

Municipality/Organization: Swansea

EPA NPDES Permit Number:

MaDEP Transmittal Number: W-

**Annual Report Number
& Reporting Period:** No. 8 April 10 – March 2011

NPDES PII Small MS4 General Permit Annual Report

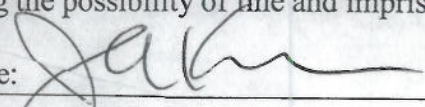
Part I. General Information

Contact Person: James A. Kern **Title:** Town Administrator

Telephone #: 508-678-2981 **Email:**

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: James A. Kern

Title: Town Administrator

Date: 10-17-11

Part II. Self-Assessment

The Town of Swansea has made progress in its review of stormwater issues within the Town. All new commercial construction projects over 1 acre are reviewed for compliance with Massachusetts' DEP Stormwater Policy before approval by the Swansea Planning Boards and Conservation Commission. This includes subdivisions and commercial building projects.

Swansea's Conservation Commission has a pre-application review process whereby prospective builders must obtain a sign-off for any work in town. The sign-off enables the Commission's agent to review a site for the potential of any wetland impacts and confer with the builder prior to submitting an application. All projects must come before the Swansea Conservation Commission if work is to occur within 100 feet of a bordering vegetated wetland or within the 200-foot riverfront area associated with perennial streams and rivers. Nearly all of the projects that come before the Conservation Commission must comply with MA DEP's Storm Water Management regulations, unless the work is minor and does not create any new impervious areas. Swansea's Wetland Protection By-law is more stringent than the MA Wetlands Protection Act and requires a 25-foot no touch zone.

Recently, both the Conservation Commission agent and the town planner met with representatives from Forrest Bell Environmental Co. from Portland, ME. The purpose of the meeting was to discuss ways in which the town of Swansea is working to protect two (2) public water supplies which service communities in Rhode Island. The Kickamuit River and Warren Reservoir watersheds extent into Swansea and other Narragansett Bay communities, yet neither supplies water to the residents of Swansea. Regardless, the wetlands associated with the water bodies are protected to the maximum extent feasible pursuant to local, state and federal wetland protection laws, regulations and approvals.

The Swansea Highway Department has instituted a program of an annual review of each outfall and drainage structure on all public roadways. Any structure which is not functioning properly is cleaned and restored to proper working order. All detention ponds are checked annually to ensure proper function and storage capacity for all storms. During this review, any illicit discharges into any structure are ordered removed.

The Town of Swansea continues to develop a solid waste program which includes the bi-annual collection of household hazardous waste. This program has expanded to include tires, propane tanks, and car batteries. Our next event will include electronics such as monitors, computers, and televisions. The Swansea Board of Health has also instituted a program to collect needles and syringes to keep them from the waste system. In addition, by working with the town's Conservation Agent, any repairs, up-grades or replacement to the town's drainage system are brought into compliance with the storm water standards to the extent practical using available best management practices.

As a result of the continued improvement in the water quality in Mount Hope Bay as measured by the Massachusetts Department of Marine Fisheries (DMF), two additional sections of the bay have been opened for shell fishing. These areas have not been suitable for shellfish harvesting for over 20 years but now are available for commercial and family use because of water quality improvements and protection of local wetland resource areas.

Over the next years, Swansea and DMF will be testing water quality upstream of the bay in order determine whether more areas can be re-opened as well.

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 7 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 8
1 Revised	Add stormwater information and links to the Town's website	Conservation Agent/Planner	Post information by the end of year 5 provided the town has developed an official website	Stormwater information is included in the web-site which is now on line.	Improve stormwater information is included in the web-site
2 Revised	Develop informational brochure on storm water program <i>Seek, copy and distribute stormwater educational information from EPA, MA DEP or other environmental organizations.</i>	Conservation Agent/Planner	Provide and maintain copies at the Library by the end of Year 2 (pending funding availability)	Storm water information has been developed in a form which is included in a brochure. Town Conservation Agent to reach out to Narragansett Bay Commission to locate stormwater educational material and seek to initiate a collaborative effort with other communities in the Narragansett Bay watershed.	Continue to develop the information in a brochure.
3 Revised	Distribute informational brochure via bulk mail to Town Residents	Conservation Agent/Planner	One mailing per year over the 5-year permit term (pending funding availability)	Brochure has been distributed at Town Hall, and Library. No funding for mass distribution this year at this time.	Continue to develop the information in a form which can be mass mailed.
4	Broadcast the public meetings described below under BMP ID#5 over the local cable access channel	Board of Selectmen's Office	Three public meetings over the 5-year permit term	Broadcast of stormwater information DVD developed by Massachusetts DEP over local cable channel during months of April and May 2010	Continue to develop programs for presentation at public meetings.

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 7 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 8
5	Conduct public meetings to describe the Town's stormwater program and receive input from the public.	Board of Selectmen's Office	Three public meetings over the 5 year permit term	Broadcast of Selectmen's meeting with Conservation Agent discussing stormwater issues relating to construction. All meetings comply with MA Open Meeting Law.	Continue to develop programs for presentation at public meetings.
Revised	Develop information brochures on specific industries including motor vehicle repair, sub-division construction and other common activities carried out in Swansea.			Town Conservation Commission agent to pursue on-line sources of educational material to distribute with Notice of Intent applications	

2a. Additions

3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 7 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 8
6	Map stormwater drainage system and outfalls	Highway Department	Map 20% of the system per year (pending funding availability)	All outfalls to marine coastline have been mapped. 50% of town outfalls have been mapped.	Continue program of mapping town's system if funds become available.
7	Develop GIS database of the drainage system	Highway Dept	Map 20% of the system per year (pending funding availability)	GIS Stormwater to be integrated into the Town GIS system which is being developed and will be available to the public.	Continue mapping of town's stormwater system as monies become available for this purpose.
Revised					
8	Visually inspect outfalls for dry weather flows	Board of Health/ Highway Dept	Inspect all outfalls.	All outfalls which have been mapped were inspected. Reports of any illicit discharges are maintained. Property owners contacted to remove pipes.	Outfalls inspected yearly. Continue program of monitoring pipes.
Revised					
9	Develop a sampling and analysis program for sampling outfalls.	Board of Health	Complete by end of year 1	Outfalls were tested by the Division of Marine Fisheries in development of program to re-open the Swansea shellfish beds. Eagle Scout project was developed to identify all catchbasins and outfalls within a portion of the coastal area and mark with paint that they outlet to the bay and warn against dumping of contaminated and hazardous materials.	Continue to test outfalls when complaint is received. Continue to seek other parties to continue this project throughout the coastal area.
Revised					
10	Conduct storm water sampling at suspected outfalls.	Board of Health	Years 1 through 2, Investigate Compton's Corner Area – Years 3 –4 Investigate other suspected illicit connections	Mass Division of Marine Fisheries conducted sampling of outfalls in effort to determine whether shellfish beds would be re-opened for taking of shellfish.	Board of Health to develop program for continued monitoring of suspected outfalls.

Revised					
11	Train Highway Dept. employees to recognize illicit connections	Highway Department	Conduct Annual training	Trained Highway Department employees using visual and olfactory senses, report potential illicit connections which are jointly re-inspected by Highway Dept Director and Board of Health	Continue with program of trained Highway Department employees reporting potential illicit connections which are jointly re-inspected by Highway Dept and Board of Health
Revised					

3a. Additions

12	Notify citizens of MA and local regulation which prohibits illicit discharges	Conservation Commission		Notice of Intent application requires all applicants who propose work that triggers compliance with stormwater standards of the prohibition.	

4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 7 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 8
12	Update Town bylaws and regulations to include storm water ordinances	Conservation Agent/Planner	Year 1 – Review existing by-laws Year 2 Propose changes Year 3 implement changes, subject to Town meeting approval	Reviewed existing by laws and proposed by-laws. Developing stormwater by-law for town meeting approval Updating Conservation regulations to comply with state standards of erosion and sediment control.	Propose changes for town meeting approval
Revised					
13	Develop an ordinance requiring developers to prepare an Erosion and Sedimentation Control Plan for all sites disturbing more than 1 acre. Require that the plan be reviewed and approved by the Planning Board	Conservation Agent/ Planner	Year 1 – Review existing by-laws Year 2 Propose changes Year 3 implement changes, subject to Town meeting approval	Reviewed existing by laws and proposed by-laws. Developing stormwater/erosion control by-law for town meeting approval.	Propose changes for town meeting approval
Revised					
14	Periodically check erosion control measures and construction material management on-site inspection	Town Planner/Highway Department Conservation Commission	Keep stormwater within boundaries of new construction sites via erosion control system and treatments	Conservation Commission implemented policy of stormwater control for all jurisdictional construction projects. Continues to seek enforcement action against violators. Highway Department inspects all erosion control affecting town roadways. Contracted engineer inspects within new subdivisions	Conservation Commission will continue stormwater policy in Order of Conditions for jurisdictional projects. Highway Department inspects all erosion controls affecting town roadways, notifying responsible party to clean spills and overflows. Contracted engineer inspects within new subdivisions
Revised					
Revised					

4a. Additions

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 7 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 8
15	Develop an Ordinance requiring stormwater controls for all new and redevelopment projects disturbing more than 1 acre	Conservation Agent/Town Planner	Year 1 Review existing by-laws & regulations Year 2 Propose changes Year 3 Implement changes subject to town meeting approval	Reviewed existing by laws and proposed by-laws. Developing stormwater/erosion control by-law for town meeting approval.	Review proposed changes to regulations for presentation to Town Meeting
Revised					
16	Inspect and maintain the storm water controls required under BMP ID #15	Building Inspector, Town Planner, Highway Dept., Home Owner Association Commercial Property Owners	Inspect and maintain storm water controls annually (pending funding)	Inspected as many catch basins, detention ponds, and storm water controls as possible with town funds. Cleaned all catch basins, noted all deficiencies Repaired approximately 50 structurally unsound catch basins. Replaced 1 leaching catch basin and 110 ft of linear pipe which was damaged.	Continue to inspect as many existing and newly added catch basins, detention ponds and storm water controls as possible with town funds Clean all catch basins, note deficiencies, repair structurally deficient catch basins.
Revised					
Revised					

5a. Additions

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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 7 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 8
17 Revised	Street sweeping	Highway Department	Keep ice and snow control sediments from entering drainage structures	Conduct a program of sweeping the streets of the town at least once per year	Continue street sweeping program
18 Revised	Catch basin cleaning	Highway Department	Remove sediments from stormwater structures	Conduct a program of cleaning the catch basins of the streets of the town at least once per year	Continue a program of cleaning the catch basins of the streets of the town at least once per year
19 Revised	Purchase new vacuum truck to augment existing mechanical catch basin cleaner	Highway Department	Purchase by end of Year 5 (pending finding availability)	Plan to lease a vacuum truck if funding a purchase not feasible.	Lease vacuum truck when needed for cleaning of catch basins in critical areas contributing to outfalls
20 Revised	Yard waste Program	Highway Department	Divert yard waste from solid waste stream	Conduct weekly curbside pickup from April 1 through December 1	Continue weekly curbside pickup from April 1 through December 1
21 Revised	Household Hazardous Waste program	Solid Waste Committee, Fire, Highway and Conservation	Hold bi-annual collection days	Swansea Household Hazardous Waste Collection Day conducted on a bi-annual basis through Clean Harbors Computers, televisions, air conditioners, batteries, fluorescents also collected.	Schedule Hazardous Waste Day for subsequent years.
22 Revised	Animal control program	Animal Control Officer	Track the number of dead animals collected	Number of dead animals collected are tracked in daily logs	Continue to track the number of dead animals collected on a daily basis

23	Implement and maintain the Highway Dept's Storm Water Pollution Prevention Plan (SWPPP)	Highway Dept	Maintain SWPPP at Highway garage	Separate all materials held in Highway Department yard in order to protect the adjacent BVW from run-off.	Continue the program of SWPPP at Highway Garage for run-off protection

6a. Additions

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

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 7 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 8
24 Revised	TMDL has been finalized for Kickamuit River in Swansea.			Swansea Wastewater Committee is developing wastewater plan with consultant and seeking funding for same.	Swansea Wastewater Committee will continue to develop a wastewater plan with consultant and seeking funding for same.
Revised					
Revised					
Revised					
Revised					
Revised					
Revised					

7a. Additions

7b. WLA Assessment

Part IV. Summary of Information Collected and Analyzed

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic

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

Education, Involvement, and Training

Estimated number of residents reached by education program(s)	(# or %)	60%
Stormwater management committee established	(y/n)	N
Stream teams established or supported	(# or y/n)	N
Shoreline clean-up participation or quantity of shoreline miles cleaned	(y/n or mi.)	Y 2 miles
▪ days sponsored ▪ community participation ▪ material collected	(#) (%) (tons or gal)	2 10 13.7
School curricula implemented	(y/n)	N

Legal/Regulatory

Regulatory Mechanism Status (indicate with "X")				In Place Prior to Phase II	Under Review	Drafted	Adopted
▪ Illicit Discharge Detection & Elimination				X		X	
▪ Erosion & Sediment Control					X		
▪ Post-Development Stormwater Management				X			
Accompanying Regulation Status (indicate with "X")							
▪ Illicit Discharge Detection & Elimination				X		X	
▪ Erosion & Sediment Control					X		
▪ Post-Development Stormwater Management				X			

Mapping and Illicit Discharges

Estimated or actual number of outfalls			
System-Wide mapping complete		N/A	
Mapping method(s)		65%	
▪ Paper/Mylar			
▪ CADD			
▪ GIS			
Outfalls inspected/screened		X	
Illicit discharges identified		All	
Illicit connections removed		0	
		0	
% of population on sewer		0	
% of population on septic systems		100	

Construction

Number of construction starts (>1-acre)	34	
Estimated percentage of construction starts adequately regulated for erosion and sediment control	100	
Site inspections completed	35	
Red Maple, Titania, Ryans Way, Sunnyfield, James Birch, East Meadow, Stephen French, Raymond Allard, Littlefield, Kickamuit Estates, Laima Estates, Bento, Adams, Buckingham, Red Maple, Target		
Complaints/concerns received from public	0	
	0	

Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	100	
Site inspections completed		
Estimated volume of stormwater recharged		

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets)	1	
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	1 - 2	
Total number of structures cleaned	1548	
Storm drain cleaned	700 ft	
Qty. of screenings/debris removed from storm sewer infrastructure	7300	
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)	Recycle	
Cost of screenings disposal	0 (Barter)	

Average frequency of street sweeping (non-commercial/non-arterial streets)	1	
Average frequency of street sweeping (commercial/arterial or other critical streets)	2	
Qty. of sand/debris collected by sweeping	980 tons	
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	Roadway base/shldr	
Cost of sweepings disposal	0 (Barter)	
Vacuum street sweepers purchased/leased	0	
Vacuum street sweepers specified in contracts	0	

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

Anti-/De-Icing products and ratios	33% NaCl 0% CaCl ₂ 0% MgCl ₂ 0% CMA 0% Kac 0% KCl 67% Sand	
Pre-wetting techniques utilized	N	
Manual control spreaders used	N	
Automatic or Zero-velocity spreaders used	Y	
Estimated net reduction in typical year salt application	0%	
Salt pile(s) covered in storage shed(s)	Y	