

**Municipality/Organization:** Town of Bourne

**EPA NPDES Permit Number:** MAR041094

**MaDEP Transmittal Number:** W-040428

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

## NPDES PII Small MS4 General Permit Annual Report

Due May 1, 2018

### Part I. General Information

Contact Person: Mr. Thomas Guerino

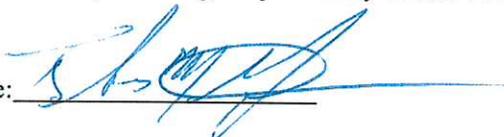
Title: Town Administrator

Telephone#: (508) 759-0600

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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: Thomas Guerino

Title: Town Administrator

Date: 04/27/2018

## **Report 15 - Due May 1, 2018 Part II. Self-**

### **Assessment**

The Town of Bourne has completed the required self-assessment on the annual compliance review for the Phase II Storm water Program. Our municipality continues to work towards compliance under the 2003 Permit, and has taken the following steps over the past year to better position the Town for the 2016 MS4 Permit:

- The Bourne Planning Department has worked with the Buzzards Bay National Estuary Program staff Bernadette Taber to revise the Planning Boards Subdivision Regulations as a step towards to regulatory compliance and the Planning Board adopted these revised regulations on May 25, 2017.
- In coordination with Barnstable County and Americorps, the Town of Bourne began updating its existing GIS Mapping to include known outfalls, interconnections, and catchment areas in January of 2018.
- The Town is in the process of hiring a consultant to perform a regulatory audit of the Towns current stormwater regulations and if required, develop a comprehensive bylaw to be placed as an Article for the Fall 2018 Town meeting. This consultant will also assist the Town with creation of the NOI and Stormwater Management Program (SWMP) for the New MS4 Permit.
- The Towns staff stormwater working group (hereafter referred to as SSWG) also plans to perform public outreach to Town boards and residents in the spring/summer of 2018 to gain support for MS4 funding and bylaw which meets the regulatory requirements of the 2016 MS4 Permit.
- The Town continues to research and purchase equipment to improve on its ability to maintain its Municipal stormwater system. In FY2018 the Town ordered a new Vacuum Truck and anticipates delivery in the fall of 2018.

In accordance with the NPDES Phase II Storm water requirements, this 2018 annual report evaluates the Town of Bourne’s compliance with the Minimum Control Measures of the 2003 MS4 Permit.

**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 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities
1-1	Establish an Advisory Committee	<ul style="list-style-type: none"> <li>• Town Administrator</li> <li>• Board of Selectman</li> </ul>	<ul style="list-style-type: none"> <li>• Task Force on Local Pollution appointed 3/30/04 as Phase II Stormwater Community Oversight Group;</li> <li>• Committee/Group Members taking on “homework assignments” monitoring sets of culverts and outfalls;</li> <li>• Training sessions attended.</li> <li>• SSWG meetings</li> </ul>	<ul style="list-style-type: none"> <li>• Community Oversight Group meets monthly and is updated from time to time by the Town Staff Working Group;</li> <li>• Education of Bourne residents through monthly open meetings and literature table at Town Meeting;</li> <li>• Committee consists of 4 members and a secretary;</li> <li>• Attendance of various committee members at workshops sponsored by Buzzards Bay Coalition and EPA.</li> </ul>	<ul style="list-style-type: none"> <li>• Continue public education and outreach efforts;</li> <li>• Continue a broad base of support for Phase II By-law enactment;</li> <li>• Advisory Committee/Community Oversight Group goal to be able to re-open some shellfish beds currently closed</li> <li>• Recruit additional members</li> <li>• Continue to attend trainings as available</li> </ul>

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
1-2	Town publicity initiatives	<ul style="list-style-type: none"> <li>• Department of Public Works (DPW)</li> <li>• Integrated Solid Waste (ISWM) Manager</li> <li>• Stormwater Working Group</li> <li>• Health</li> <li>• Conservation</li> <li>• Planning</li> </ul>	<ul style="list-style-type: none"> <li>• Handouts and posters;</li> <li>• Public outreach meetings for town committees and residents;</li> <li>• Implementation of Environmental Programs</li> </ul>	<ul style="list-style-type: none"> <li>• Posters at Public Buildings</li> <li>• Regional Municipal Hazardous Waste Collections (4 times per year), flyers publicizing</li> <li>• Municipal weekly curbside recycling</li> <li>• 7 day a week drop off center</li> <li>• Used motor oil collection at drop off center.</li> <li>• Paint collection Fridays and Saturdays April – Oct. at drop off center</li> <li>• ISWM continues to publicize and offer rain barrels and compost bins to residents at a discount.</li> <li>• Flyers distributed at Town Hall and Town Meeting on residential stormwater issues.</li> <li>• Board of Health &amp; ISWM educate the public on how to dispose of unused medications properly, not down the drain.</li> <li>• Police Department: Unused medication collection bin (see 1a-1).</li> <li>• Fire Department has implemented a medical wastes collection program.</li> </ul>	Develop a more focused approach for identifying audiences and more innovative outreach campaigns.

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
1-3	Network with other Agencies	<ul style="list-style-type: none"> <li>• DPW</li> <li>• Conservation</li> <li>• Engineering</li> <li>• Planning</li> </ul>	<ul style="list-style-type: none"> <li>• bi-monthly meeting schedule;</li> <li>• Engagement and training of multiple department heads in MS4 compliance.</li> </ul>	<ul style="list-style-type: none"> <li>• Participated with Cape communities through resources of Cape Cod Commission.</li> <li>• Conservation Agent meets monthly with other members of Buzzards Bay Action Committee.</li> <li>• Town Planner attends Cape Cod Commission- sponsored events and programs.</li> <li>• Conservation Agent and Supt. DPW meet periodically with other members of the Cape Cod Stormwater Managers to establish regional stormwater collaborative group sponsored by Barnstable County to share information and resources.</li> </ul>	<ul style="list-style-type: none"> <li>• Work closely with Cape Cod Stormwater Managers Group to share information and reduce costs.</li> <li>• Work with Buzzards Bay National Estuary Program staff to get information out.</li> <li>• Continue to work with Buzzards Bay Action Committee.</li> <li>• Continue to utilize resources of Buzzards Bay National Estuary Program to seek Stormwater remediation construction funds.</li> </ul>
1-4	Proper Disposal of unwanted Medications (Crush Don't Flush)	<ul style="list-style-type: none"> <li>• Health</li> <li>• ISWM</li> <li>• Police Department</li> <li>• Barnstable County Hazardous Materials Program</li> </ul>	<ul style="list-style-type: none"> <li>• Reduced concentration of medications &amp; by-products in groundwater</li> </ul>	<ul style="list-style-type: none"> <li>• Board of Health displays and distributes flyers (Think Twice About Unwanted Medication Disposal) by Barnstable County Hazardous Materials Program and UMass Cooperative Extension Service.</li> <li>• ISWM website continues to instruct residents not to flush pharmaceuticals down the drain.</li> <li>• Collection bin for Unwanted Medications in Police Station entrance. Approx. 100 lbs collected annually.</li> <li>• Link on Board of Health web page to Cape Cod Extension Service pamphlet "How to Dispose of Unwanted Medications."</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure that website links are updated as appropriate.</li> <li>• Continue with existing programs.</li> </ul>

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
1-5	General Stormwater information	<ul style="list-style-type: none"> <li>• Health</li> <li>• ISWM</li> <li>• Planning</li> <li>• Conservation</li> </ul>	Improve the education of residents on stormwater related issues and the resulting pollution.	<ul style="list-style-type: none"> <li>• Link on Board of Health web page to Cape Cod Extension Service info on Hazardous Waste &amp; Water Quality, and fact sheet on Drinking Water Wells detailing sources of groundwater pollution including stormwater discharge</li> <li>• New pollution prevention flyers</li> <li>• Briefings to town officials and residents through presentations on televised forums such as Selectmen’s Meeting.</li> </ul>	<ul style="list-style-type: none"> <li>• Restore these links and improve labeling/instructions.</li> <li>• Perform public outreach to Town boards and residents in the spring/summer of 2018 to gain support for an MS4 bylaw which meets the regulatory requirements of the 2016 MS4 Permit.</li> <li>• Town Planner update education brochure, distribute at Town Meeting and website</li> <li>• ISWM to continue public outreach efforts</li> </ul>

**1a. Additions**

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
1a-1					

## 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
2-1	Public Input to Process	<ul style="list-style-type: none"> <li>• DPW</li> <li>• Health</li> <li>• Conservation</li> <li>• Community Oversight Group</li> <li>• Engineering</li> <li>• Planning</li> </ul>	Record and respond to complaints.	<ul style="list-style-type: none"> <li>• Over the past year residents have been calling DPW, Conserv, and BOH regarding potential stormwater issues.</li> <li>• Community Oversight Group investigates stormwater problems, and as Selectman’s Task Force on Local Pollution, determines pollution priorities.</li> <li>• Re-established stormwater webpage linked to engineering department homepage.</li> </ul>	<ul style="list-style-type: none"> <li>• Continue to inform Bourne citizens how to contact Town about stormwater concerns.</li> <li>• Meet with Civic Associations</li> <li>• Webpage was re-established in February 2018. Maintaining and updating the site needs to be a priority so that residents are aware of proper reporting process.</li> <li>• Establish a single response number and email address that can be used to better record and respond to complaints.</li> </ul>
2-2	Work with other stormwater groups and regulatory agencies to sample water quality and share information.	<ul style="list-style-type: none"> <li>• Community Oversight Group</li> <li>• DPW</li> <li>• Bourne Board of Selectmen</li> </ul>	Participation with Agencies and volunteer groups.	<ul style="list-style-type: none"> <li>• Mass. Div. Of Marine Fisheries samples local waters and determines if restrictions (or prohibitions) will be placed on shellfishing.</li> <li>• BOH &amp; County sample bathing beaches for similar sanitary conditions.</li> <li>• Coalition for Buzzards Bay has an active membership that regularly samples and reports water quality.</li> <li>• Massachusetts Bays Program.</li> </ul>	<ul style="list-style-type: none"> <li>• Continue to participate in these programs.</li> <li>• Provide stormwater groups with municipal support to help them obtain grant funding.</li> </ul>
2-3	Present annual progress report at Selectmen’s meeting.	<ul style="list-style-type: none"> <li>• Community Oversight Group</li> <li>• DPW</li> <li>• Conservation</li> </ul>	Meet and present information to Selectmen.	Stormwater Oversight group meets periodically with Selectmen also includes Selectmen in distribution of agendas & minutes.	Community Oversight Committee report to BOS.

<b>BMP ID #</b>	<b>BMP Description</b>	<b>Responsible Dept./Person Name</b>	<b>Measurable Goal(s)</b>	<b>Progress on Goal(s) – Permit Year 15 (Reliance on non-municipal partners indicated, if any)</b>	<b>Planned Activities</b>
2-4	Medical Wastes	Fire	Medical wastes	Fire Department receives used sharps	Continue this program.
2-5	Hazardous Wastes	ISWM	Hazardous wastes	Hazardous Waste Collection Days	Continue this program.
2-6	Compost bins and rain	ISWM	Compost bins & Rain	ISWM distributes composting bins and	Continue this program.
2-7	Municipal Compost	ISWM	Finished compost	ISWM composts brush, stumps & yard	Continue this program.
2-8	Unwanted Medication Collection bin	Police	Amount of medications collected	In entrance to Police Station. Approx. 126 lbs collected this year.	Continue this program.

### 2a. Additions

<b>BMP ID #</b>	<b>BMP Description</b>	<b>Responsible Dept./Person Name</b>	<b>Measurable Goal(s)</b>	<b>Progress on Goal(s) – Permit Year 15 (Reliance on non-municipal partners indicated, if any)</b>	<b>Planned Activities</b>
2a-1					

### 3. Illicit Discharge Detection and Elimination

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
3-1	Inventory Storm Drain System.	<ul style="list-style-type: none"> <li>• DPW</li> <li>• Engineering</li> </ul>	Produce map with drainage structures and outfall locations.	<ul style="list-style-type: none"> <li>• Existing Bourne Stormwater Drainage system mapped in 2006.</li> <li>• Updated per approved subdivision as-built plans &amp; DPW reports of stormwater remediation projects. Maintained on the Town GIS.</li> <li>• In coordination with Barnstable County and Americorps, the Town of Bourne began updating its existing GIS Mapping to include known outfalls, interconnections, and catchment areas in January of 2018.               <ul style="list-style-type: none"> <li>• Cape Cod Commission has created planimetric maps showing drainage structures. Bourne’s is being finalized and will be available soon.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Upgrade Towns GPS/GIS capabilities through purchase of additional licenses, applications, and equipment.</li> <li>• Continue to update existing mapping to meet the requirements of the 2016 MS4 Permit.</li> </ul>
3-2	Illicit discharge detection plan.	<ul style="list-style-type: none"> <li>• DPW</li> <li>• Health</li> </ul>	<ul style="list-style-type: none"> <li>• Respond to all complaints and record.</li> <li>• Install leaching chambers to reduce run-off to waterways.</li> </ul>	<ul style="list-style-type: none"> <li>• DPW logs all complaints, referenced to specific location. Other departments forward calls to DPW (Karen).</li> <li>• Staff is checking outfalls in dry weather and looking for suspicious indicators.</li> <li>• One illicit discharge complaint received 2017-2018. Issue was responded to by DPW and Conservation Agent. Investigation and thorough system cleanout was performed and system has been prioritized.</li> </ul>	<ul style="list-style-type: none"> <li>• Staff to continue checking outfalls in dry weather and look for suspicious indicators. Staff have been given training to also spot illicit discharges.</li> <li>• Staff shall inspect complaints to determine if indicators of an illicit discharge are present.</li> <li>• Outfall sampling will be conducted under the 2016 MS4 permit once it becomes effective.</li> </ul>

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
3-3	General Information Materials	<ul style="list-style-type: none"> <li>Community Oversight Group</li> <li>Conservation</li> <li>Planning</li> </ul>	<ul style="list-style-type: none"> <li>Produce &amp; distribute informational materials.</li> </ul>	<ul style="list-style-type: none"> <li>Posters at Town Hall and Public Library.</li> <li>Public presentation on the need for town regulation.</li> </ul>	<ul style="list-style-type: none"> <li>Continue distribution of educational materials.</li> <li>Perform public outreach to Town boards and residents in the spring/summer of 2018 to gain support for an MS4 bylaw which meets the regulatory requirements of the 2016 MS4 Permit.</li> </ul>
3-4	DPW training for Illicit Connections	<ul style="list-style-type: none"> <li>DPW</li> <li>Health</li> </ul>	Respond to all complaints and record.	Meeting held for DPW personnel and a record of attendees and program is on file.	Continue to provide internal training opportunities and attend external courses.
3-5	Illicit discharge prohibition	Health	Necessary Regulation changes.	Regulation adopted by Board of Health April 13, 2005	Update IDDE Regulations to comply with the standards of the 2016 MS4 Permit.
3-6	Illicit connection and discharge detection and enforcement	Health	Number of events	No illicit discharges detected 2017-2018.	Continue this activity
3-7	Encourage restaurants to find free or low-cost markets for used cooking oils	Health			Utilize resources of Cape & Islands Self Reliance, based at Waquoit National Estuarine Reserve, for referrals.
3-8	Stormwater Remediation,	DPW	<ul style="list-style-type: none"> <li>Installation or design of stormwater remediation projects.</li> <li>Green infrastructure or nitrogen reduction</li> </ul>	<ul style="list-style-type: none"> <li>See 3a-1 &amp; 2 for description of current remediation projects.</li> </ul>	<ul style="list-style-type: none"> <li>Continue to identify &amp; prioritize stormwater remediation projects.</li> <li>See 3a-3 for description of current remediation projects.</li> </ul>

**3a. Additions**

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
3a-1	Crab Rock Way Stormwater upgrade	DPW Engineering	Upgrade the existing stormwater system to prevent runoff onto public beach.	Design & construction phase of the project is complete and impervious areas have been converted to pervious.	Catchbasin cleanout as needed
3a-2	Barlows Landing Stormwater upgrade	DPW	Upgrade the existing stormwater system to prevent runoff and erosion onto public beach.	Installation of (2) 500 gallon leaching chambers completed to provide additional drainage capacity.	Final grading and landscaping to be performed spring 2018.
3a-3	Proposed stormwater upgrades for FY19.	DPW Engineering	Continue to perform stormwater upgrades in FY19 to improve existing Infrastructure.	<p><b><u>Harrison Av</u></b> - Upgrade the existing stormwater system to prevent roadway flooding</p> <p><b><u>Wallace Av</u></b> - Upgrade the existing stormwater system to prevent roadway flooding</p> <p><b><u>Washburn St.</u></b> - Upgrade the existing stormwater system to prevent roadway flooding</p> <p><b><u>Buttermilk Way</u></b> - Upgrade the existing stormwater system to prevent roadway flooding</p>	DPW and Engineering Department to continue to assess stormwater infrastructure needs.

#### 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
4-1	Subdivision Regulations for Stormwater Management	<ul style="list-style-type: none"> <li>• Planning Board &amp; Planning Department</li> <li>• Zoning Enforcement</li> <li>• DPW</li> </ul>	Adoption of revised Subdivision Regulations to incorporate MA Stormwater Standards	The Bourne Planning Department has worked with the Buzzards Bay National Estuary Program to revise the Planning Boards Subdivision Regulations as a step towards to regulatory compliance, The Planning Board adopted these revised regulations on May 25, 2017.	Completed
4-2	Complaints re stormwater issues from public	<ul style="list-style-type: none"> <li>• DPW</li> <li>• Health</li> <li>• Conservation</li> <li>• Engineering</li> </ul>	Record calls and respond. Keep records.	Other departments forward complaints to DPW. Secretary logs all complaints, referenced to location, and DPW investigates and resolves.	<ul style="list-style-type: none"> <li>• Continue to inform the public of the stormwater program and how everyone can help by forwarding information to staff.</li> <li>• Establish a single response number and email address that can be used to better record and respond to complaints.</li> </ul>
4-3	Site plan review/ construction site inspection program	<ul style="list-style-type: none"> <li>• DPW</li> <li>• Planning Board</li> <li>• Planning Department</li> <li>• Zoning Enforcement Officer</li> <li>• Conservation Commission</li> </ul>	Review plans, inspect, pre-construction, construction and post-construction site visits.	<ul style="list-style-type: none"> <li>• Town has formal site plan-special permit review of commercial development, including stormwater design, calculations, construction and post-construction erosion control measures.</li> <li>• Conservation Commission currently reviews projects within floodzones, 100 feet of wetlands resources and within the 200' Riverfront Area.</li> </ul>	<ul style="list-style-type: none"> <li>• Planning Board or authorized agents proposed to review, inspect and enforce all Stormwater Management Permits except for projects with Conservation filings.</li> <li>• Projects before the Conservation Commission will have to demonstrate compliance with MA Storm Water Management Standards as reflected in an Order of Conditions from the Conservation Commission.</li> </ul>

<b>BMP ID #</b>	<b>BMP Description</b>	<b>Responsible Dept./Person Name</b>	<b>Measurable Goal(s)</b>	<b>Progress on Goal(s) – Permit Year 15 (Reliance on non-municipal partners indicated, if any)</b>	<b>Planned Activities</b>
4-4	Site Plan-Special Permit Review process adopted as amendment to Zoning Bylaw, May 2006.	Planning Board & Planning Department		Passed unanimously by Town Meeting May 2006. Includes requirement that commercial development projects infiltrate all runoff on site, employ best management practices and control erosion and siltation. Reviewing staff recommend improved stormwater/ erosion-siltation control measures, e.g., separate infiltration of roof runoff, vegetated swales, construction entrances, and have been providing relevant fact sheets & diagrams to applicants & consultants.	Continue to require, recommend and educate re best management practices.
4-5	Request copy of commercial projects' construction permit 1+ acre filings with EPA.	Planning Board & Planning Department		As part of Site Plan-Special Permit review process for commercial development projects.	Continue this practice.
4-6	Zoning Bylaw change – Backlot Division	Planning Board & Planning Department		Amended Section 2497 – Backlot Division – in May 2010, added the language “Stormwater must be designed so that post-development runoff is contained on site and does not exceed pre-development runoff.”	Completed
4-7	Downtown Buzzards Bay Zoning – raingardens	Planning Board & Planning Department	Raingardens constructed	Downtown Zoning District, passed in 2008 & 2009, states landscape planting areas should be constructed to serve as stormwater raingardens.	Completed

**4a. Additions**

<b>BMP ID #</b>	<b>BMP Description</b>	<b>Responsible Dept./Person Name</b>	<b>Measurable Goal(s)</b>	<b>Progress on Goal(s) – Permit Year 15 (Reliance on non-municipal partners indicated, if any)</b>	<b>Planned Activities</b>
4-1a	Construction phase erosion control and sedimentation regulation.	<ul style="list-style-type: none"> <li>• DPW</li> <li>• Planning Board</li> <li>• Planning Department</li> <li>• Zoning Enforcement Officer</li> <li>• Conservation</li> </ul>	Development of Bylaw and/or regulations	The Town is in the process of hiring a consultant to perform a regulatory audit of the Towns current stormwater regulations.	<ul style="list-style-type: none"> <li>• If required, develop a comprehensive bylaw to be placed as an Article for the Fall 2018 Town meeting.</li> <li>• Update/revise existing regulations to meet requirements of the 2016 MS4 Permit.</li> </ul>

## 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
5-1	Subdivision Regulations for Stormwater Management	<ul style="list-style-type: none"> <li>• Planning Board &amp; staff</li> <li>• Zoning Enforcement</li> <li>• DPW</li> </ul>	Adoption of revised Subdivision Regulations to incorporate MA Stormwater Standards	The Bourne Planning Department has worked with the Buzzards Bay National Estuary Program to revise the Planning Boards Subdivision Regulations as a step towards to regulatory compliance, The Planning Board adopted these revised regulations on May 25, 2017.	The Town is in the process of hiring a consultant to perform a regulatory audit of the Towns current stormwater regulations and if required, develop a comprehensive bylaw to be placed as an Article for the Fall 2018 Town meeting.
5-2	Site Plan-Special Permit Review process adopted as amendment to Zoning Bylaw, May 2006.	<ul style="list-style-type: none"> <li>• Town Meeting</li> <li>• Planning Board &amp; staff</li> <li>• Zoning Enforcement</li> <li>• DPW</li> </ul>		Passed unanimously by Town Meeting May 2006. Includes requirement that commercial development projects infiltrate all runoff on site, employ best management practices and control erosion and siltation. Reviewing staff recommend improved stormwater/ erosion-siltation control measures, e.g., separate infiltration of roof runoff, vegetated swales, construction entrances, and have been providing relevant fact sheets & diagrams to applicants & consultants.	Continue to require, recommend and educate re best management practices.
5-3	Request copy of commercial projects' construction permits 1+ acre filings with EPA.	Planning Board & staff		As part of Site Plan-Special Permit review process for commercial development projects.	Continue this practice.
5-4	Zoning Bylaw change – Backlot Division	<ul style="list-style-type: none"> <li>• Town Meeting</li> </ul> Planning Board & staff		Amended Section 2497 – Backlot Division – in May 2010, added language “Stormwater must be designed so that post-development runoff is contained on site and does not exceed pre-development runoff.	Completed

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
5-5	Downtown Buzzards Bay Zoning – raingardens	Planning Board & staff	Raingardens constructed	New Downtown Zoning District, passed in 2008 & 2009, states landscape planting areas should be constructed to serve as stormwater raingardens.	Completed

### 5a. Additions

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
5a-1	Post construction phase stormwater management regulation.	<ul style="list-style-type: none"> <li>• DPW</li> <li>• Planning Board</li> <li>• Planning Department</li> <li>• Zoning Enforcement Officer</li> <li>• Conservation</li> </ul>	Development of Bylaw and/or regulations	The Town is in the process of hiring a consultant to perform a regulatory audit of the Towns current stormwater regulations.	<ul style="list-style-type: none"> <li>• If required, develop a comprehensive bylaw to be placed as an Article for the Fall 2018 Town meeting.</li> <li>• Update/revise existing regulations to meet requirements of the 2016 MS4 Permit.</li> </ul>

## 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
6-1	Street sweeping program	DPW	Spring annual sweeping all streets/parking lots. Record periodic sweeping of other areas as needed.	<ul style="list-style-type: none"> <li>• Goal has been met and exceeded. All roadways swept 3 times per year.</li> <li>• Disposal at double-lined landfill in Bourne.</li> <li>• Town utilizes 3 sweepers.</li> <li>• Winter salt stockpiles kept in storage shed.</li> </ul>	<ul style="list-style-type: none"> <li>• Continue this program.</li> <li>• Develop an Operation &amp; Maintenance Plan for Stormwater Infrastructure which includes the Town's street sweeping methodology.</li> </ul>
6-2	Catch basin Cleaning/drain cleaning	DPW	Goal to clean between 350 to 500 catch basins per year	<ul style="list-style-type: none"> <li>• 421 catch basins cleaned in past year with Town's Vac-All trucks and clam shell basin truck.</li> <li>• Disposal at municipal double-lined landfill.</li> <li>• All stormwater infiltration systems inspected and cleaned as needed.</li> </ul>	<ul style="list-style-type: none"> <li>• Revise data collection methodology to better prioritize catch basin cleanings.</li> <li>• Develop an Operation &amp; Maintenance Plan for Stormwater Infrastructure which includes the Town's catch basin cleaning methodology.</li> </ul>
6-3	DPW Annual Training and Policy Guide	DPW	Documentation of annual training and attendance	<ul style="list-style-type: none"> <li>• Training session held. Training material &amp; attendance on file.</li> <li>• Policy document not yet complete.</li> </ul>	<ul style="list-style-type: none"> <li>• Continue training program.</li> <li>• Review the existing Policy Guide Draft to ensure that it meets the 2016 MS4 standards and complete the Policy Guide.</li> </ul>
6-4	Pet waste prohibition	<ul style="list-style-type: none"> <li>• Department of Natural Resources (DNR)</li> <li>• DPW</li> <li>• Town Clerk</li> </ul>	Pet waste education, signage and collection	<ul style="list-style-type: none"> <li>• By-law exists. (posted on DNR webpage)</li> <li>• Dogs prohibited from public beaches</li> </ul>	<ul style="list-style-type: none"> <li>• Continue to publicize Town By-law change passed in 2006 prohibiting dogs from all Town owned beaches.</li> <li>• Educational literature distributed with dog licenses. Dog-waste stations in place.</li> </ul>

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
6-5	Regional Landfill	<ul style="list-style-type: none"> <li>• Town Administrator</li> <li>• ISWM</li> </ul>	To provide and operate a state-of-the-art double-lined landfill for region.	<ul style="list-style-type: none"> <li>• Revenues from the operation of the facility funds local collection of municipal solid waste and recyclables at the curb, also household hazardous waste collection days (off-site) for Bourne residents and property owners.</li> <li>• Residential recycling center offers drop-off for universal waste (mercury items), waste oil, used antifreeze, batteries, (NiCad, LI, auto &amp; marine), paints (latex &amp; oil), &amp; used oil filters, also Swap Shop availability for re-use of usable items.</li> <li>• Facility is also depository for street sweepings &amp; catch basin cleanings from municipal operations.</li> <li>• Quarterly monitoring protects groundwater.</li> <li>• Bylaw prohibiting water wells downgradient from landfill protects drinking water.</li> <li>• Facility offers rain barrels and compost bins.</li> <li>• ISWM website instructs residents not to flush pharmaceuticals down the drain.</li> <li>• Facility compost brush, stumps &amp; yard waste and provides finished compost to residents.</li> <li>• ISWM website offers information on sharps, hazardous waste collect dates &amp; other important information &amp; links.</li> <li>• ISWM maintains site roads with street sweeper.</li> <li>• All stormwater managed on site via infiltration basins.</li> </ul>	Facility and programs it supports are scheduled to continue.

**6a. Additions**

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

**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 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities
7-1	Water Monitoring	<ul style="list-style-type: none"> <li>• DNR</li> <li>• Health</li> </ul>		<ul style="list-style-type: none"> <li>• Mass. Div. Of Marine Fisheries samples local waters and determines if restrictions (or prohibitions) will be placed on shellfishing.</li> <li>• BOH &amp; County sample bathing beaches for similar sanitary conditions.</li> <li>• Coalition for Buzzards Bay has an active membership that regularly samples and reports water quality. Massachusetts Bays Program.</li> </ul>	<ul style="list-style-type: none"> <li>• Continue to participate in these programs.</li> <li>• Provide stormwater groups with municipal support to help them obtain grant funding.</li> </ul>

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

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

**Programmatic**

Stormwater management position created/staffed	(y/n)	N
Annual program budget/expenditures	(\$)	50,000 allocated for FY18

**Education, Involvement, and Training**

Estimated number of residents reached by education program(s)	(# or %)	
Stormwater management committee established	(y/n)	Yes
Stream teams established or supported	(# or y/n)	No
Shoreline clean-up participation or quantity of shoreline miles cleaned	(y/n or mi.)	
Household Hazardous Waste Collection Days		
▪ Days sponsored	(#)	4 (regional, one in Bourne)
▪ Community participation	(%)	
▪ Material collected	(tons or gal)	
School curricula implemented	(y/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 and Comprehensive Stormwater Managemt		X		
▪ Stormwater Management for Subdivisions				X
Accompanying Regulation Status (indicate with "X")				
▪ Illicit Discharge Detection & Elimination				X
▪ Erosion & Sediment Control and Comprehensive Stormwater Managemt		X		
▪ Stormwater Management for Subdivisions				X

### Mapping and Illicit Discharges

Outfall mapping complete	(%)	100%
Estimated or actual number of outfalls	(#)	154
System-Wide mapping complete	(%)	100%
<i>(Mapping meets 2003 Permit Requirements)</i>		
Mapping method(s)		
▪ Paper/Mylar	(%)	
▪ CADD	(%)	
▪ GIS	(%)	100%
Outfalls inspected/screened	(# or %)	0
<i>(Town has located &amp; photo-documented outfalls in preparation for 2016 Permit effort)</i>		
Illicit discharges identified ** (This year)	(#)	0
Illicit discharges identified (Since beginning of permit coverage)		10
Illicit connections removed ** (This year)		0
Illicit connections removed (Since beginning of permit coverage)	(#) (est. gpd)	10
% of population on sewer	(%)	12%
% of population on septic systems	(%)	88%

### Construction

Number of construction starts (>1-acre)	(#)	11
Estimated percentage of construction starts adequately regulated for erosion and sediment control	(%)	11
Site inspections completed	(# or %)	11
Tickets/Stop work orders issued	(# or %)	2
Fines collected	(# and \$)	0
Complaints/concerns received from public	(#)	2

### Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	11
Site inspections completed	(# or %)	
Estimated volume of stormwater recharged	(gpy)	

### Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets)	(times/yr)	As needed
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	(times/yr)	As needed
Total number of structures cleaned	(#)	421
Storm drains cleaned	(LF or mi.)	Clogged only
Qty. of screenings/debris removed from storm sewer infrastructure	(lbs. or tons)	3200 tons
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		Landfill
Cost of screenings disposal	(\$)	0\$
Average frequency of street sweeping (non-commercial/non-arterial streets)	(times/yr)	3 times a year
Average frequency of street sweeping (commercial/arterial or other critical streets)	(times/yr)	3 times a year
Qty. of sand/debris collected by sweeping	(lbs. or tons)	1685 tons
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	Landfill
Cost of sweepings disposal	(\$)	0\$
Vacuum street sweepers purchased/leased	(#)	Town owns 3
Vacuum street sweepers specified in contracts	(y/n)	0

Reduction in application on public land of: (“N/A” = never used; “100%” = elimination)		
▪ Fertilizers	(lbs. or %)	N/A
▪ Herbicides	(lbs. or %)	N/A
▪ Pesticides	(lbs. or %)	N/A
Anti-/De-Icing products and ratios	% NaCl % CaCl <sub>2</sub> % MgCl <sub>2</sub> % CMA % Kac % KCl % Sand	25% neg.     75%
Pre-wetting techniques utilized	(y/n)	Yes
Manual control spreaders used	(y/n)	Yes
Automatic or Zero-velocity spreaders used	(y/n)	No
Estimated net reduction in typical year salt application	(lbs. or %)	0 %
Salt pile(s) covered in storage shed(s)	(y/n)	Yes
Storage shed(s) in design or under construction	(y/n)	Yes