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City of Chelsea

DEPARTMENT OF PUBLIC WORKS
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Joseph C. Foti
Director

United States Environmental Protection Agency
Water Protection Unit
P.O. Box 8127
Boston, Massachusetts 02114

April 21, 2006

RE: NPDES Stormwater Phase II Annual Report

To Whom It May Concern:

Please find sent one (1) copy of the City of Chelsea's 2005 Annual Report for NPDES Phase II General Permit.

If you have any questions regarding this matter, please contract me directly at 617-889-8376.

Sincerely,

Andrew B. DeSantis,
Assistant Director

Municipality/Organization: City of Chelsea

EPA NPDES Permit Number: MAR041077

MaDEP Transmittal Number: W-

Annual Report Number & Reporting Period: No. 3: March 05-March 06

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: Andrew B. DeSantis Title: Assistant Director, Chelsea DPW

Telephone #: 617-889-8376 Email: adesantis@chelseama.gov

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: Jay Ash

Printed Name: Jay Ash

Title: City Manager

Date: 4/25/06

Part II. Self-Assessment

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

Part II B.6(a) Employee training component not included in NOI.

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 3 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 4
PE-1	Partnership Program w/Chelsea Greenspace & Mystic River Watershed Org.	DPW/Andrew B. DeSantis	Conduct Public Forums on a yearly basis.	Participated w/Chelsea Greenspace & Mystic River Watershed Organization at roll-out of Mystic River Action Plan on December 3, 2006.	Conduct one public forum
PE-2	Educational Material Distribution	DPW/Andrew B. DeSantis	Distribute materials 2x per year at community events	Distributed information at December 3, 2006 public forum including MWRA's Healthy Environment Starts at Home. Informational materials maintained on public stand in City Hall Corrider. Stormwater Webpage created: http://www.chelseama.gov/Public_Documents/ChelseaMA_DPW/stormwater	Distribute materials 2x per year at community events
PE-3	Outreach to Latino Community	DPW/Andrew B. DeSantis	Develop Spanish Language Brochure within 1 year	Distributed Spanish Language version of MWRA's Healthy Environment Starts at Home.	Develop Spanish Language Brochure within 1 year

1a. Additions

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 3 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 4
PP-1	Hold Co-ordination Meetings	DPW/Andrew B. DeSantis	Hold Coordination Meetings with Chelsea Greenspace and Mystic River Watershed Organization on a semi-annual basis	Met with Chelsea Greenspace, Mystic River Watershed Organization and Chelsea Creek Action Group on NPDES permit renewals for Bulk Fuel Oil Storage Terminals Chelsea Creek and Island End River Mitigation.	Hold Coordination Meetings with Chelsea Greenspace and Mystic River Watershed Organization on a semi-annual basis
Revised					
PP-2	Storm Drain Stenciling	DPW/Andrew B. DeSantis	Stencil all catch basin structures within 3 years	200 Stenciled Year 3	Stencil 50% of catch basins
Revised					
PP-3	Volunteer Monitoring	DPW/Andrew B. DeSantis	Continue Volunteer Monitoring on an annual basis	Mystic River Watershed Organization monitoring outfalls every 3 months.	Continue monitoring
Revised					
PP-4	Stakeholder Meetings	DPW/Andrew B. DeSantis	Hold annual stakeholder meeting	As noted above.	Hold annual stakeholder meeting
Revised					
Revised					
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 3 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 4
IDDE -1	Storm Drain Map	DPW/Andrew B. DeSantis	Update Storm/Sanitary Sewer Map Yearly (ongoing)	Storm Drain Map updated October 2005. Additional info being developed regarding drainage area tributary to Island River for City & EPA.	Storm Drain Map to be updated October 2005. Island River drainage area to be completed by July 1, 2005.
IDDE -2	Non-stormwater discharge Ordinance	DPW/Andrew B. DeSantis	Adopt Non-stormwater discharge Ordinance within 2 years.	Partially completed within current ordinance	Complete update of ordinance
IDDE -3	Industrial/Business Connections	DPW/Andrew B. DeSantis	Establish Monitoring Program within 2 years.	Reviewed of NPDES Phase I permits for fuel storage properties along Chelsea River and Mystic River and commented to EPA.	Establish Monitoring Program within 2 years.
IDDE -4 Revised	Illicit Discharge Detection and Elimination	DPW/Andrew B. DeSantis	Establish Program within 1 year	Illegal sanitary connection from Gulf Oil Terminal to CHE-008 Outfall detected and removed.	Dry-weather sampling to begin May 2006.
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 3 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 4
CSRC -1	Develop Storm Water Discharge Permitting Standards	DPW/Andrew B. DeSantis	Establish Permitting Standards within 1 year	Informally commenced with new developments/redevelopment's. Information gathering ongoing..	Formalize Permitting standards.
CSRC -2	Erosion Sediment Control Ordinance	DPW/Andrew B. DeSantis	Develop Ordinance within 1 year.	Information gathering ongoing.	Complete by 3rd quarter year 4.
CSRC -3	Inspection Program Guideline	DPW/Andrew B. DeSantis	Establish within 1 year.	Not started	Complete by 4th quarter year 4.
Revised					
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 3 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 4
PCRC -1	Post Construction Ordinance	DPW/Andrew B. DeSantis	Develop within 1 year.	Not started	Develop by end of 3rd quarter, year 4
PCRC -2	Operation and Maintenance Agreement	DPW/Andrew B. DeSantis	Develop within 1 year	Operation Maintenance plans required of any new development/redevelopment.	Formalize requirements and form by 4th quarter year 4.
PCRC -3	Inspection program guidelines	DPW/Andrew B. DeSantis	Set up inspection program for post construction runoff controls within 2 years	Not started	Complete by end of 4th quarter year 4.
Revised					
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 3 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 4
MGH -1	Street Cleaning Program	DPW/Andrew B. DeSantis	Continue ongoing program of sweeping every street twice a month from April 1 to November 30.	Ongoing	Continue program.
MGH -2	Programmed Catch Basin Cleaning	DPW/Andrew B. DeSantis	Continue ongoing contracted catch basin cleaning at the rate of 33% of all catch basins per year.	500 Catch basins cleaned year 3.	Clean 500 catch basins year 4.
MGH -3 Revised	Spill Response & Prevention	DPW/Andrew B. DeSantis	Review existing response plan and update within 1 year.	Not completed	Complete review and update by end of 4th quarter of year 4.
Revised					
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 3 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 4
TMD L-1	Streetsweeping	DPW/Andrew B. DeSantis	Continue contracted program of streetsweeping every street 2x/month April 1 to November 30	Ongoing	Continue program.
Revised					
TMD L-2	Catch Basin Cleaning	DPW/Andrew B. DeSantis	Continue contracted program of cleaning 33% of catch basins per year	500 Catch basins cleaned year 3.	Clean 500 catch basins year 4.
Revised					
TMD L-3	Deep Sump Catch Basins	DPW/Andrew B. DeSantis	Require new and replacement catch basins to have deep sumps of CSRC-1	All newly installed catch basins for developments/redevelopments and roadway storm drain construction constructed with deep sumps.	Codify into storm water ordinance
Revised					
TMD L-4	Oil and gas separators	DPW/Andrew B. DeSantis	Institute requirement in conjunction with CSRC-1	Catch basins at all new developments required to have oil and gas separators.	Formal adoption of requirements to be codified in storm water ordinance.
Revised					
Revised					
Revised					

7a. Additions

7b. WLA Assessment

Part IV. Summary of Information Collected and Analyzed

One storm water outfall at Mill Creek was collected and tested for the following parameters:

	Results	
Fecal Coliform (MF)	<1	cfu/100mls
E-Coli (MPN)	23	MPN/100 ml
Surfactants (MPAS)	.03	mg/l
Ammonia (as N)	2.0	mg/l

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		1

▪ days sponsored	(#)	1
▪ community participation	(%)	
▪ material collected	(tons or gal)	.5 T
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	(%)	75
Estimated or actual number of outfalls	(#)	14
System-Wide mapping complete	(%)	25
Mapping method(s)		
▪ Paper/Mylar	(%)	100
▪ CADD	(%)	
▪ GIS	(%)	
Outfalls inspected/screened	(# or %)	
Illicit discharges identified	(#)	1

Illicit connections removed	(#) (est. gpd)	1
% of population on sewer	(%)	100
% of population on septic systems	(%)	0

Construction

Number of construction starts (>1-acre)	(#)	1
Estimated percentage of construction starts adequately regulated for erosion and sediment control	(%)	100
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	(#)	500
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)	16
Qty. of sand/debris collected by sweeping	(lbs. or tons)	2000
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	landfill
Cost of sweepings disposal	($)	70000
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)	y
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)	y
Storage shed(s) in design or under construction	(y/n)	

APPENDIX A

COMMUNITY: _____ DATE PREPARED: _____

CONTACT PERSON: _____

CALCULATION OF NON-BILLED WATER CONSUMPTION AND LEAKAGE POTENTIAL

CALENDAR YEAR: 2004

	Million Gallons	Million Gallons	Percentage of Total Use
1. Total Water Use			
2. Metered Domestic Use			
3. Metered Non-Domestic Use			
4. Non-Billed Water (1-2-3)		**0**	**#DIV/0!**
5. Domestic Meter Under Registration	0		
6. Non-Domestic Meter Under Registration	0		
7. Unmetered Public Use	0		
8. Leakage Potential (4-5-6-7)		**0**	**#DIV/0!**