Municipality/Organization: Town of Swampscott, Massachusetts

EPA NPDES Permit Number:

MaDEP Transmittal Number: W-041272

Annual Report Number
& Reporting Period: No. 2: March 04-March 05

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: Gino Cresta, Jr. Title: Superintendent of Public Works

Telephone #: 781.596.8860 Email: gcresta@town.swampscott.ma.us

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 Maylor

Title: Town Manager

Date: 5/2/05

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. The specific exceptions are detailed in Part III.

Part III. Summary of Minimum Control Measures

TOWN OF SWAMPSCOTT, MASSACHUSETTS
NPDES Stormwater General Permit

Stormwater Management Program Summary

BMP ID #	Best Management Practice	Responsible Person / Department	Measurable Goal	Duration	Progress on Goal(s) - Permit Year Two	Planned Activities - Permit Year Three
1. Public Education						
1-1	Speakers	Superintendent of Public Works	Call two schools per year	Spring and Fall for the permit term	Have not yet been able to coordinate presentations with school officials and propose to change BMP to posting a stormwater poster in public buildings for the permit term.	Posted 10 stormwater posters in public buildings (library, schools, Town Hall and DPW yard) Will continue through permit term.
1-2	Local cable access spots	Superintendent of Public Works	Produce two 5-minute spots	Year 2 and 4	Unable to coordinate the development of spots for cable. Propose to change BMP to purchase storwater education video from EPA and air on local cable access.	Will purchase video from EPA and run on local cable access.
2. Public Participation						
2-1	Public notification	Superintendent of Public Works	Posting of all appropriate meetings	Permit term	All DPW meetings (twice per month) are posted at Town Hall and advertised in local newspaper.	Continue to post notice of appropriate meetings.
2-2	Household hazardous waste collection	Health Director	One collection per year	Permit term	Household hazardous waste collection day was held in May 2004.	Hold one household hazardous waste collection day. -June 25, 2005.
2-3	Stencil catch basins that drain to sensitive areas	Superintendent of Public Works	Stencil fifty (50) basins per year	Spring of year 2 and 4	Currently coordinating a catch basin stenciling day with local Eagle Scout Troop.	Hold one catch basin stenciling day with Eagle Scout Troop in spring 2005. At least 50 catch basins will be stenciled.
2-4	Seedlings for Arbor Day	Superintendent of Public Works / Tree Warden	Ten (10) seedlings per year for two (2) years	Spring of year 3 and 5	Planted several seedlings throughout the town during year 2 rather than year 3.	No activity planned.
3. Illicit Discharge Detection and Elimination						
3-1	Map outfalls and receiving waters	Superintendent of Public Works	Updated map by the end of the second year	Year 1 and 2	Located all coastal stormwater outfalls. Identified 24 outfalls and located them on the town's existing drainage map.	No activity planned.
3-2	Stormwater bylaw	Superintendent of Public Works	Draft completed in time to submit to town meeting	Winter Year 1, Spring Year 2, 3, 4, and 5	Developed draft stormwater bylaw.	Present bylaw to town officials for review and modification.
3-3	Dry weather screening of outfalls	Superintendent of Public Works	Two rounds of sampling in 2004	Summer and Fall of Year 1, 4, and 5. Spring and Summer Year 3	Conducted dry weather sampling on December 4, 2003 & July 6, 2004. Results are shown in Part IV of this report.	Continue to investigate sources of high bacterial counts.
3-4	Illicit discharge elimination	Superintendent of Public Works	Televise the entire system by the end of the term	Permit term	Conducted smoke testing of 41,150 LF of storm drains and televised 15,300 LF in summer 2004. These areas were identified as sensitive through previous activities.	Continue to TV inspect remaining storm drains.

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4. Construction Site Runoff Control						
4-1	Construction site bylaw and ordinance	Planning Board, Building Inspector, DPW, ERAC	Present draft bylaw to town meeting in 2004	Winter Year 1, Spring Year 2	Developed draft construction site runoff control bylaw and ordinance.	Present bylaw and ordinance to town officials for review and modification.
4-2	Public Comment	ZBA, ConComm, Planning Board, DPW	Receive input on draft bylaw at public meetings	Permit term	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	Winter and Spring Year 2	Added stormwater management to scope of review.	Continue to include stormwater management in review scope.
4-4	Enforcement Procedures	Planning Board, ConComm	Notification to the boards about enforcement procedures	Spring and Summer Year 2	Developed draft enforcement procedures and presented to town officials for review.	Once enforcement procedures are adopted by the town, the town boards will be notified of procedures.
5. Post Construction Runoff Control						
5-1	BMP manual	DPW, ConComm	BMP manual selected	Winter Year 2	The town has reviewed several BMP manuals and has developed guidelines on recommending BMP manuals to planners/developers.	Will continue to recommend the BMP manual to planners/developers.
5-2	Runoff controls	Superintendent of Public Works	Draft bylaw to town meeting	Winter Year 1, Spring Year 2, 3, 4, and 5	Developed draft of post construction runoff control bylaw.	Will present draft bylaw to town officials for review, comment, and adoption.
6. Municipal Good Housekeeping						
6-1	Sensitive areas	Superintendent of Public Works	Identify and map sensitive areas	Fall and Winter Year 1	Through a stormwater questionnaire distributed to selected areas of town, collected information regarding sensitive areas. Located these areas on drainage map. Also used these areas to determine smoke test and television inspection areas.	Continue to receive information and map sensitive areas.
6-2	Clean catch basins	Superintendent of Public Works	Clean catch basins every other year, maintain records	Permit term	Cleaned 67% catch basins townwide in 2004.	Continue to clean catch basins every other year, maintain records, 50% of catch basins townwide to be cleaned over the next year.
6-3	Sweep streets twice per year	Superintendent of Public Works	Sweep each street twice per year	Permit term	All streets were swept October 2004 and April 2005.	Continue to sweep each street twice per year.
6-4	Continue no pesticide policy	Superintendent of Public Works	No pesticide use on town property	Permit term	No pesticides were used on town property.	Continue no pesticide policy.
6-5	Tree survey	Superintendent of Public Works / Tree Warden	Complete survey and long term forestation plan	Fall and Winter Year 2	Contacted the US Forestry Service to arrange a Swampscott tree survey.	Will continue to pursue the tree survey through the US Forestry Complete the survey and long term forestation plan.

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6-6	Implement long-term forestation plan	Superintendent of Public Works / Tree Warden	Implement long-term forestation plan	Permit term	Planted approximately 10 trees.	Continue to implement long-term forestation plan.
6-7	Provide training to DPW staff	Superintendent of Public Works	Two training days per year	Winter for the permit term	Held safety management/training meetings once per month.	Provide two training days for DPW staff.
6-8	Place additional barrels for pet waste collection in parks	Superintendent of Public Works	Place additional barrels in parks as needed	Spring and Summer Year 2	Researched potential effective locations for the placement of additional pet waste.	Purchase 2-3 pet waste stations and place in various public locations.
6-9	Maintain covered salt storage; calibrate salt spreaders annually	Superintendent of Public Works	Maintain salt storage shed, and calibrate salt spreaders, as needed	Permit term	Continued to maintain storage shed, calibrated salt spreaders fall 2004.	Continue to maintain salt storage shed, and calibrate salt spreaders, as needed.

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Part IV. Summary of Information Collected and Analyzed

Storm Drain Outfall Inspections
The town located 24 stormwater outfalls discharging to Swampscott's coastal waters. Of these 24 outfalls, 17 received a physical inspection, six (6) could not be inspected due to lack of access, and one (1) could not be inspected because it could only be accessed through private property. The physical inspections also determined where dry weather samples would be taken. Overall, most of the outfalls seem to be in good condition.

Smoke Testing
Smoke testing was performed on approximately 41,150 LF of storm drain between June 22 and June 25, 2004. The areas smoke tested were tributary to Stacey Brook and the Fisherman's East outfalls, and areas with storm drains discharging to coastal waters as determined by the dry weather sampling results. These areas included the storm drain lines between Palmer Road and Shepard Avenue, and the storm drain lines west of Paradise Road, between Pine Street and Franklin Avenue.

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

Television Inspection
Approximately 15,300 LF of storm drains, ranging in size from an 8-inch diameter pipe to a 5-foot by 10-foot culvert, were television inspected between July 26 and August 17, 2004.

There were no confirmed illicit connections identified during the television inspection program. However, the television inspection program revealed locations that require cleaning in an effort to prevent future blockages, locations where heavy roots were observed in the storm drain line, locations where the pipe is crushed, and other notable defects. The town is planning to include the repair of these items in the maintenance program for the next permit year.

Dry Weather Sampling

The first round of dry weather sampling was completed on December 4, 2003; six (6) samples were taken directly from outfalls, two (2) samples were taken upstream of the Stacey Brook chlorination station, and two (2) samples were taken from Foster Pond – one from the pond itself, and one from the pond's outlet stream. The samples were analyzed for fecal coliform at a state-certified laboratory.

The second round of dry weather sampling was completed on July 6, 2004. The samples were taken from the same location as the first round. The samples were analyzed for fecal coliform at a state-certified laboratory.

Table 1
Dry Weather Outfall Sampling Results

Sample ID	Sample Location	Fecal Coliform per 100 mL	
		Sample Obtained December 4, 2003	Sample Obtained July 6, 2004
A	Upstream of Stacey Brook, Columbia Street	34,000	40,000
B	Upstream of Stacey Brook, Pine Street	13,000	3,800
C	Outfall 1- Stacey Brook	3,200	3,600
D	Foster Pond Outlet Stream	60	40
E	Foster Pond Main Road	30	20
F	Outfall 13 - Cassidy Park and Sculpin Way	100	20
G	Outfall 20 - Eisman's Beach	10	7,000
H	Outfall 11 - Marshall Street	100	<10
I	Outfall 23 - Beach Bluff	320	190
J	Outfall 22 - Ocean Avenue	7,700	N/A

N/A = Dry weather sample not obtained due to lack of flow.

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic

Stormwater management position created/staffed	(y/n)	
Annual program budget/expenditures	($)	

Education, Involvement, and Training

Estimated number of residents 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.)	
Household Hazardous Waste Collection Days		
▪ days sponsored	(#)	
▪ 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				
▪ 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

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

Construction

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 completed	(# or %)	
Estimated volume of stormwater recharged	(gpy)	

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)	
Total number of structures cleaned	(#)	
Storm drain cleaned	(LF or mi.)	
Qty. of screenings/debris removed from storm sewer infrastructure	(lbs. or tons)	
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		
Cost of screenings disposal	($)	

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)	
Cost of sweepings disposal	($)	
Vacuum street sweepers purchased/leased	(#)	
Vacuum street sweepers specified in contracts	(y/n)	

Reduction in application on public land of: ("N/A" = never used; "100%" = elimination)		
▪ Fertilizers	(lbs. or %)	
▪ Herbicides	(lbs. or %)	

▪ Pesticides	(lbs. or %)	

Anti-/De-Icing products and ratios	% NaCl % $CaCl_2$ % $MgCl_2$ % CMA % Kac % KCl % Sand	
Pre-wetting techniques utilized	(y/n)	
Manual control spreaders used	(y/n)	
Automatic or Zero-velocity spreaders used	(y/n)	
Estimated net reduction in typical year salt application	(lbs. or %)	
Salt pile(s) covered in storage shed(s)	(y/n)	
Storage shed(s) in design or under construction	(y/n)	