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Municipality/Organization: Town of Charlton

EPA NPDES Permit Number: MAR041100

MaDEP Transmittal Number: W-036476

Annual Report Number  
& Reporting Period: No. 10: May 1, 2012 - April 30, 2013

## NPDES PII Small MS4 General Permit Annual Report

### Part I. General Information

Contact Person: Todd Girard Title: Conservation Commission Agent

Telephone #: 508-248-2247 Email: todd.girard@townofcharlton.net

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: Todd P. Girard

Printed Name: Todd P. Girard

Title: Conservation Agent

Date: APRIL 29, 2013

**Part II. Self-Assessment**

The Town of Charlton has completed the required assessment and determined that our municipality is in compliance with all permit conditions.

**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 10	Planned Activities – Next Permit Term
1A	Public Ed for residents.	Board of Selectmen & Town Administrator	Annual article in the Charlton Gazette, Cable Broadcasts	Two articles were published in the Gazette for spring and fall clean up activities (a free paper that is delivered to every address in Charlton) on Household Hazardous Waste Disposal. Articles and events were broadcast on the local cable network. Flyers detailing Hazardous Waste Collection Events were added to the Gazette twice in the year, and placed in Town Hall.	Continue publishing articles on stormwater and broadcasting related events and information on the local cable network. Distribute stormwater education pamphlets at upcoming household hazardous waste collection events.
Revised					
1B	Stormwater Education for students.	Board of Selectmen & Town Administrator	Posters in Public Schools w/ permission. Student participation hours & activities completed.	Science Club Students participated in the Earth Day Town and Stream Clean up, as well as the Farm Clean Up. The Town developed a Science Club Study group for Stormwater Outreach programs were also had with the senior center quarterly. CMRSC has established educational materials available on the web page	Continue to incorporate students in stormwater education expand to high school or college students and volunteer events and begin tracking participation. Continue Educational outreach with CMRSC
Revised					
1C	Public Ed community reach out.	Board of Selectmen & Town Administrator	Charlton website posts stormwater info. Record # of website hits.	The Town website was maintained with web links to EPA and other stormwater sites. A total of 735 hits were recorded on the Conservation Commission web page during the Year 10 reporting period.	Update the website with information on stormwater and continue to record the number of hits to the website.
Revised					



BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 10	Planned Activities – Next Permit Term
Revised				Agent, and Highway Superintendent, quarterly throughout the permit year to discuss specific SWMP activities. ConCom and Highway meet approximately once a month to discuss stormwater issues. A Press Release was sent out for the Public Information Session held at the May 2012 Town Selectmen's Meeting. The Information Session focused on stormwater issues and was televised. Town is also participating in Central Massachusetts Regional Stormwater Coalition	public awareness, receive input and solicit involvement. Will continue to utilize Central Massachusetts Regional Stormwater Coalition for further community specific tasks
2B	SWMP recommendations.	Board of Selectmen/Members	Board of Selectmen considers the recommendations.	The Town Administrator met with the Planning Board Director and Highway to discuss the progress of the SWMP and upcoming program needs in September 2012. ConCom met with their throughout the year to discuss stormwater projects, SWMP development and next steps, as well the annual report. Town is also participating in Central Massachusetts Regional Stormwater Coalition	Continue to review SWMP recommendations with the Board of Selectmen, Town Administrator and Stormwater Panel. Seek opportunities to broadcast SWMP updates on local TV and receive public input at meeting. Continue to work with CMRSC
Revised					
2C	Community participation/Household Hazardous Waste collection.	Household Hazardous Waste Committee	Annual Hazardous waste day (depends on funding).	Hazardous Waste Collection Events were held in May and October of 2012. As discussed in BMP IE, the local Boy Scout Chapter was recruited to hand out educational flyers at the event. Flyers will be distributed by Town staff at the May 2012 collection event.	Hold at least two Hazardous Waste Collection Events and recruit students and/or boy scouts to hand out educational stormwater flyers as a part of community service (also refer to BMP 1B).
Revised					
2D	Community participation.	Household Hazardous Waste Committee	Publish the results of Hazardous Waste Collection in the Gazette w/ permission. Results on website.	Participation in the Hazardous Waste Collection Events was tracked by a tally of cars and resulted in 684 cars for the May and October 2012 events. This information was posted on the town website.	Continue tracking community participation. Establish a method of tracking the amount of hazardous waste collected at events and post information on the Town website.
Revised					



BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 10	Planned Activities – Next Permit Term
3B	Identification of Illicit Connections.	Highway/Gerry Foskett	Will seek appropriation to train majority of DPW employees. Train DPW staff annually	DPW staff members inspect for illicit discharges while performing regular catch basin cleanings. Inspection forms as part of Charlton's SOPs were used to record conditions of catch basins for follow-up actions. Town is also participating in Central Massachusetts Regional Stormwater Coalition to improve the existing system	Annually review training program in-house and incorporate into existing inspection procedures. Use the catch basin inspection form found in the SOPs to incorporate illicit discharge inspection information. Town is also participating in Central Massachusetts Regional Stormwater Coalition
3C	Storm Drainage System Map.	Highway and Conservation Commission	Initial Base Map completed	All outfalls within the urban area were field verified using a GPS and compiled on a GIS base map in 2007. A total of 65 outfalls were mapped. Additional funding for mapping was not available in Permit Year 10. Town is also participating in Central Massachusetts Regional Stormwater Coalition for mapping	Review mapping requirements under the new permit (when available) and begin planning to meet funding requirements. Town is also participating in Central Massachusetts Regional Stormwater Coalition
3D	Illicit Connection Data.	Highway/Gerry Foskett	Use data to assess progress.	Previous outfall inspections did not reveal any obvious illicit discharges. A 2007 study identified 9 outfalls with dry weather flow. A second study in 2008 revisited all 9 outfalls and analyzed water quality data from 5 outfalls exhibiting dry weather flow. No illicit discharges were identified in previous studies and further investigation was not warranted during the permit year. Town is also participating in Central Massachusetts Regional Stormwater Coalition	Continue to monitor outfalls and catch basins and take necessary actions to eliminate illicit discharges.

### 3a. Additions.

3E	Illicit Discharge Ordinance	Planning Board & Consultant	Plan to seek Town meeting approval.	By law was approved at the May 2011 meeting	Town is also participating in Central Massachusetts Regional Stormwater

Revised						Coalition
3F	Outfall Screening Strategy and Inspections for Illicit Discharges.	DPW/ Conservation Commission, Consultant	All outfalls inspected for illicit discharges by end of permit term.	A subwatershed prioritization and approach for IDDE activities was developed in 2007. Dry weather flows were sampled as outlined in BMP 3D. Additional funding was not available in Permit Year 10 to evaluate outfalls outside of the urbanized area.	Review the new permit requirements (when available) related to illicit discharge inspections and begin planning to meet funding requirements. Town is also participating in Central Massachusetts Regional Stormwater Coalition	
Revised						

#### 4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 10	Planned Activities – Next Permit Term
4A Revised	Construction Site Runoff Inspection Checklist.	Building Inspector/ Curt Meskus	Seek approval to develop SW quality checklist.	The checklist previously developed and approved for the building inspector was used for numerous inspections. Town is also participating in Central Massachusetts Regional Stormwater Coalition	Continue to revise checklist as needed with introduction of new stormwater ordinance or bylaw.
4B Revised	Construction Site Runoff Inspection Checklist. Develop Erosion Control Regulation	Building Inspector/ Curt Meskus, Planning Board	Seek approval to implement the checklist. Regulation at Town Meeting.	The Town approved a local bylaw to meet the Phase II requirements in Fall 2010. Town staff met multiple times to update the bylaw prior to review by the Planning Board and Conservation Commission	Town is also participating in Central Massachusetts Regional Stormwater Coalition

4C	Construction Site Runoff Control Education. Procedure for Public Input	Planning Board/Alan Gordon, Highway & Conservation Commission	Require Erosion Control. Record number of calls regarding site runoff	Developers use the checklist as a reference for inspections of sites. The Highway Dept. and Conservation Commission handle complaints for construction site issues in Town. Numerous calls were received by the Conservation Commission and all issues were addressed.	Encourage public involvement by updating the website with whom to contact regarding construction runoff problems. Continue to handle complaints that are received. Town is also participating in Central Massachusetts Regional Stormwater Coalition
4D	Construction Site Runoff - Site Plan.	Planning Board/Alan Gordon	Require Construction in Phases.	The Site Plan regulations were amended in June 2006 to address construction phasing.	Town is also participating in Central Massachusetts Regional Stormwater Coalition

4a. No additions at this time.

**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 10	Planned Activities – Next Permit Term
5A Revised	Assess Existing Post Construction Runoff Program	Planning Board/Building Inspector	Meet with Board & Inspector to Review	Existing regulatory controls were reviewed in Year 1. The Subdivision regulations were amended in June 2006 to address construction phasing.	Town is also participating in Central Massachusetts Regional Stormwater Coalition
5B Revised	Develop stormwater ordinance	Planning Board/Building Inspector	Seek Approval to review Subdivision bylaws	The Town approved a local bylaw to meet the Phase II requirements in Fall 2010. Town staff met multiple times to update the bylaw prior to review by the Planning Board and Conservation Commission	Town is also participating in Central Massachusetts Regional Stormwater Coalition.
5C Revised	Review stormwater ordinance	Planning Board/ Building Inspector/BOS	Plan to Seek Town Meeting Approval	The Town approved a local bylaw to meet the Phase II requirements in Fall 2010. Town staff met multiple times to update the bylaw prior to review by the Planning Board and Conservation Commission Town is also participating in Central Massachusetts Regional Stormwater Coalition.	Town is also participating in Central Massachusetts Regional Stormwater Coalition.
5D Revised	Revisit stormwater ordinance	Planning Board/Building Inspector/BOS	Review for any Changes	The Town approved a local bylaw to meet the Phase II requirements in Fall 2010. Town staff met multiple times to update the bylaw prior to review by the Planning Board and Conservation Commission Town is also participating in Central Massachusetts Regional Stormwater Coalition.	Town is also participating in Central Massachusetts Regional Stormwater Coalition.

**5a. Additions.**

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 10	Planned Activities – Next Permit Term
5E Revised	Develop and implement inspection program, public input procedure	Planning Board/Building Inspector, Conservation Commission	Checklist and O&M Plan by end of year 4. Records of inspections completed and results.	The checklist developed for the building inspector was used for numerous inspections. No complaints were received from the public regarding stormwater management facilities.	Continue to conduct site inspections to ensure BMPs are constructed as designed. Encourage public involvement by updating the website as deemed necessary. Continue to handle complaints that are received.

## 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 10	Planned Activities – Next Permit Term
6A	Municipal Good Housekeeping: Highway, Storm Drain System Inspection and Maintenance	Highway Gerry Foskett	Catch Basin & Street Sweeping Schedule, Inspect and maintain storm drain system at least annually	All catch basins in Town were cleaned at least once and some areas prone to sediment build up were cleaned twice. All streets were swept one to two times based on accumulation of sediment. DPW maintained a record of cleanings and storm drain system maintenance needs with an inspection form that was completed at the time of cleaning. The Town utilized its Standard Operating Procedures (SOPs) to track cleaning and inspection activities for BMPs.	Utilize SOPs and continue storm drain system inspection and maintenance. Town is also participating in Central Massachusetts Regional Stormwater Coalition.
Revised					
6B	Municipal Good Housekeeping: Earth Day	Board of Selectmen, Board of Health Conservation Commission	Seek approval to provide assistance with Earth Day & Stream Clean Up.	The Town hosted a farm cleanup event on April 27 and May 4, 2012 at the Fay Mountain Farm. Volunteers performed maintenance around the farm, including litter removal and tree pruning.	Continue soliciting and tracking number of volunteers participating in event and trash/debris collected and post on Town website (refer to BMP 2E). Target streams and other areas known for problems. Town is also participating in Central Massachusetts Regional Stormwater Coalition.
Revised					
6C	Municipal Good Housekeeping: Highway	Highway Gerry Foskett	Review Cleaning Schedule & Revise if needed. Storm drain system cleaning review.	The Town continued to reuse catch basin cleanings as landfill capping material, as approved by DEP. Cleaning and maintenance needs identified during previous stormwater outfall screening efforts were addressed as resources allowed (see also BMP 6H).	Continue to conduct follow-up maintenance activities and/or revise cleaning schedules as appropriate and as funding allows.
Revised					

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 10	Planned Activities – Next Permit Term
6D	Municipal Highway	Highway Gerry Foskett	Meet with Highway to talk about any updates. Phase II Training Update	ConCom and Highway meet approximately once a month to discuss the progress of the SWMP. Town is also participating in Central Massachusetts Regional Stormwater Coalition. ConCom provides updates to the Town Administrator at department meetings.	Incorporate new information regarding storm drain system maintenance (e.g., BMP 6C) and incorporate any modifications into training sessions (see BMP 6F below). Town is also participating in Central Massachusetts Regional Stormwater Coalition.
Revised					

**6a. Additions.**

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 10	Planned Activities – Next Permit Term
6E	Evaluate Municipal Facilities for Stormwater impacts	Highway Gerry Foskett, Consultant	Pollution Prevention Inspection Checklist, Record of Inspections and Maintenance.	Stormwater recommendations outlined in October 14, 2005 report are nearly complete. Construction for the new Highway Dept. building has been completed.	Continue to inspect municipal facilities on a regular basis. Clean stormwater structures as per the SOPs.
Revised					
6F	Conduct Town Employee Stormwater Training.	Highway Gerry Foskett	Attendance sheet and copy of program	Informal (in-house) training is conducted on a regular basis for DPW staff for spill prevention and cleanup techniques, as well as other pollution prevention practices.	Continue/update training program and track attendance annually. Town is also participating in Central Massachusetts Regional Stormwater Coalition.
Revised					
6G	Develop and implement a SPCC Plan for the Fueling Station.	Highway Gerry Foskett	Copy of SPCC Plan & Records	The SPCC Plan for the Town Fueling Station was developed in 2006 and compliance is ongoing.	Continue compliance with the SPCC Plan requirements and update the plan as necessary.
Revised					
6H	BMP evaluation and O&M Plan	Highway Gerry Foskett	Record of Maintenance and/or Improvements	The Town maintained 17 detention basins in accordance with the Standard Operating Procedures (SOPs) outlined	Continue to track BMP maintenance. Utilize SOPs and O&M Plan when maintaining BMPs.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 10	Planned Activities – Next Permit Term
Revised				in the Operation and Maintenance (O&M) Plan. The detention basins were inspected and maintained as needed: mowed, brush cut, foredays and outfalls cleaned and inspected, and trash removed.  The results of the retrofit evaluation for the 15 Town-owned BMPs remained under consideration due to budget constraints.	

**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 10	Planned Activities – Next Permit Term
7A Revised	Map outfalls to TMDL Waters	HighWAY, Conservation Commission	All outfalls mapped to TMDL waters by end of year 4.	All outfalls within the urban area were field verified using a GPS and compiled on a GIS base map in 2007. Additional funding for mapping was not available in Permit Year 10. Town is also participating in Central Massachusetts Regional Stormwater Coalition for further mapping	Continue mapping outfalls and the contributing drainage system with priority to those which contribute to TMDL waters, as budget is available. Town is also participating in Central Massachusetts Regional Stormwater Coalition.
7B Revised	Evaluate existing data for TMDL waters to develop BMPs	Conservation Commission	Data sheets, list of potential BMP recommendations	As discussed in BMP 3D, outfalls have been inspected and sampled for illicit discharges. As discussed in BMP 6H, The results of the retrofit evaluation for the 15 Town-owned BMPs remained under consideration.	Evaluate outfall and other water quality data and develop BMPs to address water quality of the TMDL waters, as budget and staff resources are available.  Review the requirements of the new permit (once finalized) and modify SWMP as appropriate.

**7b. WLA Assessment**

While several water bodies in Charlton have TMDLs, it is first necessary to locate outfalls and determine their ownership and drainage collection areas before it will be possible to assess waste loads for which the Town of Charlton is responsible and to devise appropriate BMPs. Charlton has mapped the stormwater outfalls within the urban area, evaluated outfalls for the presence of illicit discharges, and conducted an evaluation of retrofit opportunities for BMPs to improve water quality. Further evaluation is needed to determine what BMPs will be both effective and feasible. The Town anticipates reviewing the final permit and the requirements related to TMDLs and impaired water bodies to develop a strategy and BMPs to improve water quality. This strategy will consider the data collection requirements (and timelines) outlined in the permit to develop the most appropriate and cost-effective recommendations.

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

65 stormwater outfalls were previously mapped and screened for potential illicit discharges within the regulated area: field observations and monitoring data did not reveal any obvious illicit discharges; dry weather flow was present at 9 outfalls; a second study revisited all 9 outfalls and analyzed water quality data from 5 outfalls with dry weather flow; results did not reveal elevated concentrations at any outfall. Additional outfall mapping, inspection and sampling were not performed due to budget constraints.

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

**Programmatic**

Stormwater management position created/staffed	(y/n)	No
Annual program budget/expenditures	(\$)	

**Education, Involvement, and Training**

Estimated number of residents reached by education program(s)	(# or %)	100% homes
Stormwater management committee established	(y/n)	Yes
Stream teams established or supported	(# or y/n)	Yes
Shoreline clean-up participation or quantity of shoreline miles cleaned	(y/n or mi.)	Yes
Household Hazardous Waste Collection Days		Yes
<ul style="list-style-type: none"> <li>▪ days sponsored</li> <li>▪ community participation</li> <li>▪ material collected</li> </ul>	(#) (%)	2 684cars
School curricula implemented	(tons or gal) (y/n)	Unknown YES

**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
* Draft bylaws and a warrant article were developed for the May 16, 2011 Town Meeting.				

**Mapping and Illicit Discharges**

Outfall mapping complete	(%)	100%*
Estimated or actual number of outfalls	(#)	65
System-Wide mapping complete	(%)	
Mapping method(s)		
▪ Paper/Mylar	(%)	
▪ CADD	(%)	
▪ GIS	(%)	
Outfalls inspected/screened	(%)	-
Illicit discharges identified	(# or %)	100%
Illicit connections removed	(#)	65
% of population on sewer	(#)	0
% of population on septic systems	(est. gpd)	N/A
*100% of outfalls within the urban area have been mapped.	(%)	11.8%
	(%)	88.2%

## Construction

Number of construction starts (>1-acre)	(#)	
Estimated percentage of construction starts adequately regulated for erosion and sediment control	(%)	
Site inspections completed	(# or %)	Numerous
Tickets/Stop work orders issued	(# or %)	0
Fines collected	(# and \$)	0
Complaints/concerns received from public	(#)	Numerous

## Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	
Site inspections completed	(# or %)	Numerous
Estimated volume of stormwater recharged	(gpy)	

## Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets)	(times/yr)	1
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	(times/yr)	1-2
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 screenings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		Landfill
Cost of screenings disposal	(\$)	
Average frequency of street sweeping (non-commercial/non-arterial streets)	(times/yr)	1
Average frequency of street sweeping (commercial/arterial or other critical streets)	(times/yr)	1-2
Qty. of sand/debris collected by sweeping	(lbs. or tons)	
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	Landfill
Cost of sweepings disposal	(\$)	
Vacuum street sweepers purchased/leased	(#)	1 owned
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 <sub>2</sub> % MgCl <sub>2</sub> % 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	Yes (y/n)