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Municipality/Organization: Town of Holden, MA

EPA NPDES Permit Number: MAR041121

MaDEP Transmittal Number: W-040559

**Annual Report Number
& Reporting Period: No. 8: April 1, 2010 -March 31, 2011**

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: **Jim Shuris, P.E., MBA** Title: **Public Works Director**

Telephone #: **(508) 829 0249** Email: **jshuris@townofholden.net**

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: *Nancy L. Galkowski*

Printed Name: **Nancy Galkowski**

Title: **Town Manager**

Date: *April 28, 2011*

Part II. Self-Assessment

The Town of Holden has successfully implemented or begun implementation of several Measurable Goals noted in Holden's Notice of Intent. Prior to the development of Holden's Comprehensive Stormwater Management Program, including Measurable Goals, the Town had an assessment performed of current activities, programs and regulations that could support the NPDES Phase II Stormwater Program. This assessment became the basis for modifying current activities, recommending new programs, and informing Town boards and departments of their obligation toward successful implementation of Holden's Comprehensive Stormwater Program.

During permit Year 8, the Town continued the development of a town-wide stormwater map that will be used as a basis for illicit discharge detection. Field GPS locations of 145 outfall structures were obtained to identify areas for further investigation, and directional drainage mapping was completed for 100% of the MS4 designated area. Field screening tests were conducted at 74 outfalls in the Spring of 2011 – measuring pH, Temperature, Specific Conductance and Turbidity of the effluent waters. Additional Water Quality samples were collected from 33 outfalls for laboratory analysis of E.Coli, Surfactants, Chlorine, and Ammonia Nitrogen.

Holden is pleased to present the following summary describing the town's success at implementing the program through the eighth year of the Town's Comprehensive Stormwater Program.

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	Planned Activities – Permit Year 9
1	Create a Stormwater Program	Department of Public Works Planning Board Conservation Commission Board of Health Board of Selectmen	Holden will present to the public at public meeting Holden's draft Comprehensive Stormwater Management Program.	Compliant in year 1. The Town of Holden has completed <i>Stormwater Management Phase II Assessment Report</i> . Copies are available for review by town departments and the public.	The Town of Holden will schedule a presentation with the Board of Selectmen and later a public meeting to review the Comprehensive Stormwater Program.
2	Create a Stormwater Program	Department of Public Works Planning Board Conservation Commission Board of Health Board of Selectmen	Holden will identify appropriate sources of funding assistance (SRF, 319 Grant Program, 604(b) Grant Program, Lakes and Ponds Grant Program, Source Water Protection Grant Program, Recycling Grant Program) and apply for assistance in implementing portions of Holden's Comprehensive Stormwater Management Program, including public education and outreach.	The Town of Holden received funding from the Department of Conservation and Recreation (DCR), formerly the Metropolitan District Commission (MDC) for regulations development related to stormwater management. The Town of Holden worked to develop Stormwater regulations and model bylaws.	The Town of Holden will continue to work to finish development of Stormwater regulations and model bylaws. New by-laws, if necessary, will be proposed to Town Meeting.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 8	Planned Activities – Permit Year 9
3	Address specific groups	Department of Public Works Board of Health	Distribute EPA and other relevant educational brochures to targeted audiences. Distribution points include Town hall, Library, and Transfer Station	<p>As previously described for Year 7 - The Town of Holden is in receipt of EPA educational materials on disk for easy printing and distribution.</p> <p>The Town of Holden provides several informational brochures to the public. The following information is available at the Town Hall:</p> <ul style="list-style-type: none"> - "2004-2005 Holden Recycling Information" which includes Hazardous Waste Earth Day Collection, recycling information, and curbside pickup calendar (also available on the Town website); - <i>Is your construction project disturbing 1 or more acres of land...</i> and a poster within the Town Hall describing EPA regulations; - <i>The Massachusetts Watershed Protection Act</i> Watershed Regulations for Land in Quabbin Reservoir, Water River and Wachusett River Watershed; - <i>Wachusett Earthday Collection</i> a yearly brochure describing the Household Hazardous Product and Recycling Event; and - <i>Mercury Recovery Program with the Holden Board of Health.</i> 	<p>Brochures will continue to be printed and made available at town buildings.</p> <p>A box deposit for "Button Cell Battery Recycling Program" will continue to be present in the Town Hall.</p>

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 8	Planned Activities – Permit Year 9
4	Address specific groups	Department of Public Works Board of Health Planning Department	The Town of Holden will compile a library of educational materials that can be distributed to your organizations, the Garden Club, etc. EPA stormwater BMP's targeting specific activities and audiences will be included	<p>As previously described for Year 7 - The Town of Holden presents several brochure/information to the public. The Town offers brochures described in BMP #3 as well as information listed on the Town website and brochures enclosed with the Holden Municipal Light Bill and sent to residents.</p> <p>Brochures that have been or expect to be sent to residents include:</p> <ul style="list-style-type: none"> - <i>Wachusett Earthday Collection</i> a yearly brochure describing the Household Hazardous Product and Recycling Event; and - <i>Town of Holden, a Resident's Guide to DPW Snow Removal Operations and Procedures.</i> <p>Information included on the Town website includes:</p> <ul style="list-style-type: none"> - "Recycling and Trash Information" - "Town of Holden DPW Water Page" including water ban information; - "Spring 2004 Leaf Composting and Brush Chipping"; and - "Septic System Maintenance." <p>Information to be broadcast on the Holden Cable Television station:</p> <ul style="list-style-type: none"> - DCR had been contacted to use their copy of EPA Presentation "After the Storm" that is in cable ready format. <p>Items listed above are part of ongoing efforts.</p>	<p>Brochures/information will continue to be made available to the public.</p> <p>Information will continue to be made available on the Town website.</p> <p>The EPA presentation "After the Storm" will be broadcast on Holden Access Cable Station.</p>

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 8	Planned Activities – Permit Year 9
5	Target groups likely to impact stormwater	Department of Public Works Board of Health Planning Department	<p>Brochures targeting specific audiences and activities will be available. These target groups include homeowner and lawn maintenance activities, disposal of household waste, and pet maintenance. Other groups include commercial business and waste disposal, parking lot maintenance, and floor drains.</p> <p>Educational brochures on the proper disposal of household hazardous wastes will be attached to transfer station permits.</p>	<p>As previously described for Year 7 -</p> <p>The Town of Holden presents several brochure/information to the public. The Town offers brochures/information described in BMP's #3 and #4.</p> <p>The DPW provides written notice to residents for practices that violate Town regulations.</p> <p>All newly permitted parking lots have been reviewed and include structural and non-structural BMP's including regular street sweeping and maintenance requirements.</p>	<p>The Town DPW will continue to inform the public regarding stormwater protection practices.</p>
6	Promote household waste recycling	Department of Public Works Board of Health MIS Department	<p>The Town of Holden and the Board of Health will promote recycling and hazardous waste collection opportunities through brochures and postings on the Town's website and local access channel.</p>	<p>As previously described for Year 7 -</p> <p>The Town of Holden advertises the yearly hazardous product collection event via brochures (enclosed in the Holden Municipal Light Bill) and public access television</p>	<p>Brochures/information will continue to be made available to the public.</p> <p>The Town of Holden will continue to host twice yearly Hazardous Product collection of events.</p>
7	Utilize local public access channel	Department of Public Works Board of Health	<p>Links to stormwater BMP's and other water quality education resources, including EPA and DEP will be posted on the Town of Holden's website: http://www.townofholden.net/</p>	<p>As previously described for Year 7 -</p> <p>The Town of Holden website has several web links to environmental and public health organizations and other environmental information, including the DEP and the EPA.</p>	<p>The EPA presentation, "After the Storm" will be broadcast on the Holden Access cable station.</p>

8	Utilize local public access channel	Department of Public Works Board of Health	Stormwater BMP's, solicitation for stream team cleanup volunteers, and EPA produced water quality videos will be considered for presentation on Holden's public access channel.	As previously described for Year 7 - DCR has been contacted to use their copy of the EPA presentation, "After the Storm" that is in cable-ready format.	The EPA presentation "After the Storm" will be broadcast on the Holden Access cable station.
BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) - Permit Year 8	Planned Activities - Permit Year 9
9	Develop, conduct and document educational programs	Department of Public Works	The Town of Holden Water Department will apply for funding assistance from DEP's Source Water Protection Program for grant assistance to develop wellhead protection plans and stormwater management plans within Zones II. The proposed tasks will include education component.	The Source Water Protection Program was unavailable during Permit Year 8.	The Town of Holden will ascertain the availability of funds from the Source Water Protection Program in Permit Year 8.

10	Conduct public meetings/create citizen panels	Board of Selectmen Department of Public Works	The Town of Holden will contact the Nashua River and Blackstone River Watershed Associations to review opportunities in Holden. These opportunities include hosting a watershed association meeting in Holden with notice on website and local access channel, and televising a meeting reviewing watershed activities or needs specific to Holden	As previously described for Year 7 - Wachusett Greenways provides recreational trail maintenance within the Town of Holden. The DCR has regulatory jurisdiction (350CMR 11) over much of the land bordering waterways in Holden (within 400 feet of water) including regulating land use and density. The Nashua River Watershed Association has included stormwater related protection for the Town of Holden in its 5 (five) year action plan. The plan includes implementation of the Phase 11 Stormwater Program, acquiring GIS capacity, recreation, open space protection, and water quality. The Association also suggests potential funding sources. The watershed association website is: http://www.acavellastudios.coird-nrwa2/ . NRWA Wachusett Working Landscapes Partnership sponsored a training on Low Impact Development in Leominster on 3/17/2005 The Blackstone River Watershed Associations is not active within the Town of Holden.	The Town of Holden will continue to work with Wachusett Greenways, the DCR, and the Nashua River Watershed Association to determine opportunities for collaboration.
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2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 8	Planned Activities – Permit Year 9
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11	Community cleanups	Department of Public Works MIS Department Board of Selectmen	Town of Holden will coordinate local stream team cleanups with area Scout groups. Town will provide notice of event on local access channel and website.	As previously described for Year 7 - Wachusett Greenways; is a volunteer based organization that provides trail development in several communities, including Holden. The Holden DPW worked with Wachusett Greenways on trail construction, which includes proper drainage. The DCR has regulatory jurisdiction (350CMR 11) over much of the land bordering waterways in Holden (within 400 feet of the water) including regulating land use and density.	The Town of Holden will continue to work with the DCR and Wachusett Greenways; to protect the quality of waterways within Holden and to provide environmentally safe public recreation opportunities.
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BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 8	Planned Activities – Permit Year 9
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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 8	Planned Activities – Permit Year 9
12	Mapping of storm water management infrastructure	Department of Public Works Planning Department	Holden will develop a multi-year plan to complete mapping of entire storm drain system. Development of plan will include review of water, sewer, and other infrastructure.	<p>The Town of Holden began mapping under the IDDE during Permit Year 1. Approximately 20% of outfalls in the downtown area were surveyed. Survey information included condition, presence of dry weather flows, location, source of flow, and receiving water body. The outlet locations were mapped using AutoCAD and MassGIS.</p> <p>The Town of Holden has begun to develop a comprehensive GIS program. An aerial flyover to begin the development of the GIS was conducted in April, 2005. Existing information was compiled for the development of town-wide storm sewer mapping was completed. Program is anticipated to include complete mapping of storm sewer system.</p>	<p>The Town of Holden will continue the IDDE program.</p> <p>Funding was obtained to continue the Stormwater Mapping as part of the Illicit Discharge Detection and Elimination (IDDE) Program for approval at Town Meeting. The planned activities for Year 8 include continued development of a town-wide GIS map of the stormwater system, with connectivity of drainage structures, and GPS-located outfalls with screening and sampling events.</p> <p>DCR has historically investigated suspicious dry weather and other occurrences that have been noted in their regular sampling. The Town of Holden will coordinate inspection and documentation of suspect outfalls with DCR.</p>

3. Illicit Discharge Detection and Elimination (cont'd)

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 8	Planned Activities – Permit Year 9
13	Identification/description of problem areas	Department of Public Works	Holden will develop and implement an Illicit Discharge Detection and Elimination (IDDE) plan.	The IDDE program that began in Permit Year 1 did not identify any problem areas, however further study was recommended.	The Town of Holden will continue the IDDE program. Funding has been obtained and the Town completed a GPS survey of outfalls and identified potential sources of illicit discharges beginning with prioritized areas identified in the IDDE Plan.
14	Enforcement procedures addressing illicit discharges	Department of Public Works Planning Department	Holden will review whether local authority is appropriate and able to respond to potential illicit discharges. New by-laws, if necessary, will be proposed. DCR grant will support this effort.	The Town of Holden continued to work to finish development of Stormwater regulations and model bylaws.	The Town of Holden will continue to work to finish development of Stormwater regulations and model bylaws. New by-laws, if necessary, will be proposed to Town Meeting.

3. Illicit Discharge Detection and Elimination (cont'd)

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 8	Planned Activities – Permit Year 9
15	Initiation of recycling programs	Department of Public Works Board of Health	Holden will apply for funding assistance from DEP's Recycling Grant Program for assistance in public education and the purchase of recycling materials.	<p>The Town of Holden continued to advertise the yearly hazardous product collection event via brochures (enclosed in the Holden Municipal Light bill) and public access television.</p> <p>The Town of Holden applied for and received funding assistance from DEP's Recycling Grant Program for assistance in the purchase of recycling materials for FY 2005. The following brochures were available to the public regarding the event:</p> <ul style="list-style-type: none"> - <i>"Wachusett Earthday Collection"</i> - <i>"a yearly brochure describing the Household Hazardous Product and Recycling Event (sent to all residents);"</i> - <i>"Town of Holden 2009-2010 Recycling Guide"</i> which includes regarding Hazardous Waste Earth Day Collection, recycling information, and curbside pickup calendar. 	<p>The Town of Holden will continue to host yearly Hazardous Product Collection Events.</p> <p>The Town of Holden will continue to monitor funding sources for applicability for recycling.</p>

4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 8	Planned Activities – Permit Year 9
16	Bylaw: Storm water management regulations for construction sites 1 acre or larger	Planning Board Conservation Commission Town Counsel Board of Health Zoning Board of Appeals	Holden will review model by-law developed by DEP in consultation with the Attorney General's Office.	The DPW placed a poster titled "Is your construction project disturbing 1 or more acres of land..." within the Town Hall for public viewing. This poster describes EPA regulations; Holden developed Stormwater regulations and model bylaws that will incorporate the issues in the DEP Model.	The Town of Holden will continue to work to finish development of Stormwater regulations and model bylaws. Holden will review whether local authority is appropriate. New by-laws, if necessary, will be proposed to Town Meeting.
17	Bylaw: Procedures for creating a Storm Water Pollution Prevention Plan (SWPPP)	Planning Board Conservation Commission Town Counsel Board of Health Zoning Board of Appeals	Utilizing funding assistance from MDC grant, Holden will review current by-laws and develop and recommend approval for by-laws responding to MM4.	The Town of Holden received funding from the Department of Conservation and Recreation (DCR), formerly the Metropolitan District Commission (MDC) for regulations development related to stormwater management. The Town of Holden worked to develop Stormwater regulations and model bylaws.	The Town of Holden will continue to work to finish development of Stormwater regulations and model bylaws. The Town will review the sample SWPPP bylaw with all departments for implementation.

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	Planned Activities – Permit Year 9
18	Bylaw: Require post-construction runoff controls	Planning Board Conservation Commission Town Counsel Board of Health Zoning Board of Appeals	Holden will review model by-law developed by DEP in consultation with the Attorney General's Office	The Town of Holden received funding from the Department of Conservation and Recreation (DCR), formerly the Metropolitan District Commission (MDC) for regulations development related to stormwater management. The Town of Holden worked to develop Stormwater regulations and model bylaws.	The Town of Holden will continue to work to finish development of Stormwater regulations and model bylaws. Holden will review whether local authority is appropriate. New by-laws, if necessary, will be proposed to Town Meeting.
19	Identify structural and non-structural long-term runoff control strategies BMPs	Planning Board Conservation Commission Town Counsel Board of Health Zoning Board of Appeals	Utilizing funding assistance from MDC grant, Holden will review current by-laws and develop and recommend approval for by-laws responding to MM5.	The Town of Holden received funding from the Department of Conservation and Recreation (DCR), formerly the Metropolitan District Commission (MDC) for regulations development related to stormwater management. The Town of Holden worked to develop Stormwater regulations and model bylaws.	The Town of Holden will continue to work to finish development of Stormwater regulations and model bylaws. New by-laws, if necessary, will be proposed to Town Meeting.

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 8	Planned Activities – Permit Year 9
20	Develop a municipal Operations and Maintenance Plan	Department of Public Works	Using regulations and recommendations from DEP and EPA, Holden will develop and update an operations and maintenance plan to include proper disposal of street sweepings, catchbasin cleanout, snow disposal, roadway deticing procedures, vehicle washing, and outside storage of materials.	<p>The Town of Holden DPW cleans catch basins and sweeps all streets yearly.</p> <p>The Town notifies residents of the street sweeping schedule in the newspaper and on the Town website.</p> <p>Unreported in year 1: The Town of Holden has completed an <i>Illicit Discharge Detection and Elimination (IDDE) Program</i> as part of the Town's Comprehensive Stormwater Management Program. As part of the IDDE Program, the Town has a summary of recommendations developed as water quality-friendly maintenance practices, including EPA and DEP Fact Sheets pertaining to Municipal Operations and Maintenance.</p>	<p>The Town of Holden will continue to implement the Operations and Maintenance (O&M) plan regarding catch basins and street maintenance.</p> <p>The Town will review BMPs for applicable O&M practices.</p>
21	Develop and implement training programs for municipal employees	Department of Public Works	Holden will send a minimum of 5 public works employees annually to training seminars sponsored by MassHighway, BayState Roads, and other relevant agencies or vendors.	Town of Holden employees attended several trainings in Permit Year 8.	The Town of Holden will continue to provide training and educational development opportunities to its employees regarding stormwater protection.

6. Pollution Prevention and Good Housekeeping in Municipal Operations (cont'd)

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 8	Planned Activities – Permit Year 9
22	Develop a municipal Operations and Maintenance Plan	Department of Public Works	Holden will implement a formal inspection program, including maintenance logs and scheduling, for catchbasin cleaning, repairs, and new installation.	<p>The Town of Holden DPW cleans catch basins and sweeps all streets yearly.</p> <p>The Town notifies residents of the street sweeping schedule in the newspaper and on the Town website.</p>	<p>The Town of Holden will continue to implement the Operations and Maintenance (O&M) plan regarding catch basins and street maintenance.</p> <p>The Town will review BMPs for applicable O&M practices.</p>
23	Review storm drainage infrastructure needs	Department of Public Works	Holden will consider storm drain improvements in development of annual road maintenance plan subject to funding from Chapter 90	<p>The Town of Holden DPW performs maintenance to the storm drain infrastructure as needed.</p> <p>Storm drain improvements were not necessary during Permit Year 8.</p>	The Town of Holden DPW will continue to perform maintenance to the storm drain infrastructure as needed.

7. BMPs for Meeting Total Maximum Daily Load (TMDL) waste Load Allocations (WLA) – NOT 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 – Permit Year 9
				No TMDLs in the Town of Holden	

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.

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

Part IV. Summary of Information Collected and Analyzed

The Town has reviewed the local, state and federal bylaws relative to stormwater and aquifer protection, and appears 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 8 Activities and Information

During permit Year 8, the Town continued the development of a town-wide stormwater map that will be used as a basis for illicit discharge detection. Field GPS locations of 145 outfall structures were obtained to identify areas for further investigation, and directional drainage mapping was completed for 100% of the MS4 designated area. Field screening tests were conducted at 74 outfalls in the Spring of 2011 – measuring pH, Temperature, Specific Conductance and Turbidity of the effluent waters. Additional Water Quality samples were collected from 33 outfalls for laboratory analysis of E.Coli, Surfactants, Chlorine, and Ammonia Nitrogen.

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.