

**Municipality/Organization:** Town of Swampscott, Massachusetts

**EPA NPDES Permit Number:** \_\_\_\_\_

**MassDEP Transmittal Number:** W- 041272

**Annual Report Number  
& Reporting Period:** No 6: April 1, 2008 – March 31, 2009

## NPDES PII Small MS4 General Permit Annual Report (Due: May 1, 2009)

### Part I. General Information

**Contact Person:** Gino A. Cresta, Jr. **Title:** Director of Public Works

**Telephone #:** 781-596-8860 **Email:** gcresta@town.swampscott.ma.us

**Mailing Address:** 22 Monument Avenue, Swampscott MA 01907

#### 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:** Andrew W. Maylor

**Title:** Town Administrator

**Date:** 6/5/09

## **Part II. Self-Assessment**

The Town of Swampscott, Massachusetts has completed the required self-assessment and has determined that, based on the available information, the Town is in compliance with the conditions of the permit, with the minor exception that the implementation of our minimum control measures did not meet our stated schedule documented as part of the permit Intent. In these instances, alternative BMPs have been performed or proposed as described below:

- **BMP 1-1** – The Town will continue to post stormwater information and place brochures in public buildings and schools, not having speakers in two schools per year due to staffing shortages.
- **BMP 3-4** – The Town has inspected 15,000 linear feet of storm drains. Since televising the drains is cost-prohibitive, the Town has focused its efforts on televising and visually inspecting the drainage at Stacey's Brook culvert, which is historically contaminated and chlorinated in the Summer months. This was done in response to an Administrative Consent Order issued by DEP.
- **BMP 6-5** – The Town is still pursuing a tree survey from the US Forestry, and will set up a tree inventory system that is appropriate. Pursuing grant opportunities are difficult due to limited staffing in Public Works.

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

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 6	Planned Activities – Permit Year 7
<b>1. Public Education and Outreach</b>					
1-1	Speakers	Director of Public Works	Call two schools per year	Posted stormwater posters in public buildings. Will continue through permit term.	Stormwater posters posted throughout term.
1-2	Local cable access spots	Director of Public Works	Produce two 5-minute spots	In compliance.	No activity planned.
<b>2. Public Involvement and Participation</b>					
2-1	Public Notification	Director of Public Works	Posting of all appropriate meetings	All DPW meetings (twice per month) are posted in Town Hall and advertised in local newspaper.	Continue to post notices of appropriate meetings.
2-2	Household hazardous waste collection	Health Director	One collection per year	Household hazardous waste collection day was held June 14, 2008	Household hazardous waste collection day June 6, 2009
2-3	Stencil catch basins that drain to sensitive areas	Director of Public Works	Stencil fifty (50) catch basins per year	The approximate 60 catchbasins stenciled in 2005 are in good shape.	Continue to monitor the condition of the stenciled catch basins.
2-4	Seedlings for Arbor Day	Director of Public Works / Tree Warden	Ten (10) seedlings per year for two (2) years	Planted ceremonial tree on Arbor Day, 2009.	Plant on Arbor Day, 2010
<b>3. Illicit Discharge Detection and Elimination</b>					
3-1	Map outfalls and receiving waters	Director of Public Works	Updated map by the end of the second year	In compliance	No activity planned
3-2	Stormwater bylaw	Director of Public Works	Draft completed in time to submit to Town Meeting	Bylaw is still under review by Town Officials. Town formed a 'bylaw review committee' which will also be reviewing the new bylaw.	Present for enactment in Spring, 2009 at Town Meeting.
3-3	Dry weather screening of outfalls	Director of Public Works	Two rounds of sampling in 2004	The board of Health takes samples from beach areas during the Summer	Continue to investigate sources of high bacterial counts.
3-4	Illicit discharge elimination	Director of Public Works	Televise the entire system by the end of the term	Continued inspection of all remaining storm drains is cost-prohibitive. Conducted visual inspection of drainage are contributing to Stacey's Brook in April, 2008 to determine source of contamination.	Continue to investigate illicit connections to Stacey's Brook drainage area and design improvements to install in Fall 2009 using SRF funds already appropriated.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 6	Planned Activities – Permit Year 7
<b>4. Construction Site Stormwater Runoff Control</b>					
4-1	Construction site bylaw and ordinance	Planning Board, Building Inspector, DPW, ERAC	Present draft bylaw to Town Meeting in 2004	Bylaw is still under review by Town Officials. Town formed a “bylaw review committee” which will also be reviewing the new bylaw.	Present for enactment in Spring, 2009 at Town Meeting.
4-2	Public Comment	ZBA, ConComm, Planning Board, DPW	Receive input on draft bylaw at public meetings	Received input at various public meetings.	Continue to receive input at public meetings.
4-3	Review site plans	Building Inspector, DPW, ZBA, ConComm	Add stormwater management to scope of review	In compliance, continue to review site plans for stormwater program compliance.	Continue to review site plans for stormwater program compliance.
4-4	Enforcement Procedures	Planning Board, ConComm	Notification to the boards about enforcement procedures	Enforcement procedures are still under review by Town Officials. Town formed a “bylaw review committee” which will also be reviewing the enforcement procedures.	Present for enactment in Spring, 2009 at Town Meeting.
<b>5. Post-Construction Stormwater Management in New Development and Redevelopment</b>					
5-1	BMP manual	DPW, ConComm	BMP manual selected	In compliance, continue to recommend BMP manual to local developers	Continue to recommend BMP manual to local developers
5-2	Runoff Controls	Director of Public Works	Draft bylaw to Town Meeting	Bylaw is still under review by Town Officials. Town formed a “bylaw review committee” which will also be reviewing the new bylaw.	Present for enactment in Spring, 2009 at Town Meeting.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 6	Planned Activities – Permit Year 7
<b>6. Pollution Prevention and Good Housekeeping in Municipal Operations</b>					
6-1	Sensitive Areas	Director of Public Works	Identify and map sensitive areas	In compliance.	No activity planned.
6-2	Clean catch basins	Director of Public Works	Clean catch basins every other year, maintain records	Cleaned approximately 75% of catch basins town-wide in 2008.	Continue to clean catch basins yearly.
6-3	Sweep Streets twice per year	Director of Public Works	Sweep each street twice per year.	All streets were swept twice during permit Year 6 and as needed.	Continue to sweep each street twice per year and as needed.
6-4	Continue no pesticide policy	Director of Public Works	No pesticide use on Town property	No pesticides were used on Town property	Continue no pesticide policy
6-5	Tree survey	Director of Public Works / Tree Warden	Implement survey and long-term forestation plan	Still pursuing tree survey through the US Forestry. Difficult to pursue grant opportunities due to limited staffing in DPW.	Complete the survey and develop long term forestation plan.
6-6	Implement long-term forestation plan	Director of Public Works / Tree Warden	Implement long-term forestation plan	Planted 20 trees throughout Town	Continue to implement long-term forestation plan.
6-7	Provide training to DPW staff	Director of Public Works	Two training days per year	Presented stormwater videos to DPW staff.	Present training videos to DPW staff.
6-8	Implement long-term forestation plan	Director of Public Works / Tree Warden	Implement long-term forestation plan	In compliance	No activity planned.
6-9	Maintain covered salt storage; calibrate salt spreaders annually	Director of Public Works	Maintain salt storage shed, and calibrate salt spreaders, as needed	Calibrated salt spreaders in 2008. Awaiting available funding for salt storage shed improvement.	Improvement to salt storage shed over the next 3-4 years. Calibrate salt spreaders as needed.

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

### **Storm Drain Outfall Inspections**

The Town located 24 stormwater outfalls discharging to Swampscott's coastal waters during permit Year 2. Overall, most of the outfalls seem to be in good condition. The drainage outfall at Phillips Beach was reconstructed during the Winter of 2008-2009 (permit Year 6) due to poor condition.

### **Smoke Testing**

Smoke testing was performed on approximately 41,150 LF of storm drain during June, 2004.

Through dye testing it was confirmed that suspected connections actually discharge to the proper location and are not considered illicit connections.

### **Television inspection**

Approximately 15,000 LF of storm drains were television inspected between July and August 2004. Town began to focus on Stacey's Brook drainage area due to limited funding, and conducted a visual walk-through inspection of the culvert and video inspection of some surrounding underdrains in Spring 2008. Work continues to design remedies for a number of deficiencies discovered in the system, specifically in the Banks Road and Farragut Road area. Construction will be funded through SRF.

### **Dry Weather Sampling**

Dry weather sampling was completed in December 2003 and July 2004. The samples were analyzed for fecal coliform at a state-certified laboratory.

The Board of Health samples waters from local beaches on a regular basis during the summer.

Dry weather samples were obtained by DEP in Spring 2006. The results are below.

- Manhole on Erie Street, house #7: 1299.7 MPN/100ml
- Duplicate of manhole on Erie Street, house #7: 1986.3 MPN/100ml
- Manhole at Columbia and Essex: 1046.2 MPN/100ml

DPW samples drainage outfall flow at King's Beach three times per week between May 1 and September 30 for total fecal coliform. Results are submitted to DEP as part of an Administrative Consent Order signed in January, 2007. These samples are representative of the water quality in Stacey's Brook and the associated drainage area.

**Manhole Inspections**

A select group of sewer manholes with underdrains were inspected in 2005 to identify the status of underdrain connections. A total of 41 manholes in subareas 2, 3A, 3B, 4 and 5A were inspected. Additional manhole inspections and underdrain television inspections were conducted in April 2008 to determine system interconnections. One contaminated underdrain connection to the drain was eliminated at Beach Avenue and Columbia Street, and investigations continue to detect other connections.

**Beach Closings**

Preston Beach was closed for a total of 1 day during permit Year 6.

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

(Since beginning of permit coverage unless specified otherwise by a \*\*, which indicates response is for period covering April 1, 2006 through March 31, 2007)

**Programmatic**

	(Preferred Units)	Response
Stormwater management position created/staffed	(y/n)	
Annual program budget/expenditures **	(\$)	
Total program expenditures since beginning of permit coverage	(\$)	
Funding mechanism(s) (General Fund, Enterprise, Utility, etc)		

**Education, Involvement, and Training**

Estimated number of property owners reached by education program(s)	(# or %)	
Stormwater management committee established	(y/n)	
Stream teams established or supported	(# or y/n)	
Shoreline clean-up participation or quantity of shoreline miles cleaned **	(y/n or mi.)	
Shoreline cleaned since beginning of permit coverage	(mi.)	
Household Hazardous Waste Collection Days		
<ul style="list-style-type: none"> <li>▪ days sponsored **</li> <li>▪ community participation **</li> <li>▪ material collected **</li> </ul>	(#)	
School curricula implemented	(# or %)	
	(tons or gal)	
	(y/n)	

**Legal/Regulatory**

	In Place Prior to Phase II	Reviewing Existing Authorities	Drafted	Draft in Review	Adopted
Regulatory Mechanism Status (indicate with "X")					
<ul style="list-style-type: none"> <li>▪ Illicit Discharge Detection &amp; Elimination</li> </ul>					



▪ Erosion & Sediment Control				
▪ Post-Development Stormwater Management				
Accompanying Regulation Status (indicate with "X")				
▪ Illicit Discharge Detection & Elimination				
▪ Erosion & Sediment Control				
▪ Post-Development Stormwater Management				

### Mapping and Illicit Discharges

	(Preferred Units)	Response
Outfall mapping complete	(%)	
Estimated or actual number of outfalls	(#)	
System-Wide mapping complete (complete storm sewer infrastructure)	(%)	
Mapping method(s)		
▪ Paper/Mylar	(%)	
▪ CADD	(%)	
▪ GIS	(%)	
Outfalls inspected/screened **	(# or %)	
Outfalls inspected/screened (Since beginning of permit coverage)	(# or %)	
Illicit discharges identified **	(#)	
Illicit discharges identified (Since beginning of permit coverage)	(#)	
Illicit connections removed **	(#); and (est. gpd)	
Illicit connections removed (Since beginning of permit coverage)	(#); and (est. gpd)	
% of population on sewer	(%)	
% of population on septic systems	(%)	

### Construction

	(Preferred Units)	Response
Number of construction starts (>1-acre) **	(#)	
Estimated percentage of construction starts adequately regulated for erosion and sediment control **	(%)	
Site inspections completed **	(# or %)	

Tickets/Stop work orders issued **	(# or %)
Fines collected **	(# and \$)
Complaints/concerns received from public **	(#)

**Post-Development Stormwater Management**

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)
Site inspections (for proper BMP installation & operation) completed **	(# or %)
BMP maintenance required through covenants, escrow, deed restrictions, etc.	(y/n)
Low-impact development (LID) practices permitted and encouraged	(y/n)

**Operations and Maintenance**

Average frequency of catch basin cleaning (non-commercial/non-arterial streets) **	(times/yr)
Average frequency of catch basin cleaning (commercial/arterial or other critical streets) **	(times/yr)
Qty of structures cleaned **	(#)
Qty. of storm drain cleaned **	(%, LF or mi.)
Qty. of screenings/debris removed from storm sewer infrastructure **	(lbs. or tons)
Disposal or use of screenings (landfill, POTW, compost, beneficial use, etc.) **	(location)

Basin Cleaning Costs		
• Annual budget/expenditure (labor & equipment)**		(\$)
• Hourly or per basin contract rate **		(\$/hr or \$ per basin)
• Disposal cost**		(\$)
Cleaning Equipment		
• Clam shell truck(s) owned/leased		(#)
• Vacuum truck(s) owned/leased		(#)
• Vacuum trucks specified in contracts		(y/n)
• % Structures cleaned with clam shells **		(%)
• % Structures cleaned with vactor **		(%)

	(Preferred Units)	Response
Average frequency of street sweeping (non-commercial/non-arterial streets) **	(times/yr)	
Average frequency of street sweeping (commercial/arterial or other critical streets) **	(times/yr)	
Qty. of sand/debris collected by sweeping **	(lbs. or tons)	
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.) **	(location)	
Annual Sweeping Costs		
• Annual budget/expenditure (labor & equipment)**	(\$)	
• Hourly or lane mile contract rate **	(\$/hr. or In mi.)	
• Disposal cost**	(\$)	
Sweeping Equipment		
• Rotary brush street sweepers owned/leased	(#)	
• Vacuum street sweepers owned/leased	(#)	
• Vacuum street sweepers specified in contracts	(y/n)	
• % Roads swept with rotary brush sweepers **	%	
• % Roads swept with vacuum sweepers **	%	
Reduction (since beginning of permit coverage) in application on public land of: ("N/A" = never used; "100%" = elimination)		
▪ Fertilizers	(lbs. or %)	
▪ Herbicides	(lbs. or %)	

<ul style="list-style-type: none"> <li>Pesticides</li> </ul>	(lbs. or %)
Integrated Pest Management (IPM) Practices Implemented	(y/n)

(Preferred Units)	Response
Average Ratio of Anti-/De-Icing products used ** (also identify chemicals and ratios used in specific areas, e.g., water supply protection areas)	% NaCl % CaCl <sub>2</sub> % MgCl <sub>2</sub> % CMA % Kac % KCl % Sand
Pre-wetting techniques utilized **	(y/n or %)
Manual control spreaders used **	(y/n or %)
Zero-velocity spreaders used **	(y/n or %)
Estimated net reduction or increase in typical year salt/chemical application rate	(±lbs/ln mi. or %)
Estimated net reduction or increase in typical year sand application rate **	(±lbs/ln mi. or %)
% of salt/chemical pile(s) covered in storage shed(s)	(%)
Storage shed(s) in design or under construction	(y/n or #)
100% of salt/chemical pile(s) covered in storage shed(s) by May 2008	(y/n)

### Water Supply Protection

Storm water outfalls to public water supplies eliminated or relocated	# or y/n
Installed or planned treatment BMPs for public drinking water supplies and their protection areas	# or y/n
<ul style="list-style-type: none"> <li>Treatment units induce infiltration within 500-feet of a wellhead protection area</li> </ul>	# or y/n