

Municipality/Organization: City of Newton, MA

EPA NPDES Permit Number: MAR 041080

MaDEP Transmittal Number: W- W-039247

Annual Report Number No. 14

& Reporting Period: April 2016 –March 2017

## NPDES PII Small MS4 General Permit Annual Report April 2017

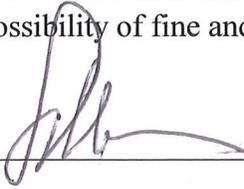
### Part I. General Information

Contact Person: James McGonagle Title: Public Works Commissioner

Telephone #: 617-796-1000 Email: jmcgonagle@newtonma.gov

#### Certification:

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

Signature:  \_\_\_\_\_

Printed Name: Setti D. Warren

Title: Mayor

Date: April 19, 2017

## **Part II. Self-Assessment**

The City of Newton, Massachusetts has completed the required self-assessment and has determined that our municipality is in compliance with all permit conditions, except for Minimum Control Measure #3 Illicit Discharge Detection and Elimination (IDDE). The City has found bacteria contamination in some of its storm drains and brooks, particularly in areas where sanitary sewer infrastructure is aging, underdrains are located, and underground pathways or conduits to our drainage systems exist. Newton is proactively investigating and eliminating illicit connections to the storm drainage system when discovered.

The following is provided to highlight key accomplishments made in Permit Year 14 with respect to MS4 General Permit goals and objectives.

### **Administrative**

- Budgeted \$2,057,000 in FY17 for stormwater management and capital projects.
- City Council approved a new stormwater fee rate structure based upon impervious area. New rates went into effect July 1<sup>st</sup> 2017.
- A 20-year Stormwater Capital Improvement Plan was developed in 2015 with implementation commencing in FY16.

### **Programmatic & Drainage System**

- Sections of storm drains are routinely inspected (video camera) for water quality issues (based upon sample results) and flow conveyance. As needed these drain lines are cleaned (i.e., roots cut and sediment removed) by DPW.
- A 10-year Sewer Capital Improvement Plan was developed and implementation commenced in 2013. Although Newton's sanitary sewers are separate from our drains, there are locations where indirect cross-communication between sewers and drains may occur due aging infrastructure. The Sewer CIP rehabilitates and restores the sewer mains. During this reporting period:
  - 36,433 linear feet of sewers were lined with cured-in-place pipe;
  - 231 sewer manholes were sealed with cementitious lining; and
  - 45 underdrains were sealed.

### **Good Housekeeping & Illicit Discharge Detection and Elimination**

- Our 2016 Household Hazardous Waste (HHW) collection program ran from May 11<sup>th</sup> through October 22<sup>nd</sup>. Last year, we collected several tons of HHW and Universal waste material that may otherwise find its way into the trash or the storm drain system. Please visit our website for more information on our recycling programs:  
<http://www.newtonma.gov/gov/dpw/recycling/default.asp>
- The Parks and Recreation Department strives to use minimal fertilizers and pesticides. Last year, no pesticides were used on City owned land. See Attachment A.
- Newton monitors 122 stormwater discharge points to the Charles River, including the many brooks that feed into the Charles, by conducting wet and dry weather sampling.

### **Public Education and Involvement**

- Several activities and events listed in the following table.

### Part III. Summary of Minimum Control Measures

#### 1. Public Education and Outreach

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 14 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 15
1.1 Revised	Develop Stormwater Press Release	DPW Utilities, M. Rose	Submit annual press release to newspaper / CATV.	In May 2016, we prepared a stormwater pollution prevention / healthy watershed bulletin and mailed it to all property owners in the Crystal Lake watershed. In mid-September 2016, we posted tips for draining swimming pools on the City's website and submitted it as a press release to the NewtonTAB.  Copies provided in Attachment B.	Write an article on the phosphorus ban in fertilizers.
1.2 Revised	Develop Stormwater Web Site	DPW Utilities, M. Rose	Prepare web site on stormwater issues.	Complete.  <a href="http://www.newtonma.gov/gov/dpw/water/stormwater.asp">http://www.newtonma.gov/gov/dpw/water/stormwater.asp</a>	None, BMP complete.  Continuance under BMP 1.4
1.3 Revised	Develop Stormwater Brochures	DPW Utilities, M. Rose	Distribute brochures to target groups	Newton purchases material from the SuAsCo's Stormwater Community Assistance Program. We also distributed door hangers in neighborhoods when pet waste is found in our storm drains.	BMP Complete. However, new brochures and literature will be added to our stock, as needed.
1.4 Revised	Provide Stormwater News on City's web site	DPW Utilities, M. Rose	Post stormwater and/or project news once per year	Stormwater information and news is posted on the main page of the City of Newton's website and our Stormwater web page.	Maintain and update stormwater web page as needed.
1.5 Revised	Establish Volunteer Database	DPW Utilities, M. Rose	Solicit volunteer educators to promote awareness of water quality	Database established and is used mostly to encourage participation in Annual Charles River Clean-up & storm drain stenciling.	None, BMP complete.

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1.6	Partner with Schools	DPW Utilities, M. Rose	Obtain and distribute educational resources to schools.	During this reporting period, staff visited the Oak Hill Middle School and gave a presentation on the water cycle and stormwater management in Newton to all the 7 <sup>th</sup> graders. We were also invited to the Jackson School to talk and give a hands-on lesson using an Enviroscape watershed model (for the 5 <sup>th</sup> grade classes).  We continue to offer stormwater School Education Programs.	Continue with implementation of various school education and partnering programs.
Revised					
1.7	Develop Education Program	Environmental, E. Gentile and M. Rose	Implement stormwater pollution prevention program	April / May is "GreenUp Newton" where we promote and host various educational programs at locations throughout the City including: the annual Charles river clean-up and a community swap day.  In addition to our educational efforts, Green Decade Newton Coalition, the Newton Conservators and Crystal Lake Conservancy offer workshops, special events and newsletters that educate our community on a variety of topics, including natural landscaping, pesticide reduction, recycling, how to reduce our carbon footprint and more.  <i>See Attachment B</i> for more information and visit <a href="http://www.greendecade.org">www.greendecade.org</a> and <a href="http://www.newtonconservators.org">www.newtonconservators.org</a>	Continue promoting water conservation, organic and environmentally-friendly lawn care methods and no phosphorus fertilizers.
Revised					
1.8	Partnering with Watershed Associations	Engineering, L. Taverna DPW Utilities, M. Rose	Attend meetings and partner with the Crystal Lake Working Group	Newton supports CRWA programs and initiatives including workshops and the Annual Charles River Clean-up.  In 2012 the "Crystal Lake Working Group" was formed under the direction of the Parks & Recreation Dept. This group is comprised of members from Crystal Lake Conservancy, Friends of Crystal Lake, engaged residents and City Staff. The mission of the group is to investigate and make recommendations to protect and preserve the Lake.	Maintain collaboration with the CRWA and/or the Crystal Lake Working Group.
Revised					

## 2. Public Involvement and Participation

<b>BMP ID #</b>	<b>BMP Description</b>	<b>Responsible Dept./Person Name</b>	<b>Measurable Goal(s)</b>	<b>Progress on Goal(s) – Permit Year 14</b> (Reliance on non-municipal partners indicated, if any)	<b>Planned Activities – Permit Year 15</b>
2.1	Establish Stormwater Advisory Committee	DPW Utilities, L. Taverna	Committee to meet once per year	BMP Completed in prior years.	None.
Revised					
2.2	Implement Public Meetings for Citizen Input	DPW, D. Turocy M. Rose	Hold meetings once per year, publish results.	Opportunities for public input include Public Facilities and other Board of Alderman sub-committee meetings, as well as the Crystal Lake Working Group meetings.	None, coverage under new Permit.
Revised					
2.3	Encourage Citizen Communication and Reporting	Engineering, L. Taverna	Establish stormwater hotline for illicit discharges.	We had three reports made by residents for suspected illicit discharges. One was at 62 Hyde Ave, which turned out to be a legal sump pump; the other two were confirmed illegal dumping in our storm drains by contractors (locations: 22-24 George St and the corner of Waltham St at Elliot Ave).  The contractors suspected of the illegal dumping were warned to stop dumping and DPW cleaned out the catch basins impacted.	BMP Complete. Continue with current protocols.
Revised					
2.4	Network with Local Community Groups	Engineering, M. Rose D. Turocy	Observe outfalls, report illicit discharges & stream clean-up.	Staff attends meetings with the Crystal Lake Conservancy. We support their efforts and address any concerns as the need arises.	Continue to provide support to these groups and foster a partnership approach with the City.
Revised					
2.5	Implement Storm Drain Marking Program	Utilities, T. Jerdee M. Rose	Volunteers mark catch basins with decals.	BMP Complete. Permanent storm drain markers were installed next to catch basins in village centers in Year 5	BMP Complete. Continue with storm drain marking program as need arises.
Revised					
2.6	Promote Community Clean-Up day	Parks & Recreation; & M. Rose	Promote annual community clean-up day	Newton Serves was held on May 1, 2016. Volunteer groups target specific areas of the City for clean-up and revitalizing. For more info, see Attachment B or:	Continue with annual community clean-up day.

				<a href="http://newtoncommunitypride.org/NewtonSERVES.htm">http://newtoncommunitypride.org/NewtonSERVES.htm</a>	
Revised				<a href="http://newtoncommunitypride.org/NewtonSERVES.htm">1</a>	

### 3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 14 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 15
3.1	Establish Stormwater System Map	DPW Utilities, F. Russell	Update GIS information, locate all outfalls.	BMP previously completed.	BMP Complete.
Revised					
3.2	Establish Stormwater Database Management System	Utilities, T. Jerdee	Add stormwater information to Hansen database.	BMP previously completed.	BMP Complete.
Revised					
3.3	Locate and Inspect all Outfalls	Utilities, T. Jerdee & M. Rose	Collect outfall data for Hansen database.	BMP previously completed.	Continue with monitoring and sampling program.
Revised					
3.4	Review existing Ordinances & determine whether they adequately prevent Illicit Discharges	Engineering, L. Taverna DPW Utilities,	Propose to BOA revisions to stormwater ordinance/ policies, as appropriate	The final Draft IDDE Ordinance was presented to and approved by the Public Facilities and Finance committees on March 22 <sup>nd</sup> and April 12 <sup>th</sup> , respectively. City Council approved it on April 18 <sup>th</sup> .	BMP Complete.
Revised					
3.5	Identify Illicit Discharge Sources	Utilities, T. Jerdee M.Rose	Identify bacteria sources via visual and CCTV inspections, dye and/or pressure tests.	DPW continually monitors and investigates potential indirect and direct illicit discharges to our storm drainage infrastructure. During this permit period we inspected all our outfalls and collected samples, whenever water is flowing.	Continue with efforts to find and remove indirect and direct illicit discharges.
Revised					

<b>BMP ID #</b>	<b>BMP Description</b>	<b>Responsible Dept./Person Name</b>	<b>Measurable Goal(s)</b>	<b>Progress on Goal(s) – Permit Year 14</b> (Reliance on non-municipal partners indicated, if any)	<b>Planned Activities – Permit Year 15</b>
3.6 Revised	Establish Illicit Discharge Hotline	DPW Utilities, M Rose	Receive and track citizen reports of illicit discharges.	Hotline established (customer service center). We received 3 emails/ calls regarding illicit discharges this reporting period. <i>See BMP 2.3 for more information.</i>	BMP Complete. Continue to encourage citizen reporting of illicit discharges.
3.7 Revised	Train Employees	DPW Utilities, T. Jerdee	Employees to help identify illicit discharges.	During this reporting period, three people were sent to a DOT Training on Hazardous Waste Shipping (March 9, 2017).	Training is planned for personnel that work with Household Hazardous Waste collection at our recycling depot.
3.8 Revised	Monitor City's infrastructure for illicit discharges and non-point source pollution	DPW Utilities, T. Jerdee M. Rose	Observe major outfall discharges.	A comprehensive outfall monitoring program has been in place since 2006. During this reporting period most outfalls were inspected during dry weather with samples, if flowing. Wet weather sampling was also conducted for a smaller portion of our outfalls.	Continue with implementation of IDDE program.

#### 4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 14 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 15
4.1 Revised	Review existing Ordinances and determine whether they adequately regulate construction site stormwater runoff	Engineering, L. Taverna	Obtain Law Dept's opinion regarding existing practice and appropriateness of regulating construction site stormwater runoff.	Currently, there are numerous mechanisms through which construction site runoff is prevented and controlled. These mechanisms include: an existing Ordinance (Sec 30-5c and 5d), DPW / Eng. Division Policy and the Special Permit approval process. Most construction projects regardless of size are required to provide soil erosion control measures.  DPW has two inspectors who ensure the measures shown on Approved Site Plans are implemented.	BMP Complete.
4.2 Revised	Implement Review of Construction Documents	Engineering, J. Daghlian	Establish policy for submittal of erosion control plans.	BMP Complete.	BMP Complete. Continue with plan reviews for building permits.
4.3 Revised	Implement Construction Inspection Program	Engineering, J. Daghlian	Develop guidelines, training, inspection of construction sites > 1 acre.	All construction sites inspected by Engineering. BMP guidelines followed.	Continue with inspection of all construction sites. Develop training for construction inspectors.
4.4 Revised	Educate Developers on Proper Erosion Control Techniques	Engineering, J. Daghlian / M. Rose	Distribute erosion control procedures to all applicants.	Engineering requires erosion control BMPs for all construction.	BMP Complete. Continue with implementation.
4.5 Revised	Provide opportunity for citizen review and input on construction projects	Engineering, J. Daghlian	Ensure citizen review procedures for construction projects > 1 acre.	Citizen input of construction projects occurs during Conservation Commission, Land Use, and Board of Survey public hearings. Citizen review also occurs when Environmental Impact Reports are required.	BMP Complete. Continue with implementation.

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4.6	Establish Information Management System	Engineering, J. Daghlian	Track construction reviews and construction inspections.	An inspector is assigned to all construction projects × 1 acre (as well as many < 1 ac). This person maintains a personal field log book of key events.	BMP complete. Continue with implementation.
Revised					
4.7	Establish Standards for Erosion and Sedimentation Controls	Engineering, J. Daghlian	Establish adaptation of MADEP SWM Standard 8	Engineering requires implementation of MADEP SWMP Standard 8 for all construction projects > 1 acre.	BMP Complete. Continue with implementation.
Revised					

## 5. Post-Construction Stormwater Management in New Development and Redevelopment

<b>BMP ID #</b>	<b>BMP Description</b>	<b>Responsible Dept./Person Name</b>	<b>Measurable Goal(s)</b>	<b>Progress on Goal(s) – Permit Year 14</b> (Reliance on non-municipal partners indicated, if any)	<b>Planned Activities – Permit Year 15</b>
5.1	Review existing Ordinances and determine whether they adequately regulate post construction stormwater runoff	Engineering, L. Taverna	Obtain Law Dept's opinion regarding existing practice and appropriateness of regulating post construction stormwater runoff	BMP Completed in prior year.	BMP Complete.
Revised					
5.2	Develop Stormwater Management Policy	Engineering, L. Taverna	Establish policy to establish minimum BMPs for developers.	BMP Complete. Continue with implementation.	BMP Complete. Continue with implementation.
Revised					
5.3	Develop Stormwater Operations and Maintenance Policy	Engineering, J. Daghlian	Establish policy to establish minimum operations and maintenance plans.	Engineering requires the submittal of stormwater operations and maintenance plans for construction projects >1 acre.	BMP Complete. Continue with implementation.
Revised					
5.4	Implement Controls to Minimize Impacts to Water Quality	Engineering, J. Daghlian and Utilities, M. Rose	Implement use of structural and non-structural BMPs.	DPW/Eng. requires developers to implement MADEP Stormwater Standards (1- 8) for applicable projects. Separate and supplemental requirements are outlined for smaller construction projects in the City's Stormwater Management Policy.	BMP Complete. Continue with implementation and stormwater recharge requirements.
Revised					
5.5	Encourage Reducing Directly Connected Impervious Surfaces	Engineering, J. Daghlian M. Rose	Encourage the use of grass swales and filter strips.	Recommended to developers during development review team meetings.	Continue to recommend for all construction projects > 1 acre. Continue to be a resource for developers and homeowners on alternatives to asphalt pavement.
Revised					

<b>BMP ID #</b>	<b>BMP Description</b>	<b>Responsible Dept./Person Name</b>	<b>Measurable Goal(s)</b>	<b>Progress on Goal(s) – Permit Year 14</b> (Reliance on non-municipal partners indicated, if any)	<b>Planned Activities – Permit Year 15</b>
5.6 Revised	Determine Capacity of Stormwater System Elements	Engineering, J. Daghlian & Dir. of Utilities	Perform capacity analysis for wet weather events.	A hydraulic analysis was performed for section of existing drain on Dedham Street (near South Meadow Brook). As a result this analysis, the capacity of the drain pipe was increased to reduce localized flooding. The project went out to bid last spring and construction was completed in August 2016.  An undersized culvert for Hammond Brook near Glen Avenue has also been designed for increased capacity. Downstream improvements are also being evaluated.	BMP Complete.
5.7 Revised	Review Ordinances & determine whether they adequately regulate recharges to groundwater	Engineering, J. Daghlian	Obtain Law Dept's opinion regarding existing practice and appropriateness of regulating recharges to groundwater	Current practices include on-site stormwater recharge requirements for new construction and redevelopment projects.	BMP Complete.
5.8 Revised	Implement Use of Groundwater Recharge Rates	Engineering, J. Daghlian	Explore adaptation of MADEP SWMP Standard 3	Engineering requires implementation of MADEP SWMP Standard 3 for all construction projects > 1 acre.	BMP Complete.
5.9 Revised	Implement Post Development Peak Discharge Rates	Engineering, J. Daghlian	Implement adaptation of MADEP SWMP Standard 2	Engineering requires implementation of MADEP SWMP Standard 2 for all construction projects > 1 acre.	BMP Complete.
5.10	Implement Requirements for Removal of 80% TSS	Engineering, J. Daghlian	Implement adaptation of MADEP SWMP Standards 4 & 7	Engineering requires implementation of MADEP SWMP Standard 4 & 7 for all construction projects > 1 acre.	BMP Complete.

<b>BMP ID #</b>	<b>BMP Description</b>	<b>Responsible Dept./Person Name</b>	<b>Measurable Goal(s)</b>	<b>Progress on Goal(s) – Permit Year 14</b> (Reliance on non-municipal partners indicated, if any)	<b>Planned Activities – Permit Year 15</b>
Revised					

## 6. Pollution Prevention and Good Housekeeping in Municipal Operations

<b>BMP ID #</b>	<b>BMP Description</b>	<b>Responsible Dept./Person Name</b>	<b>Measurable Goal(s)</b>	<b>Progress on Goal(s) – Permit Year 14</b> (Reliance on non-municipal partners indicated, if any)	<b>Planned Activities – Permit Year 15</b>
6.1	Develop Staff Training Program	Environmental, E. Gentile M. Rose	Train staff on spill prevention control, vehicle maintenance and lawn care.	No training conducted during this reporting period.	Evaluate and update existing SPCC Plans. Review training needs to ensure compliance.
Revised					
6.2	Develop Stormwater Pollution Prevention Plan	Environmental, E. Gentile M. Rose	Develop spill prevention control procedures.	Training on spill control measures was completed in prior years. We are in the process of procuring services to develop a Stormwater Pollution Prevention Plan (SWPPP) for the DPW Yards.	Develop a SWPPP for DPW Yards.
Revised					
6.3	Develop Flood Mitigation Plan	Utilities, T. Jerdee	Develop plan, perform exercises.	BMP Complete.	Continue field exercises and update the flood mitigation plan, as needed.
Revised					
6.4	Establish Inspection Procedures	Utilities, T. Jerdee	Inspect storm drain system using visual inspection and CCTV.	Storm drains are inspected with our CCTV truck on an as needed basis and: to troubleshoot infrastructure problems, prior to paving / pavement restoration and as part of the IDDE program.	Continue to inspect storm drain system.
Revised					
6.5	Incorporate BMPs into Standard Procedures	Utilities, T. Jerdee	Establish BMPs for municipal operations and maintenance.	Stormwater BMPs are designed into new or redevelopment projects for City-owned property, most recently would be the new	BMP Complete. Review needs for other stormwater retrofit / improvement projects.
Revised					

<b>BMP ID #</b>	<b>BMP Description</b>	<b>Responsible Dept./Person Name</b>	<b>Measurable Goal(s)</b>	<b>Progress on Goal(s) – Permit Year 14</b> (Reliance on non-municipal partners indicated, if any)	<b>Planned Activities – Permit Year 15</b>
Revised				Zervas School which includes a section of permeable pavement and on-site stormwater management BMPs.	
6.6 Revised	Establish Maintenance Procedures	Utilities, T. Jerdee	Vactor/flush storm drains to remove sedimentation	Cleaned approximately 6,418 LF of the City's storm drainage system and 1196 catch basins were cleaned during this reporting period.	BMP Complete. Continue with implementation.

<b>BMP ID #</b>	<b>BMP Description</b>	<b>Responsible Dept./Person Name</b>	<b>Measurable Goal(s)</b>	<b>Progress on Goal(s) – Permit Year 14</b> (Reliance on non-municipal partners indicated, if any)	<b>Planned Activities – Permit Year 15</b>
6.7 Revised	Establish Maintenance Procedures	Utilities, T. Jerdee	Clean drainage brooks to remove sedimentation.	No drainage channel or brook maintenance work was completed during this reporting period.	Begin funding work in our Stormwater Infrastructure Improvement Plan.
6.8 Revised	Establish Maintenance Procedures	Utilities, T. Jerdee	Clean catch basins every 2 years.	We cleaned 1196 catch basins during this reporting period.	Continue with catch basin cleaning program.  Annually we clean half of our 13,000 catch basins (between 6,500 -7000 per year)
6.9 Revised	Establish Maintenance Procedures	Highway, Brian Zaniboni	Sweep streets 2 times per year.	All city streets were swept a minimum of 4 times in 2016 with village centers and main streets swept 5 times per week for 36 weeks of the year.	Continue with street sweeping program.
6.10	Establish Maintenance Procedures	B. Zaniboni	Calibrate salt spreaders annually.	Salt spreaders calibrated fall 2016.	Calibrate salt spreaders every year.
6.11 Revised	Implement Household Hazardous Waste Program	Environmental, E. Gentile	Collect waste oil, antifreeze, paint, pesticides.	Household Hazardous Waste (HHW) is collected one to two days per week from May through October.	BMP Complete. City will continue to operate HHW collection facility.

**7. BMPs for Meeting Total Maximum Daily Load (TMDL) Waste Load Allocations (WLA) <<if applicable>>**

<b>BMP ID #</b>	<b>BMP Description</b>	<b>Responsible Dept./Person Name</b>	<b>Measurable Goal(s)</b>	<b>Progress on Goal(s) – Permit Year 14</b> (Reliance on non-municipal partners indicated, if any)	<b>Planned Activities – Permit Year 15</b>
7.1 Revised	Check Criteria for Meeting TMDL	DPW Utilities, M. Rose	EPA criteria for TMDLs checked.	None, this reporting period.	Work towards reducing phosphorus load from Newton's brooks and conduits to the Charles River.
Revised					
Revised					
Revised					

**7a. Additions –N/A**


**7b. WLA Assessment – N/A**

**Part IV. Summary of Information Collected and Analyzed**

Please refer to Part IIA ó Self Assessment for the City summary of information collected and analyzed.

We are hopeful that the information provided is adequate to demonstrate our commitment to improving our SWMP and ultimately ensuring the quality of our stormwater discharges meets or exceeds standards.

**Part V. Program Outputs & Accomplishments (OPTIONAL)**

**Programmatic:**

Stormwater management position created/staffed ó Environmental Engineer	(y/n)	Yes
Annual program budget/expenditures (catch basin cleaning, staff (9), operations and maintenance; and capital projects) for FY16	(\$)	\$2,057,000

**Education, Involvement, and Training**

Estimated number of residents reached by education program(s)	(# or %)	10%
Stormwater management committee established	(y/n)	Y
Stream teams established or supported	(# or y/n)	Y (Charles river)
Shoreline clean-up participation or quantity of shoreline miles cleaned (during 16 <sup>th</sup> Annual Earth Day Charles River Cleanup; numerous community groups participated in Newton)	(y/n or mi.)	5 miles
Household Hazardous Waste Collection Days ( <i>May 2016 to Oct. 2016</i> )		
▪ days sponsored	(#)	20
▪ community participation	(%)	41%
▪ Material collected: CRTs, auto & button batteries, fluorescent bulbs, paint, waste oil, thermostats, thermometers, and elemental mercury. ( <i>some of which are collected year round</i> )	(tons or gal)	See Attachment A
School curricula implemented	(y/n)	Y

**Legal/Regulatory**

	In Place Prior to Phase II	Under Review	Drafted	Adopted
<b>Regulatory Mechanism Status (indicate with <math>\checkmark</math>)</b>				
▪ Illicit Discharge Detection & Elimination				X
▪ Erosion & Sediment Control	X			
▪ Post-Development Stormwater Management	X			
<b>Accompanying Regulation Status (indicate with <math>\checkmark</math>)</b>				
▪ Illicit Discharge Detection & Elimination				X
▪ Erosion & Sediment Control	X			
▪ Post-Development Stormwater Management	X			

**Mapping and Illicit Discharges**

Outfall mapping complete	(%)	100%
Estimated or actual number of outfalls	(#)	143
System-Wide mapping complete	(%)	100%
<b>Mapping method(s)</b>		
▪ Paper/Mylar	(%)	100%
▪ CADD	(%)	100%
▪ GIS	(%)	100%
Outfalls inspected/screened	(# or %)	100%
Illicit discharges identified (mostly underdrains) total # since issuance of NPDES MS4 permit	(#)	12
Illicit connections removed	(#) (est. gpd)	9 2,000+
% of population on sewer	(%)	98.5
% of population on septic systems	(%)	1.5

## Construction

Number of construction starts (>1-acre):	(#)	4
Estimated percentage of construction starts adequately regulated for erosion and sediment control	(%)	100%
Site inspections completed (work is on-going)	(# or %)	100%
Tickets/Stop work orders issued	(# or %)	0
Fines collected	(# and \$)	0
Complaints/concerns received from public	(#)	?

## Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	100%
Site inspections completed	(# or %)	100%
Estimated volume of stormwater recharged	(gpy)	Unknown**
**This value would take significant time to quantify, but most likely would be > <b>100,000 gallons/yr</b>		

## Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets)	(times/yr)	Once every other year
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	(times/yr)	Once per year
Total number of structures (CBs) cleaned	(#)	1196*
Storm drains cleaned	(LF or mi.)	6,418 LF
Qty. of screenings/debris removed from storm sewer infrastructure	(tons)	298
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		Landfill cover
Cost of screenings disposal	(\$)	\$ 8,791.00
*More CBs than this were cleaned in 2016, but the work started early (March 2016)		

Average frequency of street sweeping (non-commercial/non-arterial streets)	(times/yr)	4
Average frequency of street sweeping (commercial/arterial or other critical streets)	(times/yr)	10+
Qty. of sand/debris collected by sweeping	(lbs. or tons)	870 tons
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	landfill
Cost of sweepings disposal	(\$)	\$ 33,338.00
Vacuum street sweepers purchased/leased	(#)	0
Vacuum street sweepers specified in contracts	(y/n)	0

<b>Reduction in application</b> on public land of: (N/A = never used; 100% = elimination)		
▪ Fertilizers	(lbs. or %)	20 %
▪ Herbicides	(lbs. or %)	80 %
▪ Pesticides	(lbs. or %)	Rarely used
* Newton's Integrated Pest Management Policy was provided in the Year 5 report. See also Parks & Recreation Info on Pesticides usage for this past year.		

Anti-/De-Icing products and ratios	% NaCl	96%
	% CaCl <sub>2</sub>	0
	% MgCl <sub>2</sub>	2%
	% CMA	0
	% Kac	0
	% KCl	0
	% Sand	2%
Pre-wetting techniques utilized	(y/n)	N
Manual control spreaders used	(y/n)	N
Automatic or Zero-velocity spreaders used	(y/n)	Y
Estimated net reduction in typical year salt application	(lbs. or %)	10% reduction
Salt pile(s) covered in storage shed(s)	(y/n)	Y
Storage shed(s) in design or under construction	(y/n)	Y

# **Attachment A**

Copies of:

HHW and Universal Waste Collected in 2016

Parks and Recreation's 2016 Pesticide Report

City of Newton  
Department of Parks and Recreation  
Division of Maintenance  
2016 - 2017 Pesticide Usage

No pesticide applications occurred from April 2016 - March 2017.

Derek Mannion

Newton Parks and Recreation Department

# **Attachment B**

## Public Education and Outreach Materials

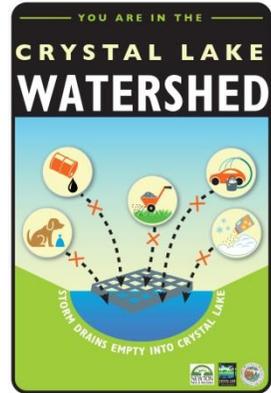
City of Newton



Setti D. Warren  
Mayor

## Department of Public Works Utilities Division

60 Elliot Street  
Newton, MA 02461



Dear Crystal Lake neighbor:

The Department of Public Works has been working with Parks and Recreation, Crystal Lake Conservancy and the Friends of Crystal Lake to develop strategies for improving the overall health of Crystal Lake. Symbols of this public-private partnership are the Crystal Lake Watershed signs. These signs are a visible reminder to residents and visitors alike to be mindful of our daily activities that could harm or hasten the natural life cycle of this lake. With the arrival of spring, we would like to take a moment to provide some tips and reminders of things we can do to protect this treasured resource.

### Lawn Care

1. Before applying fertilizers, test your soil to find out what your lawn or garden really needs. Our water bodies are under siege from too much phosphorus. Low cost soil tests are available through the University of Massachusetts, Soil and Plant Nutrient Testing Laboratory; Website: <https://soiltest.umass.edu/ordering-information>.
2. Minimize fertilizer use, and most importantly check if your fertilizer contains phosphorus. Massachusetts passed a law banning phosphorus in fertilizer, for most residential applications (there is an exception for establishing new lawns). These new nutrient regulations became effective on June 5, 2015. Please see the attached fact sheet for more information.
3. Read the enclosed *Green Lawns without Green Water* card to learn why this is important.

### Healthy Environment

4. Pick up after your pet and properly dispose of the waste bag. Proper disposal means in a waste receptacle or your trash barrel.
5. Lead by example and pick up litter before it has a chance to enter the Lake or the storm drains that flow into the Lake. Never dump anything down storm drains – this includes litter, sand, leaves, pet waste, paint or oil.
6. Consider using a commercial car wash instead of washing your vehicle at home; or wash it on a flat, permeable area where the wash water will not end up in the storm drains. The grimy, sudsy wash water is treated at a car wash.

We appreciate you taking the time to read this information and want you to know that we are also doing our part to improve the health of the Lake. Our recent initiatives include: installing water quality units inside catch basins, more frequent street sweeping of Lake Ave, a plan to stabilize the eroded bank near Levingston Cove, water quality sampling and in the planning / design stage are Bio-Filters to intercept and treat stormwater runoff before entering the Lake.

May 2016

Charles River Watershed Association's



17th Annual Earth Day

# CHARLES RIVER CLEANUP

Saturday, April 30, 2016

9am-12pm



*Make a difference in your community this Earth Day!*

Join over 3,000 volunteers for one of the largest single-day river cleanups in the country!

Volunteers will receive cleanup supplies, snacks and an official 2016 Charles River Cleanup T-shirt, while supplies last!

Register online at [www.crwa.org/charles-river-cleanup](http://www.crwa.org/charles-river-cleanup) or scan the code at right.

Join the conversation:  
#charlesrivercleanup



*The 17th Annual Earth Day Charles River Cleanup is organized by:*





# 15th Annual NewtonSERVES

Arts, Culture, Service, Beautification

[Welcome](#) [Festival of the Arts](#) [Spring/Summer](#) [Fall/Winter](#) [Int'l Festivals](#) [Activities](#) [Tickets](#) [ContactUs](#)

## NewtonSERVES



**Building Community Through Service**

Sponsored by:



Setti D. Warren, Mayor

## A Day of Community Service

A project of Newton Community Pride, Mayor's Office for Cultural Affairs and the Newton Parks and Recreation Department

Sunday May 1, 2016

9am — 4pm

Rain or Shine

Morning, Afternoon and All Day Projects



See a list of all of our generous sponsors



Like 352 people like this. Sign Up to see what your friends like.

[Learn About Newton's Food Pantries](#)  
[Arabic Baptist Church Food and Clothing Pantry](#)  
[Centre Street Food Pantry](#)  
[Newton Food Pantry](#)  
[Zola Center Food Pantry](#)

Visit our [Facebook](#) page to see photos from prior NewtonSERVES.

NewtonSERVES—A Day of Community Service is the kickoff for NewtonSERVES Volunteer Week. Mayor Setti D. Warren is encouraging religious organizations, schools and non-profits to identify service projects that need volunteers. He is also asking citizens, businesses and civic organizations to volunteer and make a difference in the community.

There are lots of ways that you can volunteer including: donating food to the local food pantries, delivering meals to a sick neighbor or friend, tutoring a child, picking up litter in your neighborhood, donating blood at your local Red Cross, or volunteering on Sunday May 1for the Day of Community Service.

## VOLUNTEER: [Register online](#)

### WHAT is NewtonSERVES?

NewtonSERVES is a Day of Community Service that brings together over 1,000 volunteers of all ages to complete more than 50 community projects for the benefit of numerous non-profit organizations and City of Newton departments. Volunteers work in teams on morning, afternoon or all day projects throughout the city, such as cleaning up parks, planting gardens, building and painting school bookshelves, spring cleaning at non-profit organizations and helping senior citizens. By enhancing the City of Newton's sense of community, NewtonSERVES helps to foster a culture of year-round volunteerism.

### WHO can participate?

- Individuals • Families
- Students (ages 8 and up)
- Young Adults • Senior Citizens
- Corporations & Businesses



[Home](#)   [Who We Are](#)   [Advocacy](#)   [Initiatives & Programs](#)   [Calendar](#)

[News & Blog](#)   [Get Involved](#)   [Resources](#)   [SGW](#)

[Join or](#)   [Volunteer](#)   [Donate](#)   [Contact](#)



[Renew](#)



## Organic Lawn Care for Autumn Class on September 21

Posted on September 19, 2016 by Green Newton

The Fall is the best time to improve your lawn. Everyone works in their yard in the spring, but really autumn is the season to make great strides. Higher soil temps, cool nights, and favorable weather patterns make it the ideal time; new grass germinating in the fall has two seasons to develop a strong root system before the stress of the summer heat. Learn how to care for your lawn organically without chemicals or herbicides. We'll discuss why organic lawns have less compaction, deeper root systems, and need less water. You'll also get tips on how to seed, fertilize, add compost, as well as improve the pH of the soil, conduct soil tests, and fix problem areas, so you can grow a lush, healthy lawn that's safer for pets, children, and the environment. You'll also walk away with basic landscape design ideas and learn the proper way to plant perennials, shrubs, and trees.

\$34 Fee, Course # G787-F16 instructor: David Gordon. Sponsored by Newton Community Education. The class will be held on Wednesday, September 21 from 7:30-9pm at Newton North High School, 2nd Floor, 253 - 457 Walnut St, Newtonville.

To register: <https://registration.xenegrade.com/nce/courseDisplay.cfm?schID=8388>

## Make a Difference

Join or renew your membership today!

Help protect the environment in Newton and beyond, support our environmental education and advocacy, and participate in Green Newton activities. Learn More...

Join Green Newton



## Upcoming Events

**Saturday, Sep 24**

Farmers Market



**Sunday, Sep 25**

New Date: "PADDLES AND PUMPKINS" at Crystal Lake



**Tuesday, Sep 27**

Farmers Market



**Wednesday, Sep 28**

ENVIRONMENTAL FILM FESTIVAL GOES ON TOUR: BOSTON



# Crystal Lake Conservancy

[Home \(/\)](#)

[About Us \(/about-us.html\)](/about-us.html)

[News \(/news.html\)](/news.html)

[Environmental \(/environmental.html\)](/environmental.html)

## Help Keep Dog Waste Out of Our Waterways!

by Beth Wilkinson

If you take a close look at the grates for storm drains throughout the city, you will note small plaques that caution "Don't Dump! Drains to Stream" or "Don't Dump! Drains to Lake." Rain water flows across our lawns and streets, enters the storm drains, runs through underground pipes, and empties into local ponds, the Charles River, or one of its tributaries within hours. In contrast, water that soaks into the ground takes days and weeks to filter through the soil and reach the lake. On the way, impurities are removed from the water by the process of filtration.

On water's quick trip through the storm drain system, there is no way for those impurities to be removed, and they enter local waterways. Some sources of pollution such as the phosphorus from roads can be hard to control, but there is one source of pollution that is easy to control:

dog waste left on the ground near storm drains and bags of dog waste that are dropped into the grates of the storm drains.

Maria Rose, Newton's Environmental Engineer, reports that "the Department of Public Works often finds bagged dog waste inappropriately deposited into o Larry Beals of Beals Associates, a local engineering and land-use consultant, describes a recent project in another city."The stream had a number of storm points up-stream where storm water run-off that was collected in the Town's system was discharged to the stream. In some stretches, the stream had under embankment, exposing a number of tree roots. These roots created a screening effect and strained various items from the storm water as it flowed in the st channel. While performing the survey, we were in the stream channel and could look up under the embankment and the number of blue bags full of dog feces astounding. There were literally hundreds of bags trapped within the roots, not to mention the ones that actually made it into the lake."

Ms. Rose explained that Public Works often discovers dumped dog-waste bags when they test the storm system's outfalls into the Charles River and our st variety of pollutants. When they get high reading of E. coli, their first reaction is to check the catch basins upstream to see whether the readings are caused dumped there. Frequently, that is the cause. Thus, putting the bags into the drains not only endangers the quality of the water in the Charles and other wate costs the city time and money to track down the problem.

Dog waste that enters our waterways can pose a danger to humans: not only E. coli (for which the city routinely tests)but also Campylobacter, Streptococci and worms can be found in dog waste and be transmitted to the water where people swim. There is danger to the animals and plants that live in the water, I the water, dog waste begins to decompose. That process uses oxygen from the water, which is crucial for fish and plant life, and converts the nitrogen from ammonia, which is toxic to fish. Algae thrive in that environment and further degrade the water quality.

What are the solutions to this problem? First, we need to help to educate Newton residents—and dog owners in particular—about how our storm drains wor provided the Clerk's Office with post cards ("Please Scoop the Poop!") for owners renewing their dog licenses. These cards also were included in a special dog owners regarding the new off-leash dog parks. She also distributes another card that explains, "Make the Connection! Storm Drains Empty into Waterw strategies for further consideration are marking storm drains with a more explicit warning not to dispose of pet waste in the drains and increasing the numbe baskets" in public places. San Francisco has an "only rain down the drain" campaign and has installed nets in storm drains to catch waste. Finally, Ms. Rose anyone who sees any inappropriate items dumped in the storm drains report it to the city's Customer Service department at 617-796-1000 or via the city's 3



# Pool Closing Tips 2016



## Tips for Draining your Pool

As the swimming season ends, the Department of Public Works is providing tips for draining pools and spas that will help minimize impacts to your neighbors and the environment.

Most swimming pool chemicals have an impact on fish, plants and other aquatic life.

- Chlorine damages fish gills, which can cause fish to drown.
- Bromine sanitizes swimming pools. In high doses it can also damage fish gills.
- Copper is used to kill algae in the filter system. It is very toxic to fish.
- Pool water can be very warm compared to a river or stream and can stress aquatic life.

*Did you know that the storm drains on your street discharge to either a stream, pond or directly to the Charles River?* What goes down these drains impacts the health of our waterbodies. That's why we are providing these tips for draining your pool.

1. Discontinue adding pool chemicals at least 1 week before draining your pool. This will allow the chemicals to evaporate before draining.
2. Test the chlorine and sanitizer levels in your pool before draining (there should be no residual chlorine or sanitizers).
3. Drain the pool slowly to avoid runoff onto abutting properties. Consider draining some or all of the water to your yard, where your lawn and trees can benefit from deep fall watering and where it will be filtered naturally and recharge deep into the ground – overflow to the storm drains in the street is okay.

Another option is to pump your pool water to a utility sink (if you have one, it's in the basement). This option provides for treatment of the pool water by the regional wastewater treatment plant and is allowed *only* if you purchased the water to fill the pool from the City of Newton. If you have any questions, please contact customer service at #617-796-1000 and ask for the environmental engineer.

*Posted on the City of Newton's web site (front page) for 2 weeks in Sept. 2016*

Reports of Illegal Dumping  
in Storm Drains

**Maria P. Rose**

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**From:** Michael J. Ovaska  
**Sent:** Thursday, May 12, 2016 8:41 AM  
**To:** Darrell Azure  
**Cc:** Louis M. Taverna; Theodore Jerdee; Maria P. Rose  
**Subject:** Re: 22/24 George Street. No permit. No dumpster. Pouring plaster down storm drain. Dumping construction debris

I have a crew going there this morning to clean up the the area around the catch basin and Vac out the catch basin.

Sent from my iPhone

On May 12, 2016, at 8:33 AM, Darrell Azure <[dazure@newtonma.gov](mailto:dazure@newtonma.gov)> wrote:

Lou, I got a call from Customer service telling me that a resident called about someone dumping paint in the catch basin. I contacted our inspector Chris Fadden and he went and checked and in fact he said there was paint on the catch basin he did ask who did this no one from either 19 or 22-24 George Street admitted this. There is 2 jobs going on that street one at 19 George St and the other at 22-24 George Street. These 2 projects do not need engineering approval since there is no public way or utility work being performed. Once Chris reported back to me on what he saw I reported this to Maria Rose.

Darrell Azure

Office Engineer

City of Newton

617-796-1027

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**From:** Louis M. Taverna  
**Sent:** Thursday, May 12, 2016 8:20:23 AM  
**To:** Theodore Jerdee; Michael J. Ovaska  
**Cc:** Darrell Azure  
**Subject:** FW: 22/24 George Street. No permit. No dumpster. Pouring plaster down storm drain. Dumping construction debris

Info

Louis M. Taverna, P.E.  
City Engineer  
City of Newton DPW

1000 Commonwealth Ave  
Newton, MA 02459  
617-796-1025  
[Ltaverna@newtonma.gov](mailto:Ltaverna@newtonma.gov)

**From:** Barbara Howard [mailto:barbara.howard@newtonma.gov]  
**Sent:** Wednesday, May 11, 2016 11:07 PM  
**To:** John Lojek; Anthony Ciccariello; Anthony Ciccariello; Diane Vezeau  
**Cc:** Louis M. Taverna  
**Subject:** Fwd: 22/24 George Street. No permit. No dumpster. Pouring plaster down storm drain. Dumping construction debris

**Regarding 22/24 George Street. Gene Hashkes: owner of the lower unit under construction with NO VISIBLE PERMIT. EPA sent an agent this week regarding PLASTER/PAINTE POURED DOWN THE STORM SEWER and illegal disposal of construction debris (no dumpster)**

- There are no visible permits, but much can be viewed from the street on the east side of the house. The lower unit is being expanded into the unfinished (wet) basement. Bedrooms and a bath are being added underground. Is this project properly **permitted** and up to code. Radon, egress, etc?
- Please require the workers there to dispose of leftover plaster and construction debris properly. Also Mr. Hashkes' wife complained that she's not sure what to do with the mounds of dirt that have been dug up, but Hashkes has a history of illegal disposal (he and his relative made his asbestos furnace 'disappeared' overnight, shortly after he bought the place)

A couple of nights ago, EPA cards were left on all the front doorknobs on George Street. They spoke of "Paint" (actually plaster, I'm told) that was poured down a storm drain as well as "Construction Debris" disposed of illegally.

The storm drain is in front of my house at 27 George Street.

Please be aware that there has quietly been construction underway for months across the street at 22/24 George Street, in the downstairs unit, owned by Gene Hashkes. The first floor unit is being expanded into the unfinished basement, which is being converted into additional bedrooms and a bath. There is NO PERMIT that is visible from the street, and NO DUMPSTER. About a week ago, I saw a shipment of drywall being delivered there, which would explain the plaster. (This owner once disposed of an asbestos furnace in the darkness of night, so this dumping is not surprising)

My across the street neighbor Ted Everett, 26/28 George (next to 22/24) told me that he was there when the EPA inspector came by this week, and saw her standing by the storm drain, talking with the people working at 22/24. He says he saw the workers and the owner pointing an accusing finger at the house of my next door neighbor, the Mattiolis, at 19 George Street. The Mattiolis have proper permits, and have for month been putting on an addition with no negative incidents. They have been using a dumpster for construction debris, and have not created problems in the months that project has been underway.

Please check on this. It is a crime to pour pollutants down a storm drain. This is not the first time Mr. Hashkes has done something like this, and we neighbors hope that this time you impose

**Maria P. Rose**

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**From:** Maria P. Rose  
**Sent:** Wednesday, December 14, 2016 3:17 PM  
**To:** 'Daphne Collins'  
**Subject:** RE: Drain on Eliot Ave (at corner of Waltham St)

Thank you, Daphne.

I informed the contractor to cease any dumping in our storm drains. I hope the message got through.

Maria

---

**From:** Daphne Collins [mailto: [REDACTED]@gmail.com]  
**Sent:** Wednesday, December 14, 2016 3:08 PM  
**To:** Maria P. Rose  
**Subject:** Drain on Eliot Ave (at corner of Waltham St)

Maria,  
Attached is drain photograph immediately after plaster employee pour white solution down drain and after I informed him that the drain was for rain water only as it discharges into the Charles River and I requested that he cease pouring the solution into the drain.  
Daphne M. Collins

