

Municipality/Organization: Town of Swampscott, Massachusetts

EPA NPDES Permit Number: _____

MassDEP Transmittal Number: W- 041272

Annual Report Number Year 12
& Reporting Period: April 1, 2013 – March 31, 2014

NPDES PII Small MS4 General Permit Annual Report (Due: May 1, 2014)

Part I. General Information

Contact Person: Gino A. Cresta, Jr.

Title: Director of Public Works

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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: Thomas G. Younger

Printed Name: Thomas Younger

Title: Town Administrator

Date: 4/28/2014

Part II. Self-Assessment

The Town of Swampscott, Massachusetts has completed the required self-assessment and has determined that, based on available information, the Town is in compliance with the conditions of the permit, with the minor exception of where implementation of our minimum control measures did not meet our stated schedule documented as part of the Notice of 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 in place of having speakers in two schools per year due to staffing shortages. Town also developing an updated brochure.**
- BMP 3-4: The Town inspected 15,000 linear feet of storm drains in 2004. 5,000 LF of underdrain and an additional 7,000 LF of storm drain were television inspected between March and October, 2008. The underdrain inspected discharges to the stormwater system within the Stacey's Brook drainage area where there is known contamination. This falls short of televising the entire storm drain system as proposed in BMP 3-4, however, we continue to move towards elimination of illicit connections. In 2013, the Town replaced 1000' of drainage and sewer piping on Essex Ave and lower Banks Road due to sewerage infiltrating into the stormdrain system.**
- BMP 6-5: Limited staffing resources has eliminated the possibility of applying for tree survey grants through US Forestry. We are going to pursue utilizing a community service group to conduct the tree survey such as girl scouts or boy scouts.**

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 11	Planned Activities – Permit Year 12
1. Public Education and Outreach					
1-1	Speakers	Director of Public Works	Call two schools per year	Stormwater posters posted throughout term.	Will post Stormwater posters throughout term. Town is also working to develop an updated brochure.
1-2	Local cable access spots	Director of Public Works	Produce two 5-minute spots	In compliance.	No activity planned.
2. Public Involvement and Participation					
2-1	Public Notification	Director of Public Works	Posting of all appropriate meetings	All DPW meetings are posted in Town Hall.	Continue to post notices of appropriate meetings.
2-2	Household hazardous waste collection	Health Director	One collection per year	The Town had two household hazardous waste collection days this permit year	We plan to have at least one collection in the upcoming permit year, with the goal of two collections.
2-3	Stencil catch basins that drain to sensitive areas	Director of Public Works	Stencil fifty (50) catch basins per year	The 60 catchbasins stenciled in in past years are in fair shape.	Stencil catch basins that have begun to wear away. Town looking into purchasing or borrowing a stencil
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. Town planted 37 trees during permit year.	Plant ceremonial tree on Arbor Day and continue to plant public shade trees.
3. Illicit Discharge Detection and Elimination					
3-1	Map outfalls and receiving waters	Director of Public Works	Updated map by the end of the second year	In compliance	A Town wide \$350,000 drainage study is underway.
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 is currently using MassDEP stormwater handbook.	Stormwater bylaw is proposed for the 2015 Annual Town Meeting
3-3	Dry weather screening of outfalls	Director of Public Works	Two rounds of sampling in 2004	The board of Health and DPW continues to take water samples from area beaches during the Summer.	Continue to investigate sources of high bacterial counts.
3-4	Illicit discharge elimination	Director of Public Works	Televis the entire system by the end of the term	Town replaced 1000 ft of Stormdrain on Essex Ave and Banks Road where sewerage was infiltrating into the drainage system.	Continue to investigate illicit connections to Stacey's Brook drainage area and design further improvements in compliance with MassDEP ACOP-NE-08-1N005. Continue to operate chlorination station per consent order.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 11	Planned Activities – Permit Year 12
4. Construction Site Stormwater Runoff Control					
4-1	Construction site bylaw and ordinance	Planning Board, Building Inspector, DPW, ERAC	Present draft bylaw to Town Meeting	Bylaw is still under review by Town Officials.	Stormwater bylaw is proposed for the 2015 Annual 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. Town wide drainage study includes public comment meeting regarding storm drainage .
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 using MassDEP stormwater handbook as a guide.	Continue to review site plans for stormwater program compliance using MassDEP stormwater handbook.
4-4	Enforcement Procedures	Planning Board, ConComm	Notification to the boards about enforcement procedures	Enforcement procedures are still under review by Town Officials.	Investigate what area communities have done in this regard.
5. Post-Construction Stormwater Management in New Development and Redevelopment					
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.	Present for enactment in 2015 Town Meeting.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 11	Planned Activities – Permit Year 12
6. Pollution Prevention and Good Housekeeping in Municipal Operations					
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 25% of catch basins town-wide in 2013.	Clean 50% of catch basins in 2014.
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 11 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	Limited staffing resources has eliminated the possibility of applying for tree survey grants through US Forestry. We are going to pursue utilizing a community service group to conduct the tree survey such as girl scouts or boy scouts.	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 27 trees throughout Town	Continue to implement long-term forestation plan and plant public shade trees
6-7	Provide training to DPW staff	Director of Public Works	Two training days per year	Stormwater video is outdated. DPW staff trained in field.	Continue to train staff in field and investigate an updated video.
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	Mechanic calibrated salt spreaders. Awaiting available funding for salt storage shed improvement.	Improvement to salt storage shed over the next 1-2years. Calibrate salt spreaders as needed.

Part IV. Summary of Information Collected and Analyzed

Television inspection

Approximately 15,000 LF of storm drains were television inspected between July and August 2004. Approximately 5,000 LF of underdrain and an additional 7,000 LF of storm drain were television inspected between March and October, 2008. The Town continues to focus on Stacey's Brook drainage area due to known contamination and an Administrative Consent Order issued by DEP in June 2008. Four point sources of contamination to the Stacey's Brook drainage area were identified in Fall 2011 and three were eliminated in Spring 2012. The fourth point source was eliminated in Spring 2013. Follow up sampling was conducted by the Town. Additionally, during this permit year 1000 linear feet of stormdrain piping was replaced on Banks Road and Essex Ave due to sewage infiltration. In 2013 the Town signed an Engineering contract for a \$350,000 Town wide drainage study. The field work has just begun. Flow meters have been installed in the drainage system for use in calibrating the hydraulic model. We look forward to seek funding to complete measures recommended in the study.

Dry Weather Sampling

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

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 June, 2008. 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 March - 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. As part of the drainage study, many drain manholes will be inspected. Even though it is beyond the scope of work to determine cross connections, the inspectors visually look for paper products and other tell-tale signs of sewerage cross connections into the drainage system. If any potential sewerage is suspected, we will take further investigative measures.

Beach Closings

During Permit Year 11, the following Swampscott beaches were closed: Fisherman's Beach twice (7/24/13 & 7/25/13), King's Beach once (7/24/13), and Whales Beach once (7/24/13). The Health Department determined that the probable cause was stormwater runoff.

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 through March 31)

Programmatic

Response

Stormwater management position created/staffed	(y/n)	
Annual program budget/expenditures **	(Preferred \$ Units)	
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		
▪ days sponsored **	(#)	
▪ community participation **	(# or %)	
▪ material collected **	(tons or gal)	
School curricula implemented	(y/n)	

Legal/Regulatory

	In Place Prior to Phase II	Reviewing Existing Authorities	Drafted	Draft Review	Adopted
Regulatory Mechanism Status (indicate with "X")					
▪ Illicit Discharge Detection & Elimination					
▪ 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

	Response
Outfall mapping complete	(%)
Estimated or actual number of outfalls	(Preferred Units)
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

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

Response

Average frequency of street sweeping (non-commercial/non-arterial streets) **	(times/yr)	
Average frequency of street sweeping (commercial/arterial or other critical streets) **	(Preferred Units)	
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 ln 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 %)	
▪ Pesticides	(lbs. or %)	
Integrated Pest Management (IPM) Practices Implemented	(y/n)	

		Response
Average Ratio of Anti-/De-Icing products used ** (also identify chemicals and ratios used in specific areas, e.g., water supply protection areas)	(Preferred Units) % NaCl % CaCl ₂ % MgCl ₂ % 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	
• Treatment units induce infiltration within 500-feet of a wellhead protection area	# or y/n	