from applied fertilizer with favorable growth periods, to promote maximum nutrient uptake and minimize potential loss.

Do your part and start better land care practices this spring. For more information see: <https://thinkblueconnecticutriver.org/lawn-and-yard-care/#> and <https://ag.umass.edu/resources/home-lawn-garden/fact-sheets/lawns>

*From the municipalities collaborating on Think Blue Connecticut River and Think Blue Massachusetts.*

Above is the Lawn Care Message that appeared in UMass Extensions's May 6 Landscape Message newsletter.

## 12. Proper Management of Geese – Businesses

Message description and distribution method: Reprised Year 2 letter—signed by Connecticut River Stormwater Committee Chair and Vice Chair—to property owners identified as having goose problems. The letter recommends specific strategies and resources, including signage to discourage people feeding geese and managing “residential” goose populations by undertaking a program to addle eggs and modify landscapes. Contact information for USDA Wildlife Services in Amherst, was offered as a source of technical assistance and operational management. Also included in the letter were two illustrations of landscaping along water's edge to provide idea of modifications that could help to reduce direct stormwater flows and creates barriers for goose movement from water to foraging area. For Year 4, the property owner distributions list was updated to include 31 landowners (13 in Agawam, 2 in Belchertown, 4 in Northampton, 6 in Southwick, 1 in South Hadley, 4 in Westfield, and 1 in West Springfield). As other stormwater communities note where there may be issues with geese, they will notify PVPC and additional letters to property owners can be sent on a

rolling basis. For Year 4, PVPC also re-established contact with USDA to ensure no changes in information from two years ago.

Targeted audience: Businesses/institutions/commercial facilities

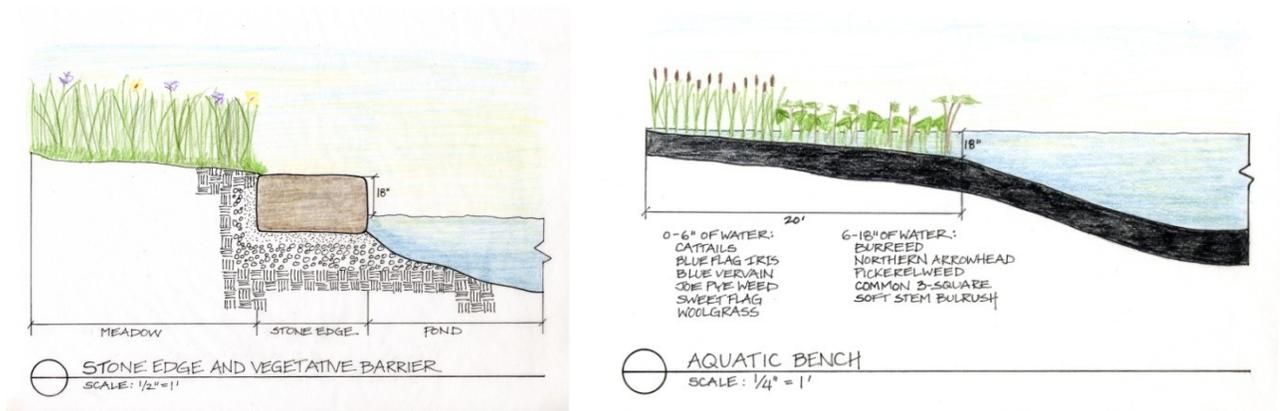
Responsible department/parties: PVPC staff and member municipalities

Measurable goal(s): Letters sent to owners of 31 properties with likely ongoing goose problems (animals that are “residential” to the area and not migratory)

Message dates: May 16, 2022

Message completed for: Appendix F requirements ✓ Appendix H Requirements ✓

Was message different than what proposed in your NOI/SWMP? Yes No ✓



*Illustrations included in letter of landscaping along water's edge to reduce direct stormwater flows and creates barriers for goose movement from water to foraging area.*

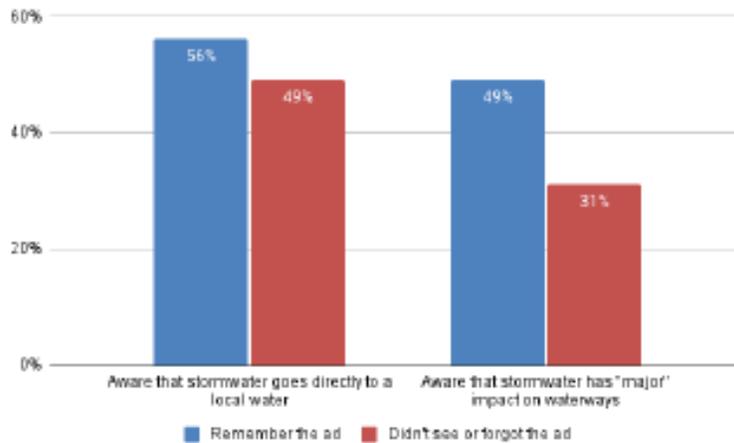
### 13. Fowl Water Messaging Through State-Wide Campaign

Message description and distribution method: On behalf of the members of the Connecticut River Stormwater Committee, *Think Blue Massachusetts* ran an educational advertising campaign from May 31 to June 17, 2022. The 30-second video entitled, “Fowl Water,” –in both English and Spanish—helps viewers visualize how stormwater runoff carrying motor oil, pet waste, and trash pollutes local waterways.

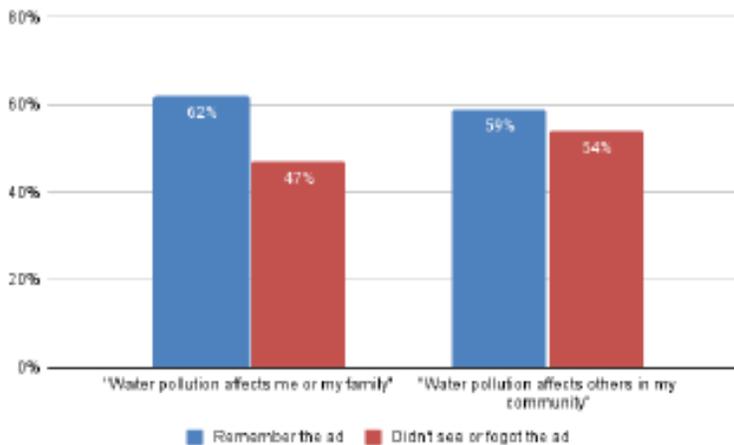
The video and social media materials (translated into the top 6 most spoken languages in Massachusetts) are available at: <https://www.thinkbluemassachusetts.org/partner-materials>  
To measure the effectiveness of this campaign, Water Words that Work conducted

a post campaign survey. The survey showed that 15% of residents in MA MS4 communities said they remembered the ad. Those who remember the ad are more aware of how stormwater pollutes waterways. The complete survey report is available at: [ThinkBlueMassachusetts.org](http://ThinkBlueMassachusetts.org)

### Those who remember the ad are more aware of how stormwater pollutes waterways:



### They are also more likely to recognize that stormwater pollution affects people:



Targeted audience: Residents

Responsible department/parties: Think Blue Massachusetts and Water Words that Work

Measurable goal(s): Water Words that Work reports that within the Connecticut River Stormwater Committee region the campaign resulted in an estimated:  
326,019 Facebook and Instagram impressions to English speakers  
39,344 Facebook and Instagram impressions to Spanish speakers

426,607 YouTube ad impressions to English speakers  
50,546 YouTube ad impressions to Spanish speakers

Message dates: May 31 to June 17, 2022

Was message different than what proposed in your NOI/SWMP?      Yes       No

If yes, describe why the change was made: This message is a welcome addition to our program for Year 4.