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**Annual Report Number
& Reporting Period:** No.14 April 2017 – March 2018

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: John McAuliffe

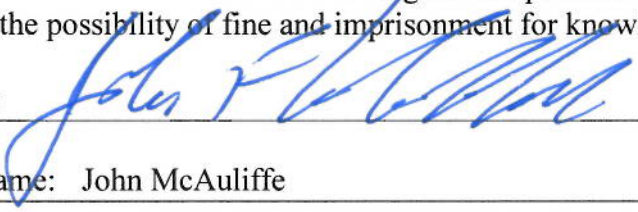
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Certification:

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: 

Printed Name: John McAuliffe

Title: Town Administrator

Date: 4/25/18

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 protected natural resource area as well as 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 alteration zone between the wetland and the proposed work.

The Conservation Commission has worked with the SRPEDD Planning Agency in conjunction with the Rhode Island Dept of Health to assess and protect the Palmer River and the Kickamuit River. The Palmer River has become the primary water supply for the Town of Swansea through the use of the de-salination process. The Kickamuit River and the Warren Reservoir serve public water supplies which service communities in Rhode Island. The Kickamuit River and Warren Reservoir watersheds are located in 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.

In May of 2017, the Town adopted an Illicit Discharge By-law under the direction of the Swansea Board of Health. The Town also adopted a Stormwater By-law which is administered by the Swansea Planning Board.

The Town has completed the reconstruction of the Pearse Road culvert, a turn of the 20th century stone culvert which was the only access way in Massachusetts to connect over 200 houses to the rest of the town. This culvert was badly damaged by storms and frequently became impassable during tidal flooding and minor and major storms. This culvert was located at the outlet of a major fresh-water stream into Mount Hope Bay. This reconstruction included water quality improvements and raised the roadway 18 inches, to eliminate 90% of the flooding of the roadway.

The Swansea Highway Department has instituted a program of an annual review of each outfall and drainage structure on all public roadways. In 2017, the balance of the new outlet structures were finally mapped and coordinates placed on the Town's GIS program.

During this review, the structures were evaluated for functionality and cleaned and restored to proper working order.

The Highway Department developed projects of repairing and improving the stormwater systems throughout the town.

- Peters Rd and a portion of Pearse Rd. Engineered plans have been developed and permits received for the repairs. Construction will depend upon future funding.
- Pearse Rd culvert on Mount Hope Bay was re-designed to meet stormwater, stream crossing and sea-level rise issues. The construction was completed in 2017.
- The town conducted a program of repairing catch basins throughout the town in order to improve their function for water quality treatment.

The Town of Swansea continues to develop a solid waste program which includes the bi-annual collection of household hazardous waste. The program has expanded to include tires, propane tanks, and car batteries, shredded paper, electronics such as monitors, computers, and televisions. The program was expanded further to include year-round collection of old, unused, and unwanted medications at the police station. Due to the lack of funding, the scheduled household hazardous waste day was delayed an additional year in 2017.

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), a third section of the Coles River has been opened for shell fishing, in addition to the two sections of the bay which had previously been opened. These areas have not been suitable for shellfish harvesting for over 20 years but is now 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 continue to test the water quality upstream of the bay and into the Coles and Lees Rivers in order determine whether more shellfishing 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 13 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 14-
1	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
Revised					
2	Develop informational brochure on storm water program	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.
Revised	<i>Seek, copy and distribute stormwater educational information from EPA, MA DEP or other environmental organizations.</i>				
3	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 .Brochure for year round collection of unwanted, old and unused medications through mass distribution distributed at town offices.	Continue to develop the information in a form which can be mass mailed .
Revised					
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 video of issues associated with storm water though local cable channel.	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 13 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 14
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	Town engineer . Town Conservation Commission agent to pursue on-line sources of educational material to distribute with Notice of Intent applications	Continue to develop programs for presentation at public meetings.
Revised	<i>Develop information brochures on specific industries including motor vehicle repair, sub-division construction, and other common activities carried out in Swansea.</i>				

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 13 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 14
6	Map stormwater drainage system and outfalls	Highway Department	Map 20% of the system per year (pending funding availability)	Town has contracted to finish mapping all town outfalls and catch basins.	Town has completed mapping of outfalls and catch basins.
7	Develop GIS database of the drainage system	Highway Dept	Map 20% of the system per year (pending funding availability)	GIS Stormwater was integrated into the Town GIS system in 2017 and is available to the public. New mapping information will be added.	Continue mapping of town's stormwater system as monies.
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 continue to be tested by the Division of Marine Fisheries as a result of the program to re-open the Swansea shellfish beds. Outfalls and catchbasins along the Kickamuit River were tested by Mass DEP pollution program.	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 Comptons Corner Area – Years 3 –4 Investigate other suspected illicit connections	Compton's Corner issue has been resolved with repair of several septic systems. Mass Division of Marine Fisheries continues to sample outfalls in effort to determine maintain open shellfish beds	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

11A	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 against illicit discharges.	

4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 13 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 14
12	Update Town bylaws and regulations to include storm water ordinances	Conservation Agent/Planner	Adoption and Implementation of Stormwater and IDE by-laws	In 2017, the Town of Swansea adopted the Swansea Stormwater By-law placing responsibility of monitoring construction of projects more than 1 acre on the Swansea Planning Board.	Completed
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	Town of Swansea adopted Stormwater By-law placing responsibility for reviewing stormwater controls by the Swansea Planning Board/	Swansea Planning Board will enact Rules and Regulations to supplement the Stormwater By-law.
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	Swansea Planning Board now has responsibility to administer the by-law for all projects which disturb 1 acre or more. 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	Swansea Planning Board will enact rules and regulations to implement the Swansea Stormwater By-law. Swansea Conservation Commission will continue to administer the Wetlands Protection Act and Swansea Wetlands Protection By-law, including stormwater regulations.
Revised					
Revised					

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 13 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 14
15	Develop an Ordinance requiring stormwater controls for all new and redevelopment projects disturbing more than 1 acre	Conservation Agent/Town Planner	Adoption of By-law by Town of Swansea	In 2017, the Town of Swansea adopted the Swansea Stormwater By-law placing responsibility of monitoring construction of projects more than 1 acre on the Swansea Planning Board.	Swansea Planning Board will develop rules and regulations for the implementation of the Stormwater By-law.
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 Developed plans to repair and upgrade stormwater systems on portions of Peters Rd and Pearse Rd, Developed plans to replace stormwater culverts on Nike Site Rd and Pearse Rd.	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 13 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 14
17	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
Revised					
18	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
Revised					
19	Purchase new vacuum truck to augment existing mechanical catch basin cleaner	Highway Department	Purchase by end of Year 5 (pending finding availability)	Lease vacuum truck when needed for cleaning of catch basins in critical areas contributing to outfalls	Plan to purchase a vacuum truck of funding is available
Revised					
20	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
Revised					
21	Household Hazardous Waste program	Solid Waste Committee, Fire, Highway and Conservation	Hold bi-annual collection days	Town instituted a pharmaceutical drug recovery program in cooperation with the Swansea Police Dept.	Schedule Hazardous Waste Day scheduled for 10-2018.
Revised					
22	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
Revised					

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 13 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 14
24	Water quality program has been initiated for the Palmer River .			Town has instituted a program of land protection within the Palmer River watershed, purchasing 15 acres (former nursery)and receiving as a gift 22 acres of land directly contributing stormwater to the Palmer River.	Town reviewing methods to implement wastewater program. Town working with golf course landowners regarding fertilizers and pesticides. Continues to accept land within the watershed.
Revised					
Revised					
Revised					
Revised					
Revised					
Revised					

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 %)	99%
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	(#)	2
▪ community participation	(%)	10
▪ material collected	(tons or gal)	12.8
School curricula implemented	(y/n)	N

Legal/Regulatory

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

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

Mapping and Illicit Discharges

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

Construction

Number of construction starts (>1-acre)	20	
Estimated percentage of construction starts adequately regulated for erosion and sediment control	100	
Site inspections completed	47	
Red Maple, Titania, Ryans Way, Sunnyfield, James Birch, East Meadow, Stephen French, Raymond Allard, Littlefield, Kickamuit Estates, Laima Estates, Bento, Adams, Buckingham, Red Maple, Oliver Way, Kayleigh Court, Oak Estates, Sgt. Harrington Way, Buckingham Estates, Hidden Woods,		

	0	
Complaints/concerns received from public	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	1320	
Storm drain cleaned	300 ft	
Qty. of screenings/debris removed from storm sewer infrastructure	5900	
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	410	
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	95% NaCl 0% CaCl ₂ 5% MgCl ₂ 0% CMA 0% Kac 0% KCl 0% 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	