

**Municipality/Organization:** Town of Marion

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**EPA NPDES Permit Number:** 4169000

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**MassDEP Transmittal Number:** W-

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**Annual Report Number  
& Reporting Period:** [April 1, 2006 – March 31, 2007](#)

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## **NPDES PII Small MS4 General Permit Annual Report (Due: May 1, 2007)**

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

Contact Person: Robert C. Zora Title: DPW Superintendent

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Mailing Address: 50 Benson Brook Road, Marion, MA 02738

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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: Robert C. Zora

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Title: DPW Superintendent

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Date: May 1, 2007

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

**Rob Zora, the DPW Director will once again reorganize the Stormwater Management Committee. There have been reoccurring changes of personnel on the local boards as well as top officials in the Town of Marion. There is additional funding in the DPW budget which should allow us to reach our measurable goals.**

**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 4</b> (Reliance on non-municipal partners indicated, if any)	<b>Planned Activities – Permit Year 5</b>
1 -- 1 Revised	Educational Flyer	DPW – Rob Zora	Flyer Prepared and Delivered	Flyer has been prepared, printed, and distributed	Print and Mail Annually with May Water and Sewer Bills
1 -- 2 Revised	Annual Public Hearing	Board of Selectmen and Town Administrator	Meeting Advertised and Held	Due to changes of the Town of Marion Administrator, the meeting was not held	The Stormwater Committee will Hold the Meeting and Invite Public Input
1 -- 3 Revised	Posting of Maps	DPW – Rob Zora	Maps Displayed	Maps on display at the Town Hall and at the new DPW Office	Maps Displayed, On-going
1 -- 4 Revised	Web Page	Webmaster	Page Developed and Maintained	On-Going	On-Going
Revised					
Revised					

**1a. Additions**

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## 2. Public Involvement and Participation

<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 4</b> (Reliance on non-municipal partners indicated, if any)	<b>Planned Activities – Permit Year 5</b>
2 -- 1 Revised	Public Participation	Board of Health and DPW	Maintain a complaint report file	On-Going	On-Going
2 -- 2 Revised	Stormwater Management Committee	DPW Director Rob Zora	Meets once a year	Meeting held in May 06	Meeting Annually April - May
2 -- 3 Revised	Annual Selectmens Meeting Review	DPW Director Rob Zora	Meeting advertised and held	On-Going	On-Going
2 -- 4 Revised	Storm Drain Stenciling	DPW Director Rob Zora	Documentation of number of catch basins	Stenciled and Painted	On-Going in the Summers
2 -- 5 Revised	Hazardous Material Collection	DPW Director Rob Zora	Documentation of Hazardous material collected	May 5, 2007 held by the CWM Regional Disposal District	On-Going, Annually
Revised					

### 2a. Additions


### 3. Illicit Discharge Detection and Elimination

<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 4</b> (Reliance on non-municipal partners indicated, if any)	<b>Planned Activities – Permit Year 5</b>
3 -- 1 Revised	Discharge Identification	Harbormaster and Marine Department	Production of Maps	Sippican Harbor – West	Aucoot Cove and Non-Coastal Areas within the Urbanized Areas
3 -- 2 Revised	Drainage Mapping	Harbormaster And Marine Department	Production of Maps	Posted at the Town Hall, Library and the new DPW office	On-Going
3 -- 3 Revised	Illicit Discharge Identification	DPW and BOH	Quantity illicit discharges and correct	Fall	On-Going
3 -- 4 Revised	Illicit Discharge Prohibition	BOH	Necessary Regulation Changes Made	Reviewed	On-Going, Annually
3 -- 5 Revised	BOH Training	BOH	Meeting Held	Winter	On-Going, Annually
Revised					

#### 3a. Additions




**4. Construction Site Stormwater Runoff Control**

<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 4</b> (Reliance on non-municipal partners indicated, if any)	<b>Planned Activities – Permit Year 5</b>
4 -- 1	Conservation Committee Bylaw Review	Conservation Committee	Submission of articles at Town Meeting if Necessary	Annually, On-Going	Annually, On-Going
Revised					
4 – 2	Planning Board Subdivision Regulation Review	Planning Board	Submission of articles at Town Meeting if Necessary	Annually, On-Going	Annually, On-Going
Revised					
4 – 3	Planning Board Zoning Bylaw Review Change	Planning Board	Submission of Articles at Town Meeting if Necessary	Annually, On-Going	Annually, On-Going
Revised					
Revised					
Revised					

**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 4</b> (Reliance on non-municipal partners indicated, if any)	<b>Planned Activities – Permit Year 5</b>
5 – 1 Revised	Conservation Committee By-Law	Conservation Committee	Review Wetland By-Law	On-Going	On-Going
5 – 2 Revised	Planning Board Subdivision Regulations Review	Planning Board	Necessary regulation changes made	Review, On-Going	Review, On-Going
5 – 3 Revised	Planning Board, Zoning and new Zoning By-Laws Reviewed	Planning Board	Submission of town meeting articles if necessary	Review by March	On-Going
Revised					
Revised					
Revised					

**5a. Additions**


**6. Pollution Prevention and Good Housekeeping in Municipal Operations**

<b>BMP ID #</b> 6	<b>BMP Description</b>	<b>Responsible Dept./Person Name</b>	<b>Measurable Goal(s)</b>	<b>Progress on Goal(s) – Permit Year 4</b> (Reliance on non-municipal partners indicated, if any)	<b>Planned Activities – Permit Year 5</b>
6 – 1 Revised	DPW Policy Guide	DPW Director Rob Zora	Preparation of policy guide	On-Going	On-Going
6 – 2 Revised	DPW Annual Training	DPW Director Rob Zora	Completion of annual training	Annual in January	On-going, annually in January
6 -- 3 Revised	DPW Permit Filing	DPW Director Rob Zora	Copies of permits on file	Permits filed, On-Going	Permits filed, On-Going
Revised					
Revised					
Revised					

**6a. Additions**


**7. BMPs for Meeting Total Maximum Daily Load (TMDL) Waste Load Allocations (WLA) <<if applicable>>**

<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 4</b> (Reliance on non-municipal partners indicated, if any)	<b>Planned Activities – Permit Year 5</b>
Revised				Not Applicable	Not Applicable
Revised				“ “	“ “
Revised				“ “	“ ”
Revised				“ “	“ “
Revised				“ “	“ “
Revised				“ “	“ ”

**7a. Additions**


**7b. WLA Assessment**

## 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, 2006 through March 31, 2007)

#### Programmatic

	(Preferred Units)	Response
Stormwater management position created/staffed	(y/n) No	
Annual program budget/expenditures **	(\$) 3,000.00	Estimate
Total program expenditures since beginning of permit coverage	(\$)	
Funding mechanism(s) (General Fund, Enterprise, Utility, etc)		

#### Education, Involvement, and Training

Estimated number of property owners reached by education program(s)	(# or %) 85	
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 **	(y/n or mi.) N	
Shoreline cleaned since beginning of permit coverage	(mi.) No	
Household Hazardous Waste Collection Days		
▪ days sponsored **	(#) 1	
▪ community participation **	(# or %) unknown	
▪ material collected **      Sponsored by CMW Refuse District	(tons or gal)	
School curricula implemented	(y/n) No	

## 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	X			
▪ Erosion & Sediment Control					
▪ 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	(#) 127	
System-Wide mapping complete (complete storm sewer infrastructure)	(%) 100	
Mapping method(s)		
▪ Paper/Mylar	(%) 100	
▪ CADD	(%) 100	
▪ GIS	(%) 100	
Outfalls inspected/screened **	(# or %) 100	Inspected Only
Outfalls inspected/screened (Since beginning of permit coverage)	(# or %) 0	
Illicit discharges identified **	(#) 0	
Illicit discharges identified (Since beginning of permit coverage)	(#)	
Illicit connections removed **	(#); and 0 (est. gpd)	
Illicit connections removed (Since beginning of permit coverage)	(#); and (est. gpd)	

% of population on sewer	(%) 75	
% of population on septic systems	(%) 25	

### Construction

	(Preferred Units)	Response
Number of construction starts (>1-acre) **	(#) 21	
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) No	
Low-impact development (LID) practices permitted and encouraged	(y/n) Yes	

### 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 **	(#) 250	
Qty. of storm drain cleaned **	(%, LF or mi.) ½ mile	
Qty. of screenings/debris removed from storm sewer infrastructure **	(lbs. or tons)	10 tons
Disposal or use of screenings (landfill, POTW, compost, beneficial use, etc.) **	(location)	compost

Basin Cleaning Costs		
• Annual budget/expenditure (labor & equipment)**	(\$)6,000.00	
• Hourly or per basin contract rate **	(\$/hr or \$ per basin) N/A	
• Disposal cost**	(\$) 0	
Cleaning Equipment		
• Clam shell truck(s) owned/leased	(#)1 owned	
• Vacuum truck(s) owned/leased	(#) 0	
• Vacuum trucks specified in contracts	(y/n) No	
• % Structures cleaned with clam shells **	(%) 100	
• % Structures cleaned with vector **	(%) 0	

	(Preferred Units)	Response
Average frequency of street sweeping (non-commercial/non-arterial streets) **	(times/yr) 2	
Average frequency of street sweeping (commercial/arterial or other critical streets) **	(times/yr) 2	
Qty. of sand/debris collected by sweeping **	(lbs. or tons)	150 tons
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.) **	(location)	Town Compost
Annual Sweeping Costs		
• Annual budget/expenditure (labor & equipment)**	(\$)10,000.0 0	
• Hourly or lane mile contract rate **	(\$/hr. or ln mi.) N/A	Town, In- House
• Disposal cost**	(\$) 0	
Sweeping Equipment		
• Rotary brush street sweepers owned/leased	(#) 1 Owned	
• Vacuum street sweepers owned/leased	(#) 0	
• Vacuum street sweepers specified in contracts	(y/n) N	
• % Roads swept with rotary brush sweepers **	% all	Town Roads
• % 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 %)	N/A
▪ Herbicides	(lbs. or %)	N/A
▪ Pesticides	(lbs. or %)	N/A
Integrated Pest Management (IPM) Practices Implemented	(y/n) Yes	

	(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	10% 0% 0% 0% 0% 0% 80%
Pre-wetting techniques utilized **	(y/n or %)	No
Manual control spreaders used **	(y/n or %)	No
Zero-velocity spreaders used **	(y/n or %)	Yes
Estimated net reduction or increase in typical year salt/chemical application rate	(±lbs/l <sub>n</sub> mi. or %) 25	Less
Estimated net reduction or increase in typical year sand application rate **	(±lbs/l <sub>n</sub> mi. or %) 25	Less
% of salt/chemical pile(s) covered in storage shed(s)	(%) 0	
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/A	
Installed or planned treatment BMPs for public drinking water supplies and their protection areas	# or y/n N/A	
<ul style="list-style-type: none"> <li>Treatment units induce infiltration within 500-feet of a wellhead protection area</li> </ul>	# or y/n No	

## 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, 2006 through March 31, 2007)

#### Programmatic

	(Preferred Units)	Response
Stormwater management position created/staffed	(y/n)	N
Annual program budget/expenditures **	(\$)	\$70,000
Total program expenditures since beginning of permit coverage	(\$)	\$170,000
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 %)	Unk.
Stormwater management committee established	(y/n)	N
Stream teams established or supported	(# or y/n)	Y
Shoreline clean-up participation or quantity of shoreline miles cleaned **	(y/n or mi.)	N
Shoreline cleaned since beginning of permit coverage	(mi.)	N
Household Hazardous Waste Collection Days		
▪ days sponsored **	(#)	5/yr.
▪ community participation **	(# or %)	186
▪ material collected **	(tons or gal)	8800 #
School curricula implemented	(y/n)	N

#### 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	(%)	25%
Estimated or actual number of outfalls	(#)	UNK
System-Wide mapping complete (complete storm sewer infrastructure)	(%)	25%
Mapping method(s)		
▪ Paper/Mylar	(%)	75
▪ CADD	(%)	
▪ GIS	(%)	25
Outfalls inspected/screened **	(# or %)	none
Outfalls inspected/screened (Since beginning of permit coverage)	(# or %)	34
Illicit discharges identified **	(#)	none
Illicit discharges identified (Since beginning of permit coverage)	(#)	none
Illicit connections removed **	(# ); and (est. gpd)	none
Illicit connections removed (Since beginning of permit coverage)	(#); and (est. gpd)	none
% of population* on sewer	* (% of housing units)	50 +/-
% of population* on septic systems	* (% of housing units)	50 +/-

## Construction

	(Preferred Units)	Response
Number of construction starts (>1-acre) **	Active sites – not necessarily new starts	(#) 35
Estimated percentage of construction starts adequately regulated for erosion and sediment control **		(%) 100%
Site inspections completed **		(# or %) 97
Tickets/Stop work orders issued **	Notice of Violation	(# or %) 7
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	(%)	
Site inspections (for proper BMP installation & operation) completed **	(# or %)	100%
BMP maintenance required through covenants, escrow, deed restrictions, etc.	(y/n)	N
Low-impact development (LID) practices permitted and encouraged	(y/n)	Y-permitted

## Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets) **	(times/yr)	Once/3yr.
Average frequency of catch basin cleaning (commercial/arterial or other critical streets) **	(times/yr)	Once/3yr
Qty of structures cleaned **	(#)	916
Qty. of storm drain cleaned **	(%, LF or mi.)	< 10%
Qty. of screenings/debris removed from storm sewer infrastructure **	(lbs. or tons)	Unk.
Disposal or use of screenings (landfill, POTW, compost, beneficial use, etc.) **	(location)	landfill

Basin Cleaning Costs		
• Annual budget/expenditure (labor & equipment)**	(\$)	\$150000
• Hourly or per basin contract rate **	(\$/hr or \$ per basin)	N/A
• Disposal cost**	(\$)	
Cleaning Equipment		
• Clam shell truck(s) owned/leased	(#)	1 (own)
• Vacuum truck(s) owned/leased	(#)	1 (own)
• Vacuum trucks specified in contracts	(y/n)	n
• % Structures cleaned with clam shells **	(%)	70%
• % Structures cleaned with vactor **	(%)	30%

	(Preferred Units)	Response
Average frequency of street sweeping (non-commercial/non-arterial streets) **	(times/yr)	Once/yr.
Average frequency of street sweeping (commercial/arterial or other critical streets) **	(times/yr)	Once/yr.
Qty. of sand/debris collected by sweeping **	(lbs. or tons)	500 T.
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.) **	(location)	fill
Annual Sweeping Costs		
• Annual budget/expenditure (labor & equipment)**	(\$)	\$40,000
• Hourly or lane mile contract rate **	(\$/hr. or ln mi.)	\$80/hr.
• Disposal cost**	(\$)	none
Sweeping Equipment		
• Rotary brush street sweepers owned/leased	(#)	none
• Vacuum street sweepers owned/leased	(#)	none
• 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 %)	
▪ Herbicides	(lbs. or %)	
▪ Pesticides	(lbs. or %)	
Integrated Pest Management (IPM) Practices Implemented	(y/n)	Y

	(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	
Pre-wetting techniques utilized **	(y/n or %)	40%
Manual control spreaders used **	(y/n or %)	60%
Zero-velocity spreaders used **	(y/n or %)	40%
Estimated net reduction or increase in typical year salt/chemical application rate	(±lbs/l <sub>n</sub> mi. or %)	10% (red)
Estimated net reduction or increase in typical year sand application rate **	(±lbs/l <sub>n</sub> mi. or %)	25% (red)
% of salt/chemical pile(s) covered in storage shed(s)	(%)	100%
Storage shed(s) in design or under construction	(y/n or #)	none
100% of salt/chemical pile(s) covered in storage shed(s) by May 2008	(y/n)	100%

### 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
<ul style="list-style-type: none"> <li>Treatment units induce infiltration within 500-feet of a wellhead protection area</li> </ul>	# or y/n	N