



Enter your transmittal number

X255752  
Transmittal Number

Your unique Transmittal Number can be accessed online: <http://mass.gov/dep/service/online/trasmfrm.shtml>  
**Massachusetts Department of Environmental Protection**  
**Transmittal Form for Permit Application and Payment**

1. Please type or print. A separate Transmittal Form must be completed for each permit application.

**A. Permit Information**

MAR 041096

NPDES PII

1. Permit Code: 7 or 8 character code from permit instructions

2. Name of Permit Category

Annual Stormwater II Report

3. Type of Project or Activity

2. Make your check payable to the Commonwealth of Massachusetts and mail it with a copy of this form to: DEP, P.O. Box 4062, Boston, MA 02211.

**B. Applicant Information – Firm or Individual**

Town of Brewster

1. Name of Firm - Or, if party needing this approval is an individual enter name below:

Bersin

Robert

L.

2. Last Name of Individual

3. First Name of Individual

4. MI

201 Run Hill Road

5. Street Address

Brewster

MA

02631

508 896 3212

6. City/Town

7. State

8. Zip Code

9. Telephone #

10. Ext. #

Robert L. Bersin, PE

rbersin@town.brewster.ma.us

11. Contact Person

12. e-mail address (optional)

3. Three copies of this form will be needed.

Copy 1 - the original must accompany your permit application. Copy 2 must accompany your fee payment. Copy 3 should be retained for your records

**C. Facility, Site or Individual Requiring Approval**

Town of Brewster

1. Name of Facility, Site Or Individual

201 Run Hill Road

2. Street Address

Brewster

MA

02631

508 896 3212

3. City/Town

4. State

5. Zip Code

6. Telephone #

7. Ext. #

MAR 041096

MAR 041096

8. DEP Facility Number (if Known)

9. Federal I.D. Number (if Known)

10. BWSC Tracking # (if Known)

4. Both fee-paying and exempt applicants must mail a copy of this transmittal form to:

MassDEP  
P.O. Box 4062  
Boston, MA  
02211

**D. Application Prepared by (if different from Section B)\***

1. Name of Firm Or Individual

2. Address

3. City/Town

4. State

5. Zip Code

6. Telephone #

7. Ext. #

8. Contact Person

9. LSP Number (BWSC Permits only)

\* Note: For BWSC Permits, enter the LSP.

**E. Permit - Project Coordination**

1. Is this project subject to MEPA review?  yes  no  
If yes, enter the project's EOEA file number - assigned when an Environmental Notification Form is submitted to the MEPA unit:

EOEA File Number

**F. Amount Due**

**Special Provisions:**

- 1.  Fee Exempt (city, town or municipal housing authority)(state agency if fee is \$100 or less).  
*There are no fee exemptions for BWSC permits, regardless of applicant status.*
- 2.  Hardship Request - payment extensions according to 310 CMR 4.04(3)(c).
- 3.  Alternative Schedule Project (according to 310 CMR 4.05 and 4.10).
- 4.  Homeowner (according to 310 CMR 4.02).

DEP Use Only

Permit No:

Rec'd Date:

Reviewer:

Check Number

Dollar Amount

Date

**Municipality/Organization:** Town of Brewster - DPW  

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**EPA NPDES Permit Number:** MAR 041096  

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**MassDEP Transmittal Number:** X255752  

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**Annual Report Number & Reporting Period:** Year 10  
April 1, 2012 – March 31, 2013  

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**NPDES PII Small MS4 General Permit  
Annual Report  
(Due: May 1, 2013)**

**Part I. General Information**

Contact Person: Robert L. Bersin, PE Title: DPW Superintendent  

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Telephone #: 508 896 3212 Email: rbersin@town.brewster.ma.us  

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Mailing Address: 201 Run Hill Road, Brewster, MA 02631  

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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:   

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Printed Name: Charles L. Sumner  

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Title: Town Administrator  

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Date: April 30, 2013  

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## Part II. Self-Assessment

Brewster is a coastal community with an interest in protecting its surrounding fresh and salt water resources. Catch basin cleaning and street sweeping programs are completed annually and small stormwater projects are designed and installed either through contract services or using DPW personnel. As local financing of DPW activities is generally lower than required, we continue to be proactive in our search for outside funding opportunities related to stormwater projects. This is evidenced by approval of a Coastal Zone Management – Non-Point Source Pollution (CZM - NPS) grant for the Stony Brook Water Shed in 2007. Water quality projects that are a direct result of this grant are as follows:

- ◆ The CZM-NPS assessment led to the submittal and approval of a Coastal Zone Management – Coastal Pollution Remediation (CZM - CPR) Grant for the design of stormwater remediation plans at the Town's alewife fish run. This project relied on the NPS assessment and stormwater remediation facilities were designed to prevent untreated stormwater from entering Stony Brook. The final piece of this project was the approval of a Section 319 grant for the installation of remediation facilities at the aforementioned fish run. Remaining construction issues were completed in 2010.
- ◆ The CZM-NPS assessment also identified several other areas in need of stormwater remediation. With the assistance of the Town's Department of Natural Resources, the Town was able to secure funding for the design of two stormwater remediation projects and a small culvert replacement project at one of the Town's more popular beaches. Natural Resource Conservation Service (NRCS) funding sources were used for the design of an undersized culvert at Paines Creek Beach near the parking area. Last year, it was reported that this culvert was scheduled for installation in the fall of 2012. Regulatory and property easement disputes further delayed the project and installation is now expected to be complete by the end of June 2013.
- ◆ NRCS funds were also used in the design and construction of stormwater remediation projects along Paines Creek Road and at Saints Landing. These projects are at two popular beach resource areas and direct discharges of untreated stormwater to surrounding coastal resources were eliminated through the installation of catch basins and leaching areas designed to eliminate pollutants associated with first flush stormwater runoff. In order to complete these projects, the NRCS funds were complemented with Town funds as well as MassDOT State Aid Chapter 90 funds. The majority of these two projects were completed in the spring of 2011 with final paving and re-vegetation occurring in the fall of 2011.
- ◆ The final project was also completed along Paines Creek Road, but further away from the beach resource area. This project, Paines Creek South, included the design permitting and installation of drainage facilities near the intersection of Paines Creel Road and Stony Brook Road. Again, direct discharges to wetland resources were eliminated through the use of catchbasins and leaching areas sized to remediate first flush runoff.

In all of the above projects, Town funds and the Town's MassDOT State Aid Chapter 90 funds were used to augment these other outside funding sources for these projects. Also, the Town was able to provide in kind matching services through the use of Town

material, equipment, labor, and professional services to meet certain funding requirements of these grants.

As described in previous Stormwater II assessments, the Town also received a grant from the Gulf of Maine Council to address an undersized culvert under Route 6A. The assessment was completed and a replacement culvert was sized. In kind services through the DPW were used in sizing the culvert and installation of the replacement culvert was completed in the spring of 2010. Final cleanup occurred in the spring and fall of 2011 and in the early part of spring in 2012.

In other areas related to the Stormwater II program, financial constraints and workload issues have limited DPW's response in past years. Education and outreach that was originally limited to the Town's website and handouts has been expanded during 2012 as the Town is currently in the second stage of its Integrated Water Resource Management Plan (IWRMP). Work on the IWRMP has resulted in a wide range of water quality related reports, meetings and presentations. Although Comprehensive Plans are typically concerned with wastewater, the Town's Planning Department and Health Department have expanded the program to include water supply and stormwater runoff. Several Public hearings have taken place, a water quality informational display has been placed in Town Hall, and various department heads have attended GIS Training classes with the intent of expanding our stormwater records management effort. The informational display includes steps individuals can take to reduce their impact on the environment. The Town's GIS system was further updated during the summer of 2012 to include all known discharge points of untreated stormwater runoff, additional components of the Town's drainage system (catchbasins, drain manholes, stormwater BMP systems, and drainage pipe), and the locations of possible interconnections between private properties and the Town's drainage system. In addition, a wide variety of hand drawn sketch plans depicting stormwater components have been scanned and included within the GIS system.

As mentioned earlier, the Town of Brewster has continued development of its IWRMP. Several positive events have been mentioned above. Also included in this effort is a website dedicated to the IWRMP which is linked to the Town's official website. Documents related to the region's water quality efforts are available on this site as well as maps showing groundwater elevations, watershed/sub-watershed delineations feeding coastal embayments and freshwater resources, as well as results of a wide variety of water quality sampling and analysis.

Another significant item in our stormwater effort is the drafting, review and Town Meeting approval of an Illicit Discharge Detection and Elimination (IDDE) By-Law. This by-law was approved at the November 2011 Special Town Meeting after many months of discussion, debate and rewrite. The approval of this by-law is a major step in the Town's water quality improvement effort. The Department of Public Works has been assigned the enforcement duties of this By-Law which will likely require additional staffing in the department in future years. In addition to the approval of this by-law, a comprehensive IDDE Plan was completed in the winter of 2013 by our consultant. This IDDE plan identified catchment delineations for existing MS4 outfalls, prioritized the catchments by their potential for illicit discharge and describes procedures by which the Town will investigate catchments for illicit discharges. The IDDE plan found that five (5) catchment areas represented a MEDIUM risk for illicit discharge and that fifteen (15) of the catchment areas represented a LOW risk for illicit discharge. No catchment areas were found to represent a HIGH risk or illicit discharge or to already be recognized as a PROBLEM area with known illicit discharges.

The Paines Creek Beach Parking Area was relocated in 2011 as outlined in the 2010 report. The relocation work became a secondary

component of a water quality improvement project that was in the final stages of design. By working closely with the USDA Natural Resources Conservation Service and the Town's Department of Natural Resources, Conservation Commission, and Conservation Agent, the DPW and its consultant were able to design, permit and relocate this parking area to a more landward location. Although not an ideal location, it is a major improvement. Final paving for this parking area and final planting of appropriate plants and grasses was completed in the spring of 2012. The work on this project required numerous public hearing with the Conservation Commission and Board of Selectmen.

In the Fall of 2012 the Town began replacement of the failing earthen dam at the outlet to Lower Mill Pond, leading into Paine's Creek. Replacement of the dam includes overtopping protection to prevent dam failure and allows for better storage and control of stormwater in the 5-pond system. Construction was completed in April 2013.

On AP Newcomb Road, catch basins have been installed where no drainage system previously existed. A culvert under the road connecting to a cranberry bog was also replaced. The work is nearly completed, with guardrails and a topcoat of asphalt to be installed in May 2013.

Each of these items reflects the Town's effort to educate the public of the natural resources in our area and describes our efforts in protecting them. Based upon this information, it is clear the Town has an interest in maintaining and improving our coastal environment. The Town is certainly aware of the plan requirements and we intend to continue our efforts in this area. As DPW Superintendent with Professional Engineering Licensure and experience in public works and stormwater related issues, it is my responsibility to oversee the program and propose improvement projects for funding. We have identified several areas where remediation is required and we plan to follow through with funding requests. Unfortunately, the demands on limited public financial resources put DPW type projects in competition with other legitimate Town projects. Our internal funding opportunities area generally limited and we are continually researching alternative funding sources/methods to achieve our various goals.

**Part III. Summary of Minimum Control Measures**

**1. Public Education and Outreach**

<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 10</b> (Reliance on non-municipal partners indicated, if any)	<b>Planned Activities – Permit Year 11</b>
Revised	Develop and distribute educational materials	BoH Nancy Ice	Biannual Mailings	Increased costs associated with mailings, reproductions, and workload in the Health Department has limited the effectiveness of some distribution options. Information is always available at Town Hall and educational materials are distributed through the Comprehensive Water Planning Committee. Public education and outreach was also accomplished while dealing with water quality issues affecting many communities, including dog waste. The Town of Brewster purchased a large homestead parcel in the mid 90’s that is now a popular open space that includes facilities for children, a band shell, and is host to a variety of public functions. During the last 5-10 years, the area became the regional “dog park”. While many dog owners addressed the pet waste problem, many did not and the Board of Health voted to ban dogs from the park until a workable solution can be developed. Public debate was significant. A wide variety of pet waste related articles, posters, and discussions were made available to members of the Town. Although the pet waste problem was not truly solved, pet waste was removed from an area abutting Cape Cod Bay and the public was educated about the issue.	Increase the use of the Town’s website with links to flyers, documents, and other stormwater related websites (EPA, DEP, etc).

<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 10</b> (Reliance on non-municipal partners indicated, if any)	<b>Planned Activities – Permit Year 11</b>
Revised	Additional Educational Materials	DPW – Bob Bersin	Information Documents	<p>The DPW has placed links on the Town’s web site to various web related stormwater sites, but not to the extent that was planned.</p> <p>In addition to the above effort, DPW was able to develop a GIS based plan depicting our stormwater efforts in the Stony Brook Watershed. Besides providing a broad overview to the public, the document was also used to describe our efforts to the funding authorities in Town.</p>	<p>The DPW also intends on preparing flyers etc. for handout at the Transfer Station, during Beach/Transfer Station sticker sales, and for display/pick up at the Town Hall. Some of the material will include solid waste based information, as proper management of solid waste is a related component to our overall pollution/natural resource problems.</p>

## 2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 11
Revised	Establish Stormwater Web Site with pollution reporting capability	IT – Kathleen Lambert	Town Web Site is operational with Stormwater links under DPW section	<p>The Town’s website is a viable alternative for conveying Town related information. Again, the IT department consists of one person and other duties and projects have taken precedence over our Stormwater II efforts.</p> <p>In addition, as mentioned in the summary, the Town has just begun the third phase of developing its Integrated Water Resources Management Plan (IWRMP). A component of the work by our consultant, Horsley Whitten Group, is the development of a web based informational tool. The website has been developed and is accessed via a link on the Town of Brewster home webpage. Much information is available on this site and will be updated as additional information is available.</p> <p>The website can be accessed at:  <a href="http://www.town.brewster.ma.us/committees-mainmenu-29/comprehensive-water-planning-committee/1185-integrated-water-management-website">http://www.town.brewster.ma.us/committees-mainmenu-29/comprehensive-water-planning-committee/1185-integrated-water-management-website</a></p>	The Town of Brewster will continue to add/update Stormwater issues on its website as the Comprehensive Water Management Plan is further developed.
Revised					
Revised					



## 2a. Additions

	Community Meetings for Integrated Water Resources Management Plan (IWRMP)	Planning – Susan Leven	Several meetings annually	Brewster’s Comprehensive Water Planning Committee (CWPC) hosts several community meetings each year to bring the public up to date on the Town’s IWRMP process, including information on stormwater and BMP’s for homeowners.	Additional meetings will be held as the project continues and will include proposed stormwater remediation projects, including a proposed demonstration project to construct a rain garden at Brewster Town Hall.
	Lower Cape Expo	Planning – Susan Leven	Signing up people for e-mail list, providing handouts	The CWPC has had a table at the Expo for the last 2 years. Between the two Expo appearances, over 40 people have joined the e-mail list, many have come to community meetings and many more took printed information.	The CWPC is planning to participate in next year’s Expo in April 2014.
	Brewster Conservation Day	Planning – Susan Leven	Signing up people for e-mail list, providing handouts	The CWPC had a table at last year’s Conservation Day and spent the day talking to residents and property owners about the IWRMP and things they can do, signing people up for the e-mail list, and providing printed information.	Conservation Day in Brewster is expanding, and the CWPC has committed to participate fully. The consultant for the project has also offered to attend and be a speaker.

### 3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 11
	Map Stormwater facilities	Bob Bersin DPW Supt, Sue Leven, Town Planner	Update Stormwater data on Town GIS system.	In the previous year, the Town of Brewster’s GIS system was upgraded and locations of untreated stormwater runoff discharges were mapped by our consultant. This work was continued over the past year as additional system upgrades were made and our consultant continued the process of mapping untreated stormwater discharge locations, as well as the locations of recently installed stormwater BMPs, possible system interconnections, and additional drainage structures. Training was provided for personnel associated with stormwater/water quality issues but with limited use.	Continue the implementation of the GIS System at the DPW. Staffing issues will have an effect on this program. Training and/or additional personnel to implement the program are limited
Revised					
	By-Law prohibiting illicit discharge	Sue Leven Town Planner  Robert L. Bersin, PE DPW Supt	Pursue passage of Illicit Discharge By-Law	The by-law was passed by Town meeting in November of 2011.	The CWPC and Planning Board will be looking at ways to update by-laws and regulations to better address storm water remediation.
Revised					
	Illicit discharge detection	Chris Miller		Mr. Miller continued his department’s sampling and analysis program and was instrumental in obtaining the Natural Resources Conservation Service funding for the aforementioned stormwater related grants.	Continue the program.
Revised		Natural Resources Coordinator	Sampling and Analysis of water bodies		
Revised					

### 3a. Additions

	Illicit Discharge Detection & Elimination (IDDE) Plan	Bob Bersin DPW Supt, Sue Leven, Town Planner	Update IDDE Plan	The Town's consultant prepared an updated IDDE Plan that meets the anticipated forthcoming requirements of the new MS4 Permit (as described in the 2010 IMS Draft Permit). The Plan was delivered in January 2013,	The Town will implement the plan in accordance with the 2013 IDDE Plan during the coming year.
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#### 4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 11
Revised	Revise Development Plan Review By-Law	Planning Board Sue Leven and Elizabeth Taylor	By-Law update	The Development Plan Review By-Law was updated this past year and replaced with a Staff-Review By-Law which improves the exchange of development information from department heads to prospective builders, developers, and/or property owners. Water quality issues are an important component of these discussions.	The members of the Staff review Committee will continue to improve the discussions with prospective developers with regards to development requirements including stormwater quality.
Revised	Establish public input mechanism	Planning Board Sue Leven and Elizabeth Taylor	In progress	Public input is a required component of any by-law change or development. The Commonwealth of Massachusetts has well defined open meeting law requiring public access to all deliberations, with some exceptions. As such public input is included in the development of all by-laws and regulations. Public input for stormwater related issues is achieved through public hearings required of our consultants that assist with the IWRMP.	We plan to continue with the IWRMP and the public informational sessions that we require of our consultants. Also, with the wealth of information available on the Town’s website, getting information to the public is working well. Getting the public to respond to our water quality improvement efforts is the challenge.
Revised					
Revised					
Revised					

### 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 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 11
	Revise Development Plan Review By-Law	Planning Board	By-Law update	The Town passed a revised development review process called Staff Review, and also adopted a Site Plan Review by-law in May 2011. In addition, the Town is in the preliminary stages of developing an Integrated Water Resources Management Plan in conjunction with activities related to work on Pleasant Bay and Clean Water Act recommendations.	The Town is looking at ways to promote the Staff Review process.
Revised		Elizabeth Taylor			
	Construction Inspection	Construction inspection by proponent engineer and DPW	Continued project construction inspection.	The Town does not have a formal Engineering Department and uses contract services as well as trained staff in the DPW. Also, development in the area is of a residential nature, and projects disturbing more than an acre are rare. The enforcement of this issue is more effective with appropriate regulations and approval conditions.	Continue our inspection program and continue to improve and update regulations with regards to water quality in all areas, including but not limited to water quality, water supply, wastewater, and stormwater runoff.
Revised					
Revised					
Revised					
Revised					

## 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 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 11
	Employee Education	Robert L. Bersin, PE DPW Supt  Jeff Day DPW Foreman	Training programs	Continued with employee training. Mr. Day is continuing the staff training required. We employed the services of the Barnstable County Health Department for assistance with training. Some of the recommended improvements have been completed and additional staff training is currently being scheduled.	Continue the program.
Revised					
	Operation & Maintenance Schedule	Robert L. Bersin, PE DPW Supt  Jeff Day DPW Foreman	Annual catch basin cleaning and annual winter sand cleanup	These two programs are completed annually. The sweeping is completed with Town personnel and equipment while the catchbasin cleaning is completed using contracted services. The Town received a Beneficial Use Determination (BUD) approval from MassDEP for use of the collected materials based upon the results of sampling and analysis. The BUD promotes the reuse of materials and some of these materials are mixed with site developed compost and the mixture is used as a soil amendment for various open areas which promotes the goals of our water quality program.	Continue the program
Revised					
Revised					
Revised					

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

<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 10</b> (Reliance on non-municipal partners indicated, if any)	<b>Planned Activities – Permit Year 11</b>
Revised					
Revised					
Revised					

**7a. Additions**

	Public Education about Pet Waste	Sue Leven - Planning	Distribute Educational Materials	See BMP #1.	Re-assess existing signage and educational materials and develop plan to modify if necessary to enhance the message.
	Public Education about WaterFowl	Sue Leven - Planning	Distribute Educational Materials	See BMP#1	Re-assess existing signage and educational materials and develop plan to modify if necessary to enhance the message.
	Septic Systems – Tracking and Education	Nancy Ice - Health Department	Distribute Educational Materials	The locations of failing septic systems are tracked in a Board of Health database. These systems have been incorporated into the Town’s GIS.	Re-assess existing outreach activities and educational materials and develop a plan to modify if necessary to enhance the message.
	Outfall & Runoff Inventory	Bob Bersin - DPW	GIS Map all Outfalls and parking area runoff	All mapping complete.	Implement IDDE Plan catchment investigations.
	Water Quality Testing	Chris Miller – Natural Resources	Water Quality Testing	See BMP 3	Re-assess existing sampling efforts and develop a plan to modify if necessary to monitor impaired waters.

## 7b. WLA Assessment

The MS4 Permit has requirements specific to stormwater discharges to Impaired Waters with approved TMDLs. In Brewster's case, currently these waters include Namskaket and Quivett Creeks, which are impaired for pathogens (fecal coliform). Although there are two impaired ponds (Sheep Pond and Baker), these ponds are impaired for mercury in fish; pollution that has been attributed to air pollution and is not applicable to the NPDES MS4 program. Pleasant Bay, although impaired for nutrients, does not receive stormwater discharge from Brewster's MS4. The applicable TMDL is the Cape Cod Basin Pathogen TMDL (August 2009). The Implementation Plan for the Cape Cod Pathogen TMDL states the following:

*“The watershed based approach applied to complete the Cape Cod watershed pathogen TMDL is straightforward. The approach is focused on identification of sources, source reduction, and stepwise implementation of appropriate management plans. Once identified, sources are required to meet applicable WQS for indicator bacteria or be eliminated. This approach does not include water quality analysis or other approaches designed to link ambient concentrations with source loadings. For pathogens and indicator bacteria, water quality analyses are generally resource intensive and provide results with large degrees of uncertainty. Rather, this approach focuses on sources and required load reductions, proceeding efficiently toward water quality restoration activities.”*

Likely sources of coliform could include:

- Failing septic systems
- Illicit connections from septic systems or graywater
- Stormwater runoff from pet waste
- Wildlife (waterfowl)
- Boat pump-out discharges



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

N/A

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

**Programmatic**

Stormwater management position created/staffed	(y/n)	N
Annual program budget/expenditures – At the Fall 2012 Special Town Meeting, funding was authorized with the specific intent of addressing the requirements of the upcoming Stormwater II change in law. This funding does not include any additional staffing.	(\$)	\$60,000

**Education, Involvement, and Training**

Estimated number of residents reached by education program(s)	(# or %)	4,000
Stormwater management committee established	(y/n)	No
Stream teams established or supported	(# or y/n)	No
Shoreline clean-up participation or quantity of shoreline miles cleaned	(y/n or mi.)	Y – 9 miles
Household Hazardous Waste Collection Days		
▪ days sponsored	(#)	6
▪ community participation	(%)	33.5%
▪ material collected	(tons or gal)	6.1 T
School curricula implemented	(y/n)	No

**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

Outfall mapping complete	(%)	100%
Estimated or actual number of outfalls	(#)	
System-Wide mapping complete	(%)	100%
Mapping method(s)		
▪ Paper/Mylar	(%)	75% (hand Sketches)
▪ CADD	(%)	0%
▪ GIS	(%)	100%
Outfalls inspected/screened	(# or %)	10% (Est)
Illicit discharges identified	(#)	0
Illicit connections removed	(# ) (est. gpd)	0
% of population on sewer	(%)	0%
% of population on septic systems	(%)	100%

### Construction

Number of construction starts (>1-acre)	(#)	0
Estimated percentage of construction starts adequately regulated for erosion and sediment control	(%)	0
Site inspections completed	(# or %)	0 (Est)
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	(%)	0
Site inspections completed	(# or %)	0
Estimated volume of stormwater recharged	(gpy)	unknown

### Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets)	(times/yr)	Annual
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	(times/yr)	Annual
Total number of structures cleaned	(#)	600
Storm drain cleaned	(LF or mi.)	250 ft
Qty. of screenings/debris removed from storm sewer infrastructure	(lbs. or tons)	250 T
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		Although the Town of Brewster has a Beneficial Use Determination (BUD) for these materials, the catch basin cleaning contract in 2011 included the removal of cleanings from the Town. As such, we were able to reduce our on hand stockpile by not adding to it.
Cost of screenings disposal	(\$)	\$40,000

Average frequency of street sweeping (non-commercial/non-arterial streets)	(times/yr)	Two times per year in a wetlands discharge environment. Other.\wise annual sweeping.
Average frequency of street sweeping (commercial/arterial or other critical streets)	(times/yr)	Two times per year
Qty. of sand/debris collected by sweeping	(lbs. or tons)	850 T weighed

Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	We have a DEP approved Beneficial Use Determination (BUD) for the management of Street Sweepings and Catch Basin Cleanings. Our efforts are to amend soils on fields, parks, and cemeteries by testing these materials and then combining them with compost made on site in a 1:1 ratio. These procedures are described in our BUD permit.
Cost of sweepings disposal	(\$)	\$60,000 (est)
Vacuum street sweepers purchased/leased	(#)	1
Vacuum street sweepers specified in contracts	(y/n)	N/A

Reduction in application on public land of: (“N/A” = never used; “100%” = elimination)		
▪ Fertilizers – We generally fertilize our fields using compost.	(lbs. or %)	unknown
▪ Herbicides	(lbs. or %)	Not used
▪ Pesticides	(lbs. or %)	Not used

Anti-/De-Icing products and ratios	% NaCl	2:1 Sand/NaCl
	% CaCl <sub>2</sub>	0
	% MgCl <sub>2</sub>	0
	% CMA	0
	% Kac	0
	% KCl	0
	% Sand	2:1 Sand/NaCl
Pre-wetting techniques utilized	(y/n)	Y
Manual control spreaders used	(y/n)	Y
Automatic or Zero-velocity spreaders used	(y/n)	Y
Estimated net reduction in typical year salt application	(lbs. or %)	unknown
Salt pile(s) covered in storage shed(s)	(y/n)	Y
Storage shed(s) in design or under construction	(y/n)	N