

Municipality/Organization: Town of Danvers, MA

EPA NPDES Permit Number: MA 041188

MaDEP Transmittal Number: W-040672

**Annual Report Number
& Reporting Period:** No. 15: April 2017-March 2018

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: Sharon Clement Title: DPW Program Engineer

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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: Steve Bartha

Title: Town Manager

Date: 4/26/2018

Part II. Self-Assessment

As of the end of Year 15, the Town has achieved all of the measurable goals for the BMPs selected in the 2003 Notice of Intent and those added in subsequent years to reflect unplanned stormwater activities by the Town.

Planned activities for the next permit term have not been designated unless a BMP under this permit term was not completed or is still in progress for completion. The Town will prepare and submit a Notice of Intent for compliance with new General Permit, which may change or replace some of these BMPs.

Part III. Summary of Minimum Control Measures

The following sections numbered 1 through 7 detail the Best Management Practices (BMP's) as outlined in the Notice of Intent submitted in July 2003 and as updated in the previous Annual Reports No. 1 through 14. Please note that the Town of Danvers is following the conditions of the existing permit until the new permit effective date of July 1, 2018. Asterisks (*) note those BMPs that have revised schedules.

1. Public Education and Outreach

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 16
1-1	Articles about SWMP in the “What’s in the Works” Newsletter	Public Works	Article sent to all residents Yrs. 2-15	“What’s in the Works” Newsletter included a section on Stormwater (Bag It Trash It) Fall 2017, (No Sand or Salt) Winter 2017 and (Street Sweeping) Spring 2018. The Newsletter also promoted town events which provided educational articles, brochures and cards with various advice for Stormwater Management to residents in Fall/Winter 2017. See BMP #1-5 and #1-6.	Plan to continue providing information on Stormwater Management through the newsletter based on the new permit requirements.

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1-2	Continue to educate dog owners about picking up waste	Board of Health	Fact sheet in annual dog registration mailing during Yrs. 2-15	<p>Leash Law is available on Public Health page on the Town of Danvers web-site along with stormwater facts on Public Works page. See BMP #1-9. The Town passes out a dog waste disposal brochure (Scoop It! from Greenscapes) when issuing dog licenses.</p> <p>Six dog waste stations are located in Endicott Park along with proper pet waste disposal signs.</p> <p>“Friends of Danvers Dog Park” opened a one-acre dog park at Endicott Park in Fall 2016. The Dog Park association is committed to picking up all dog waste at the dog park and has installed signage.</p> <p>Bag It Trash It topic is covered in “What’s in the Works” Fall 2017 Newsletter, Stormwater Direct Mail piece mailed in Spring 2017 to every household and through Facebook and Twitter posts. See BMP #1-1 & #1-8.</p> <p>Several social media posts (4-2017 and 10-2017) on both Facebook and Twitter reminded pet owners to scoop their pet’s poop.</p> <p>Distributed 50 Scoop the Poop fliers to residents with dogs at Rail Trail Halloween Parade 10-2017.</p>	Plan to continue offering information to pet owners and supplying information on website and social media based on the new permit requirements.
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1-3	Develop and offer education programs to schools	Public Works and Con Com.	Program developed and offered Yr. 5+	<p>The Danvers Public School education program includes a pilot grant from MADEP to incorporate recycling in all public schools. The public schools participate in the Green Team program sponsored by MADEP and EOEEA.</p> <p>All 5 Danvers Public Elementary Schools will engage in the Salem Sound CoastWatch, “Keeping Water Clean” program targeting 5th grade students.</p> <p><u>Elementary Schools scheduled:</u> Great Oak School - May 11th Highlands School – May 18th Riverside School – June 13th</p> <p>KWC Topics (stations):</p> <ol style="list-style-type: none"> 1. What is a watershed? 2. How does pollution travel under the ground? 3. How does water flow over land and carrying pollution with it? 4. Where does our dirty water go? 5. Where does our drinking water come from? 6. How does permeable pavement work? 	<p>Plan to continue working with the Middle School and High School to offer educational programs on stormwater based on the new permit requirements.</p> <p>Remaining 2 schools Smith and Thorpe will be scheduled between April-June 2018 with Greenscapes Coordinator.</p>
1-4	Annual update of SWMP at a Selectmen’s meeting	Public Works	Annual update of SWMP given	DPW provided updates in multiple previous years, but no update was given during Permit Year 15.	Once the new Permit is effective, DPW will once again update the Selectmen.

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1-5	Distribute educational materials	Public Works and Con. Com.	Distribution at annual events	<p>Continued availability and presentation of educational materials from Salem Sound CoastWatch Greenscapes at events including: Earth Day Recycling and Zero Waste Recycling Weekend at Danvers High School and Household Hazardous Waste Day at the Transfer Station.</p> <p>Greenscapes created a new Stormwater postcard May 2017</p> <p>Due to faulty storm drain markers, re-installed storm drain markers purchased from Almetek on Streets: Maple, Elm, Cherry, Sylvan, Holten, Alden, Pond, Peabody (downtown) and Forest in January-March 2018.</p> <p>The Danvers DPW also actively maintains a Twitter (from 624 followers in 2016 to 806 in 2017) and Facebook (from 2,256 in 2016 to 2,654 in 2018) page providing residents with information on Town Events, water conservation, hazardous waste disposal, and recycling. Social media metrics show Twitter growth of followers over prior year is 29% and Facebook growth of likes over prior year is 17%. For example, a “DYK: #WhyStormwaterMatters” campaign was posted on @DanversDPW Facebook & Twitter Dec 4-8 in 2017. April 2017 Danvers DPW retweeted Greenscapes “Think Blue Massachusetts” video.</p>	<p>Plan to continue purchasing, displaying and distributing educational materials at annual events based on the new permit requirements.</p> <p>Continue to build both traditional and social media marketing programs for Danvers DPW to keep residents informed about Stormwater topics.</p> <p>Continue to install storm drain markers on key streets in 5 phased installations. Ordered 1,500 total.</p> <p>Grow FB followers and Twitter likes over next year to grow educational influence for the Town of Danvers residents</p>
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				PSA recorded by DCAT for Household Hazardous Waste Day in September 2017 was posted on Facebook and Twitter.	Continue to record PSA on DCAT to educate the community on stormwater subjects.
1-6	Distribute “Greenscapes” educational materials	Public Works and Con. Com.	Distribution of educational materials	<p>Scoop It! postcards were distributed during the Earth Day Recycling Weekend (970) on May 5th and May 6th 2017 at the Danvers High School, September 23, 2017 Household Hazardous Waste Day (317), and “Rain and Snow are Clean” postcards at the Zero Waste Recycling Weekend (810) October 21st and 22rd 2017. See BMP #1-5.</p> <p>Greenscapes materials are available at both Town Hall DPW Office and the Library. Several Greenscapes brochures are available on www.danversma.gov under Public Works.</p>	Continue purchasing, displaying and distributing Greenscapes educational postcards and posters based on the new permit requirements.

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1-7	Sell rain barrels and compost bins.	Public Works	Sale of rain barrels and compost bins	<p>Rain barrels and compost bins were sold to the residents at a reduced rate. Availability and pricing is posted on the town web-site, “What’s In The Works” Newsletter and at DPW events.</p> <p>A total of 7 compost bins and 24 rain barrels were sold in Permit Year 15 at the DPW events.</p> <p>A total of 7 compost bins and 14 rain barrels were sold in Permit Year 15 at the DPW Garage.</p>	<p>Plan to continue to sell rain barrels and compost bins to residents at a reduced rate based on the new permit requirements.</p> <p>Assessing the option to provide a rebate to residents for rain barrel purchases at \$100 up to cost.</p>
1-8	Create and distribute a direct mail piece.	Public Works	Completed Years 9-10	BMP completed in years 9-10. An additional direct mail piece accompanied the Quarter 2 Water bills to residents for Permit Year 14-15 (Spring 2017 months Apr-May-June)	
1-9	Pet Waste News Splash	Board of Health	Article in local paper, Completed Years 9-11	BMP completed in years 9-11. Also see BMP #1-2 for related outreach.	

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1-10	Carry In / Carry Out Policy	Public Works	Posted Signs	<p>Signs were posted at all open space locations reminding residents of the Carry In /Carry Out policy of Danvers. This policy was created to reduce trash and encourage residents to have ownership of the potential pollutants in the Town. The policy is posted on www.danversma.gov under Danvers Recreation page.</p> <p>Created a new flier that lists the benefits to the Carry In/Carry Out policy and sent out to the Danvers Youth Sports organizations to forward to their memberships.</p>	

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 16
2-1	Form Stormwater Advisory Committee	Public Works, Con. Com., Planning, Health, Water/Sewer Commissioner	Committee formed Yr. 1, Meets twice annual thereafter	BMP complete in previous years. DPW staff met on Jan. 12 and May 31, 2017 to discuss ongoing stormwater program activities, and DPW regularly coordinated with other town departments.	Stormwater meeting was held on April 10, 2018 attended by Public Works and Engineering. Continue to convene the Stormwater Advisory Committee as necessary.

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2-2	Comply with State public notification guidelines	Town Clerk	Notices posted in Town Hall and Library	Posted notices.	
2-3	Provide stenciling materials	Public Works and Con. Com.	Materials provided Yr. 2	<p>Catch basin stenciling was not performed during Spring and Summer 2017 because the Danvers High School Environmental Club was discontinued due to school budget cuts. See BMP # 2-5 community services bulletin board.</p> <p>Purchased 1,500 Storm drain markers from Almetek however the product was flawed. Product was replaced by manufacturer. Storm drain markers were re-installed in Danvers downtown proper January 2018. Storm drain markers are in scripted with, “No Dumping * Drains to River.” Storm drain markers are metal, green outer ring and blue inner ring with a fish jumping out of the water.</p>	<p>Evaluating the feasibility of stenciling near Danvers parks for Spring 2018.</p> <p>Remaining storm drain markers will be installed in phases as weather improves in Spring 2018.</p>
2-4	Calendar Contest	Public Works	Printed Calendars	Fall of 2017, the sixth graders at the Holten-Richmond Middle School created a DPW Calendar which included some tips for managing stormwater (Months: April, June, September and October)	
2-5	Community Service Bulletin	Public Works	Bulletin Board Posting	High School students are required to do community service projects. Options to complete the volunteer requirement are posted on a school	

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				bulletin and on the DHS website. Danvers DPW submitted multiple postings regarding stormwater activities to this bulletin. Many high school students volunteered at Town events in Permit Year 15 with a total of 81.5 volunteer hours as of March 31, 2018.	
2-6	Sandy Beach clean up	Town/Salem Sound Coast Watch	Coordinate Annual Sandy Beach Clean-up	Clean-up was completed by the House of Correction Workers Spring 2017.	Continue to hold annual Sandy Beach clean-up.

3. Illicit Discharge Detection and Elimination

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3-1	Continue to conduct dry weather outfall screening	Public Works	Number of outfalls screened	Task completed as of 2004. Additional dry weather sampling was conducted in Summer 2010 and Fall 2011 for Town's MS4 outfalls. The Dry Weather Outfall Screening and Illicit Discharge Detection and Elimination Program Report summarize the findings of the 2010 and 2011 sampling. Danvers has complete mapping its MS4 system, identified priority areas for additional work, developed procedures for locating illicit discharges and performed an outfall inventory and dry weather screening (sampled , mapped and photographed) at all of their outfalls.	
3-2	Update mapping of stormwater outfalls	Public Works	Maps updated	The Town has completed mapping of outfalls and receiving waters as required in the 2003 General Permit. Danvers also completed a fly-over of the Town in the Fall of 2012, which produced improved impervious cover information. The Town updated the GIS-based mapping with drainage infrastructure recently installed or rehabilitated. Deployed iPads to Street Supervisor and Water Foreman. Completed delineation of catchment areas for all outfalls. Updated GIS Platform in year 13.	Plan to continue improving the town's GIS drainage mapping and data management based on the new permit requirements.

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3-3	Develop and implement plan to identify and remove illicit discharge	Public Works and Board of Health	Number of connections removed	<p>The IDDE Plan was finalized in February 2018 according to the 2016 requirements and includes an updated outfall inventory and prioritization, updated procedures for outfall investigations, updated drainage infrastructure mapping, and catchment delineations, and more.</p> <p><i>The Bylaws to Regulate Illicit Discharges to the Municipal Storm Drain System</i> was adopted in 2011 and the DPW serves as the enforcement agency.</p> <p>Town is beginning the final phase of sewer cleaning, CCTV and inspection work that will cover the North/West corridor of Town. Completing this area will finish the inspection work for the entire Town. We will now focus on starting back at the beginning and re-inspect all sewer mains.</p> <p>A spill response plan and procedure are in place and spills are tracked. The Spill Prevention Control and Countermeasure Plan for the DPW Yard was updated during Permit Year 11. See BMP # 6-9.</p>	<p>The sewer cleaning program is expected to continue into 2018 when we anticipate completing the CCTV and cleaning program to achieve 100% coverage of the town's system within the last 10 years. One additional round of sewer spot repairs will be undertaken before the Town will transition to comprehensive rehabilitation program for I/I control</p>

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3-4	Continue to enforce inspection of sewer connection bylaw	Public Works	Number of inspections made	Bylaw enforced. All sewer service connections are inspected by the Town prior to backfilling. Danvers permitted and inspected 32 new sewer connections.	Continue to enforce Bylaw that requires inspection of all new construction.
3-5	Implement employee educational program	Public Works	Annual training provided	IDDE Program training was conducted in previous years. In PY15, DPW staff attended the Snow and Ice Training Session called “Danvers Snow Fighters” which included proper garage and vehicle operations and equipment calibration. Training for the DPW Yard SPCC Plan was also conducted in PY 15.	

4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 16
4-1	ESC bylaw for construction sites >1 acre	Planning	Develop draft bylaw in Yr. 2, present to Town Meeting Yr. 3	At the May 2011 Town Meeting, Danvers adopted the Stormwater and Land disturbance Bylaw, and the regulations were approved in March of 2012. The Bylaw and regulations require erosion and sediment controls for all sites disturbing one acre or greater.	Continue to enforce bylaws.

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4-2	Require waste management plan	Board of Health	Plan developed for each construction site	In Permit Year 15 there were 17 solid waste complaints recorded by the Board of Health (BOH) where zero were sourced to construction sites. BOH continues to permit garbage haulers and require dumpster registrations.	Plan to send out permit applications for dumpsters based on the new permit requirements.
4-3	Review site plans for stormwater impacts	Planning, Public Works and Con Com.	Number of site plans reviewed	Planning Board approved 8 sites for stormwater related site plans.	Plan to review site plans for stormwater impacts based on the new permit requirements.
4-4	Provide public input for sites > 1 acre	Planning and Con. Com.	Number of public comment periods held	Planning Board approved 8 site plans that required a public hearing for new construction (not all projects were > 1 acre).	Town conforms to Town bylaws, Conservation Commission and Planning Board Zoning Bylaws
4-5	Inspection of erosion and sediment controls	Planning, Building Inspector, Public Works and Con. Com.	Ongoing	Various Town employees performed erosion and sediment control inspections as required by local Bylaws and Regulations (Wetlands Protection Bylaw, Stormwater and Land Disturbance Bylaw, Subdivision, and others.)	Continue to inspect construction sites based on the new permit requirements.

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 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 16
5-1	Develop bylaw to apply MA SW Policy to entire Town	Planning, Con. Com. and Public Works	Complete	At the May 2011 Annual Town Meeting, Danvers accepted the Stormwater and Land Disturbance Bylaw and the Bylaw to Regulate Illicit Discharges to the Municipal Storm Drain System. Regulations were approved by the Stormwater Authority at March 29, 2012 Public Hearing. The Bylaw requires that all land disturbing activities greater than 1 acre must obtain a stormwater management permit, meet performance standards, and implement a management plan, or face penalties.	
5-2	Specify SW BMP manual	Planning, Con. Com. and Public Works	BMP manual selected in Yr. 2	None, task completed in Year 1.	None, task complete.
5-3	Develop bylaw for maintenance of BMPs	Planning, Con. Com. and Public Works	Complete	Requirements for the long-term operation and maintenance of BMPs were included in the Stormwater and Land Disturbance Bylaw and Regulations. See BMP # 5-1. During Permit Year 11, the Stormwater Management Permit application was revised to highlight the owner's responsibilities for maintenance and inspection reporting.	Continue to monitor and enforce operation and maintenance of private BMPs.

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 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 16
6-1	Update sensitive receptor inventory	Con. Com.	Updated inventory	None, task completed in Year 1.	
6-2	Street Sweeping	Public Works	Sweep streets annually	Swept all streets starting in spring 2017 and continued through first deicing event. Main streets are swept 4 times a year from spring to winter and Maple Street (downtown) is swept every day. All records were maintained.	Plan to sweep all streets in the spring (multiple times) based on the new permit requirements.
6-3	Roadway deicing	Public Works	Continue to calibrate equipment annually	Calibrated snow removal & deice equipment during Fall 2017. Held Annual driver training day in November 2017 in preparation for the winter season. Staff was educated and reminded of salting application procedures during Snow and Ice training.	Continue vehicle washing practices to minimize pollutant runoff.

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6-4	Minimize impacts from vehicle washing	Public Works	Maintain vehicle washing controls	<p>Continued to use commercial car wash for small vehicles or wash vehicles in the designated station at the DPW garage.</p> <p>In the fall of 2013 a car wash station was constructed at the DPW yard. The station will capture all truck washing run-off and sediments/salts and direct the flow to a deep sump catch basin, then to an oil/grease separator, then to the sewer system.</p> <p>In the process of constructing a Catwalk over the Vehicle Wash Bay, therefore DPW can clean salt and dirt effectively off of town equipment.</p>	Plan to control vehicle washing practices and procedures based on the new permit requirements.
6-5	Minimize vehicle maintenance	Public Works	Continue to perform maintenance in garage	<p>Conducted vehicle maintenance inside the DPW garage. Town purchased and operates a waste oil heating system to further reduce volume of waste oil. Maintained materials inventory.</p> <p>DPW Garage has implemented a new software program (CFA) for Vehicle Maintenance that will interface with the current Fuel Management System to keep track of PM service electronically.</p>	Plan to continue vehicle maintenance inside the DPW garage, and maintain materials inventory based on the new permit requirements.

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6-6	Storm Drain maintenance	Public Works	Number of catch basins cleaned each year	Town hired contractor to clean and remove debris from approximately 1,200 of Town's catch basins and drain pipes as necessary. Company had equipment issues fall 2017 and was unable to complete the work.	Plan to renew/rebid contractor services to clean and remove debris from the Town's catch basins and keep records based on new permit requirements.
6-7	Park and landscape maintenance	Public Works – Parks Division	Amount of herbicides / fertilizers used	<p>Followed Integrated Pesticide Management (IPM) for park maintenance procedures. Practiced green landscaping using integrated pesticide/herbicide management and products that were EPA approved and in accordance with the Massachusetts Children and Families Protection Act. Kept maintenance records.</p> <p>Girl Scout planted an insect repellent garden at Gates Field (soccer fields) for her Gold Award August 2015, garden has been maintained through to 2018.</p>	
6-8	Stormwater Infrastructure Clean-up	Public Works	Culverts and outfalls cleaned	No Culvert work performed in period 15. Frost Brook (FFB) embankment stabilization project was completed Spring 2017. Phase II/III preliminary survey for restoring the upper reaches of the FFB are starting Spring 2018.	Continue drainage system maintenance based on the new permit requirements.

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6-9 (added)	Good Housekeeping and Pollution Prevention Program	Public Works	Develop written program according to re-issued General Permit	<p>In Permit Year 12, the Town-wide Good Housekeeping Plan was updated, including an inventory of Town facilities and activities and pollution prevention BMPs. The DPW Yard SWPPP was also developed.</p> <p>On April 17, 2014, Engineering and DPW staff received hands-on training during a DPW Yard site walk with their consultant to identify potential pollutant sources and possible illicit discharges to address in the DPW Yard Stormwater Pollution Prevention Plan.</p>	Update the Good housekeeping Plan and DPW Yard SWPPP (if necessary) based on new permit requirements.

7. BMPs for Meeting Total Maximum Daily Load (TMDL) Waste Load Allocations (WLA)

“The Town of Danvers’ MS4 discharges to North Coastal Watershed which has an approved Final TMDL for pathogens. Because pathogens are likely to be found in the stormwater discharges from the Town’s MS4 system, the Stormwater Management Program includes BMPs that address pathogen pollution prevention.

The Town of Danvers has implemented numerous efforts towards reducing pathogen WLA as reported in the above annual report.

To address the WLA for Illicit discharges to the storm drain and possible leaking sanitary sewer lines, the Town has implemented the following BMPs under the Illicit Discharge Detection and Elimination Minimum Control Measures:

- Completed dry weather screening in 2004 (BMP 3-1)
- Update mapping of stormwater outfalls (BMP 3-2)
- Prepared written IDDE Plan per 2016 General Permit requirements (BMP 3-3)
- Continue to enforce inspection of sewer connection by-law (BMP 3-4)
- Implement employee educational program, which included training on spill protections and response (BMP 3-5)
- Develop bylaw to apply MA SW Policy to entire Town, including illicit discharge bylaw (BMP 5-1)

To address the WLA for stormwater runoff subject to Danvers’ NPDES Phase II permit, the Town has implemented the following BMPs in the Stormwater Management Program:

- Continue to educate dog owners about picking up waste, including providing 4 dog waste stations at Endicott Park (BMP 1-2)
- Distribute educational materials (BMP 1-5)
- Pet Waste News Splash (BMP 1-9)
- Carry In/ Carry Out Policy (BMP 1-10)
- Require waste management plan for each construction site (BMP 4-2)
- Street sweeping and Storm drain maintenance to prevent debris from entering waterbodies (BMPs 6-2 and 6-6)
- Good Housekeeping and Pollution Prevention Program draft was written for clarity of responsibilities and goals regarding. Numerous activities included to prevent pathogen pollution (BMP 6-9).

Part IV. Summary of Information Collected and Analyzed

Reports summarizing outfall investigations are available in the Engineering Department.

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic

	(Preferred Units)	Response
Stormwater management position created/staffed	(y/n)	Y
Annual program budget/expenditures	(\$)	
Total Program Expenditures since beginning of permit coverage		
Funding mechanism(s) (General Fund, Enterprise, Utility, ect.)		General/Sewer Enterprise

Education, Involvement, and Training

	(Preferred Units)	Response
Estimated number of residents reached by education program(s)	(# or %)	100%
Stormwater management committee established	(y/n)	Y
Stream teams established or supported	(# or y/n)	N
Shoreline clean-up participation or quantity of shoreline miles cleaned	(y/n or mi.)	Y
Shoreline cleaned since beginning of permit coverage	(mi.)	0.25 mi
Household Hazardous Waste Collection Days		
▪ days sponsored	(#)	1
▪ community participation	(#)	317
▪ material collected	(tons or gal)	9.046 tons
School curricula implemented	(y/n)	Y

Legal/Regulatory

	In Place Prior to Phase II	Under Review	Drafted	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	(%)	100%
Estimated or actual number of outfalls	(#)	343
System-Wide mapping complete	(%)	100%
Mapping method(s)		
▪ Paper/Mylar	(%)	95%
▪ CADD	(%)	1%
▪ GIS	(%)	100%
Outfalls inspected/screened	(# or %)	
Outfalls inspected/screened (Since beginning of permit coverage)	(# or %)	300
Illicit discharges identified	(#)	1
Illicit discharges identified (Since beginning of permit coverage)	(#)	1
Illicit connections removed	(#) (est. gpd)	0
Illicit connections removed (Since beginning of permit coverage)	(#) (est. gpd)	0
% of population on sewer	(%)	99%
% of population on septic systems	(%)	<1%

Construction

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

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, ect	(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)	1
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	(times/yr)	1
Qty. of structures cleaned	(#)	
Qty. of storm drain cleaned	(%, LF or mi.)	%
Qty. of screenings/debris removed from storm sewer infrastructure	(lbs. or tons)	
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)	(location)	Landfill
Basin Cleaning Costs		
<ul style="list-style-type: none"> Annual budget/expenditure (labor & equipment) 	(\$)	\$
<ul style="list-style-type: none"> Hourly or per basin contract rate 	(\$/hr or \$ per basin)	\$
<ul style="list-style-type: none"> Disposal cost (included in contract rate) 	(\$)	

Cleaning Equipment		
• Clam shell truck(s) owned/leased	(#)	1
• Vacuum truck(s) owned/leased	(#)	1
• Vacuum trucks specified in contracts	(#)	0
• % Structures cleaned with clam shells	(%)	100%
• % Structures cleaned with vactor	(%)	0%

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)	4
Qty. of sand/debris collected by sweeping	(lbs. or tons)	400 tons
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	Landfill
Annual Sweeping Costs		
• Annual budget/expenditure (labor & equipment)	(\$)	
• Hourly or lane mile contract rate	(\$/hr or \$ per ln mi)	
• Disposal cost	(\$)	\$13,600
Sweeping Equipment		
• Rotary brush street sweepers owned/leased	(#)	1
• 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 in application on public land of: ("N/A" = never used; "100%" = elimination)		
▪ Fertilizers	(lbs. or %)	0
▪ Herbicides	(lbs. or %)	0
▪ Pesticides	(lbs. or %)	0

Integrated Pest Management (IPM) Practices Implemented	(y/n)	Y
Anti-/De-Icing products and ratios	% NaCl % CaCl ₂ % MgCl ₂ % CMA % Kac % KCl % Sand	100% NaCl
Pre-wetting techniques utilized	(y/n)	Y
Manual control spreaders used	(y/n)	0
Automatic or Zero-velocity spreaders used	(y/n)	8
Estimated net reduction or increase in typical year salt/chemical application rate Town of Danvers: When temperature below 25°, pretreated roads with 4,650 gallons of MgCl₂	(±lbs./ln mi or %)	-0.0038% NaCl (tons)
Estimated net reduction or increase in typical year sand application rate	(±lbs./ln mi or %)	0
% 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

Stormwater outfalls to public water supplies eliminated or relocated	# or y/n	0
Installed or planned treatment BMPs for public drinking water supplies and their protection areas	# or y/n	0
Treatment units induce infiltration within 500-feet of a wellhead protection area	# or y/n	0