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**Municipality/Organization: Town of Hanover, MA**

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**EPA NPDES Permit Number: MA041036**

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**MA DEP Transmittal Number: W035898**

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**Annual Report Number  
& Reporting Period: No. 11: April 1, 2013 -March 31, 2014**

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## NPDES PII Small MS4 General Permit Annual Report

### Part I. General Information

**Contact Person: Victor Diniak** **Title: Director of Public Works**

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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: Victor Diniak**

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**Title: Director of Public Works**

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**Date:** 4/28/14

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

In general, the Town of Hanover's stormwater management activities for the eleventh year of the General Permit (April 2013 through March 2014) were in conformance with the Notice of Intent (Massachusetts DEP form BRP WM 08A) and schedule submitted in July 2003. The Town has developed a Stormwater Management Plan with program priorities for 2003-2008 including:

1. Achieving regulatory compliance, particularly EPA and DEP Phase II NPDES permit requirements;
2. Incorporating storm water protection measures into municipal activities;
3. Focusing activities on target pollution reduction (e.g. Section 303.d. waters and protecting the Town's water supply);
4. Ensuring that the Program is current and innovative; and
5. Providing Program administration.

The Water Quality Stewardship element of the program continues to focus on the protection of the local water supply and addressing the State's Section 303.d waters located within the Town. To this end, staff continues to develop and improve the Program activities to reduce storm water pollution to the maximum extent practicable and eliminate prohibited non-storm water discharges, while facilitating understanding and involvement in storm water management by various Town departments. Program priorities will also focus on increased efforts to reduce target pollutants and restore local water bodies.

The Town is committed to working with the North and South River Watershed Association to advance their goals and objectives. Another high priority of staff will be to keep abreast of the latest technology and approaches to achieve storm water management. Program activities will also strive to encourage environmental stewardship and continue to build on partnerships with other agencies, neighboring towns, and the community for active participation in accomplishing the Program mission. To these ends, the Town of Hanover has been working on funding for an Assessment of Land Use Activities and Environmental Impacts within the North River Watershed. The funding was initially applied for under a Section 604B Grant, with the support of local regulators and the North and South Rivers Watershed Association (NSRWA), and was eventually funded locally in 2006.

The activities performed during Permit Year Nine also focused on the continued development of a Town-wide Geographic Information System, including the connectivity of the drainage system to (and verification of) structures that have been mapped. The Town also continued with control measures that were initiated during the previous permit year, including improving local good housekeeping programs; and communicating the Town's Plan to local watershed associations.

The activities during Permit Year Eleven focused on upgrading the Town's local ordinances. Toward that end, a complete review of the Towns Bylaws was conducted, and a new bylaw was drafted for the prevention of illicit discharges. This bylaw was presented at Town Meeting in the Spring of 2013, and approved in May 2013. Hanover is pleased to present the following summary describing the town's success at implementing the eleventh year of the Town's Comprehensive Stormwater Program.

**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 11 (Reliance on non-municipal partners indicated, if any)</b>	<b>Planned Activities – Permit Year 12 (if applicable)</b>
1	Partnership with local Watershed Associations	Con. Comm., DPW, BOH	Regular Meeting Attendance	Town DPW Director and Conservation Commission Agent meet routinely with members of the NSRWA for stakeholder input on projects within the Town.	Continued updating, seek alternative funding opportunities
2	Develop Brochures	DPW	Quarterly Mailings	Through the Town’s partnership with the North and South River Watershed Association’s Greenscapes Program, a separate flyer was sent out on Stormwater Pollution Prevention awareness. Continued water department mailings and water quality updates.	Continued mailings. Educational outreach through Greenscapes Program.
3	WEB Site Public Service Postings	IT Dept., DPW	WEB Site Publication & Maintenance	Association information transfer and data publication of data, local WEB updates. Town stepped up Web site develop in Permit Year 11 and began process of greater use of social media to actively develop relevant communication channels with residents and stakeholders.	Association information transfer and data publication of data, local WEB updates. Continuation of web development and social media goals.

**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 11 (Reliance on non-municipal partners indicated, if any)</b>	<b>Planned Activities – Permit Year 12 (if applicable)</b>
4	Water Quality Testing	DPW	2 Rounds of Water Quality Sampling of Priority Water Bodies	Obtained funding for the Wastewater and Land Use Study in the North River watershed area and source identification	Act upon the Wastewater and Land Use Study for the South end of Town

5	Community Cleanup Days	DPW	Annually	Conducted in Spring 2013.	Scheduled for Spring 2014.
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### 3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 11 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 12 (if applicable)
6	Catch Basin/Outfall and Receiving Water Mapping	DPW	GIS Mapping	April 15, 2001 aerial photography serving as basis for mapping updates of local developments and drainage system connectivity.	Continued mapping updates of local developments and drainage system connectivity.
4	Water Quality Testing	DPW	Testing of Priority Water Bodies	Obtained funding for the Wastewater and Land Use Study in the North River watershed area and source identification	Act upon the Wastewater and Land Use Study for the South end of Town
7	Regulatory Review	DPW, Planning Board, BOH, Con. Comm.	Regulatory Revisions and Action	Drafted bylaw for acceptance at Town Meeting. Present bylaw at Spring 2013 Town Meeting, and approved in May 2013.	<b>BMP Completed.</b>
8	Permit Enforcement	DPW, Planning Board, BOH, Con. Comm.	Local Construction Site Oversight and Enforcement	Ongoing to comply with local bylaws, state and federal requirements. The Permit was enforced by the Town during Permit Year 11 and there were no violations.	Ongoing to comply with local bylaws, state and federal requirements.
9	Misconnection/Illegal Dumping and Correction	DPW, BOH	Connectivity Mapping, Bylaw Enforcement and Fines	Continued local bylaw enforcement. The bylaw was enforced by the Town during Permit Year 11 and there were no violations.	Continue local bylaw enforcement

#### 4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 11 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 12 (if applicable)
7	Regulatory Review	DPW, Planning Board, BOH, Con. Comm.	Regulatory Revisions to Bylaws as Necessary	Decision made to implement regulations based on IDDE bylaw which was presented at Spring 2013 Town Meeting and approved in May 2013.	<b>BMP Completed.</b>
8	Permit Enforcement	DPW, Planning Board, BOH, Con. Comm.	Local Construction Site Oversight and Enforcement	Ongoing to comply with local bylaws, state and federal requirements	Ongoing to comply with local bylaws, state and federal requirements
10	Improved As-Built Review	DPW, Planning Board	Electronic As-Built Submittals on Town GIS System	Continued GIS mapping	Continue GIS mapping and develop protocol for submitting as-builts electronically

#### 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 11 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 12 (if applicable)
7	Regulatory Review	DPW, Planning Board, BOH, Con. Comm.	Regulatory Revisions to Bylaws as Necessary	Decision made to implement regulations based on IDDE bylaw which was presented at Spring 2013 Town Meeting, and approved in May 2013.	Draft regulations.
8	Permit Enforcement	DPW, Planning Board, BOH, Con. Comm.	Local Construction Site Oversight and Enforcement	Ongoing to comply with local bylaws, state and federal requirements	Ongoing to comply with local bylaws, state and federal requirements

## 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 11 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 12 (if applicable)
11	Improved Street Sweepings	DPW	Semi-annual Collections	Annual Collections. Lack of sand from snow and ice operations reduces need for semi-annual collections. Additional spot sweeping performed as needed.	Annual Collections. Lack of sand from snow and ice operations reduces need for semi-annual collections. Additional spot sweeping performed as needed.
12	Improved Catch Basin Cleanings	DPW	Semi-annual Collections	Annual Collections. Lack of sand from snow and ice operations eliminates need for semi-annual collections	Annual Collections. Lack of sand from snow and ice operations eliminates need for semi-annual collections
13	Household Hazardous Waste Days	DPW	Annual Collections	Semi-annual Collection. Additionally, the Town transfer station offers waste oil collection to Town residents.	Semi-annual Collection. Additionally, the Town transfer station offers waste oil collection to Town residents
14	Drain Stenciling	DPW	Aquifer Protection Area	Stenciled drains previously mapped in Aquifer Protection Area	Continue to stencil drains in Aquifer Protection Area

## 6a. Additions

18	Employee Training	DPW	Seminar Attendance	On January 17, 2014, Town employees attended a PCHA briefing on the draft EPA Stormwater General Permit.	Attend Good Housekeeping and SWMP Training Seminars Sponsored by Plymouth County Highway Association
19	Stream Maintenance	DPW	Annual Maintenance	During 2013, DPW partnered with Plymouth County Mosquito Control crews to remove blockages, brush and other obstructions from ditches and streams.	Continued work with Mosquito Control Workers and local watershed association on stream maintenance issues.

13	Additional HHHW drop off locations/days	Department of Public Works	Number of drop off locations	Continued participation in the South Shore Recycling Cooperative, where 14 local communities open up their local HHHW collection days to members of the cooperative.	Continue to participate in the South Shore Recycling Cooperative.
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### 7. BMPs for Meeting Total Maximum Daily Load (TMDL) Waste Load Allocations (WLA)

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 11 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 12 (if applicable)
6	GIS Mapping	DPW	GIS Mapping of Priority Waters and Drainage Patterns	April 15, 2001 aerial photography serving as basis for Assessor Mapping updates and connectivity of drainage system mapping.	Continued development of GIS mapping. Continued integration of GIS data with MassGIS sources.
4	Water Quality Testing	DPW	Semi-Annual Water Quality Testing	Obtained funding for the Wastewater and Land Use Study in the North River watershed area and source identification	Act upon the Wastewater and Land Use Study for the South end of Town
15	Stormwater Modeling	DPW	Needs Assessment for Category 5 Water Bodies	Obtained funding for the Wastewater and Land Use Study in the North River watershed area and source identification	Act upon the Wastewater and Land Use Study for the South end of Town
16	Misc. Structural BMPs as Needed	DPW	i.e. Construction Improvements	None to date (scheduled for future permit years as appropriate)	To be determined
17	Misc. Non-Structural BMPs as Needed	DPW	i.e. Bylaw Enforcement, Fees and Fines	None to date (scheduled for future permit years as appropriate)	To be determined

## **7b. WLA Assessment**

To date, the Town has focused on completing GIS mapping of the drainage system and receiving waters, as approved by the DEP, and water quality screening and testing from the outfall locations that have been mapped in the vicinity of the North River watershed area. The data findings confirm past conclusions that the North River and its tributaries (i.e. the Indian Head River) are impaired from excessive levels of Total Coliform and e-coli, and the impairment shall be addressed. To this end, in 2006 the Town of Hanover obtained local Town Meeting approval to conduct a Wastewater and Land Use Study in the southeast section of Town that lies within the North River watershed. This study is an ongoing effort to standardize wastewater records and zoning records into a GIS enabled database upon which analysis of the wastewater data can be easily performed.

A more detailed WLA assessment and Land Use Evaluation will follow.

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

### **Permit Year 1 Activities and Information**

During the previous Permit Year, the Town reviewed the local, state and federal bylaws relative to stormwater and aquifer protection, and determined that they appeared to be adequately regulated and in conformance with the Massachusetts Stormwater Management Policy. Minor revisions may be required for informing local project proponents of the Phase II one-acre NPDES requirement.

### **Permit Year 2 Activities and Information**

During Permit Year 2, outfall mapping and water quality screening/testing continued in the North River drainage basin. Assessor mapping was performed to determine the public/private impacts to its storm drainage system.

The Town will continue to provide updates to the public through water bill mailings and postings on the local website, and will continue to work with local watershed associations on possible funding sources and ways in which to promote volunteerism. The Town has taken part in employee training seminars sponsored by the Plymouth County Highway Association and will continue to improve its good housekeeping programs.

### **Permit Year 3 Activities and Information**

During Permit Year 3, outfall mapping and water quality screening/testing continued in the North River drainage basin. Assessor mapping was updated and the Town focused on the connectivity of its drainage system.

The Town will continue to provide updates to the public through water bill mailings and postings on the local website, and will



continue to work with local watershed associations on possible funding sources and ways in which to promote volunteerism. The Town has taken part in employee training seminars sponsored by the Plymouth County Highway Association and will continue to improve its good housekeeping programs.

**Permit Year 4 Activities and Information**

During Permit Year 4, the Town obtained funding for a Wastewater and Land Use Study in the southeast section of Town where, previous outfall mapping and water quality screening/testing indicated that the North River drainage basin is impaired. Assessor maps continued to be updated and the connectivity of the drainage system was further mapped.

The Town continues to provide updates to the public through water bill mailings and postings on the local website, and will continue to work with local watershed associations on possible funding sources and ways in which to promote volunteerism. In addition, Town employees have taken part in employee training seminars sponsored by the Plymouth County Highway Association and the Town continues to improve its good housekeeping programs.

**Permit Years 5 and 6 Activities and Information**

During Permit Years 5 and 6, Assessor maps continued to be updated and the connectivity of the drainage system was further mapped.

The Town continues to provide updates to the public through water bill mailings and postings on the local website, and will continue to work with local watershed associations on possible funding sources and ways in which to promote volunteerism. In addition, Town employees have taken part in employee training seminars sponsored by the Plymouth County Highway Association and the Town continues to improve its good housekeeping programs.

**Permit Years 7 - 11 Activities and Information**

During Permit Years 7 through 11, the Town obtained local approval to conduct a Wastewater and Land Use Study in the southeast section of Town that lies within the North River watershed.

The Town continues to provide updates to the public through water bill mailings and postings on the local website, and will continue to work with local watershed associations on possible funding sources and ways in which to promote volunteerism. In addition, Town employees have taken part in employee training seminars sponsored by the Plymouth County Highway Association and the Town continues to improve its good housekeeping programs.

Note that the Town has completely eliminated the use of sand in its snow and ice operations and in addition has modified its snow and ice control measures to reduce salt application by 40-50%, further reducing pollution loads. This activity has occurred over a number of years, starting with around permit year 3 and continuing to date with incremental improvements every year. This reduction in pollutants is the direct result of the application of new technologies and careful program management that were stressed in programs sponsored by Baystate Roads and the Plymouth County Highway Association.

During Permit Year 10 the Town continued its review of local, state and federal bylaws relative to stormwater and aquifer protection, and determined that a new IDDE bylaw was required to be drafted. It was drafted/reviewed by the Town Departments and was presented at Town Meeting in the spring of 2013.

During Permit Year 11, the Town approved the Illicit Discharge Detection and Elimination Bylaw in May 2013.

During Permit Year 11, the Town applied for and received a SWMI grant to investigate potential improvements to stormwater along the Route 53 corridor and to construct a demonstration stormwater treatment and recharge structure. This work is ongoing and expected to be completed in the summer of 2014.