National Pollutant Discharge Elimination System
Phase II Stormwater Management Plan

NPDES PII Small MS4 General Permit

NPDES MS4 – MA 041208/W035581

2005 Annual Report – Year 2
Maynard, Massachusetts

Municipality/Organization:	**Town of Maynard**
EPA NPDES Permit Number:	**MA 041208**
MassDEP Transmittal Number:	**W-035581**
Annual Rep. # and Reporting Period:	**No. 2, March 2004 - March 2005**

Prepared by:
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Reports Submitted to:
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PART I. GENERAL INFORMATION

Contact Person: Dave Owen **Title:** Interim Town Administrator
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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: David Owen
Title: Interim Town Administrator
Date: March 2005

PART II. SELF-ASSESSMENT

Introduction and Background

In 1990, The United States Environmental Protection Agency (EPA) began implementing Phase I of a stormwater management program under the National Pollutant Discharge Elimination System (NPDES), intended to reduce pollution in stormwater discharges for large urban areas with populations > 100,000.

On December 8, 1999, the Phase II Rule of the NPDES stormwater program was published to address Municipal Separate Storm Sewer Systems (MS4s) within urban areas of populations less than 100,000. Objectives of the Phase II rule are for the MS4s to develop, implement, and enforce a stormwater program designed to reduce the discharge of pollutants to the maximum extent practicable, to protect water quality, and to satisfy the appropriate water quality requirements of the Clean Water Act.

On May 1, 2003 the EPA issued the General Permit for Stormwater Discharges from MS4s. The general permit requires that each MS4 submit an annual evaluation. The following report contains information regarding the activities on the stormwater program for the previous calendar year. The report contains the information required in the general permit as follows: (a) Self-Assessment Review of Compliance with the Permit Conditions; (b) Assessment of the Program towards Achieving the Measurable Goals; and (c) Summary of the Results of Any Information that has been Collected and Analyzed;

Original Permit Compliance

The Town of Maynard filed an NPDES Phase II Stormwater Management Plan in June 2003. The EPA responded with a letter of deficiencies on September 24, 2003. The deficiencies included identification of other regulated MS4s within municipal boundaries, and the NOI signature. A letter was sent to the EPA in

response to the deficiencies on October 23, 2003. On November 24, 2003, the EPA sent a letter to the town stating that the stormwater program was administratively complete and in compliance with the conditions of the General Permit.

Compliance with Minimum Control Measures

Budgetary restrictions, grave illness of the original contact, and numerous personnel changes prohibited completion of many anticipated tasks. The chart at the end of the text gives a detailed description of actions that were taken to achieve compliance with a majority of first and second year goals, as well as an honest accounting of actions yet to be completed.

With personnel issues at least temporarily rectified, the Town of Maynard is once again moving forward rapidly with implementation efforts

Major Accomplishments of Minimum Control Measures at the end of Year 2 include:

- Educational materials delivered
- Stormwater base map received
- Relevant model bylaws reviewed
- Half-time Building Inspector hired
- Coordinated review of development projects maintained
- Maintenance of catch-basins, street-sweeping, hazardous waste drop-off, etc. maintained

Minimum Control Measures not yet met as of the end of Year 2 include:

- Finalize new bylaws
- Improve reporting and record keeping

PART III. SUMMARY OF MINIMUM CONTROL MEASURES

The format of the chart (at the end of this text) summarizing compliance with minimum control measures has been revised to facilitate compliance in the coming years. By clearly identifying what has been accomplished, what remains to be accomplished, and what endeavors may be efficiently combined, municipal employees will be more readily able to undertake all required tasks and achieve all stated goals.

PART IV. ADDITIONAL INFORMATION THAT IS COLLECTED AND ANALYZED

Additional relevant water quality improvement measures are being undertaken in Maynard, including:

- Maynard is in the process of developing its Comprehensive Water Management Plan (CWMP).
- Maynard monitors its wastewater treatment plant effluent daily to ensure that the effluent meets discharge limitations.
- The Organization for the Assabet River monitors the water quality of the Assabet River. "Stream Watch and Water Quality Monitoring Program Final Report – May to October 2003" was recently completed.
- The U.S. Army Corps of Engineers will be conducting an $850,000 study to assess the possibility of decreasing phosphorus in the water column by removing sediment and/or dams.
- The Draft NPDES permit for the Maynard waste water treatment plant was released in June 2004. It brings the concentration of phosphorus down to 0.1 mg/l by 2009.
- Total Maximum Daily Load (TMDL) draft for the Assabet was released in June 2004.

Maynard, Massachusetts, NPDES Phase II Stormwater Management Plan – Year 2 Evaluation of Minimum Control Measures

Note: Italics indicate goals/activities that have been altered or moved

1.0 Public Education and Outreach								
BMP Category in Notice of Intent (NOI)		**BMP**	**Respons. Dept.**	**Measurable Goals**	**Year 1 Goals Completed**	**Year 1 Goals Not Completed**	**Year 2 Goals Completed**	**Year 2 Goals Not Completed**
1.1.1	Homeowner Focus	Mail educational flyer/survey	SuAsCo, SWMT	Flyer distribution. Evaluate survey results	Sent flyer w/ water bills ("Stormwater Matters")	Compile survey results		Compiled survey results
1.2.1	Student Focus	Teach stormwater lesson to fifth grader students	SuAsCo, SWMT	Prepare and implement lesson			Stormwater Matters lesson prepared and implemented	
1.3.1	Business Focus	Mail educational flyer with stormwater survey	SuAsCo, SWMT	Flyer distribution.				
1.4.1	General Public Focus	Hold a stormwater media campaign	SuAsCo, SWMT	4 press releases				
1.4.2		Show a stormwater video on a local cable station	SuAsCo, SWMT	Develop and air stormwater video				

2.0 Public Involvement and Participation								
BMP Category in Notice of Intent (NOI)		**BMP**	**Respons. Dept.**	**Measurable Goals**	**Year 1 Goals Completed**	**Year 1 Goals Not Completed**	**Year 2 Goals Completed**	**Year 2 Goals Not Completed**
2.1.1	Homeowner Focus	Circulate stormwater traveling display	SuAsCo	Develop display. Feature at 3 locations	Created and displayed in Town Hall stormwater display	Display in 2 other locations		Display in 2 other locations
2.2.1	Student Focus	Poster contest for fifth graders	SuAsCo, SWMT	Hold poster contest with fith graders				Delivered poster contest rules and flyers, implement
2.2.2		Photo contest for high school students	SuAsCo, SWMT	Hold photo contest for High School students				
2.3.1	General Public Focus	Hold a local stormwater summit	SuAsCo, SWMT	Advertise and hold summit				
2.3.2		Hold a watershed-wide stormwater summit	SuAsCo, SWMT	Advertise and hold summit				

3.0 Illicit Discharge Detection and Elimination								
BMP Category in Notice of Intent (NOI)		**BMP**	**Respons. Dept.**	**Measurable Goals**	**Year 1 Goals Completed**	**Year 1 Goals Not Completed**	**Year 2 Goals Completed**	**Year 2 Goals Not Completed**
3.1.1	Stormwater System Mapping	Map outfalls	DPW	Field Check GIS map locations of outfalls.	Initiate map development	Prioritize areas to be checked.	Receive final draft map	Field check 50% of outfalls
3.1.2		Map storm sewer system	DPW	Build GIS map for s.w. planning, illicit discharge program, tracking system, and maintenance	Get GIS system on DPW computer		Receive final draft map	
3.1.3		Map structural BMPs (i.e. detention basins, water quality inlets, Etc.)	DPW	Percentage of total structures			Receive final draft map	Field check structural BMPs
3.1.4		Develop regulations to have developers pay Town's cost for GIS update caused by their development	Planning	Consider options, implement recommendations for Planning Board regulations revisions.				Draft and adopt regulations
3.1.5		Maintain GIS storm sewer system map	DPW	Update storm sewer system GIS map annually				
3.2.1	Regulatory Mechanism	Develop Town bylaw prohibiting illegal non-storm water discharges into storm sewer system	BOS, SWMT	Review existing policy and implement recommendations for regulatory revisions	Reviewed the EPA models.	Draft Town bylaw	Reviewed MACC models	Draft bylaw with enforcement procedures
3.2.2		Develop enforcement procedures for non-storm water discharges, including illegal dumping	BOS, SWMT	Development of enforcement procedures	*Include procedures for enforcement in language of bylaw*		*Include procedures for enforcement in language of bylaw*	
3.3.1	Illicit Discharge Detection and Elimination Plan	Organize SWMT to monitor the Town's compliance with the permit requirements.	BOS	Meetings held	Held two SWMT meetings		Held several SWMT meetings	
3.3.2		Identify procedures for (1) locating areas likely to have illicit discharges, and illegal dumping.	SWMT, DPW	Inspect outfalls for dry weather flows.	(N.B.: DPW receives complaints, inspects sites, conducts several visual inspections annually.)	Develop a system for record keeping.		Develop a system for record keeping. Prioritize outfalls.
3.3.3		(2) identifying the source of an illicit discharge	SWMT	Final Procedures Adopted	*This will be handled on a case by case basis.*		*This will be handled on a case by case basis.*	
3.3.4		(3) removing the source of the illicit discharge	SWMT	Final Procedures Adopted	*This will be handled on a case by case basis.*		*This will be handled on a case by case basis.*	
3.3.5		(4) program evaluation and assessment	SWMT	Annual Report	No report necessary		No report necessary	
3.4.1	Educational Outreach	Identify measures to inform public employees, business, and general public of hazards w/ illegal discharge	SuAsCo, SWMT	Information materials distributed.				

3.0 Illicit Discharge Detection and Elimination (continued)								
BMP Category in Notice of Intent (NOI)		**BMP**	**Respons. Dept.**	**Measurable Goals**	**Year 1 Goals Completed**	**Year 1 Goals Not Completed**	**Year 2 Goals Completed**	**Year 2 Goals Not Completed**
3.5.1	Allowable Non-stormwater Discharges	Determine if any EPA listed non-stormwater flows need to be addressed by the illicit discharge program.	SWMT	Decision made and if necessary addressed by the illicit discharge program.	*(N.B.: Non stormwater flows will be reviewed after bylaw is adopted and s.w. map complete.)*		DPW determined that allowable non-stormwater discharges are not a problem now	
3.6.1	Waste Disposal Programs	Hazardous Waste Management and Drop-off Program	Health	Conduct Twice a Year	Monthly drop off for some haz. mats. Annual Haz. Waste Drop Off		Monthly drop off for some haz. mats. Annual Haz. Waste Drop Off	

4.0 Construction Site Storm Water Runoff Control								
BMP Category in Notice of Intent (NOI)		**BMP**	**Respons. Dept.**	**Measurable Goals**	**Year 1 Goals Completed**	**Year 1 Goals Not Completed**	**Year 2 Goals Completed**	**Year 2 Goals Not Completed**
4.1.1	Regulatory Mechanism	Develop and implement Town bylaws regulating erosion and sediment control for construction sites utilizing appropriate BMPs	SWMT	Implement Town bylaws			Reviewed MACC models.	Draft Town bylaw
4.1.2		Add design standards and criteria as necessary to Town department regulations regarding construction site erosion control	Planning, ConCom, SWMT	Update Regulations	The ConCom reviewed EPA options. Erosion control is incorporated in their NOI process.		Erosion control is incorporated in the ConCom NOI process.	Develop Planning Board regulations with sanctions
4.1.3		Evaluate sanctions for enforcement of erosion and sediment controls	SWMT, BOS	Develop goals, draft and final sanctions	*Incorporate goals for sanctions in Planning Board bylaw*		Sanctions are part of the WPA regulations and wetland bylaw	
4.2.1	Site Plan Review Procedures	Implement pre-construction review of project storm water pollution prevention plan (SWPPP)	Planning, ConCom	Identify and train staff			Half-time Building Inspector hired. ConCom versed in stormwater. DPW cited as add'l inspection dept	
4.3.1	Site Inspection/ Enforcement Procedures	Conduct construction site inspections	Planning, ConCom, DPW	Identify and train staff. Review each project.			Half-time Building Inspector hired. ConCom versed in stormwater. DPW cited as additional inspection dept.	
4.3.2		Develop a procedure for handling reports from the public of non-compliance	SWMT	Development of procedure			*Allow complaints to be handled on a case by case basis*	

5.0 Post-Construction Storm Water Management in New Development and Redevelopment								
BMP Category in Notice of Intent (NOI)		**BMP**	**Respons. Dept.**	**Measurable Goals**	**Year 1 Goals Completed**	**Year 1 Goals Not Completed**	**Year 2 Goals Completed**	**Year 2 Goals Not Completed**
5.1.1	Regulatory Mechanism	Develop and implement bylaws regulating controls for post-construction runoff utilizing appropriate BMPs	SWMT	Implement bylaws	Town is working toward developing Town Policies.		An infiltration policy was adopted by ConCom and circulated to other boards	
5.2.1	Review BMP Designs	Pre-construction review for conformance with standards/regulations	Planning, ConCom	Review each project.	ConCom reviews plans through the NOI process.		Coordinated review ensures that DPW, Planning, and ConCom review all plans.	
5.3.1	Site Inspection/ Enforcement Procedures	During construction inspect to be sure that BMPs are properly constructed.	Planning, ConCom	Inspect each project.	ConCom conducts site visits through the NOI process.		DPW, Planning, and ConCom identified as primary site inspectors.	
5.3.2		Post-construction provide inspection to be assured that the BMPs O&M procedures were followed	DPW	Identify and train staff. Inspection as required	ConCom conducts site visits through the NOI and COC process.		DPW, Planning, and ConCom identified as primary site inspectors.	
5.4.1	O&M Procedures for Stormwater BMPs	Develop procedures for O&M requirements of structural BMPs	SWMT	Development of procedures			*Maynard relies on state and federal O&M guidelines*	*DPW will establish a central file of O&M plans*

6.0 Pollution Prevention and Good Housekeeping for Municipal Operations								
BMP Category in Notice of Intent (NOI)		**BMP**	**Respons. Dept.**	**Measurable Goals**	**Year 1 Goals Completed**	**Year 1 Goals Not Completed**	**Year 2 Goals Completed**	**Year 2 Goals Not Completed**
6.1.1	Employee Training Program	Training On Spill Reporting and Response Protocols, Hazardous Materials Training, Pesticide and Fertilizer Application	DPW, Fire	Conduct annual training	Goals are (1) obtain pesticide license in DPW, (2) have Fire continue annual haz mat training		Add goal (3) annual training to all staff	Develop annual training program
6.2.1	Stormwater Sewer System Operation and Maintenance	Storm sewer system and catch basin inspection program	DPW	Annual Inspection	Contractor annually tracks and inspects half of all 901 catch basins.	Develop long-term record keeping procedures	Contractor annually tracks and inspects half of all 901 catch basins.	Develop long-term record keeping procedures
6.2.2		Storm sewer system and catch basin cleaning program	DPW	Annual cleaning of catch basins	Contractor annually cleans half of all 901 catch basins.	Develop long-term record keeping procedures	Contractor annually cleans half of all 901 catch basins.	Develop long-term record keeping procedures
6.2.3		Structural BMP inspection and maintenance program	DPW	Develop and implement record keeping. Inspect all BMPs once per year.		Develop long-term record keeping procedures		Develop and implement record keeping procedures

6.0 Pollution Prevention and Good Housekeeping for Municipal Operations (continued)								
BMP Category in Notice of Intent (NOI)		**BMP**	**Respons. Dept.**	**Measurable Goals**	**Year 1 Goals Completed**	**Year 1 Goals Not Completed**	**Year 2 Goals Completed**	**Year 2 Goals Not Completed**
6.3.1	Parks and Open Space	Fertilizer and pesticide application and management controls	DPW, Forestry	Annually summarize applications	Goals are (1) continue to minimize pesticide and fertilizer use, (2) train DPW employee in pesticide application			Draft program
6.4.1	Municipal Industrial Operations	Evaluate Operations at the Public Works Facility, transfer station, and the WWTF	DPW, Consult.	Individual SWPPPs for each site	Operations were evaluated at each site		Highway Garage installed sediment basins, stone trenches. WWTP installed fence to stop illegal dumping, removed piles of wood chips/junk, and re-sloped to reduce erosion.	Develop plan/ recording system addressing: (1) stormwater runoff
6.4.2		Review maintenance and repair programs for municipal vehicles	DPW	Develop program controls and record keeping.				Develop plan/ recording system addressing: (2) vehicle repair
6.4.3		Review municipal vehicle washing controls	DPW	Develop program controls and record keeping.				Develop plan/ recording system addressing: (3) vehicle washing
6.4.4		Review Salt Storage Operations	DPW	Develop and implement program controls and record keeping.	Every aspect of salt operation is conducted in the salt shed		Every aspect of salt operation is conducted in the salt shed	
6.4.5		Review Fueling Operations	DPW	Develop and implement program controls and record keeping.	2000: fuels tanks replaced; sensors detect potential leaks/problems.		Fuel lines were inspected. The sensing equipment is reviewed twice a year.	Develop plan/ recording system addressing: (4) vehicle fueling
6.5.1	Municipal Roads	Street sweeping	DPW	Strengthen record tracking system. Evaluate frequency in urban areas.				Evaluate and strengthen record keeping