

Municipality/Organization: Town of Danvers, MA
EPA NPDES Permit Number: MA 041188
MaDEP Transmittal Number: W-040672
**Annual Report Number
& Reporting Period:** **No. 14: April 2016-March 2017**

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: Sharon Clement Title: DPW Program Engineer
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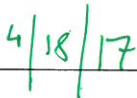
Certification:

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: 

Part II. Self-Assessment

As of the end of Year 14, 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 2016 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 13. Please note that the Town of Danvers is following the conditions of the existing permit until the new permit effective date of July 1, 2017. 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 14 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 15
1-1	Articles about SWMP in the “What’s in the Works” Newsletter (Newsletter was formerly called “Light Touch”)	Public Works	Article sent to all residents Yrs. 2-14	“What’s in the Works” Newsletter included a section on Stormwater Spring 2017 and promoted town events which provided educational articles, brochures and cards with various advice for Stormwater Management to residents in Fall/Winter 2016. 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. 2-14	Pet Owner's Manual 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. Four dog waste stations are located in Endicott Park along with proper pet waste disposal signs. New Dog Park opened in Fall 2016 at Endicott Park. Rented "Goats To Go" to remove poison ivy from dog park. Scoop Your Poop topic is covered in "What's in the Works" Spring 2017 Newsletter, Stormwater Direct Mail piece and through Facebook and Twitter posts. See BMP #1-1 & #1-8. Several social media posts (5-2016 and 10-2016) on both Facebook and Twitter reminded pet owners to scoop their pet's poop.	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+	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. Lori Watson at Salem Sound CoastWatch presented their “Keeping Water Clean” program to the 5th grade class at Highland schools on Tuesday, January 10th at 9:00 AM. Topics (stations): 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?	Plan to continue working with the Middle School and High School to offer educational programs on stormwater based on the new permit requirements.
1-4	Annual update of SWMP at a Selectmen’s meeting	Public Works	Annual update of SWMP given	No update was given during Permit Year 14.	

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1-5	Distribute educational materials	Public Works and Con. Com.	Distribution at annual events	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. Installed 40 storm drain markers purchased from Almetek on Maple Street & Forest Street in January 2017. The Danvers DPW also actively maintains a Twitter (from 285 followers in 2014 to 403 followers in 2015 to 624 in 2016) and Facebook (from 910 likes in 2014 to 1,512 likes in 2015 to 2,256 in 2016) 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 55% and Facebook growth of likes over prior year is 49%. For example, a “Clear your storm drain” was posted on Facebook Dec 2016. PSA was recorded on DCAT for Household Hazardous Waste Day in September 2016.	Plan to continue purchasing, displaying and distributing educational materials at annual events based on the new permit requirements. Continue to build both traditional and social media marketing programs for Danvers DPW to keep residents informed about Stormwater topics. Continue to install storm drain markers on key streets in phased installations. Ordered 1,500 total. Grow FB followers and Twitter likes over next year to grow educational influence for the Town of Danvers Continue to record PSA on DCAT to educate the community on stormwater subjects.
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1-6	Distribute “Greenscapes” educational materials	Public Works and Con. Com.	Distribution of educational materials	Stormwater Matters postcards were distributed during the Earth Day Recycling Weekend (750) on May 14th and May 15th 2016 at the Danvers High School, September 17, 2016 Household Hazardous Waste Day (350), and Zero Waste Recycling Weekend (750+) October 22nd and 23rd 2016. See BMP #1-5. Greenscapes materials are available at both Town Hall DPW Office and the Library. Several Greenscapes brochures are available on www.danversma.gov, Public Works page under current news and Information.	Continue purchasing, displaying and distributing Greenscapes educational postcards and posters based on the new permit requirements.
1-7	Sell rain barrels and compost bins.	Public Works	Sale of rain barrels and compost bins	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. A total of 15 compost bins and 66 rain barrels were sold in Permit Year 14 at the DPW events. A total of 9 compost bins and 23 rain barrels were sold in Permit Year 14 at the DPW Garage.	Plan to continue to sell rain barrels and compost bins to residents at a reduced rate based on the new permit requirements.

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1-8	Create and distribute a direct mail piece.	Public Works	Completed Years 9-10	An additional direct mail piece accompanied the Quarter 2 Water bills to residents for Permit Year 14 (Spring 2017) which falls into this reporting year and next.	Mail insert will cycle through 3 months of water bills and therefore extend into Permit Year 15.
1-9	Pet Waste News Splash	Board of Health	Article in local paper, Completed Years 9-11	“Friends of Danvers Dog Park” opened a one acre dog park Fall 2016. The Dog Park association has committed to picking up all dog waste at the new dog park. Also see BMP #1-2.	Plan to develop signage for the dog park.
1-10	Carry In / Carry Out Policy	Public Works	Posted Signs	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. 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.	

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 – Permit Year 15
2-1	Form Stormwater Advisory Committee	Public Works, Con. Com., Planning, Health, Water/Sewer Commissioner	Committee formed Yr. 1, Meets twice annual thereafter	Stormwater advisory committee meeting was held on January 12, 2017 attended by Public Works and Engineering.	
2-2	Comply with State public notification guidelines	Town Clerk	Notices posted in Town Hall and Library	Posted notices.	Plan to continue posting notices based on the new permit requirements.
2-3	Provide stenciling materials	Public Works and Con. Com.	Materials provided Yr. 2	Catch basin stenciling was not performed during Spring and Summer 2016 because the Danvers High School Environmental Club was discontinued due to school budget cuts. See BMP # 2-5 community services bulletin board. Purchased 1,500 Storm drain markers from Almetek and will install throughout town in phases. Forty storm drain markers were installed in Danvers downtown proper January 2017. 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.	Remaining storm drain markers will be installed in phases as weather improves in Spring 2017.

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2-4	Calendar Contest	Public Works	Printed Calendars	Fall of 2016, 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 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 14 with a total of 100.5 volunteer hours as of March 31, 2017.	
2-6	Sandy Beach clean up	Town/Salem Sound Coast Watch	Coordinate Annual Sandy Beach Clean-up	There was no High School community service event this year. However clean- up was completed by the House of Correction workers Spring 2016.	Continue to hold annual Sandy Beach clean-up.

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	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 300 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.

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
3-3	Develop and implement plan to identify and remove illicit discharge	Public Works and Board of Health	Number of connections removed	The <i>Bylaws to Regulate Illicit Discharges to the Municipal Storm Drain System</i> was adopted in 2011 and the DPW serves as the enforcement agency. The town has continued its spot repair program, completing nearly \$808,000 worth of dig and replace spot repairs and cured in place pipe (CIPP) lining in various locations to address severe sewer defects. 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.	IDDE plan update is in progress to meet the new permit requirements. The sewer cleaning program is expected to continue into 2017 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
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 12 new sewer connections.	Continue to enforce Bylaw that requires inspection of all new construction.

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3-5	Implement employee educational program	Public Works	Annual training provided	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 was conducted in Permit Year 14. DPW and Engineering attended the “Creating a Revenue Stream for Stormwater Management” hosted by Baystate Roads on April 26, 2016.	

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	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.
4-2	Require waste management plan	Board of Health	Plan developed for each construction site	In Permit Year 14 there were 20 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 9 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 9 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

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
4-5	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 14 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 15
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.	

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
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 14 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 15
6-1	Update sensitive receptor inventory	Con. Com.	Updated inventory	None, task completed in Year 1.	

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6-2	Street Sweeping	Public Works	Sweep streets annually	Swept all streets starting in spring 2016 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 equipment during Fall 2016. Held Annual driver training day in November 2016 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.
6-4	Minimize impacts from vehicle washing	Public Works	Maintain vehicle washing controls	Continued to use commercial car wash for small vehicles or wash vehicles in the designated station at the DPW garage. 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.	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	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.	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 1,201 of Town's catch basins and drain pipes as necessary.	Plan to continue to use a contractor 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	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. Girl Scout planted an insect repellent garden at Gates Field (soccer fields) for her Gold Award August 2015, garden has been maintained throughout 2016.	
6-8	Stormwater Infrastructure Clean-up	Public Works	Culverts and outfalls cleaned	No Culvert work performed in period 14. In October 2016, initiated an embankment stabilization project on Frost Fish Brook scheduled to be complete Spring 2017.	Continue drainage system maintenance based on the new permit requirements.

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
6-9 (added)	Good Housekeeping and Pollution Prevention Program	Public Works	Develop written program according to re-issued General Permit	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. 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.	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)
- Developed and implemented a plan to identify and remove illicit discharges, including sewer spot repairs (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

Not applicable.

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 %)	19,300
Stormwater management committee established	(y/n)	Y

Stream teams established or supported	(# or y/n)	0
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	(#)	274
▪ material collected	(tons or gal)	7.55 tons
School curricula implemented	(y/n)	N

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	(#)	300
System-Wide mapping complete	(%)	100%
Mapping method(s)		
▪ Paper/Mylar	(%)	95%

▪ CADD	(%)	1%
▪ GIS	(%)	100%
Outfalls inspected/screened	(# or %)	300
Outfalls inspected/screened (Since beginning of permit coverage)	(# or %)	100%
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)	(#)	9
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	(#)	1,201
Qty. of storm drain cleaned	(%, LF or mi.)	33%
Qty. of screenings/debris removed from storm sewer infrastructure	(lbs. or tons)	151.95 tons
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)	(location)	Landfill
Basin Cleaning Costs		
• Annual budget/expenditure (labor & equipment)	(\$)	\$29,880
• Hourly or per basin contract rate	(\$/hr or \$ per basin)	\$
• 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)	327.07 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	(\$)	\$11,776.52
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	95% NaCl 5%CaCl ₂
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: Period 13 number of events = 13, Period 14 number of events = 21 or +64% inches of snow over prior year (37.5 in. to 61.5 in.)	(±lbs./ln mi or %)	+9.9% NaCl (tons) -26.6% CaCl ₂ (gallons)
Estimated net reduction or increase in typical year sand application rate	(±lbs./ln mi	0

	or %)	
% of salt/chemical pile(s) covered in storage shed(s)	(%)	100%
Storage shed(s) in design or under construction	(y/n or #)	1
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