

Municipality/Organization: Town of Hingham, MA

EPA NPDES Permit Number: MAR041038

MADEP Transmittal Number: W-041003

**Annual Report Number
& Reporting Period:** No. 14: May 1, 2016 -April 30, 2017

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: Randy Sylvester

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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: Ted Alexiades

Title: Town Administrator

Date: 4/28/17

Part II. Self-Assessment

The Town of Hingham has completed the required self-assessment of the annual compliance review for the Phase II Stormwater Program and has determined that our municipality is in compliance with all permit conditions.

The Town would like to note the following additional activities and progress during the Year 14 reporting period:

- The Town was previously awarded a grant for a feasibility study and preliminary design project for Walton Cove in Hingham Harbor to address stormwater pollutants. In Permit Year 14, two stormwater rain garden designs were permitted by the Conservation Commission. Construction is planned within the next three years, pending the availability of funding.
- As discussed in the Year 13 annual report, the Hingham Climate Change Vulnerability, Risk Assessment and Adaptation Study was completed. The study identified vulnerable municipal infrastructure and facilities that are likely to be affected by sea level rise and climate change. Assessment of the Sewer Department infrastructure continued based on the recommendations of the report.
- A beach restoration and revetment wall project was completed in Year 14 at Bathing Beach. The project included restoration of sand dunes and native plantings. A sand management plan was developed for Bathing Beach.
- The “Bottle and Can Program” funded 4 cleanups in Town during the permit year:
 - Volunteers performed a cleanup at Bathing Beach
 - Triphammer Pond cleanup
 - More-Brewer Woods cleanup
 - Bear Cove Park cleanup
 - All cleanups included:
 - Trail cleanup
 - Maintenance of trails and foot bridges
 - The cleanup at Bear Cove Park also included the installation of information kiosks at the walking trails. The kiosks were funded by a grant.
- 3 organized groups did environmental and stormwater-related projects during Permit Year 14:
 - 4/14/17 – 60 Hingham High School students did a cleanup of the Bathing Beach
 - 6/10/16 – Hingham High School Rowing Team participated in the Hingham Harbor Clean Up
 - 5/14/2016 – Girl Scout Troop 86071 did a cleanup of an island at Bare Cove Park
 - 7/9/2016 – The South School PTO did a field cleanup at South School
 - 4/1/2017 – The Hingham High School Green Association cleaned the HS grounds, planted flowers, and sifted compost
 - 10/1/2016 – The Hingham High School Class of 2017 did a 4+ hour cleanup at Bare Cove Park
 - 11/13/16 - The Old Ship Youth Group did a cleanup of the More-Brewer Woods Trail
 - 1/28/17 – The HMPA Hingham Music Parents did a trash pickup at Bare Cove Park

- 6/5/16 – Girls Learn International did a cleanup at Bare Cove Park
- 4/8/17 – Hingham High School Class of 2019 did a cleanup at Bare Cove Park
- 4/13/17 – the Hingham High School Senior class organized “Harbormen Helping Hingham” which involved a cleanup of Hingham Harbor

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	Planned Activities – Next Permit Term
1A	Distribute Brochures and Fact Sheets to Businesses & Residents	Department of Public Works (DPW)	Copies of materials.	Stormwater educational materials were made available to the public at the Town Hall and Town Public Library.	Continue to discuss the Phase II Program at Town Department coordination meetings.
Revised				The Conservation Commission maintained the stormwater display at the Town Hall. The Phase II program was discussed at Town Department coordination meetings on a quarterly basis.	Continue to make copies of handouts and brochures available at public facilities and track the number distributed. Maintain the stormwater display at public places and consider updating the content/messages.
1B	Send Out Stormwater Press Releases	DPW	Copies of articles.	A flyer was mailed to all residents advertising the 2016 Household Hazardous Waste Collection (HHWC) Day on May 21, 2016 ¹ . This was also announced and promoted on the stormwater webpage.	Continue to submit one press release (or website announcement) in the Fall and one in the Spring to highlight the ongoing stormwater activities led by the Town and others and to promote the stormwater hotline.
Revised				Press releases highlighting ongoing stormwater activities and promoting the stormwater hotline are mainly done through the website. Copies of the stormwater video “Reigning in the Storm” are still available for borrowing through the Public Library. The stormwater hotline was published in the newspaper, flyers, and on the Town website.	Continue to promote the HHWC and continue to evaluate effectiveness of promotion methods.
¹ The collection event is also advertised at the Hingham Transfer Station with flyers, in newspaper publications, on the DPW section of the Town website and through local cable broadcasts. The information outlines proper practices for disposal of wastes to help prevent dumping.					

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 14	Planned Activities – Next Permit Term
1C	Develop Stormwater Section of Town Website	DPW and Town Website Manager(s)	Measure number of hits annually.	Tips for pollution prevention, the stormwater hotline and a link to a US EPA stormwater web page were posted on the DPW web page. The web page was update with new stormwater tips every quarter, which were also advertised on the cable channel continuously. The stormwater hotline was included with the stormwater tips when televised on the cable channel.	Update and expand Town website as the Phase II program changes and additional information becomes available. Ensure links to USEPA and other agencies and groups are maintained and updated.
Revised					
1D	Create a Stormwater Educational Display	Conservation Commission	Track quantity of take home materials taken quarterly.	The educational display was maintained at the Conservation Commission office in Town Hall. No handouts were taken by residents in Permit Year 14. On Sept. 16, 2016 there was a public information session on stormwater management at the Town Hall presented by the South Shore Coalition. The Waste Committee includes information regarding hazardous waste on the local cable channel. Stormwater tips were also advertised on the local cable channel. The Town obtained a grant and installed educational kiosks at trails and conservation areas for Bare Cove Park.	Continue to exhibit and update stormwater display materials at public facilities and track quantities of take home material distributed. Evaluate ways to improve public interest and exposure to materials, such as adding display locations.
Revised					
1E	Develop and Broadcast Stormwater Presentation on Local Cable Network	DPW and Town Officials	Cable TV tapes of presentations. Show annually during permit term.	The household hazardous waste collection days were broadcast weekly on cable prior to the event and on the Town website. Beginning in February 2011, DPW began running stormwater educational tips on the local cable network. The topic was changed multiple times throughout the year.	Continue to broadcast the stormwater videos, appropriate stormwater-related Selectmen's meetings, announcements events and other stormwater-related advertisements.
Revised	Broadcast the Progress of the Phase II Program w/ Selectmen Meetings		Use of EPA video & broadcast of Town Selectmen Meetings		

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 14	Planned Activities – Next Permit Term
1F	Establish a Program for Free Stormwater Video Rentals	DPW and Planning Board	Track video rentals annually.	Two copies of the EPA video “After the Storm” and a copy of “Reigning in the Storm” were advertised on the Town website and made available at the Town public library for rental. No rentals occurred during the permit year.	Continue to offer the videos “After the Storm” and “Reigning in the Storm” at the Town public library for loan. Continue to advertise the video’s availability on the Town website and cable channel. Coordinate with the elementary schools to promote the use of the videos in their curriculum.
Revised					

1a. Additions – None at this time

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 14	Planned Activities – Next Permit Term
2A	Establish a Stormwater Telephone Hotline	DPW and Town Website Manager(s)	Record number of phone calls to hotline, copies of advertisements.	The hotline number is provided on the Town website. Three calls were received during this permit year and all issues were addressed.	Calls will continue to be tracked with records of follow-up actions.
Revised		Local Emergency Planner		Stormwater-related calls are made to the Fire Department and DPW.	Continue to explore ways to further promote the stormwater hotline.
2B	Mark Storm Drains with Buttons or Stencils	DPW and Volunteers	50% of storm drains marked by Year 5 with door hangers placed in associated neighborhoods.	No stencils needed to be updated during Year 14.	Continue to work with volunteers to mark additional storm drains in Town.
Revised		Conservation Commission	Downtown area marked		
2C	Develop and Implement a Native Tree/Shrub Planting Program	DPW, Conservation Commission, and Volunteers	Record the number, location, and kind of tree or shrub planted.	The Town of Hingham continued its tree/shrub replanting program as funds were available. 86 trees and shrubs were planted for restoration and erosion control.	Continue existing practices for tree/shrub replacement as budget allows. Solicit volunteers to participate in future planting programs for stormwater and environmental restoration projects.
Revised					

2a. Additions

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 14	Planned Activities – Next Permit Term
2D	Perform Wetland and Waterbody Cleanups	DPW, Conservation Commission, and Volunteers	Track areas cleaned within the Town, amount of debris removed	Wetland cleanups were done in the vicinity of Triphammer Pond, Bathing Beach, Bear Cove Park, and the More-Brewer Woods. Trash and other debris were removed from the areas and the program was funded through the Bottle & Can program.	Continue to coordinate volunteers and work with partnering organizations to perform cleanup activities.
Revised					

3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 14	Planned Activities – Next Permit Term
3A	Hold Annual Household Hazardous Waste Collections	DPW	Document quantity of wastes collected annually.	The Town of Hingham participates in regional collections as part of the South Shore Recycling Cooperative. A collection event was held on May 21, 2016. A total of 290 cars were recorded for the event and approximately 9,345 lbs of hazardous waste and 13.7 lbs of mercury containing materials were collected. DPW continued its mercury thermometer exchange program.	Continue participation in the South Shore Recycling Cooperative. The annual collection event is scheduled for June 10, 2017. Evaluate ways to further promote the annual event.
Revised					
3B	Develop Primary Town Storm Drain System Map	DPW	70% of system mapped on GIS.	The Town continued to use a GPS unit to collect data for the storm drain network during catch basin cleaning activities. System mapping is approximately 97% complete. All catch basins and outfalls have been mapped, and pipe networks continue to be added to the system based on field inspections. DPW continued to use tablets to assist with the mapping update and Sewer Dept. staff continued training.	Continue to map the storm drain network in the field using a GPS/tablet and work towards completing the storm drain system map in GIS.
Revised					

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 14	Planned Activities – Next Permit Term
3C	Complete Mapping of Stormwater Outfalls	DPW and Contractor	All outfalls mapped by year 4.	All outfall locations were field verified during Permit Year 5. The total number of outfalls remains at 329. As discussed under BMP 3B, the Town continued mapping the remaining storm drain network, which will assist with future outfall and catchment assessments.	Continue to update the outfall base map as needed and upon installation of new drainage systems.
Revised			75% of outfalls mapped by end of year 4. Source identified and removed within one year.		
3D	Evaluate Stormwater Discharges to Historic Places	DPW, Conservation Commission, and Contractor	Final list of historic places in Hingham. Results of evaluation.	This BMP was completed in June 2005.	No further action is needed at this time. Update this evaluation once the new permit is available.
Revised					
3E	Develop Illicit Discharge Prohibition Bylaw	Board of Health	Obtain authorization to control inputs to the municipal drainage system. Bylaw at Town meeting by end of year 2.	As an alternative to creating a new bylaw, the Board of Health (BOH) has enforceable regulations that encompass illicit discharge prohibition.	No further action is needed
Revised	Enforce Illicit Discharge Prohibition through the BOH	Conservation Commission	Creation of Board of Health regulations		
3F	Develop Illicit Discharge Detection and Elimination (IDDE) Plan and Implement Activities	DPW and Board of Health	All outfalls examined by year 4. Sources traced and results documented within one year of discovery.	100% of all outfall locations were field verified and screened for illicit discharges during Permit Year 5, resulting in a total of 329 outfalls. As discussed under BMP 3B, the Town continued to use a GPS unit to collect data for the storm drain network during catch basin cleaning activities. The Town continued using cameras to identify problems and potential illicit discharges. In Year 14 a camera was used for a drainage project on Canterbury St.. No illicit discharges were identified during this permit year.	The Town will continue field inspections of the drainage system and pursue the removal of identified illicit discharges. Continue to map the storm drain network in the field using a GPS and evaluate the most effective method for updating the existing storm drain system map in GIS. This storm drain system mapping will assist with future outfall and catchment assessments.
Revised			75% of outfalls examined by year 4.		

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 14	Planned Activities – Next Permit Term
3G	Incorporate Information on Illicit Discharges into Public Education and Outreach Topics	DPW and Board of Health	Copies of materials.	As discussed under BMP 1A-1C and 1E, information on illicit discharges was advertised through existing public education avenues, including the reporting hotline.	Continue to incorporate illicit discharge information into existing public education activities.
Revised			# materials distributed.		
3H	Setup and Advertise a Hotline for Illicit Discharges	DPW, Fire Department, and Board of Health	Log of complaints and actions taken.	Refer to BMP 2A. 3 calls were received during the Permit Year, but were related to construction sites. DPW worked with the property owners to address all issues.	Continue to track calls with records of follow-up actions.
Revised		Local Emergency Planner			

3a. Additions

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 14	Planned Activities – Next Permit Term
3I	TV Inspection of Storm Drain System	DPW	Linear feet (LF) inspected	1,207 LF of drain line inspections were completed as part of road construction projects. This information was used to assist with mapping and rehabilitation of the storm drain system, if needed.	Continue to conduct inspections of drain lines as construction projects are completed. Incorporate the results of TV inspections with mapping efforts and rehabilitation design.

4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 14	Planned Activities – Next Permit Term
4A	Develop Erosion Control Bylaw	Planning Board	Bylaw at Town meeting by end of Year 2.	The Planning Board addressed stormwater management through modifications to existing regulations rather than the development of new Stormwater and BMP By-Laws. LID principles and practices were incorporated into the Subdivision Regulations and the off-street parking regulations of the Zoning By-Law. These changes were adopted at the 2008 Town Meeting.	Continue to enforce LID techniques in the Subdivision Regulations.
Revised		Conservation Commission	Draft bylaw end of Year 4.		
4B	Establish a Procedure for the Receipt of Information Submitted by the Public	Planning Board and DPW	Record number of phone calls to hotline, copies of articles.	Complaints regarding construction site erosion are handled by the Conservation Commission, DPW, and Planning Board, as appropriate.	Continue record keeping program with regulatory updates. Continue tracking calls and records of enforcement.
Revised		Conservation Commission		<p>Three calls were received this Permit Year and the issues were resolved. No stop work orders were required to be issued.</p> <p>The Town has fully migrated data/records from VUEWorks to software by PeopleGIS for asset management and to track information, work orders, etc.</p>	

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 14	Planned Activities – Next Permit Term
4C	Conduct Inspections for Erosion Controls	Planning Board, DPW and Consultant	Inspection checklist and documented inspections.	<p>The various departments coordinate efforts to oversee sites. Inspection and enforcement issues are handled by the most appropriate enforcement agent². An inspection checklist is in use to document inspections and corrective actions. Inspection activities are ongoing during the construction process by the appropriate department.</p> <p>No Stop Work Orders were issued in Year 14 by the Conservation Commission related to stormwater and land disturbance and no fines were issued.</p>	Continue inspections in accordance with the existing Zoning Bylaws and updated Planning Board Regulations.
Revised					

²Complaints regarding construction site erosion are received by staff at all of the Land Use Boards, including the Conservation Commission, Board of Health, Building Commissioner and Planning Board. Smaller issues are generally handled directly by staff from the department under whose jurisdiction the project was approved (Building, Planning, Health) or the staff with appropriate enforcement authority (Building, Conservation Commission, Health). In an effort to coordinate the Town’s response, ongoing issues and more serious complaints are addressed at a weekly coordination meeting held with staff from all of the land use boards. For projects approved by the Planning Board (Subdivisions, Flexible Residential Developments), regular construction site inspections are done by a consulting inspection agent paid for by the developer in accordance with a procedure set forth in the Subdivision Rules and Regulations.

4a. Additions – None at this time

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	Planned Activities – Next Permit Term
5A	Develop BMP Bylaw	Planning Board	Bylaw at Town meeting by end of Year 2.	As discussed under BMP 4A, the Planning Board addressed stormwater management through modifications to existing regulations rather than the development of new Stormwater and BMP By-Laws. LID principles and practices were incorporated into the Subdivision Regulations and the off-street parking regulations of the Zoning By-Law. These changes were adopted at the 2008 Town Meeting.	Continue to enforce LID techniques in the Subdivision Regulations.
Revised			Draft bylaw end of Year 4.		
5B	Develop and Implement Inspection Program	Planning Board, DPW, Building Inspector, and Consultant	Copies of maintenance reports received annually, plus records of inspections completed and results.	<p>Inspections were conducted by DPW and the Building Inspector for BMPs in Town. Streets and roadways that are accepted by the Town are inspected regularly by DPW. An inspection checklist on a tablet is in use to document inspections and corrective actions. DPW uses a digital catch basin inspection form to track cleaning activities. Operation and Maintenance (O&M) plans were considered and reviewed.</p> <p>Projects approved by the Planning Board, which include privately owned and maintained stormwater facilities, are required to submit an annual inspection report to the Planning Board.</p>	<p>Continue inspections and document inspections and corrective actions using the checklist. Coordinate with efforts for BMP 4C.</p> <p>Review inspection protocols and enforcement strategies to evaluate their effectiveness at minimizing pollutants discharging to streams and the MS4.</p> <p>Inspection tracking will be done using software through PeopleGIS.</p>
Revised					

5a. Additions – None at this time

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	Planned Activities – Next Permit Term
6A	Clean Catch Basins	DPW	Clean all catch basins.	Continued cleaning catch basins biannually, removing approximately 416 tons of sediment during the permit year (including street sweepings). Catch basin inspection forms were completed to document maintenance needs. Catch basins at the Transfer Station were cleaned four or more times.	Clean each catch basin biannually, as budget allows. Monitor and record the amount of material removed from each basin.
Revised					
6B	Sweep Streets in Town	DPW	Priority plan of sweepings based on water quality impact. Volume of sweepings collected.	Continued street sweeping program in Town, which included: sweeping of downtown area biweekly or at least monthly, depending upon visual inspection and traffic; sweeping environmentally sensitive areas 2-3 times annually, and sweeping the Transfer Station every 1-2 weeks as needed. Approximately 416 tons of material was collected during the permit year throughout the town from both catch basins and street sweepings. Currently, some street sweepings are mixed with compost and reused along non-residential roadways in town. The majority of the material is being disposed of at an off-site permitted facility.	Continue street sweeping program annually and evaluate future sweeping priorities. Record and log sediment quantities and when streets are swept.
Revised					

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 14	Planned Activities – Next Permit Term
6C	Develop an Inspection and Maintenance Plan	DPW	Written schedule. Records of inspections and maintenance.	The DPW started using a tablet and an electronic form for catch basin inspections during Permit Year 12, which includes information related to potential illicit discharges. As discussed under BMP 3F, TV inspections were conducted on drainage systems in order to identify areas that need more focused maintenance.	Reuse street sweepings in accordance with the pre-approved reuse policy by MassDEP. The DPW will continue to enhance this program.
Revised					
6D	Continue Existing Pollution Prevention and Good Housekeeping Practices at the DPW Facility	DPW	Ensure existing practices are continued.	Continued existing practices for pollution prevention at the DPW Facility: indoor vehicle maintenance, immediate repair of leaking vehicles, proper handling/storage and disposal of hazardous materials and wastes, covered salt storage and indoor vehicle washing.	Continue existing practices and inform new employees of pollution prevention and good housekeeping practices.
Revised					
6E	Ensure Proper Cleaning of Vehicle Leaks at the DPW Facility	DPW	No significant vehicle leak stains at the facility.	All DPW vehicles and equipment are stored indoors when not in use. Any vehicle leaks are repaired promptly.	Continue to prevent vehicle leaks and repair leaking vehicles promptly.
Revised					
6F	Rinse Vehicles Indoors at the DPW Facility	DPW	Record of memo.	Vehicle rinsing was conducted indoors to the best extent practicable and proper vehicle rinsing and washing activities were discussed at regular DPW meetings. The oil/water separator associated with the indoor wash area is serviced twice a year.	Continue proper rinsing activities and continue to include vehicle rinsing procedures in the employee training program or during staff meetings, as needed.
Revised					

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 14	Planned Activities – Next Permit Term
6G	Divert Stormwater Runoff Away From the White Building at the DPW Facility	DPW	Record of before and after photos.	This building was previously demolished and is no longer an issue.	No further action is needed.
Revised					
6H	Ensure Covered Storage for Salt Materials at the DPW Stockyard	DPW	All salt is covered.	All salt materials are covered in the salt storage shed at the DPW Facility.	Continue to maintain all salt materials inside the salt storage shed.
Revised					
6I	Improve Covering and Evaluate BMPs for the Sand/Salt Pile at the DPW Stockyard	DPW	No rain contact with pile. No significant runoff contact with pile.	The DPW began use of a salt storage facility in July 2009 which has a holding capacity of 4,000 tons to adequately contain materials.	Utilize the storage shed for all activities to reduce potential exposure of sand and salt materials.
Revised					
6J	Construct Berms at the DPW Stockyard to Contain Earth Materials	DPW	Berms constructed. Before and after photos.	Earth berms and BMPs were maintained to prevent off-site migration of earth materials.	Continue to maintain earth berms and BMPs as needed to prevent sediment migration from the site.
Revised					
6K	Disconnect Floor Drains and Prohibit Vehicle Washing at the Tree & Park Barn Facility	DPW	Floor drains disconnected as shown by closure records. Record of memo.	Floor drains were plugged with cement in May 2009 and the facility was relocated to the new DPW Facility.	No further action is needed.
Revised					
6L	Prevent Stormwater Contact with Vehicle Leaks and Maintenance Areas at the Recycling Facility	DPW	No significant vehicle leak stains at the site.	Vehicles and equipment were maintained at the DPW Facility indoors and only light maintenance activities occurred at the Recycling Facility. This BMP is also being addressed as part of the facility's SWPPP.	Continue to prevent vehicle leaks and repair leaking vehicles promptly.
Revised					
6M	Store Batteries Under Cover at the Recycling Facility	DPW	No uncovered outdoor storage of batteries.	Batteries were stored indoors.	Continue storing batteries indoors.
Revised					

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 14	Planned Activities – Next Permit Term
6N	Comply with DEP Policy for Vehicle Washing at the Recycling Facility	DPW	Record of memo.	Outdoor vehicle washing and rinsing was prohibited.	Continue to prohibit outdoor vehicle washing.
Revised					
6O	Prevent Stormwater Discharges from Recycling Bales and Loading/Unloading Areas at the Recycling Facility	DPW	No contact with plastic bales and no stormwater discharges from the unloading area.	Plastic bales were stored indoors most of the time. The bale unloading area was swept on a regular basis to remove debris and drips.	Continue to sweep and clean (using dry methods) the bale unloading area on a regular basis to remove debris and drips.
Revised					
6P	Conduct a Feasibility Study For the Trash Trailer Bays at the Transfer Station	DPW	Copy of the feasibility study report. Plans or sketches.	The grates in the trailer bays were modified in Year 13 to include a new filter fabric to catch smaller debris, which resulted in a more effective cleaning method and less debris entering the downstream BMPs. This filter fabric was regularly maintained and cleaned in Year 14. Dry cleaning methods such as sweeping were used where possible.	Continue cleaning procedures at the trash trailer bays to prevent water quality impacts.
Revised	Maintain Storm Drain System		Trash trailer bay cover installation, landfill closure.	The landfill was capped and closed in November 2011 and leachate issues were addressed as part of closure. This has addressed the potential for leachate to enter the drainage system.	
6Q	Continue Existing Pollution Prevention and Good Housekeeping Practices at the Bus Depot	School Department and Contractor	Ensure existing practices are continued.	Continued the following pollution prevention practices at the Bus Depot: indoor vehicle maintenance for School Department vehicles; and bus washing using a collection system for off-site disposal of wash water.	Continue existing practices.
Revised					
6R	Modify Downspout Discharges at the Fueling Station	School Department and DPW	Downspout discharges modified as shown by before/after photos.	The downspouts were modified to divert stormwater away from the fueling area in Permit Year 3.	No further action is needed.
Revised					

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 14	Planned Activities – Next Permit Term
6S	Install a Spill Kit at the Fueling Station	School Department	Spill kit installed. Record of memo.	The spill kit was maintained at the station with a memo posted to describe the kit and its location.	Ensure kit is fully stocked with spill materials and memo remains posted.
Revised					
6T	Ensure Compliance for Floor Drain Systems in the Bus Depot Building	School Department	Record of inspections and changes to floor drain systems, if any.	In permit year 11, town staff met to discuss options for addressing the floor drains. In permit year 14, modifications to the building remained under consideration. The building is not used for vehicle maintenance.	Evaluate options and develop an approach for floor drain closure.
Revised					
6U	Continue Existing Facility Practices at the Town Hall and Building #104	Police Department and Department of Public Works	Ensure existing practices are continued.	Continued practices at the Town Hall for washing police vehicles off-site at an approved facility. Building #104 was demolished and DPW storage was relocated to the new DPW Facility.	Continue existing practices.
Revised					
6V	Ensure Compliance for Floor Drains at the North Fire Station	Fire Department	Sketches or inspection memos.	A committee continued to evaluate the station's needs. A study was approved in Year 14 for Fire Station #3 renovation to examine various improvement options.	Develop options for abandoning floor drains.
Revised					
6W	Ensure Compliance for Floor Drains and Vehicle Washing Activities at the Central Fire Station	Fire Department	Sketches or inspection memos. Record of memo.	Floor drains are connected to the sanitary sewer system for proper disposal of vehicle washing wastes.	Continue proper vehicle washing practices.
Revised					
6X	Evaluate Alternative Vehicle Washing Options at the Hingham Light Plant	Light Plant	New methods for handling vehicle wash water at the site by the end of Year 2.	Outdoor vehicle washing was prohibited. A new building was constructed in Year 14, which includes a wash bay for proper vehicle washing.	Continue to prohibit outdoor vehicle washing practices and evaluate appropriate alternatives.
Revised			End of Year 3.		
6Y	Use IPM Program for Application of Pesticides in Town	DPW	Copy of IPM Program.	Continued practice of IPM program.	Continue existing practices and continue to document protocols.
Revised					

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 14	Planned Activities – Next Permit Term
6Z	Use Licensed Applicators for Fertilizers and Pesticides in Town	DPW	Record quantities of fertilizers and pesticides purchased annually.	Approximately 5 tons of organic fertilizer were used by the Town at parks and schools in Permit Year 14. No herbicides were purchased or used in Permit Year 14. Rodenticide was used at the Town Transfer Station for vector control. Licenses were maintained for all Town employees that may need to apply chemicals.	Continue existing practices and employ methods to maintain public property without the use of chemical applications.
Revised					
6AA	Calibrate Salt Spreading Equipment	DPW	Record quantity of salt purchased annually.	Salt spreading equipment was calibrated prior to the 2016/2017 winter to ensure proper application rates.	Continue to calibrate salt equipment and track salt/Ice-Ban purchases. Periodically evaluate salt use and reduction effectiveness.
Revised					
6AB	Use Low Salt Applications at Designated Areas	DPW	Document application rate in Accord Pond watershed compared to other watersheds.	Sand only was used in the Accord Pond watershed for water supply protection, which includes the following streets: Gardner St., Mallard Run, Winfield Rd., Accord Pond Dr., Devon Terrace, Farm Hills Rd., Peter Hobard Rd, Hazelwood Dr. and Harvest Lane. The sand-only areas represent approximately 5% of the total winter roadway treatment done by the Town.	Continue existing practices.
Revised					
6AC	Ensure Proper Waste Disposal in Town for Hazardous and Special Wastes	DPW	Document quantity of wastes collected annually.	Tracking continued for special and regulated wastes (e.g., waste oil, batteries, light tubes, CRTs, electronic equipment) at the Hingham Transfer Station and as part of the Household Hazardous Waste Collection event held on May 21, 2016. The following amounts of materials were collected: - Oil – 650 gallons - Batteries – 420 units - Fluorescent Light Tubes – 1.7 tons - Mercury – 13.7 lbs	Continue existing practices at the Hingham Transfer Station for the collection of special and regulated wastes and document results over time. Continue to offer Household Hazardous Waste Collections annually and track Town participation and quantities collected.
Revised					

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 14	Planned Activities – Next Permit Term
6AD	Ensure Compliance for Snow Disposal in Town	DPW	Utilize designated snow disposal location.	No snow storage or disposal was conducted at the Town bathing beach parking lot due to the lack of snow this winter. Typically, the buffer areas are cleaned by hand in the spring each year to remove accumulated materials. The parking lot is designed with vegetative buffers and sediment traps to filter snowmelt from the parking lot, before draining to Hingham Harbor. An additional snow storage area was designated at the Carlson Field parking in permit Year 12. The field has a water quality treatment structure to capture runoff and snowmelt which then goes into a detention basin. This area was not used in Year 14, but was still designated and maintained.	Continue existing practices of snow disposal to ensure surface water quality protection. Maintain vegetative buffers and sediment traps at snow disposal areas.
Revised					
6AE	Ensure Water Quality Improvements are Considered for Flood Projects.	DPW	Records of flood control projects.	Flood control projects are reviewed through the Conservation Commission to ensure that water quality improvements are considered.	Continue review of projects through Conservation Commission to ensure that water quality improvements are considered.
Revised				There were no specific flood projects reviewed this year. A beach restoration and revetment wall project was completed in Year 14 at Bathing Beach. The project included restoration of sand dunes and native plantings. A sand management plan was developed for Bathing Beach.	
6AF	Conduct Town Employee Stormwater Training	DPW	Attendance sheet and copy of program	Pollution prevention topics were informally discussed as part of routine DPW operations meetings. Transfer Station employees received informal, on-site stormwater training. SPCC and SWPPP training for DPW employees occurred on May 19, 2016.	Evaluate and update curricula to provide pollution prevention training for all DPW employees.
Revised					

6a. Additions – Four Additions at this time

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 14	Planned Activities – Next Permit Term
6AG	Develop and Implement a SPCC Plan at the Transfer Station	DPW	Copy of SPCC Plan & inspection records	An SPCC Plan was developed and implemented at the Transfer Station in Permit Year 5. Measures to prevent and protect against an oil release were in accordance with the SPCC Plan.	Continue compliance with the SPCC Plan and update as necessary.
Revised				The SPCC Plan was updated in March 2014 and DPW continued to implement the plan.	
6AH	Conduct biannual inspections of solid waste at Transfer Station in accordance with SPCC Plan and SWPPP.	DPW	Copy of SPCC Plan & inspection records	Solid waste operations were inspected by an engineer twice to assist in meeting the requirements outlined in the facility SPCC Plan, SWPPP and MassDEP Solid Waste Regulations. DPW performs ongoing inspections as part of its routine operations.	Continue the engineer’s biannual inspections for solid waste at the Transfer Station. Continue ongoing inspections by the DPW.
Revised					
6AI	Ensure Compliance for Floor Drains at the Transfer Station	DPW	Sketches or inspection memos.	The existing leaching area associated with the former floor drain system was tested and closed in July 2010. The industrial wastewater holding tank to properly handle floor drain discharges was installed in November 2011 and maintenance is ongoing.	Continue proper waste handling and disposal practices for floor drain discharges at the site.
Revised					
6AJ	Update SWPPP for the Hingham Recycling & Trash Transfer Facility	DPW and Consultant	Updated SWPPP & coverage under the MSGP	The Hingham Recycling & Trash Transfer Facility continued to comply with the approved SWPPP. The SWPPP was updated in Sept. 2015.	Continue to comply with the SWPPP. Update as necessary.
Revised					

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

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 14	Planned Activities – Next Permit Term
7A	Develop a Water Quality Strategy for 303d Waters	DPW, Conservation Commission, and Consultant	Summary of pollution prevention efforts, future needs, and responsible parties. Copy of Surface Water Quality Strategic Plan.	The Town continued with implementation of the existing SWMP to address impaired waters.	Develop the water quality strategy as part of the SWMP Update that will be required following the permit re-issuance. Consider information collected as part of the Phase II Stormwater Program and any new information available from TMDL or other studies.
Revised				The Town evaluated program and funding needs for the next permit term based on the April 2016 MS4 Permit and decided to incorporate the preliminary strategy into the SWMP Update that will be completed by July 1, 2018.	
7B	Implement BMP's from Water Quality Strategy	DPW, Conservation Commission, and Consultant	Photographs, logs, and BMP descriptions for completed efforts and water quality improvements.	Although a comprehensive water quality strategy has not been developed, the Town has been focusing on water quality issues, including 3 specific activities during permit year 14.	This will commence upon developing a water quality strategy, based on available resources and funds for implementation. Pursue funding sources for this effort.
Revised				<p>1) A boat waste pump station was installed at the Town Pier at Hingham Harbor in Permit Year 11 and first used in Permit Year 12. The station was maintained throughout Permit Year 14.</p> <p>2) Geese control measures were developed and implemented. These include egg addling and the application of deterrents on grassy areas.</p> <p>3) A pet waste station was maintained at Bear Cove Park on the Weymouth Back River and signage was added to walking trails.</p>	Continue to consider options to address water quality issues and maintain the current controls for pathogens and other pollutants of concern.

7b. WLA Assessment

The Town of Hingham has nine 303d listed waters that are classified as Category 5 “Waters Requiring a TMDL” as follows:

1. Hingham Harbor (MA74-18), impaired for fecal coliform and PCB in fish tissue
2. Hingham Bay (MA70-06), impaired for fecal coliform and PCB in fish tissue
3. Hingham Bay (MA70-07), impaired for fecal coliform and PCB in fish tissue
4. Hull Bay (MA70-09), impaired for fecal coliform and PCB in fish tissue
5. Accord Brook (MA74-16), impaired for aquatic macroinvertebrate bioassessments
6. Crooked Brook Meadow (MA74-01), impaired for nutrient/eutrophication biological indicators
7. Weir River (MA74-02), impaired for fecal coliform, nutrient/eutrophication biological indicators, sedimentation/siltation
8. Weir River (MA74-11), impaired for fecal coliform and PCB in fish tissue
9. Weymouth Back River (MA74-13), impaired for fecal coliform and PCB in fish tissue

Water quality concerns associated with 303d waters will be addressed through the implementation of BMPs under the six minimum measures for Phase II, as outlined in the Hingham Stormwater Management Plan (SWMP). 303d waters are highlighted in the Hingham SWMP as a priority for implementation activities throughout the permit term. The WLA Assessment will be addressed as part of the Town’s SWMP, as TMDL studies are completed for 303d waters in Hingham or those water bodies with watersheds in Hingham. The Town continued to consider water quality testing to assess the condition of the above 303d listed waters to determine how Town efforts have affected their condition.

The Town reviewed the requirements of the April 2016 Phase II Permit and considered previous work/progress under the current program to develop an understanding of program needs over the 5-year permit term and a budget for the first permit year. The Town anticipates that activities to address impaired waters will be specifically addressed in the SWMP.

Part IV. Summary of Information Collected and Analyzed

All outfall locations were field verified and screened for illicit discharges in Permit Year 5. A total of 329 outfalls have been inspected to date. The Town continued to use tablets to collect data for the storm drain network during catch basin cleaning activities.

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic

Stormwater management position created/staffed	(y/n)	No
Annual program budget/expenditures	(\$)	

Education, Involvement, and Training

Estimated number of residents reached by education program(s)	(# or %)	100%
Stormwater management committee established	(y/n)	N
Stream teams established or supported	(# or y/n)	N
Shoreline clean-up participation or quantity of shoreline miles cleaned	(y/n or mi.)	Y
Household Hazardous Waste Collection Days*		
▪ days sponsored	(#)	1
▪ community participation	(%)	290 cars
▪ material collected	(tons or gal)	9,345 lbs
School curricula implemented	(y/n)	N

*The Town participated in 6 additional events (reciprocal) at other communities.

Legal/Regulatory

In Place
Prior to
Phase II Under
Review Drafted Adopted¹

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
1. LID principles and practices were incorporated into the Subdivision Regulations and the off-street parking regulations of the Zoning By-Law and adopted at the 2008 Town Meeting. The Town previously updated its subdivision and site plan requirements to address Phase II requirements in Permit Year 1.				

Mapping and Illicit Discharges

Outfall mapping complete	(%)	97%
Estimated or actual number of outfalls	(#)	329 known
System-Wide mapping complete	(%)	95%
Mapping method(s)		
▪ Paper/Mylar	(%)	
▪ CADD	(%)	
▪ GIS	(%)	100%
Outfalls inspected/screened	(# or %)	329 ²
Illicit discharges identified	(#)	0
Illicit connections removed	(#) (est. gpd)	0
% of <u>properties</u> on sewer	(%)	34%
% of <u>properties</u> on septic systems	(%)	66%
2. The Hingham DPW inspects stormwater outfalls on an annual basis for drainage and erosion problems and has developed an electronic inspection form using GPS for drainage structures and outfalls.		

Construction

Number of construction starts (>1-acre)	(#)	3
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	(%)	Not Assessed
Site inspections completed	(# or %)	Multiple
Estimated volume of stormwater recharged	(gpy)	Not Assessed

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets)	(times/yr)	1/yr (at least)
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	(times/yr)	1-2/yr ³
Total number of structures cleaned	(#)	2,500
Storm drain cleaned	(LF or mi.)	1,207 LF
Qty. of screenings/debris removed from storm sewer infrastructure	(lbs. or tons)	416 tons
Disposal or use of cleanings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		Landfill
Cost of cleanings disposal	(\$)	\$26,000 ⁴
3. Some drainage structures in the downtown area are cleaned more frequently based on the rate of sediment accumulation and historical flooding issues.		
4. Cost includes disposal of both catch basin cleanings and street sweepings.		

Average frequency of street sweeping (non-commercial/non-arterial streets)	(times/yr)	1/yr
Average frequency of street sweeping (commercial/arterial or other critical streets)	(times/yr)	Varies ⁵
Qty. of sand/debris collected by sweeping	(lbs. or tons)	416 tons
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	Compost & landfill
Cost of sweepings disposal	(\$)	\$26,000 ⁶
Street sweepers purchased/leased	(#)	2 owned
Vacuum street sweepers specified in contracts	(y/n)	N/A
5. The downtown area is typically swept 8-10 times each year. Environmentally sensitive areas, such as the roads near Accord Pond (surface drinking water supply), are swept 2-3 times each year.		
6. Cost includes disposal of both catch basin cleanings and street sweepings.		

Reduction in application on public land of: (“N/A” = never used; “100%” = elimination)		
▪ Fertilizers	(lbs. or %)	50,000 lbs
▪ Herbicides	(lbs. or %)	100%
▪ Pesticides	(lbs. or %)	100%
<i>The DPW performs routine inspections of town-maintained lands for pests to determine the appropriate management approach for shade trees and Town-owned lands. DPW continued to employ methods to maintain public property without the use of chemical applications. Pesticides are applied only when necessary by a Tree and Park Department licensed pesticide applicator.</i>		

<u>Anti-/De-Icing products and ratios:</u> <i>Prior to Permit Year 8, Ice-Ban (MgCl₂) was applied to a 75:25 sand/salt mixture with a sprayer as the materials are dispensed from trucks during de-icing activities. As a result, the Hingham DPW has observed continuous improvements in shade tree conditions along streets. During Permit Year 14, DPW applied straight salt. In the Accord watershed only sand is applied. DPW estimates that the rate of application and amount of salt per storm event did not increase.</i>	% NaCl % CaCl ₂ % MgCl ₂ % Sand	100%
Pre-wetting techniques utilized	(y/n)	No
Manual control spreaders used	(y/n)	Yes
Automatic or Zero-velocity spreaders used	(y/n)	Zero Velocity (some)
Estimated net reduction in typical year salt application	(lbs. or %)	0% ⁷
Salt pile(s) covered in storage shed(s)	(y/n)	Yes
Storage shed(s) in design or under construction	(y/n)	No
7. The total amount of salt used varies based on the number of storms each year.		