



May 15, 2009

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United States Environmental Protection Agency  
Water Technical Unit  
PO Box 8127  
Boston, Massachusetts 02114

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Massachusetts Department of Environmental Protection  
Division of Watershed Management  
627 Main Street  
Worcester, Massachusetts 01608

**Subject: Annual Update - NPDES Phase II General Permit  
Town of Sandwich Stormwater Management Plan: Year 6 Update**

Dear U.S. EPA and MaDEP:

As required under the NPDES Stormwater General Permit, the Town of Sandwich hereby submits this annual update of the Town's Stormwater Management Plan (SMP). This report is a continuation of the original 5-year permit issued for the Town of Sandwich. During the sixth year, the Town continued many efforts implemented in the initial permit and strove to meet goals that were planned but not met within the first five years. An update of Year 6 accomplishments are listed below and shown in the attached tables.

#### **Year 6 Update**

The Town of Sandwich continues to be very proactive in the field of stormwater management and has successfully fulfilled nearly all of its goals established in its Stormwater Management Plan over the 6-year period.

This Annual Update provides a look at major accomplishments, new programs and goals and the status of goals that have not been met as scheduled. Below is a summary of Year 6 implementation.

#### **Major Sixth Year Accomplishments (Spring 2008 - Winter 2009)**

Below is a list of some of the significant goals accomplished over the past year. Further details and illustrations of these accomplishments are show in the attached appendix.

#### Stormwater Mitigation of Mill Creek

Building on an effort that started back in 1990, the Town of Sandwich began construction on another state grant (319 – Non-point Source Pollution). Construction included installing drainage facilities to mitigate stormwater pollution entering Mill Creek, a

tributary of Sandwich Harbor. The grant also includes an educational aspect, actively involving local students with stormwater matters.

Up until this past year, shellfishing had been prohibited by the State at Sandwich Harbor since 1985 due to bacteriological contamination. Starting with illicit detection inspection in 1990 and continuing with Coastal Pollution Remediation (CPR) grants and now the 319 grant, the Town continues to actively mitigate stormwater impacts in the Town of Sandwich. The Town's efforts to abate pollution, including stormwater mitigation, have resulted in the recent reopening of the shellfish beds by the Division of Marine Fisheries.

In addition to the above work, Sandwich's Natural Resource Department is seeking funds to study and restore Brady's Island Marsh, which is connected to Mill Creek. The study will focus on identifying pollution sources impacting the marsh and methods to rehabilitate the marsh.

#### Environmental Exposition at Sandwich High School

The Engineering Department attends an Environmental Expo at Sandwich High School each year to view projects completed by the senior class. The Engineering Department assists students throughout their project period by providing mapping and stormwater information related to their local projects.

#### Sandwich Elementary School Water Festival

The Town participated in a Water Festival on February 6, 2009 held by the Cape Cod Commission and Americorps Cape Cod. These annual events educate elementary students about stormwater impacts and methods to minimize these impacts.

#### Stormwater Video

The Town is participating in a Stormwater Video developed by the Cape Cod Commission and Americorps Cape Cod titled *Case of the Contaminated Bay*. The video will show local scenes and educate the public about stormwater contamination and methods the public can take to prevent contamination. The video will be shown on local television, web-sites and will also be available for display at other environmental events.

#### Canal Cleanup Event on Earth Day

The Town participated in an Earth Day Event on April 25, 2009 at the Cape Cod Canal by cleaning up trash along the Canal and presenting information about solid waste, recycling and proper disposal of hazardous products to minimize impacts to the environment.

#### Community Pride Day

The Town of Sandwich has proclaimed a Community Pride Day where residents participate in the cleanup of the Town. The DPW distributes equipment to assist in the cleanup of trash and identifies locations where residents can focus their efforts, such as at walking trails, roadsides, beaches, marshes and along shorelines. This event helps prevent trash from entering our valuable water bodies.

### Stormwater Inspections and Monitoring

The Town continues to monitor erosion control at developments and inspect illicit connections throughout town as part of its SMP. The Town's enforcement of this program has effectively cleaned up many sites, minimizing impacts to the Town's drainage system and water bodies.

The Town recently performed a smoke test to determine the source of a potentially illicit stormwater connection near Mill Creek in Sandwich. The Town will continue to use this procedure and others in an effort to identify pollution sources throughout the Town.

### Stormwater Management Plan on Display

The Stormwater Management Plan is on display on the Town's web site for public viewing. Additionally, the Town's GIS allows the public to pinpoint specific stormwater problems and relay this information via e-mail to the Department of Public Works. The e-mail shows a map and ID number of the drainage facility so the DPW can quickly respond to any drainage issues. This process also allows accurate record keeping by the DPW.

### Town Letters of Support for State 604(b) Grant

The Town of Sandwich wrote letters of support for the Cape Cod Commission's application of two State 604 (b) grants. The grants are for stormwater and wastewater and will assist Cape Town's with their planning and management of these two areas critical to water quality.

### Water Quality Groups

The Town of Sandwich is proactive in matters related to water quality in Sandwich and on Cape Cod. The Town has many public officials and volunteers actively involved with water quality committees including but not limited to the Sandwich Water Quality Advisory Board, Mass Estuaries Program, Popponesset Bay State DEP Pilot Intra-municipal Work Group and 3 Bays Initiative.

### **Status of Goals for Year 6**

Similar to the original table submitted for the NPDES General Permit, the attached table shows goals proposed for all Six Control Measures. This updated table reflects new goals and the status of Year 1 through 6 goals. The yellow highlighted cells represent goals scheduled and met in each season of respective years. Words highlighted in red represent goals that have not yet been reached. New goals mentioned earlier have also been included in the table.

The attached appendix shows several of the actions performed by the Town to meet the Year 6 goals listed in the table.

### **Overall Status of 6-Year Permit Term**

As can be seen in the attached table, almost all of the goals in the Town's SMP have been met over the 6-year permit period. It's important to note that several new goals were added to the Six Control Measures as the SMP evolved. Goals that were not achieved under the 6-year permit are shown below. In all instances, these goals will be

accomplished in future years, as identified in the table. Note: Some of the goals overlap in the Six Control Measures.

#### Unmet Goals of Six Control Measures

##### *5.1 Public Education & Outreach*

###### 1j. Educational Video – Under Construction

The Town is participating in a Stormwater Video being developed by the Cape Cod Commission and Americorps Cape Cod. The video is expected to be complete in the summer of 2009.

###### 1k. Catch Basin Stencils – Future Goal

With assistance from Americorps Cape Cod, the Town will glue approximately 100 storm drain markers and distribute 500 door hangers in the environmentally sensitive Town Neck area of Sandwich, which borders Mill Creek and Sandwich Harbor. This project will begin in the summer of 2009.

##### *5.2 Public Involvement and Participation*

2h. Educational Video – Under Construction. See Unmet Goal 5.1, 1j above.

##### *5.4 Construction Stormwater Runoff Control*

###### 4g. Recommended BMP's – Future Goal

The Town requires developers to design drainage facilities using BMP's. The Town had anticipated the Cape Cod Commission obtaining a grant to create a list of "Cape Cod BMP's" to distribute to developers. Since the grant was not awarded, the Town will develop its own brochure and list of BMP's.

###### 4i. Erosion Control Guidelines – Future Goal

The Town will update its current Erosion Control Guideline to reflect current BMP practices and design. This guideline will be available for developers and homeowners. The guideline will also complement enforcement letters for non-compliance.

##### *5.5 Post Construction Stormwater Management*

5f. Recommended BMP's – Future Goal. See Unmet Goal 5.2, 4g above.

5h. Erosion Control Guidelines – Future Goal. See Unmet Goal 5.2, 4.i above.

#### **Future Stormwater Management Plan & Permit**

As mentioned above, the Town plans to complete the remaining goals of the SMP during the next permit and will continue implementing most of the SMP goals annually.

The Town will add to its SMP goals as necessary to meet compliance requirements of new permits issued by EPA and DEP. Several of the preliminary requirements for the new permit listed in the EPA letter dated August 3, 2007 are goals that the Town of Sandwich has already implemented. The Town anticipates that it will be able to comply with the others as staffing and funding becomes available.

**Conclusion**

The Town of Sandwich's accomplishments over the past six years meet or exceed nearly all of the scheduled goals. Additionally, new goals have been created to further enhance the Towns Stormwater Management Plan. We trust that these accomplishments will satisfy the Massachusetts Department of Environmental Protection and the United States Environmental Protection Agency requirements for this permit. Please contact Paul S. Tilton of the Sandwich Department of Public Works if you have any questions or require further information regarding the Year 6 Annual Update.

Sincerely,



Paul S. Tilton, P.E.

DPW Director/Town Engineer

Attachments: Year 6 Update Materials



Massachusetts Department of Environmental Protection  
 Bureau of Resource Protection - Watershed Management  
**BRP WM 08A NPDES Stormwater General Permit Notice of Intent**  
 for Discharges from Small Municipal Separate Stormwater Sewer Systems (MS4's)  
 F. Storm Water Management Program TIME FRAMES

BMP ID #	PERMIT YEAR ONE				PERMIT YEAR TWO				PERMIT YEAR THREE				PERMIT YEAR FOUR				PERMIT YEAR FIVE				PERMIT YEAR 6 ACHIEVEMENTS	
	Spring 03	Summer 03	Fall 03	Winter 03-04	Spring 04	Summer 04	Fall 04	Winter 04-05	Spring 05	Summer 05	Fall 05	Winter 05-06	Spring 06	Summer 06	Fall 06	Winter 06-07	Spring 07	Summer 07	Fall 07	Winter 07-08		
<b>5.1: Public Education &amp; Outreach</b>																						
1a																					Current Education	
1b																						Development Review
1c																						Public Display of S
1d																						Public Meeting
1e																						Proposed Educatio
1f																						Outfall & Catch Ba
1g																						Web Site Informati
1h																						Educational Festiv
1i																						Educate DPW Em
1j																						Educational Video
1k																						Catch Basin Stenc
1l																						Stormwater Poster
1m																						Student Involveme
1n																						Stormwater Comm
1o																						Environmental Exp
<b>5.2: Public Involvement &amp; Participation</b>																						
2a																						Development Review
2b																						Public Meeting
2c																						Public Display of S
2d																						Proposed Educatio
2e																						Illicit Discharge Ide
2f																						Outfall & Catch Ba
2g																						Water Monitoring
2h																						Educational Video
2i																						Educational Festiv
2j																						Student Involveme
2k																						Stormwater Comm
<b>5.3: Illicit Discharge Detection &amp; Elimination</b>																						
3a																						Household Hazard
3b																						Sandwich Village
3c																						Illicit Discharge &
3d																						Catch Basin Clear
3e																						Outfall & Catch Ba
3f																						Educational Inform
3g																						Allowable Non-Sto
3h																						Town Bylaw - Illeg
3i																						Water Sampling

Note: Many of the BMP's above will continue beyond the initial 5-year permit period.  
 = Goals completed in the season & year shown above. Words in Red = goals not accomplished under the five year permit.



