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4/27/17

NPDES Phase II Small MS4 General Permit Annual Report

Municipality/Organization: Town of Natick, Massachusetts
EPA NPDES Permit Number: MAR041139
MassDEP Transmittal Number: W-035570
Annual Report Number & Reporting Period: Report No. 14: May 1, 2016 – April 30, 2017

Part I. General Information

Contact Person: John Digiacoimo, P.E. **Title:** Assistant Town Engineer
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Mailing Address: 75 West Street, Natick, MA 01760

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: Martha White
Printed Name: Martha White
Title: Town Administrator
Date: April 13, 2017

Part II. Self-Assessment

The Town of Natick has completed the required self-assessment and has determined that our municipality is in substantial compliance with all permit conditions. Although we are not required to assess ourselves in regards to the BMP implementation, goals and schedule within this section, the Town would like to note that due to staffing and budgetary constraints during the stormwater management program, our plan of action had to be modified and schedules shifted. During that time, the Department of Public Works (the department responsible for the implementation of the NPDES Permit for the Town) lost their Stormwater Coordinator and numerous members of the Highway Department (one of the divisions tasked with assisting the Engineering Division with managing the program) and the positions were not filled (due to budget cuts). The duties of these positions were distributed to other personnel within the Department of Public Works and Community Development, but with the staffing and budgetary constraints, both departments are operating beyond their means. The Town of Natick is still committed to meeting all requirements of their permit, and believes that they have substantially completed all the required tasks set forth within the program.

Even with the budget cuts and staffing issues, the Natick Stormwater Committee has been pro-active in trying to ensure that all the scheduled tasks were completed by the end of the Permit and have gone as far as to revise their plans on multiple occasions during the life of the permit. Although many of the tasks were already completed prior to this report, continued implementation and upgrading has been a focus for the Town to make sure that they are remaining compliant with the scope and intent of the stormwater permit. Two such tasks are BMP 1-2 and 1-4 (Storm Water Flyer to Community Residents and Businesses respectively). Although these items were completed during previous years of the permit, the Town continues to make them available to the Natick Residents and Businesses. We are always looking for opportunities to further educate the residents of Natick on Stormwater and what they can do to help keep it clean.

Another task that the Town has been working and improving upon is BMP 2-5 (Storm Water Drain Marking Kits). The DPW has been working with local groups (including middle schools, watershed groups and local Eagle Scout candidates) on using the kits (as well as Storm Water Stencils) that the town has to help educate not only the people using them but also their friends and neighbors. The Town will continue to make these marking kits and stencils available for use by Natick Residents. BMP 6-3 (Investigate Town Owned BMP's for Retrofit Opportunities) is a task that the town is always trying to investigate. During the course of this permit, the town has spearheaded many drainage and roadway improvements projects in which structural BMP's have been incorporated. Presently, the Town will be starting the construction of the Cottage Street Drainage and Roadway Improvements Contract before the end of this permit and just began the design of the South Main Street Drainage and Roadway Improvements project (which is proposed to be constructed in 2018). Some of the BMP's (and green technology) that are incorporated into these projects were deep sump catch basins and hoods with the basins, detention basins, grassed swales and infiltration piping. It is important to note that on every new development, the Town requires developers to incorporate structural BMP's into their storm drainage designs. As a result of these improvements, local street flooding has diminished in many areas and the quality of the drainage discharge for these areas has improved.

The Town was very active in regards to locating and mapping our storm drainage system during the stormwater permit. The town was not only active in mapping the locations of our outfalls but also other drainage structures including pipes, catch basins, etc. (which was not required under this permit). These structures were located using GPS technology which has allowed the town to produce 40 scale drawings which the Town can use in cases of emergency or problems with the storm drainage system or to assist the Town in marking out the storm drains for contractors performing excavation work near the system. Knowing the locations of the storm drainage pipes and structures will minimize the likelihood that contractors will damage our storm drainage system during their excavation work thus protecting water bodies downstream.

As of the writing of this report, 505 outfalls have been identified in our system. This includes both town owned and maintained outfalls as well as outfalls in subdivisions that are not currently under the control of the Town but will ultimately be. Of the 505 outfalls, approximately 15 remain to be located using GPS. The locations of these outfalls are generally known; however due to terrain and safety issues, we are unable to locate these outfalls. We are still working to record the locations of these structures but it is unclear if this will be possible. 446 of the 505 outfalls have been fully inspected and entered into our database. The majority of the remaining 59 outfalls have been inspected during field location work; however follow-up detailed inspections and data entry into our database remain. It is important to note that there are many areas where the state drainage system discharges into the Town of Natick (Portions of Speen Street, Route 9, Mass Pike). Although GIS information on their system has been requested by the Town, the state has not given the Town any of this information. This is being mentioned to detail our concern that no matter how much work the Town performs to limit contaminants into our drainage system, there are other entities that are impacting our system beyond the town's control.

The town has also been very active in locating and inspecting culverts within the Town as well which is beyond the scope of this BMP, but it is the feeling of the Town that identifying the entire system as a whole (and all its components) is vitally important to ensuring that the system is managed and maintained in the best possible fashion. Presently 181 culvert inlets and 98 culvert outlets have been identified in our system. Of these, 173 of the 181 inlets and 96 of the 98 outlets have been fully inspected and entered into our database.

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 – Future Years
1-1	Website Modifications	Department of Public Works	Update Website with • New Info • New Contacts • New Links Continue monitoring the website to ensure that it is up to date and current including all links.	During Year 14 (as in past years), the Town's Stormwater Management Website was reviewed to ensure that the residents have a very user-friendly experience. Contact information and links were verified and new information was added and out of date information was removed from the site.	To ensure that this site is effective, it will be reviewed on a regular basis to make sure that information is current and that links are working. If new information is available that may be useful to residents, it will be included within the website. Goal Completed/Ongoing Implemented Program
1-2	Storm Water Flyer to Community Residents	Engineering Department	Distribute flyer to 75% of Natick Residents; Compile and Consider "Survey" results	The original flyer was created and distributed to residents during Year 1. During every subsequent year, the Town has been making these flyers available to town residents at the DPW, Town Hall and at the many Town Events where the Traveling Display has been displayed.	While it wasn't required, the Town has been looking into ways to update and create new storm water flyers for the residents. The town is committed to making sure that all the Town residents have access to as much of the storm water materials as possible. Goal Completed/Ongoing Implemented Program
1-3	Storm Water Lesson Plan for Fifth Grade Students	Engineering Department	Develop and Distribute lesson plan for Grade 5 level (Use plan to teach 1 or more Grade 5 classes)	Although no additional lesson plan work was performed during this year, the Town Engineer and Assistant Town Engineer utilized the existing lesson plan as well as some updated information to do a storm water presentation for one of the 4 th /5 th Grade classes at Lilja Elementary School which was very well received.	No future work is planned for this BMP. Goal Completed

1-4	Storm Water Flyer to Community Businesses	Engineering Department	Distribute flyer to a minimum of 50% of Natick Businesses, Storm Water Log displayed by half of the businesses receiving the flyer	The original flyer was created and distributed to businesses during Year 1. During every subsequent year, the Town has been making these flyers available to town businesses at the DPW, Town Hall and at the many Town Events where the Traveling Display has been displayed.	The town will keep these flyers available for whatever business or resident requests them and will continue to work with the residents and businesses of Natick to educate them about keeping their storm water clean. Goal Completed/Ongoing Implemented Program
1-5	Storm Water Media Campaign	Engineering Department	Deliver media information packet to the local media, Issue 4 press releases to local and major media outlets	No work performed on this BMP during Year 14. Informational packets were delivered to media (local and major) outlets during Year 3 of the permit.	No future work is planned for this BMP. Goal Completed
1-6	Storm Water Video	Engineering Department	Show Storm Water Video at a minimum of 1 public meeting, and air Storm Water Video at least once on the local cable channel	The Stormwater Infomercial that was developed during Year 5 of the program and showcased during Year 6 was still being shown on Natick Pegasus (The local access station). During Year 7, a new infomercial was also created and broadcast that dealt with Green and LID practices. These infomercials were still being aired on an occasional basis as recently as Year 14 of the permit.	The Town will continue to work with the local cable channel to ensure that these mini infomercials are being shown at certain timeframes. Goal Completed
Revised	Storm Water Infomercials	Engineering Department	Take postcards created under the revised BMP 2-7 and turn them into mini infomercials on the local cable channel to increase awareness of storm water issues both locally and in general		

2. Public Involvement and Participation

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 – Future Years
2-1	Storm Water Committee	Stormwater Committee	Establish a Stormwater Committee, Hold Quarterly meetings at a minimum	The Stormwater Committee was established during Year 1 of the permit. As was the case in previous years, the Stormwater Committee met during this past year (Year 14) of the permit.	The Stormwater Committee will continue to meet as regularly as possible to ensure that the storm water issues of the Town are being addressed and discussed. With the new permit to take effect July 1, 2017, the Town is working with our storm water consultant to determine if additional representation on the Committee is needed and will be beginning to work on implementing the requirements of the new Permit.
2-2	Community Hotline	Department of Public Works	Establish a Hotline; Residents Use Hotline and Phone calls indicating suspicious activities are investigated	During Year 14 of the permit, the hotline remained an important part of the Stormwater program. The Hotline phone numbers and email addresses of appropriate contacts in cases of flooding, illicit discharges and construction concerns were checked to ensure that they are active to allow resident to continue to report suspicious activity and storm water concerns.	Ongoing Implemented Program The Town will continue to monitor the hotline to determine the best possible way to ensure that residents can report suspicious activity in an effective way. If modifications need to be made to how this is done, the Town will update accordingly. Goal Completed
2-3	Stormwater Traveling Display	Department of Public Works	Storm Water Display circulates around Natick for at least 3 months; Display is Posted at a minimum of 3 different public locations; Posted in public places or at storm water events	The traveling display was purchased during Year 1 of the permit with an additional display being purchased during Year 4. Since its purchase the original display has been located primarily	The Town will continue bringing the stormwater display to town-wide events and other gatherings where it will be seen by a large number of residents at one time.

Revised		Stormwater Committee	Purchase Additional Traveling Display	at the Department of Public Works year round. During special events (Town Meeting, Storm Water events, etc), the additional display has been set for viewing by the residents or other attendees of the meeting. During Year 9, the Town worked with the SuAsCo Watershed Council to replace some of the panels on one of the displays that was starting to come apart.	Ongoing Implemented Program/ Goal Completed
2-4	Storm Water Poster Contest for 5 th Grade Students	Department of Public Works	Hold poster Contest, receive entries and judge submissions	No work was planned for this BMP during Year 14. Goal Completed	No future work is planned for this BMP. Goal Completed
2-5	Storm Water Photo Contest for High School Students	Department of Public Works	Hold Photo Contest, receive entries and judge submissions	This BMP was changed in Year 4 to be a storm drain marking kit. The kits were received in the end of Year 4 and were used by a couple groups (girl scouts) during Year 5 to help educate not only themselves but also their neighborhoods on not dumping anything down their catch basins. Additional groups (watershed groups, middle schools and Eagle Scouts) have inquired about the kits and they were used during Year 14 and will be used going forward.	The Stormwater Committee will continue to work to determine the best way to implement this task and get more community groups involved with this BMP. Goal Completed
Revised	<i>Storm Water Drain Marking Kit</i>	Department of Public Works	Install labels on approximately 200 catch basins		
2-6	Hold a Local Storm Water Summit	Stormwater Committee	Hold community storm water summit and advertise to encourage community attendance	No work performed for this BMP during Year 14. The summit was coordinated and held during Year 3 of the permit schedule.	Although this task was completed during Year 3, the town is always looking for opportunities to work with groups to educate them on stormwater management. Goal Completed

2-7	Participate in SuAsCo Storm Water Super Summit and Conduct an Evaluation and Assessment of Public Awareness of Storm Water	Engineering Department	Participate in Storm Water Super Summit; Storm Water Self Test distributed to a minimum of 75% of Natick residents, Compile and consider "Self Test" Results	During Year 6, the Town worked with SuAsCo to create postcards that focused on "Green" initiatives and what each resident could do. Also, a survey was created to test the resident's Stormwater IQ. During Year 7, these postcards were made available to all town residents as well as putting them on the town website so that residents can learn about green initiatives.	The Town will continue to work with SuAsCo and other organizations to come up with new and innovative ideas to educate the residents and businesses within Natick on stormwater and new technologies and ideas that can help people on an "every day basis" deal with stormwater. During Year 14, the practice of making the postcards available to residents at Town Hall and DPW continued.
Revised	Storm Water Postcards	Engineering Department	Create specially designed postcards and send them out via tax bills to all the residents in Natick		Ongoing Implemented Program/Goal Completed

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 – Future Years
3-1	Illicit Discharge Bylaw	Board of Health/ Engineering	Develop Illicit Discharge Bylaw and Present it to Town Meeting	No work was performed for this BMP during Year 14. The Department of Public Works and the Conservation Commission will work together to continue implementing the bylaws, rules, and regulations set forth as part of this BMP.	No work is planned for this BMP in the future. Goal Completed

3-2	Inspect and Sample Town Discharges	Engineering Department	Inspect all Town Discharges; Identify outfalls that indicate potential sewerage or illicit discharges; If Schedule and budget allows, conduct follow-up testing and inspection at discharges with the potential of illicit discharges and/or sewage contamination	The DPW has focused a large amount of resources on completing the inspection of all town outfalls. Budget constraints and loss of the storm water coordinator for the town have made it harder to complete, but the DPW personnel have been working hard to locate and inspect all the outfalls. As of the writing of this report, 446 of the 505 outfalls have been FULLY inspected and entered into our database. The remaining 59 have been inspected during field location work; however, follow-up detailed inspections and data entry remain.	The new permit from EPA is going to stress testing of the outfalls during both dry and wet weather (under certain conditions). The Town will use the information collected during the initial permit to assist us in better inspecting and analyzing the data collected during the next permit cycle.
3-3	System Mapping and Evaluation	Department of Public Works	Complete system map, structures, pipe databases and coverages; Locate all known discharges with GPS; Conduct Hydraulic modeling of flood prone areas; Add soils and land use to base mapping; Map septic system and provide pumping history	The Town has been very active in completing the mapping of our Storm Drainage system. During this permit, outfalls were located using GPS technology. Also, basins, manholes, culverts, etc were located. By doing this, the town can create 40 scale drawings which can be used by the DPW to locate the system in cases of emergency or it can be available to contractors to assist them in knowing the location of the storm drains during their projects which will limit the amount of damage they can do to the system. The remaining outfalls that have not been located using GPS or surveying may not be able to be located due to terrain and safety issues.	Ongoing Implemented Program It is the DPW's belief that all outfalls that CAN be located have been located. There are still outfalls that the Town is unable to locate due to field conditions and/or access (as previously mentioned). Hydraulic analysis/modeling of flood prone areas, using the drainage mapping will continue through the end of the permit. The new permit from the EPA stresses mapping of the entire drainage system. The Town is "ahead of the curve" in that task but will continue to work to cross reference our information to make sure our drainage information is as correct as possible. See Item 3-5 for additional info on septic system mapping Ongoing Implemented Program

3-4	Illegal Dumping Education	Stormwater Committee	Educate the public on the hazards of illegal dumping	In conjunction with the educational BMP's listed above, the Stormwater Committee has been continuing to educate the residents of Natick of the hazards of Illegal dumping. During Year 8, the Town put together a Pet Waste Disposal Standard Operating Procedures document for the residents of Natick. This SOP has been continued during Year 9, 10, 11, 12, 13 and 14 of the permit. As was the case in previous years, the Town will be holding a Household Hazardous Waste Day in early June to collect wastes from residents instead of illegal dumping occurring.	The town is going to continue its efforts of educating residents on the hazards of illegal dumping. This will be done by using all the materials that were obtained by the Town for Permit Years 1 through 14. The town will continue to stress the importance of not dumping illegal and hazardous materials into Natick's storm drain system. The DPW, Board of Health and the Town's Conservation Agent have worked with the Town Clerk's office to have the Pet Waste document available to all residents when they obtain a dog license. Goal Completed
3-5	Septic System Controls	Board of Health	Mandate Septic System Maintenance; Create database to track maintenance activities; Update database based on new septic system information	The septic system database is up and running, data entry has been completed; and the Board of Health has finalized the capabilities of the database reporting. This system is web based and residents/town personnel will have the ability to see if a house is on septic, check maintenance records and also be able to see any as-built plans that have been submitted for the septic systems.	The Board of Health will continue to update and improve the septic system maintenance database. This database along with already existing Septic System Regulations will help reduce system failures over time by assuring/ mandating system maintenance, effectively reducing the pollution and public health nuisances associated with such failures. Ongoing Implemented Program/Goal Completed

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 – Future Years
4-1	Soil and Erosion Control Bylaw	Conservation Agent/ Department of Public Works	Develop a Soil and Erosion Control Bylaw and present it to Town Meeting	No work performed for this BMP during Year 14. The Soil and Erosion Control Bylaw was created and approved by Town Meeting during Year 3 of the permit. During Years 4-14, the town began implementing this bylaw and has continued to work with the Conservation Commission to ensure that it is being followed during construction activities.	The Department of Public Works and the Conservation Commission will work together to continue implementing the bylaws, rules, and regulations set forth as part of this BMP. Goal Completed
4-2	Construction Inspections	Conservation Agent/Department of Public Works	Town Representative to inspect Construction Activities on Weekly Basis	During Year 14, as was the case in all previous years of the permit, the Town of Natick has been very active in inspecting construction activities within the Town. ALL construction sites in town are inspected and all departments (building, conservation, DPW, Board of Health) make this a priority and it will remain a top priority for the Town even after the conclusion of the EPA permit.	The Town will continue to monitor ALL construction activities within the Town of Natick. Ongoing Implemented Program

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

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 – Future Years
5-1	Bylaw for Post Construction Runoff	Conservation Agent/Department of Public Works	Develop a bylaw to limit runoff from post construction areas and present it to Town Meeting	No work performed for this BMP during Year 14. The Post Construction Runoff Bylaw was created and approved by Town Meeting during Year 3 of the permit. During Years 4 through 14, the town implemented this bylaw and has been working with the Conservation Commission and Building Department to ensure it is being followed during construction.	The Department of Public Works and the Conservation Commission will work together to continue implementing the bylaws, rules, and regulations set forth as part of this BMP. Goal Completed

5-2	BMP Inspection and Maintenance	Conservation Agent/Department of Public Works	Inspect all town maintained structural BMP's over a Two Year period; Document any problems with BMP and investigate possible modifications	During the inspections of the Town's outfalls, the town's BMP's have also been inspected and their condition noted.	Although this task is complete, the Town continues to make sure that the locations and conditions of their BMP's are noted and observed and if any new information is available to include it within the database. Goal Completed
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6. Pollution Prevention and Good Housekeeping in Municipal Operations

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 – Future Years
6-1	Catch Basin Cleaning	Highway Department	Clean 1/3 of all catch basins per year	Starting in early Spring 2017, a subcontractor will be commencing with the cleaning of all the catch basins within Natick. It is anticipated it will begin just before the end of Year 14 and be completed prior to the beginning of the new Stormwater Permit.	In February 2017, the town bid a 1 year catch basin cleaning contract that will run from April 1, 2017 through June 30, 2017. All catch basins (including town and school properties) are slated to be cleaned during the time. With the new permit taking effect on July 1 st , the Town wanted to have them all cleaned so that we had a proper benchmark to determine going forward the areas of higher need for cleaning. As the new permit gives the Town the flexibility to determine intervals based upon how full the basins are with debris and sediment, the Town felt it was important to start on a “level playing field” with all basins. Ongoing Implemented Program

6-2	Street Cleaning	Highway Department	Sweep all town owned streets and parking lots once per year; Sweep downtown areas once per month (Apr-Nov); Sweep Major Streets twice per year; Sweep Town Parking Lots twice per year; Document amount of collected debris; and BUD for Street Sweeping Material Collected	All town streets were swept at least once during Year 14 of the permit. Downtown streets were swept once per month (April to November) while major town streets as well as all town owned parking lots were swept twice per year. The amount of street sweepings and catch basin sediment that was collected was documented by the DPW.	The town will continue its yearly maintenance of the roadways by cleaning the streets per the schedule that was noted in the Year 9 description until new parameters are established under the new stormwater permit under consideration by EPA. The amount of sediment and debris collected will be documented as was the case in every other year of this permit. Ongoing Implemented Program
6-3	Investigate Town Owned BMP's for Retrofit Opportunities	Department of Public Works	Implement two retrofit projects (based on inspections conducted in BMP 5-2)	As noted in previous submittals, this BMP was completed during Permit Year 4 (ahead of the originally scheduled timeframe).	The Town is always looking for opportunities and places to install retrofit projects and will continue this endeavor in the future. The Town has begun the construction of the Cottage Street Roadway and Drainage Improvement project during Year 14 that incorporates structural BMP's (such as deep sump catch basins, hoods, etc) as well as Green/L.I.D. infrastructure. It is important to note that on every new development, the Town is requiring developers to incorporate structural BMPs into their storm drainage designs. As a result of these improvements, local street flooding was eliminated and the quality of the drainage discharge for these areas was improved as a result of the BMP's used. Goal Completed /Ongoing Implemented Program

6-4	Municipal Employee Training	Conservation Agent	Continue town's current practices	During Year 14 of the permit, the town will perform the required municipal employee training on two separate days April 19 th and April 26 th (before the end of the reporting year but after the submission of this report). Training will include: Learning about the revised General Notice of Intent, Storm Water Management BMP's and Hazardous Waste Management. New hires are trained in these areas within their first 30 days of employment.	The training of personnel is important and the Town will continue to be progressive in training its personnel on these very important issues. Ongoing Implemented Program
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6a. Additions

6-5	DPW – General Notice of Intent (GNOI)	Department of Public Works	File a NOI for Routine DPW Operations and Maintenance Activities	The DPW renewed the General Notice of Intent and submitted it for review and approval to the Natick Conservation Commission and DEP. During Year 14, the Conservation Commission, after review and approval from DEP, approved the GNOI and it has taken effect. The revised GNOI will allow for better communication and notification with the Conservation Agent.	The DPW will continue to work with the Conservation Commission (through the Conservation Agent) to implement this General Notice of Intent and modify as is deemed necessary. Goal Completed
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7. BMPs for Meeting Total Maximum Daily Load (TMDL) Waste Load Allocations (WLA)

Not applicable. TMDL's have not been developed for any of the water bodies in Natick.

Part IV. Summary of Information Collected and Analyzed

There is no information or data that was collected during Permit Year 14 that is not included elsewhere in this report.

Part V. Program Outputs & Accomplishments (OPTIONAL)

(Since beginning of permit coverage unless specified otherwise by a **, which indicates response is for period covering May 1, 2016 through April 30, 2017)

Programmatic

	(Preferred Units)	Response
Stormwater management position created/staffed	(y/n)	N
Annual program budget/expenditures **	(\$)	80,000
Total program expenditures since beginning of permit coverage (See Note A)	(\$)	Unknown
Funding mechanism(s) (General Fund, Enterprise, Utility, etc)		General

Note A: The annual stormwater program budget of \$80,000 covers only the costs for outside services. All other work performed was completed using Town personnel; equipment; and materials. These costs were not tracked.

Education, Involvement, and Training

Estimated number of property owners reached by education program(s)	(# or %)	Unknown
Stormwater management committee established	(y/n)	Y
Stream teams established or supported	(# or y/n)	Y
Shoreline clean-up participation or quantity of shoreline miles cleaned **	(y/n or mi.)	0
Shoreline cleaned since beginning of permit coverage	(mi.)	14
Household Hazardous Waste Collection Days		
▪ days sponsored ** (See Note B)	(#)	1
▪ community participation ** (See Note B)	(# or %)	210
▪ material collected ** (See Note B)	(tons or gal)	Unknown
School curricula implemented	(y/n)	N

Note B: The 2016 Hazardous Waste Collection Day was held on April 30, 2016 (just before the end of the Year 13 reporting cycle) and the 2017 Household Hazardous Waste Collection Day will be held on 06/10/17 (after the end of the Year 14 reporting cycle). We will not be able to report on the 2017 Collection Day as it will not occur prior to submission of this report. The values noted are for just the 2016 Collection Day which occurred just before the beginning of this reporting cycle and was not accounted for under the Year 13 report.

Legal/Regulatory

	In Place Prior to Phase II	Reviewing Existing Authorities	Drafted	Draft in Review	Adopted
Regulatory Mechanism Status (indicate with "X")					
▪ Illicit Discharge Detection & Elimination					X
▪ Erosion & Sediment Control					X
▪ Post-Development Stormwater Management					X
Accompanying Regulation Status (indicate with "X")					
▪ Illicit Discharge Detection & Elimination					X
▪ Erosion & Sediment Control					X
▪ Post-Development Stormwater Management					X

Mapping and Illicit Discharges

(Preferred Units) Response

Outfall mapping complete	(%)	98
Estimated or actual number of outfalls	(#)	505
System-Wide mapping complete (complete storm sewer infrastructure)	(%)	99
Mapping method(s)		
▪ Paper/Mylar	(%)	Yes
▪ CADD	(%)	Yes
▪ GIS	(%)	Yes
Outfalls inspected/screened **	(# or %)	0
Outfalls inspected/screened (Since beginning of permit coverage)	(# or %)	446
Illicit discharges identified **	(#)	0
Illicit discharges identified (Since beginning of permit coverage)	(#)	0
Illicit connections removed **	(#); and (est. gpd)	0
Illicit connections removed (Since beginning of permit coverage)	(#); and (est. gpd)	0
% of population on sewer	(%)	87
% of population on septic systems	(%)	13

Construction

	(Preferred Units)	Response
Number of construction starts (>1-acre) **	(#)	4
Estimated percentage of construction starts adequately regulated for erosion and sediment control **	(%)	100
Site inspections completed **	(# or %)	100
Tickets/Stop work orders issued **	(# or %)	3
Fines collected **	(# and \$)	0
Complaints/concerns received from public **	(#)	8

Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	100
Site inspections (for proper BMP installation & operation) completed **	(# or %)	100
BMP maintenance required through covenants, escrow, deed restrictions, etc.	(y/n)	Y
Low-impact development (LID) practices permitted and encouraged	(y/n)	Y

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets) **	(times/yr)	Once/3 years
Average frequency of catch basin cleaning (commercial/arterial or other critical streets) **	(times/yr)	Once/3 years
Qty of structures cleaned ** (See Note B)	(#)	1,215
Qty. of storm drain cleaned **	(LF)	2,700
Qty. of screenings/debris removed from storm sewer infrastructure **	(tons)	18
Disposal or use of screenings (landfill, POTW, compost, beneficial use, etc.) **	(location)	New Bedford

Basin Cleaning Costs

• Annual budget/expenditure (labor & equipment)**(See Note C)	(\$)	\$12,113.55
• Hourly or per basin contract rate ** (See Note C)	(\$ per basin)	\$9.97
• Disposal cost** (See Note C)	(\$)	6,742

Note C: Year 3 of the Basin Contract was completed in the summer of 2016 after the beginning of Year 14 of the Permit. The new 1 Year Catch Basin Cleaning Contract is scheduled to begin just before the end of Year 14 of the Permit and will be completed prior to the issuance of the new permit on July 1, 2017. All quantities and prices noted within this Report are for work done in Year 3 of the Catch Basin contract (Summer 2016).

Cleaning Equipment		
• Clam shell truck(s) owned/leased	(#)	1
• Vacuum truck(s) owned/leased	(#)	2
• Vacuum trucks specified in contracts	(y/n)	N
• % Structures cleaned with clam shells **	(%)	90
• % Structures cleaned with vactor **	(%)	10

	(Preferred Units)	Response
Average frequency of street sweeping (non-commercial/non-arterial streets) **	(times/yr)	1
Average frequency of street sweeping (commercial/arterial or other critical streets) **	(times/yr)	2
Qty. of sand/debris collected by sweeping **	(tons)	1,600
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.) **	(location)	New Bedford
Annual Sweeping Costs		
• Annual budget/expenditure (labor & equipment)**	(\$)	No Assigned Budget
• Hourly or lane mile contract rate **	(\$/hr. or ln mi.)	Not Calculated
• Disposal cost**	(\$)	27,300
Sweeping Equipment		
• Rotary brush street sweepers owned/leased	(#)	2
• Vacuum street sweepers owned/leased	(#)	0
• Vacuum street sweepers specified in contracts	(y/n)	N
• % Roads swept with rotary brush sweepers **	%	100
• % Roads swept with vacuum sweepers **	%	0

Reduction (since beginning of permit coverage) in application on public land of: ("N/A" = never used; "100%" = elimination)		
▪ Fertilizers	(lbs. or %)	0
▪ Herbicides	(lbs. or %)	0 – Rarely Used
▪ Pesticides	(lbs. or %)	0 – Rarely Used
Integrated Pest Management (IPM) Practices Implemented	(y/n)	Y

	(Preferred Units)	Response
Average Ratio of Anti-/De-Icing products used ** (also identify chemicals and ratios used in specific areas, e.g., water supply protection areas)	% NaCl % CaCl ₂ % MgCl ₂ % CMA % Kac % KCl % Sand	45% 5% 50%
Pre-wetting techniques utilized **	(y/n or %)	Y
Manual control spreaders used **	(y/n or %)	Y
Zero-velocity spreaders used **	(y/n or %)	N
Estimated net reduction or increase in typical year salt/chemical application rate** (See Note D)	(±lbs/ln mi. or %)	Approx 57% Increase from last year
Estimated net reduction or increase in typical year sand application rate ** (See Note D)	(±lbs/ln mi. or %)	Approx 12% Increase from last year
% of salt/chemical pile(s) covered in storage shed(s)	(%)	100
Storage shed(s) in design or under construction	(y/n or #)	N
100% of salt/chemical pile(s) covered in storage shed(s) by May 2008	(y/n)	Y

Water Supply Protection

Storm water outfalls to public water supplies eliminated or relocated	# or y/n	N
Installed or planned treatment BMPs for public drinking water supplies and their protection areas	# or y/n	N
• Treatment units induce infiltration within 500-feet of a wellhead protection area	# or y/n	N

Note D: The rate for sand and salt/chemical application increased over last year's total; however, it should be noted that last year (2015-2016) was a very mild and dry winter with below average snowfall while this year (2016-2017) was wetter and colder which meant more applications to ensure safe roads for the residents of Natick.