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Municipality/Organization: Wrentham Developmental Center

EPA NPDES Permit Number: MAR042030

MassDEP Transmittal Number: W035610

Annual Report Number 8  
& Reporting Period: April 1, 2010 – March 31, 2011

## NPDES PII Small MS4 General Permit Annual Report (Due: May 1, 2011)

### Part I. General Information

Contact Person: Stephen Legendre Title: Director of Operations

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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: Stephen Legendre

Title: Director of Operations

Date: April 15, 2011

**Wrentham Developmental Center: Permit # MAR042030, DEP Transmittal # W035610, Permit Year 8, 2010-2011**

**Part II. Self-Assessment:** The Wrentham Developmental Center has completed the required self-assessment and has determined that our municipality is in compliance with all general permit conditions, effective May 1, 2003, extended May 1, 2008 to present.

**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 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Year
1-01 Revised	Fact Sheet in newsletter	Steve Legendre/ Director of Operations	Awareness / feedback	Fact Sheet in newsletter distributed to all buildings and employees of facility	Maintain annual distribution of Storm Water Fact Sheet in facility newsletter, <u>CROSSROADS</u>
1-02 Revised	Notice posted in food and cleaning services buildings	Steve Legendre/ Director of Operations	Awareness of proper disposal practices	Posters remain in visually conspicuous area for the employees of these subcontracted service providers	Maintain storm water posters in designated areas
1-03 Revised	Present a storm water fact sheet at each new employee orientation	Steve Legendre/ Director of Operations	Awareness / improved work habits	Fact sheet distributed during each employee orientation	Continue to distribute fact sheet at each orientation to promote basic awareness among all new employees of SWMP, applicable BMPs, and participation opportunities
1-04 Revised	Establish storm water education center in Operations Dept. Office	Steve Legendre/ Director of Operations	Availability of educational materials and SWMP reference materials	Storm Water education center maintained in Director of Operations' office	Maintain storm water educational materials center. (to include comprehensive SWMP documents as per next permit NOI)

1a. Additions


2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Year
2-01 Revised	Recruit designated person per shift, food and cleaning services	Steve Legendre/ Director of Operations	Oversight with increased awareness	Annual Stormwater and Spill Prevention Meeting of all department heads, supervisory administrative personnel, food services manager, and cleaning services manager. (sign-in required)	Continue to administer Annual Storm Water and Spill Prevention Meeting.  Update information discussed as needed as per next permit NOI
2-02 Revised	Request volunteers per Unit per shift by supervisory personnel	Steve Legendre/ Director of Operations	Oversight with increased awareness	Request volunteers per Unit per shift by supervisory personnel attending Annual Storm Water Meeting	Continue to request volunteers per Unit/Dept. per shift be watchful for proper disposal practices Update information discussed as needed as per next permit NOI
2-03 Revised	Security Training/Awareness	Steve Legendre/ Director of Operations	Reporting of incidents	Security supervisor attendance at Annual Storm Water / Spill Prevention Meeting. Establish procedure for the reporting and response to incidents	Security supervisor to attend Annual Storm Water Meeting and maintain documentation of incidents as needed Update information discussed as needed as per next permit NOI
2-04 Revised	Training for Transport, Grounds, Paint, and all Maintenance Depts.	Steve Legendre/ Director of Operations	Awareness/improved work habits	Tailgate meetings to promote proper work habits as related to SWMP	Tailgate meetings to promote proper work habits as related to SWMP Update information discussed as needed as per next permit NOI

Wrentham Developmental Center: Permit # MAR042030, DEP Transmittal # W035610, Permit Year 8, 2010-2011

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 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Year
3-01 Revised	Regularly inspect outfalls for dry weather discharges	Steve Legendre/ Director of Operations	Early detection and correction	Continued monitoring of outfalls  No dry weather discharges detected	Continued monitoring of outfalls.  Improve mapping and establish tracking and analysis methods for discovered flows. (Keep in SWMP)  Continue sampling during severe wet weather event each  Revise sampling to incorporate EPA guidance as per new permit requirements and 2011 workshop.
3-02 Revised	Use test kits for pH, nitrate, phosphate, during severe wet weather <i>Testing includes: copper, Ammonia Nitrogen, and Nitrate</i>	Steve Legendre/ Director of Operations	Early detection and correction	Annual testing conducted during heavy rainfall event on 8-24-10. Tests seem to indicate normal outfall conditions.	Continue to administer Annual Storm Water/ Spill Prevention (and response) Meeting with required attendance by designated supervisory personnel. Maintain spill control kits at appropriate locations. Implement First Responder Awareness-Level Refresher Training.
3-03 Revised	Spill Response Plan	Steve Legendre/ Director of Operations	Spill Control Kit(s) on site; E.Q Northeast for clean-up and Emergency Response	Annual Storm Water / Spill Prevention Meeting did address Spill Response Plan. Spill control kits maintained in Plumbing and Ground's department shops and in WDC Security vehicles. Held OSHA First Responder Awareness-Level Training for 15+ staff who may be involved with spill response.	

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 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Year
4-01	Insert standard construction controls and penalties into contract documentation	Steve Legendre/ Director of Operations	Erosion, sediment, and waste control	Standard construction controls maintained in contract documentation	Standard construction controls to be maintained in contract documentation
Revised					Incorporate EPA guidance as per new permit requirements and 2011 workshop.
4-02	Perform site inspections and impose penalties as required	Steve Legendre/ Director of Operations	Erosion, sediment, and waste control	Site inspections performed as required	Construction-site specific educational materials development as per next permit NOI as needed
Revised					Site inspections performed as required
					Incorporate EPA guidance as per new permit requirements and 2011 workshop.

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 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Year
5-01	Standard post-construction controls and penalties into contract documentation	Steve Legendre/ Director of Operations	Erosion, sediment, and waste control. Soil depth restored.	Standard post-construction controls maintained in contract documentation	Standard post-construction controls to be maintained in contract documentation.  Incorporate EPA guidance as per new permit requirements and 2011 workshop.
Revised					

5a. Additions


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 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Year
7-01 Revised	Maintain status of all discharges being "Allowable"	Steve Legendre/ Director of Operations	No significant nutrient or sediment loading	All discharges remain "Allowable"  No illicit discharges detected	All discharges maintained as "Allowable." Continue to monitor for illicit discharges
7-02 Revised	Non-Storm Water Discharges not a significant contributor of pollutants.	Steve Legendre/ Director of Operations		Non-Storm Water Discharges not a significant contributor of pollutants	No direct receiving waters where TMDL is applicable  Develop assessment and documentation procedures for non-storm water discharges when encountered. Keep in SWMP.

7a. Additions


7b. WLA Assessment: Not Applicable

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

Water quality testing was conducted on 8-24-10 during heavy rainfall events. Testing results for pH, Phosphate, Ammonia Nitrogen, Nitrogen as Nitrate, and Copper are attached. All testing is done at our waste water treatment plant by a certified operator in accordance with NPDES and MassDEP testing standards\*. (\*)Note: Copper tested using colorimetric test kit, SM Vol. 21, 3500-Cu B.

**Note: An engineering firm has been contracted for preparation of upcoming NOI and a newly formatted SWMP.**



**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, 2010 through March 31, 2011)

**Programmatic**

	(Preferred Units)	Response
Stormwater management position created/staffed	(y/n)	n
Annual program budget/expenditures **	(\$)	\$5,075.70
Total program expenditures since beginning of permit coverage	(\$)	\$97,722.10
Funding mechanism(s) (General Fund, Enterprise, Utility, etc)		Gen Fund

**Education, Involvement, and Training**

Estimated number of property owners reached by education program(s)	(# or %)	n/a
Stormwater management committee established	(y/n)	y
Stream teams established or supported	(# or y/n)	n
Shoreline clean-up participation or quantity of shoreline miles cleaned ** -- Meadow Brook--	(y/n or mi.)	0.15 (all)
Shoreline cleaned since beginning of permit coverage	(mi.)	0.15
Household Hazardous Waste Collection Days		
<ul style="list-style-type: none"> <li>▪ days sponsored **</li> <li>▪ community participation **</li> <li>▪ material collected **</li> </ul>	MassDEP oversight of hazardous waste collection at facility	n/a
School curricula implemented	(# or %)	n/a
	(tons or gal)	unknown
	(y/n)	n/a

Wrentham Developmental Center: Permit # MAR042030, DEP Transmittal # W035610, Permit Year 8, 2010-2011

Legal/Regulatory

	In Place Prior to Phase II	Reviewing Existing Authorities	Drafted	Draft in Review	Adopted
<b>Regulatory Mechanism Status (indicate with "X") **state contracts specify standard construction controls</b>					
▪ Illicit Discharge Detection & Elimination	X				
▪ Erosion & Sediment Control	X				
▪ Post-Development Stormwater Management	X				
<b>Accompanying Regulation Status (indicate with "X")</b>					
▪ Illicit Discharge Detection & Elimination					
▪ Erosion & Sediment Control					
▪ Post-Development Stormwater Management					

**Mapping and Illicit Discharges**

	(Preferred Units)	Response
Outfall mapping complete	(%)	100
Estimated or actual number of outfalls	(#)	10
System-Wide mapping complete (complete storm sewer infrastructure)	(%)	98
Mapping method(s)		
▪ Paper/Mylar	(%)	98
▪ CADD	(%)	98
▪ GIS	(%)	0
Outfalls inspected/screened **	(# or %)	10
Outfalls inspected/screened (Since beginning of permit coverage)	(# or %)	10
Illicit discharges identified **	(#)	0
Illicit discharges identified (Since beginning of permit coverage)	(#)	0
Illicit connections removed **	(#); and (est. gpd)	0
Illicit connections removed (Since beginning of permit coverage)	(#); and (est. gpd)	0
% of population on sewer	(%)	98
% of population on septic systems	(%)	1

**Wrentham Developmental Center: Permit # MAR042030, DEP Transmittal # W035610, Permit Year 8, 2010-2011**

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

**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 **	(#)	86
Qty. of storm drain cleaned **	(%, LF or mi.)	0
Qty. of screenings/debris removed from storm sewer infrastructure **	(lbs. or tons)	3 tons
Disposal or use of screenings (landfill, POTW, compost, beneficial use, etc.) **	(location)	compost

Wrentham Developmental Center: Permit # MAR042030, DEP Transmittal # W035610, Permit Year 8, 2010-2011

Basin Cleaning Costs		
• Annual budget/expenditure (labor & equipment)**	(\$)	\$1,285.70
• Hourly or per basin contract rate **	(\$/hr or \$ per basin)	\$14.95 per basin
• Disposal cost**	(\$)	0
Cleaning Equipment		
• Clam shell truck(s) owned/leased	(#)	0
• Vacuum truck(s) owned/leased	(#)	0
• Vacuum trucks specified in contracts	(y/n)	n
• % Structures cleaned with clam shells **	(%)	100
• % Structures cleaned with vactor **	(%)	0

	(Preferred Units)	Response
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
Qty. of sand/debris collected by sweeping **	(lbs. or tons)	unknown
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.) **	(location)	compost
Annual Sweeping Costs		
• Annual budget/expenditure (labor & equipment)**	(\$)	\$1,770.00
• Hourly or lane mile contract rate **	(\$/hr. or ln mi.)	n/a
• Disposal cost**	(\$)	0
Sweeping Equipment		
• Rotary brush street sweepers owned/leased	(#)	0
• 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

Wrentham Developmental Center: Permit # MAR042030, DEP Transmittal # W035610, Permit Year 8, 2010-2011

Reduction (since beginning of permit coverage) in application on public land of: ("N/A" = never used; "100%" = elimination)		
▪ Fertilizers	(lbs. or %)	2%
▪ Herbicides	(lbs. or %)	n/a
▪ Pesticides	(lbs. or %)	n/a
Integrated Pest Management (IPM) Practices Implemented	(y/n)	n
(Preferred Units) Response		
Average Ratio of Anti-/De-Icing products used **	% NaCl	23%
(also identify chemicals and ratios used in specific areas, e.g., water supply protection areas)	% CaCl <sub>2</sub>	0
	% MgCl <sub>2</sub>	0
	% CMA	0
	% Kac	0
	% KCl	0
	% Sand	77%
<b>Note: Water Supply Zone II(s) controlled by Town(s) and outside of WDC MS4 boundaries. Water Supply Zone I(s) not in proximity of WDC MS4. WDC uses sand only in its PWS Zone I - outside of MS4 boundaries.</b>		
Pre-wetting techniques utilized **	(y/n or %)	n
Manual control spreaders used **	(y/n or %)	y
Zero-velocity spreaders used **	(y/n or %)	n
Estimated net reduction or increase in typical year salt/chemical application rate	(±lbs/ln mi. or %)	0
Estimated net reduction or increase in typical year sand application rate **	(±lbs/ln mi. or %)	0
% of salt/chemical pile(s) covered in storage shed(s)	(%)	100
Storage shed(s) in design or under construction	(y/n or #)	0
100% of salt/chemical pile(s) covered in storage shed(s) by May 2008	(y/n)	y

**Wrentham Developmental Center: Permit # MAR042030, DEP Transmittal # W035610, Permit Year 8, 2010-2011**

**Water Supply Protection**

Storm water outfalls to public water supplies eliminated or relocated	# or y/n	0
Installed or planned treatment BMPs for public drinking water supplies and their protection areas	# or y/n	0
<ul style="list-style-type: none"> <li>Treatment units induce infiltration within 500-feet of a wellhead protection area</li> </ul>	# or y/n	0