

**Municipality/Organization: Town of Dedham**

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**EPA NPDES Permit Number: MAR041033**

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**MassDEP Transmittal Number: W- 040861**

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**Annual Report Number  
& Reporting Period:**

**Year 12  
April 1, 2014 – March 31, 2015**

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## **NPDES PII Small MS4 General Permit Annual Report (Due: May 1, 2015)**

### **Part I. General Information**

Contact Person: Virginia LeClair

Title: Environmental Coordinator

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Mailing Address: Dedham Town Hall, 26 Bryant Street, Dedham, MA 02026

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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:

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Printed Name: Jim Kern

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Title: Town Manager

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Date: May 1, 2015

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## **Part II. Self-Assessment**

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

**Part III. Summary of Minimum Control Measures**

**1. Public Education and Outreach**

<b>BMP ID #</b>	<b>BMP Description</b>	<b>Responsible Dept./Person Name</b>	<b>Measurable Goal(s)</b>	<b>Progress on Goal(s) – Permit Year 12</b> (Reliance on non-municipal partners indicated, if any)	<b>Planned Activities</b>
1a	Establish an Advisory Committee	Town Administration	Form a Committee	The Town Administrator utilized the monthly Department Head meeting and weekly Operations meeting to update and discuss stormwater issues on a regular basis with staff.	Continue with monthly Department Head meetings and weekly Operations meetings. In addition the Conservation Agent, Eng. Director and Env. Coordinator attends quarterly meetings with NepRWA and surrounding communities regarding stormwater management as part of a Neponset Valley Stormwater Managers group.
1b	Submit 2 press releases	Environmental	Reach thousands of residents	Information was posted on the Town’s website and MWRA Dwayne the Stormdrain coloring books, supplied free of charge by DWWD were given out at the Farmer’s Market, Dedham Green Fair, Dedham Trails Day and other events along with water saving devices.	The Environmental Coordinator will utilize the Neponset River Watershed Association MS4 Outreach materials as part of a regional education and outreach campaign to increase awareness regarding ways to prevent water pollution. The catch phrase of the program is “Clean Streets, Clean Water”. NepRWA will supply various forms of print material (postcards, posters, flyers, bookmarks, brochures etc) as well as a website that can be used by several communities to educate residents about stormwater pollution.
Revised planned activities					
1c	Post article on town website	Engineering/Environmental	Reach thousands of web browsers	The Town posted information on the Environmental Dept page	The Town will continue to post our General Permit, as well as

				about the current General Permit and the previous year's annual reports, as well as public education information on stormdrain stenciling and the local watershed through a link to the Charles River Watershed Association.	supply educational materials and links on stormwater.
1d	Add link to town website	Engineering/Environmental	Reach thousands of residents	The Town created a stormwater page on the official Town Website and posted regulations and educational brochures and notices. The Town has maintained links to several environmental agencies and watershed groups on the Town's official website	Continue to maintain links as necessary, and add additional content to the webpage.
1e	Publish list of department names	Town Administrator	Communicate with residents	The Town has maintained an updated list of Department head names, contact numbers, and email addresses.	Continue to maintain and update lists as necessary, and add contact information for specific stormwater questions or issues.

**1a. Additions**


**2. Public Involvement and Participation**

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 12 (Reliance on non-municipal partners indicated, if any)	Planned Activities
2a	Develop stenciling program	Environmental/DPW	Educate hundreds of residents	The Environmental Coordinator has worked with the Dedham	Continue to work with Eagle Scout candidates and other

Revised				Westwood Water District in the past to develop a stormdrain stenciling program for youth. Since 2009 the Environmental Coordinator has worked with Eagle Scout candidates to stencil over 300 stormdrains throughout Dedham.	groups to educate youth about stormwater pollution and prevention. In addition to stenciling projects the DPW continues to install permanent placards on major drainage projects. As part of the Dedham Square project, the re-constructed areas will have new placards affixed to the curbs above catch basins.
2b	Work with watershed groups	Engineering/Environmental	Coordinate efforts with others	<p>The Engineering Director, Conservation Agent and Environmental Coordinator have been working with the Neponset River Watershed Association (NepRWA) and MAPC to create a stormwater collaborative with 12 communities to combat stormwater runoff from parking lots and roadways. The Town of Dedham took the lead on behalf of the communities of the Neponset Stormwater Partnership to request MAPC's assistance in implementing our 2015 work plan under the Planning for MetroFuture Local Technical Assistance Program. These communities include: Canton, Dedham, Foxborough, Medfield, Milton, Sharon, Stoughton, Walpole and Westwood.</p> <p>For the 6<sup>th</sup> consecutive year the Environmental Department coordinated with the CRWA to organize an Earth Day Cleanup in Dedham.</p>	<p>Continue to work with watershed groups on education and outreach activities and participate in educational sessions offered by these groups for continued learning on stormwater issues.</p> <p>The Engineering Dept. worked with NepRWA to file an application to the State for a 319 grant, which they were awarded. Construction of the BMP retrofits are scheduled for next year.</p>
Revised					
2c	Post signs in critical resource areas	Environmental	Notify residents of critical areas	Posted signs along Charles River and Mother Brook of potential	The Health Department continues to coordinate with

Revised				hazards from eating certain fish that were indicated as having high levels of contaminants. We have also installed “Do Not Dump” signs along various parts of the rivers.	neighboring communities and posts signs warning the public of hazards when they arise. The Environmental Department is in coordination with CRWA on water quality levels in Dedham, specifically at launch locations. CRWA has several Dedham residents that volunteer to test at sites in Town. If a poor or hazardous report came back the Town would post signs at launch locations, as well as on the Towns website and Dedham Trails website.
2d New	Water Quality Testing	Environmental	Record and report on water quality in the Charles River	The Charles River Watershed Association (CRWA) through volunteers in Dedham monitors water quality at several locations in Town.	Post information received from CRWA regarding water quality levels on the Town’s Dedham Trails website, which is linked through the Town’s main website. This site is specifically focused on the Water Trail and recreation on the Charles. Water Quality information would be a great addition to this site.
2e	Household Hazardous Waste Day	Health/DPW	Annual event to remove and properly dispose of residential household hazardous waste	Each year the Board of Health runs a Household Hazardous Waste Day at the DPW facility.	Continue to run an annual HHW day.
2f	Educate students about environment	DPW/Environmental	Involve students and families	Engineering, DPW, Conservation, and Environmental Departments continue to participate in the annual student government day and stress issues related to stormwater and pollution to student leaders.	Continue to participate in student government day and encourage students and youth groups to learn about pollution prevention through stormdrain stenciling projects, as well as invite guest lecturers to schools for presentations.
2g Deleted	Establish a suggestion box	DPW/Town Administration	Receive feedback	NA	<i>This BMP was discontinued and substituted with BMP 2f</i>

2h	Utilize DPW On-Line Service Request Form to solicit requests for trash/debris removal, street sweeping, etc.	DPW	Reduce the amount trash/debris and pollutants reaching receiving waters	Received and responded to hundreds of requests from residents for trash/debris removal and street sweeping using on-line request form.	Continue to solicit and respond to requests by residents so that trash/debris can be picked-up before it makes its way into receiving waters.
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**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 12 (Reliance on non-municipal partners indicated, if any)	Planned Activities
3a	Develop a mapping system	Engineering	Map the drainage system	In 2007, the Town of Dedham established the GIS Division within the Department of Infrastructure	The Engineering Department will continue to update and improve the existing drain and sewer mapping by

3b	Locate all visible outfalls	Engineering	Inventory outfalls	<p>Engineering. Prior to that, the Town's GIS had been managed primarily by outside consultants. The goal of the Town of Dedham has been to improve its GIS capabilities and to expand its services to other departments and the community.</p> <p>Since that time the GIS Division has focused its efforts on establishing an enterprise GIS within the Town. A large part of this effort has been to improve public access to information by improving and expanding the Town's online GIS services. In 2011, the GIS Department won the Special Achievement in GIS Award.</p> <p>Additional inspection and GPS location were performed in conjunction with dry weather testing (BMP 3f)</p>	<p>verifying assumed structures improving connectivity issues. The Engineering Department will continue to update new outfalls installed and investigate assumed outfalls to determine exact locations and conditions using GPS.</p>
3c	Adopt new stormwater bylaws	Conservation Commission	Enforcement of illegal environmental actions	<p>Town Meeting voted to appropriate funding to hire a consultant to assist with an update to the local Stormwater By-Laws and Stormwater regulations.</p>	<p>Completion of the update to the Stormwater By-laws by the end of FY15. The Engineering Department will continue to update and improve the existing drain and sewer mapping by verifying assumed structures improving connectivity issues.</p>
3d	Develop a response plan	Town Administrator	Develop an emergency response plan to contain spills	<p>The Town is in the process of updating the emergency response plan for Dedham and has created an Emergency Response team that meets quarterly.</p>	<p>Incorporate additional provisions into the revised emergency response plan to mitigate potential environmental emergencies such as spills, etc.</p>
3e	Adopt a hazardous waste day	Health Dept.	Reduce illegal dumping of hazardous material	<p>The Health Department has hosted a hazardous waste collection day</p>	<p>The Town will continue to conduct a yearly hazardous collection day.</p>

3f	Perform dry weather testing of outfalls	Engineering	Identify illicit discharges	One illicit discharge was identified this year.	The illicit discharge indentified was traced back to a cross connection between the sewer and stormwater utilities. The DPW has eliminated this cross connection by plugging the pipe that goes from the sewer to the stormwater earlier this year.
	<i>Formerly BMP 6f</i>				

**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 12 (Reliance on non-municipal partners indicated, if any)	Planned Activities
4a	Review existing state and local regulations	Engineering	Update the Town regulations	Completed previously.	
4b	Develop town design and construction site review policy	Conservation Commission	Develop Town standards	The Conservation Commission has continued to enforce the stormwater regulations including the application of drainage design standards.	Continue the review of projects under the stormwater regulations.
4c	Create town specifications	Engineering	Develop standard details and specifications	Town standard details, which include standard structural BMP's have been created and posted on the Town's website.	Continue to update or add standards as necessary.
4d	Develop town inspection guidelines	Conservation Commission	Ensure that work that has been permitted is satisfactorily constructed	The Conservation Commission enforces the stormwater regulations.	The Conservation Commission is constantly reviewing the local Stormwater Bylaws and discussing ways to make improvements.
4e	<del>Determine inspection responsibilities</del>	<del>DPW/Town Administration</del>	<del>Establish means of inspection</del>	No action	<i>This BMP has been deleted as it is redundant with respects to BMP 4d.</i>

4f.	Coordinate with neighboring communities regarding stormwater management	Environmental, Engineering, Conservation, DPW, Town Administration	Coordinate with the City of Boston regarding discharges through interconnections or run-off from construction projects	<p>The Town of Dedham signed in 2012 an inter-municipal agreement with the City of Boston regarding the management of stormwater.</p> <p>The Engineering Director, Conservation Agent and Environmental Coordinator have been working with the Neponset River Watershed Association (NepRWA) and MAPC to create a stormwater collaborative with 12 communities to combat stormwater runoff from parking lots and roadways. The Town of Dedham took the lead on behalf of the communities of the Neponset Stormwater Partnership to request MAPC's assistance in implementing our 2015 work plan under the Planning for MetroFuture Local Technical Assistance Program. These communities include: Canton, Dedham, Foxborough, Medfield, Milton, Sharon, Stoughton, Walpole and Westwood.</p>	<p>Continue to coordinate with the City of Boston on stormwater, illicit connection and other issues related to the management of stormwater.</p> <p>Continue to participate in the Neponset Valley Stormwater Collaborative.</p>

**4a. Additions**

**5. Post-Construction Stormwater Management in New Development and Redevelopment**

<b>BMP ID #</b>	<b>BMP Description</b>	<b>Responsible Dept./Person Name</b>	<b>Measurable Goal(s)</b>	<b>Progress on Goal(s) – Permit Year 12</b> (Reliance on non-municipal partners indicated, if any)	<b>Planned Activities</b>
5a	Develop stormwater policy	Conservation Commission	Encourage recharge	The Town has created stormwater regulations that strongly encourage	Continue to enforce existing regulations.

				recharge. The Commission continues to revise and update these regulations.	
5b	Develop standards for BMP's	Conservation Commission	Regulate subdivision and site plans	The Town currently reviews subdivision and site plans for compliance with the stormwater regulations, and utilizes the Town Standard Details.	Continue to enforce existing regulations, and update or add details to Town Standard Details as necessary.
5c	Develop bylaws and policy	Conservation Commission	Regulate new development runoff	The Conservation Commission enforces the stormwater regulations and regularly reviews the bylaws and policies.	In the upcoming year, the Conservation Commission will be reviewing the local Stormwater Bylaws.

**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 12 (Reliance on non-municipal partners indicated, if any)	Planned Activities
6a	Implement pollution prevention program	DPW	Identify ways to increase compliance	Increase street sweeping and continue to monitor catch basins for cleaning.	Continue with street sweeping program and catch basin monitoring.
6b	<del>Develop TV inspection</del>	<del>DPW/Engineering Department</del>	<del>Eliminate illegal connections</del>	<del>The Town performed TV inspection on several hundred linear feet of storm drains in addition to the annual inspection of sewer lines.</del>	<i>This BMP was discontinued; see new BMP 3f</i>
6c	Develop hazardous waste training	DPW	Train 20 employees on hazardous waste	Conducted 10-hour OSHA training for all DPW employees which also included proper handling of hazardous waste.	Continue to train new employees and maintain certification of current employees.
6d	Sweep all paved roads	DPW		The DPW continued annual street sweeping program. Arterial roads are swept every 3 days and all other roads twice per year.	Continue the annual street sweeping program.
6e	Clean all catchbasins	DPW	Clean catchbasins every three years	The DPW estimates that it has cleaned approximately one third of the catch basins and over the past year. Exact numbers are not available.	Implement a GIS system to track the cleaning of catch basins, to better identify how many and which basins have been cleaned as well as rate of sediment buildup if possible.
6f	Develop a litter management program	Conservation/Environmental	Eliminate dumping and pollution to catchbasins and water bodies	The Environmental Dept and Conservation Agent will be working with the NPRWA in the upcoming months to disseminate information about dog waste and proper disposal.	Continue to work with NepRWA on refining material for education and outreach regarding pet waste and pollution to waterbodies.
Revised					

6g	Perform visual dry weather outfall inspections	Engineering	Identify illicit discharges to storm drains and outfalls	No action planned in year 3.	Perform visual dry weather inspections of outfalls giving priority to outfalls discharging to impaired waters. Determine the number of outfalls which are suspected of having illicit connections and the scope of work required to further identify the source(s).
	<i>Replaced by BMP 3f</i>				

**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 12 (Reliance on non-municipal partners indicated, if any)	Planned Activities
7a	Develop a landscaping policy	DPW/Parks Department	Eliminate excessive chemicals	No action.	
<del>7b</del> Deleted	<del>Develop a spill prevention plan</del>	<del>DPW/Town Administration</del>	<del>Reduce spill prevention to rivers</del>	<del>No action.</del>	<i>This BMP was deleted as it was redundant with respects to BMP 3d.</i>
<del>7e</del> Deleted	<del>Develop a training program</del>	<del>DPW/Town Administration</del>	<del>Educate 8 employees</del>	<del>No action.</del>	<i>This BMP was deleted as it was redundant with respects to BMP 6c.</i>
7d	Install new drainage structures	DPW	Eliminate some TSS	The DPW replaced/installed over 40 substandard catch basins with new deep sump catch basins.	Install deep sump catch basins as needed and incorporate new basins into existing roadway reconstruction when possible.
7e	Develop a housekeeping plan	DPW	Construct new salt shed to replace current uncovered salt storage	Construction of the Salt Shed was completed in November 2006.	

**7a. Additions**

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**7b. WLA Assessment**

The Town of Dedham has not yet implemented controls at this point in the permit process that would significantly impact the waste load allocation.

**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, 2014 through March 31, 2015)

**Programmatic**

	(Preferred Units)	Response
Stormwater management position created/staffed	(y/n)	Y
Annual program budget/expenditures **	(\$)	\$100,978.73
Total program expenditures since beginning of permit coverage	(\$)	\$100,978.73
Funding mechanism(s) (General Fund, Enterprise, Utility, etc)		General Fund

**Education, Involvement, and Training**

Estimated number of property owners reached by education program(s)	(# or %)	Unknown
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
Shoreline cleaned since beginning of permit coverage	(mi.)	Unknown
Household Hazardous Waste Collection Days		
▪ days sponsored **	(#)	1
▪ community participation **	(# or %)	<u>220</u>
▪ material collected **	(tons or gal)	n/a
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	(%)	99%
Estimated or actual number of outfalls	(#)	205
System-Wide mapping complete (complete storm sewer infrastructure)	(%)	99%
Mapping method(s)		
▪ Paper/Mylar	(%)	
▪ CADD	(%)	
▪ GIS	(%)	100%
Outfalls inspected/screened **	(# or %)	63
Outfalls inspected/screened (Since beginning of permit coverage)	(# or %)	151
Illicit discharges identified **	(#)	1
Illicit discharges identified (Since beginning of permit coverage)	(#)	4
Illicit connections removed **	(# ); and (est. gpd)	1
Illicit connections removed (Since beginning of permit coverage)	(#); and (est. gpd)	3
% of population on sewer	(%)	93%
% of population on septic systems	(%)	7%

## Construction

(Preferred Units) Response

Number of construction starts (>1-acre) **	(#)	2
Estimated percentage of construction starts adequately regulated for erosion and sediment control **	(%)	100%
Site inspections completed **	(# or %)	100%
Tickets/Stop work orders issued **	(# or %)	2
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)	1-2 per year
Average frequency of catch basin cleaning (commercial/arterial or other critical streets) **	(times/yr)	3 per year
Qty of structures cleaned **	(#)	1200 +/-
Qty. of storm drain cleaned **	(%, LF or mi.)	3600 lf +/-
Qty. of screenings/debris removed from storm sewer infrastructure **	(lbs. or tons)	Unknown
Disposal or use of screenings (landfill, POTW, compost, beneficial use, etc.) **	(location)	Beneficial-LF

Basin Cleaning Costs		
• Annual budget/expenditure (labor & equipment)**	(\$)	\$100,000 +/-
• Hourly or per basin contract rate **	(\$/hr or \$ per basin)	Unknown
• Disposal cost**	(\$)	
Cleaning Equipment		
• Clam shell truck(s) owned/leased	(#)	Owned
• Vacuum truck(s) owned/leased	(#)	Leased
• Vacuum trucks specified in contracts	(y/n)	Yes
• % Structures cleaned with clam shells **	(%)	85 %
• % Structures cleaned with vector **	(%)	15%

(Preferred Units) Response

Average frequency of street sweeping (non-commercial/non-arterial streets) **	(times/yr)	5
Average frequency of street sweeping (commercial/arterial or other critical streets) **	(times/yr)	Every 3 Days
Qty. of sand/debris collected by sweeping **	(lbs. or tons)	Unknown
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.) **	(location)	Beneficial-LF
Annual Sweeping Costs		
• Annual budget/expenditure (labor & equipment)**	(\$)	\$400,000 +
• Hourly or lane mile contract rate **	(\$/hr. or In mi.)	
• Disposal cost**	(\$)	
Sweeping Equipment		
• Rotary brush street sweepers owned/leased	(#)	Yes
• Vacuum street sweepers owned/leased	(#)	
• Vacuum street sweepers specified in contracts	(y/n)	
• % Roads swept with rotary brush sweepers **	%	100%
• % Roads swept with vacuum sweepers **	%	

Reduction (since beginning of permit coverage) in application on public land of: ("N/A" = never used; "100%" = elimination)		
▪ Fertilizers	(lbs. or %)	
▪ Herbicides	(lbs. or %)	
▪ Pesticides	(lbs. or %)	
Integrated Pest Management (IPM) Practices Implemented	(y/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 <sub>2</sub> % MgCl <sub>2</sub> % CMA % Kac % KCl % Sand	NaCl MgCl <sub>2</sub>
Pre-wetting techniques utilized **	(y/n or %)	Yes
Manual control spreaders used **	(y/n or %)	Yes
Zero-velocity spreaders used **	(y/n or %)	n/a
Estimated net reduction or increase in typical year salt/chemical application rate	(±lbs/ln mi. or %)	250lbs ln mi
Estimated net reduction or increase in typical year sand application rate **	(±lbs/ln mi. or %)	
% of salt/chemical pile(s) covered in storage shed(s)	(%)	100%
Storage shed(s) in design or under construction	(y/n or #)	No
100% of salt/chemical pile(s) covered in storage shed(s) by May 2008	(y/n)	Yes

### Water Supply Protection

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