Municipality/Organization:	**City of Revere, Massachusetts**
EPA NPDES Permit Number:	**MA041057**
MassDEP Transmittal Number:	**W-035316**
Annual Report Number & Reporting Period:	**Year 13** **April 1, 2015 – March 31, 2016**

NPDES PII Small MS4 General Permit Annual Report
(Due: May 1, 2016)

Part I. General Information

Contact Person:	Nicholas Rystrom, P.E.	Title:	City Engineer
Telephone #:	781-286-8153	Email:	nrystrom@revere.org
Mailing Address:	Revere City Hall, Engineering Dept., 281 Broadway, Revere, MA 02151		

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: Brian Arrigo

Title: Mayor

Date: May 1, 2016

Part II. Self-Assessment

The City of Revere has completed the required self-assessment and has determined that the City is in compliance with all permit conditions, except for the following provisions:

Part III 2.5 Storm drain stenciling program must be initiated with help from volunteers. Try to coordinate with School Dept. for community service and with Saugus River and Mystic River Watershed Groups.

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
1.1	Partnership Program	Planning	Education and outreach program developed by summer '04	Established partnership with School Dept. and Saugus River Watershed Council	Continue partnership for developing new outreach program
Revised					
1.2	Web site creation	MIS	Create website by '04	Website created in '07	Maintain website online
Revised					
1.3	Household brochures and fact sheets	DPW	Distributed by Summer '04	Created the brochures with the help of the Mystic River Watershed Council and distributed in '07	Distributed in '07 and provided on the City website
Revised					
1.4	Commercial brochures and fact sheets	DPW	Develop and distribute to businesses in '07	Created commercial brochures with the help of the Mystic River Watershed Council and made available in '07	Distributed in '07 and provided on the City website
Revised					
1.5	Classroom education on stormwater	Saugus River Watershed Council and Revere School Dept.	50% of K-12 by end of '07 school year	Program initiated with school dept. and Saugus River Watershed Council	Continue education effort and school trips with School Dept.
Revised					
Revised					

1a. Additions

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
2.1	Watershed organizations	Conservation Commission	Organize watershed committee within one year	Watershed Committees organized for Mystic River Watershed, Saugus River, and Belle Isle Marsh	Continue watershed action committees for Mystic River, Saugus River, and Belle Isle Marsh
Revised					
2.2	Stakeholder meetings	Conservation Commission	Hold at least two stakeholder meetings	Stakeholder meetings held separate watershed committees for Mystic River, Saugus River, and Belle Isle Marsh	Continue annual stakeholder meetings
Revised					
2.3	Stream cleaning campaign	DPW/Saugus River Watershed Council	Hold at least two stream clean up campaigns each year	Clean up campaign held for Town Line Brook and Eastern County Ditch as well as Mill Creek	Continue clean up campaign efforts (at least two per year)
Revised					
2.4	Volunteer monitoring	Saugus River and Mystic River Watershed Groups	Complete water quality monitoring in '05	Water quality monitoring efforts taken annually for dry and wet weather by City of Revere and Mystic River Watershed Council	Continue yearly water quality monitoring of all outfalls
Revised					
2.5	Storm drain stenciling	Conservation Commission	Complete storm drain stenciling by '06	No progress made due to lack of staff	Attempt to work with School Dept. to set up volunteers for community service program
Revised			Complete storm drain stenciling by '13		
Revised					

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
3.1	Storm drain map	Engineering	Update storm drain map by '06	Storm drain map completed in '10 with new GIS	Continue updates to map
Revised					
3.2	Non-stormwater discharge ordinance	Planning	Adopt non-stormwater discharge ordinance by '06	Non-storm drain discharge ordinance adopted by City of Revere in '05	
Revised					
3.3	Industrial/business connections	Plumbing Inspector	Establish industrial/business connection monitoring program by summer '04	Cross-connection inspection program initiated through Inspectional Services Dept.	Continue cross-connection inspection program through Inspectional Services Dept. and Plumbing Inspector
Revised					
3.4	Illicit Discharge Detection and Elimination	DPW	Establish IDDE program by Summer '04	Illicit discharge detection and elimination program undertaken by DPW water/sewer/drain division in accordance with IDDE program developed through a consultant. IDDE efforts have recently been expanded further as a result of Consent Decree compliance efforts.	Continue IDDE program
Revised					
3.5	Illegal dumping task force	Conservation Commission	Form an illegal dumping task force by '04	Conservation Commission holding monthly inspection meetings on Saturday mornings	Continue monthly meeting and inspection schedule
Revised					
Revised					

3a. Additions

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
4.1	Site Plan Review	Planning	Establish site plan review standards by '04	Site Plan Review in place, meetings held every Tuesday	Continue Site Plan Review meetings every Tuesday
Revised					
4.2	Sediment control ordinance	Planning	Develop erosion control ordinance by '04	Erosion control ordinance adopted in '05	
Revised					
4.3	Stormwater pollution prevention plan	DPW	Require stormwater pollution prevention plan for all projects by '04	DPW and City Engineer meet every Tuesday with the Site Plan Review Committee to discuss stormwater pollution prevention measures with developers and contractors for all proposed development sites	Continue DPW and City Engineer involvement in Site Plan Review Committee meetings
Revised					
4.4	Inspection program guidelines	Inspectional Services Dept.	Set up guidelines for inspections by '04	Building Inspector, City Engineer and City Planner coordinate inspection of development sites on a weekly basis	Continue weekly inspection of development sites to ensure sediment control measures are in place
Revised					
4.5	BMP measures for sediment/erosion control	DPW	Establish BMPs for construction sites by '04	Site Plan Review Committee conditions are placed on all new construction projects for BMP measures	Continue Site Plan Review efforts to add BMP measures as conditions for new developments. Place conditions on building permits
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 13 (Reliance on non-municipal partners indicated, if any)	Planned Activities
5.1	Construction run-off ordinance	Planning	Adopt a post construction run-off ordinance by '06	Post-construction run-off ordinance adopted in '05	
Revised					
5.2	Site Plan Review	Planning	Adopt site plan review standards for post-construction by '06	Site plan review standards in place	
Revised					
5.3	Operation and maintenance agreement	DPW	Develop an operation an maintenance model agreement by '05	Site plan review conditions require operation and maintenance agreements for BMP's developed for private construction sites	
Revised					
5.4	Inspection program guidelines	Inspectional Services Dept.	Set-up inspection program for post-construction run-off control by '05	Meetings have been held with Inspectional Services Dept. to discuss inspection program and staffing. Staff, duties and program have been established	
Revised					
5.5	BMP measures	DPW	Establish BMP measures for post construction by Spring '04	BMP measures for post construction have been included within site plan review conditions	Continue to require BMP measures for post construction within the framework of the site plan review process for development sites
Revised					
Revised					

5a. Additions

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
6.1	Pet waste collection	Inspectional Services Dept.	Distribute pet waste brochures to pet owners by Spring '04	Pet waste brochures developed and mailed to registered pet owners	
Revised					
6.2	Parking lot and street cleaning program	DPW	Implement a parking lot and street cleaning program by Spring '04	Street cleaning program implemented in '03 from April to November	Continue yearly street cleaning program from April to November
Revised					
6.3	Catch basin cleaning	DPW	Implement catch basin cleaning program by Spring '04	Catch basin cleaning program implemented on a regular basis in '03	Continue annual catch basin cleaning program
Revised					
6.4	Road salt storage	DPW	Institute measures for road salt storage by '04	Road salt storage shed installed at DPW facility on Charger St	Maintain road salt storage shed at DPW facility
Revised					
6.5	Spill response and prevention	Revere Fire Department	Implement a spill response and prevention plan by '05	Spill response and prevention plan has been instituted by the Revere Fire Dept.	Continue implementation of spill response and prevention plan with adequate training from Revere Fire Dept.
Revised					
Revised					

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
7.1	Parking lot and street sweeping	DPW	Program set-up by '04	Program implemented in '03	Continue program
Revised					
7.2	Catch basin cleaning	DPW	Program set-up by '04	Program implemented in '03	Continue program
Revised					
7.3	Install deep sumps	DPW	Requirement set-up for newly constructed catch basins by '04	Program implemented in '03. All new catch basins both public and private require deep sumps	Continue program
Revised					
7.4	Install gas and oil separators	DPW	Requirement set-up for newly constructed catch basins by '04	Program implemented in '03. All new catch basins within private parking lots require installation of gas and oil separators	Continue program requirement
Revised					
7.5	Detention areas	DPW	Requirement established for large development sites	Requirement implemented in '03 as part of site plan review for all large development sites	Continue program requirement
Revised					
Revised					

7a. Additions

7b. WLA Assessment

Strict adherence to an operation and maintenance plan is essential for continued success of MDL reductions

Part IV. Summary of Information Collected and Analyzed

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, 2015 through March 31, 2016)

Programmatic

	(Preferred Units)	Response
Stormwater management position created/staffed	(y/n)	
Annual program budget/expenditures **	($)	
Total program expenditures since beginning of permit coverage	($)	
Funding mechanism(s) (General Fund, Enterprise, Utility, etc)		Enterprise

Education, Involvement, and Training

Estimated number of property owners reached by education program(s)	(# or %)	5,000
Stormwater management committee established	(y/n)	y
Stream teams established or supported	(# or y/n)	y
Shoreline clean-up participation or quantity of shoreline miles cleaned **	(y/n or mi.)	y
Shoreline cleaned since beginning of permit coverage	(mi.)	3
Household Hazardous Waste Collection Days		
▪ days sponsored **	(#)	12
▪ community participation **	(# or %)	unk
▪ material collected **	(tons or gal)	see attached
School curricula implemented	(y/n)	y

Legal/Regulatory

	In Place Prior to Phase II	Reviewing Existing Authorities	Drafted	Draft in Review	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

	(Preferred Units)	Response
Outfall mapping complete	(%)	100
Estimated or actual number of outfalls	(#)	119
System-Wide mapping complete (complete storm sewer infrastructure)	(%)	100
Mapping method(s)		
▪ Paper/Mylar	(%)	100
▪ CADD	(%)	
▪ GIS	(%)	100
Outfalls inspected/screened **	(# or %)	119
Outfalls inspected/screened (Since beginning of permit coverage)	(# or %)	119
Illicit discharges identified **	(#)	6
Illicit discharges identified (Since beginning of permit coverage)	(#)	32
Illicit connections removed **	(#); and (est. gpd)	5
Illicit connections removed (Since beginning of permit coverage)	(#); and (est. gpd)	31
% of population on sewer	(%)	> 99
% of population on septic systems	(%)	< 1

Construction

	(Preferred Units)	Response
Number of construction starts (>1-acre) **	(#)	1
Estimated percentage of construction starts adequately regulated for erosion and sediment control **	(%)	100
Site inspections completed **	(# or %)	100%
Tickets/Stop work orders issued **	(# or %)	0
Fines collected **	(# and $)	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 (for proper BMP installation & operation) completed **	(# or %)	100%
BMP maintenance required through covenants, escrow, deed restrictions, etc.	(y/n)	y
Low-impact development (LID) practices permitted and encouraged	(y/n)	y

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
Qty of structures cleaned **	(#)	1009
Qty. of storm drain cleaned **	(%, LF or mi.)	26,475
Qty. of screenings/debris removed from storm sewer infrastructure **	(lbs. or tons)	529 CY
Disposal or use of screenings (landfill, POTW, compost, beneficial use, etc.) **	(location)	Landfill

Basin Cleaning Costs		
• Annual budget/expenditure (labor & equipment)**	($)	$50,000
• Hourly or per basin contract rate **	($/hr or $ per basin)	$30/basin
• Disposal cost**	($)	included
Cleaning Equipment		
• Clam shell truck(s) owned/leased	(#)	0
• Vacuum truck(s) owned/leased	(#)	1
• Vacuum trucks specified in contracts	(y/n)	n
• % Structures cleaned with clam shells **	(%)	95
• % Structures cleaned with vactor **	(%)	5

	(Preferred Units)	Response
Average frequency of street sweeping (non-commercial/non-arterial streets) **	(times/yr)	8
Average frequency of street sweeping (commercial/arterial or other critical streets) **	(times/yr)	8
Qty. of sand/debris collected by sweeping **	(lbs. or tons)	
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.) **	(location)	landfill
Annual Sweeping Costs		
• Annual budget/expenditure (labor & equipment)**	($)	$130,000
• Hourly or lane mile contract rate **	($/hr. or ln mi.)	$650/day
• Disposal cost**	($)	$200,000
Sweeping Equipment		
• Rotary brush street sweepers owned/leased	(#)	1
• Vacuum street sweepers owned/leased	(#)	0
• Vacuum street sweepers specified in contracts	(y/n)	n
• % Roads swept with rotary brush sweepers **	%	100
• % Roads swept with vacuum sweepers **	%	0

Reduction (since beginning of permit coverage) in application on public land of: (“N/A” = never used; “100%” = elimination)

▪ Fertilizers	(lbs. or %)	0
▪ Herbicides	(lbs. or %)	0
▪ Pesticides	(lbs. or %)	0
Integrated Pest Management (IPM) Practices Implemented	(y/n)	n

	(Preferred Units)	Response
Average Ratio of Anti-/De-Icing products used ** (also identify chemicals and ratios used in specific areas, e.g., water supply protection areas)	% NaCl % $CaCl_2$ % $MgCl_2$ % CMA % Kac % KCl % Sand	95% NaCl 5% $CaCl_2$
Pre-wetting techniques utilized **	(y/n or %)	n
Manual control spreaders used **	(y/n or %)	n
Zero-velocity spreaders used **	(y/n or %)	y
Estimated net reduction or increase in typical year salt/chemical application rate	(±lbs/ln mi. or %)	50% decrease
Estimated net reduction or increase in typical year sand application rate **	(±lbs/ln mi. or %)	50% decrease
% of salt/chemical pile(s) covered in storage shed(s)	(%)	100
Storage shed(s) in design or under construction	(y/n or #)	N/A
100% of salt/chemical pile(s) covered in storage shed(s) by May 2008	(y/n)	Y

Water Supply Protection

Storm water outfalls to public water supplies eliminated or relocated	# or y/n	N/A
Installed or planned treatment BMPs for public drinking water supplies and their protection areas	# or y/n	N/A
Treatment units induce infiltration within 500-feet of a wellhead protection area	# or y/n	N/A

REVERE DPW

RESIDENTIAL HAZARDOUS HOUSEH0LD PRODUCT COLLECTION

(CALENDAR YEAR ENDING DECEMBER 31, 2015)

Auto Batteries	192 units
Tires	12.25 tons
Propane Tanks	50 units
Paint	31 Cubic Yard Boxes
Waste Oil	958 Gallons
Used Oil Filters	3 - 55 Gallon Drums
Thermometers	70 units
Thermostats	50 units
Household Batteries	2 - 5 Gallon Drums
Anti-Freeze	4 - 55 Gallon Drums
Button Batteries	.25 - 5 Gallon Drum
Mercury Switches	5 Units
CRT's/Electronics	190,000 LBS