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**Municipality/Organization:** Town of Shirley, Massachusetts

**EPA NPDES Permit Number:** MA041221

**MaDEP Transmittal Number:** W-041141

APR 25 2011

**Annual Report Number  
& Reporting Period:** No. 3: March 10-April 30 2011

## NPDES PII Small MS4 General Permit Annual Report

### Part I. General Information

**Contact Person:** David Berry

**Title:** Town Administrator

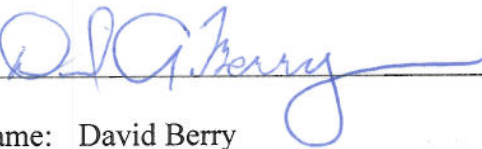
**Telephone #:** 978-426-2600 x 121

**Email:** dberry@shirley-ma.gov

### 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 Berry

**Title:** Town Administrator

**Date:** April 30, 2011

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

The Town continues to make progress in implementing the BMP's set forth in our NPDES-II Permit.

From a stormwater perspective the Town of Shirley is fortunate to be a very small, rural community with little commercial or industrial property, few formal stormwater management systems, and very few pollution problems. We are equally lucky to have a conscientious population that is dedicated to preserving our environment, minimizing pollution discharges, participate in recycling, adoption of reasonable and fair bylaws for land use planning, and preservation of open space.

Overall, the town has continued to make a more than fair effort in achieving the BMP's targeted under our General Permit. The Town will continue to do its best to carry out all of the low cost or volunteer BMP's, and continue to make use of even better good housekeeping practices within our municipal departments, and continue to spread the word to the community at large of the importance of NPDES-II on their community.

The town's Storm water bylaw, which passed unanimously at the Spring - 2008 Special Town Meeting, was approved by the State Attorney General June 12, 2008.

Though administratively and financially difficult, the Town has set in place some of the basic logistical platforms on which to base its Public Education and Public Participation BMP's. The Town's Conservation Administrator continued to work with public school teachers in expanding the science and geography lesson plans as well as offering our services as teacher aids for the stormwater science elements. Classes in waste prevention, water cycle, resource management and habitat values to various elementary school science classes were presented. The elementary school has continued studying the brook they adopted last year. The school also continues to hold a storm water poster contest.

The town has continued to spread the word to the community at large of the importance of NPDES-II on their community through the public hearing process, and implementation of strict site plan review process. Posters, leaflets, and demonstration videos are available at both the Town Hall and at the DPW headquarters.

The Town's DPW continues to be a very instrumental participant in various good housekeeping practices. They employ multiple-time-per-year street sweepings, catch basin cleaning, contained equipment washing, and contained storage of salt and new and waste petroleum products. The DPW continues to employ more responsible irrigation, fertilization, and pest management practices. They have also reduced their application of road salt and road sand in winter months, when possible. Lastly, the Shirley DPW continues to train with their DPW colleagues in abutting communities regarding better good housekeeping practices and maintenance of structural BMP's.

We will continue to strive toward achieving success in all of our BMP's. We will at least make every effort towards maintenance of our clean local and regional environs.

### 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 6 (Reliance on non-municipal partners indicated, if any)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Planned Activities – Beyond Permit Year 6                                                                                                                                                                                                                                              |
|----------|------------------------|-------------------------------|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PE-1     | Distribute SW Brochure | DPW/Paul Farrar               | Y1-Y6: Distribute one flyer in local newspaper | <p>Targeted for any year during years 1 to 6. Have continued gathering and compiling information to improved flyer content. Used outline info from other communities in this effort Again desktop published two brochures, one pertaining to Construction Protection Measures, and One pertaining to general “citizen awareness” for stormwater issues. Have also printed copies of EPA brochures that are available online. Made all of these flyers available at Town Hall, DPW, and Library. Issued Construction Flyers to all construction permit holders. As in Y1, Y2, Y3, Y4 and Y5 continued to seek out funding for broader publication. However, we feel that we are accessing the significant population with current measures.</p> | <p>Continue with making the brochures available at Town Hall, DPW, and Library. Continue with information gathering to enhance or otherwise freshen-up our brochures. Continue to seek funding partner, publish, and distribute brochure on a wider basis when funding is secured.</p> |

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| PE-2 | Feature SW info an annual town events.    | Conservation/ Commission/ Judith Kalloch-Getman | Y1: Create or obtain SW brochures or info, solicit sponsors.<br>Y2: Feature SW info at Cons-Comm. booth at annual hoedown.<br>Y3-Y6: Continue providing SW info. | Have continued gathering and compiling information to improve flyer content. Desktop Published two brochures, one pertaining to Construction Protection Measures, and One pertaining to general "citizen awareness" for stormwater issues. Also made available EPA brochures from the EPA website. Made these flyers available at Town Hall, DPW, and Library. Issued Construction Flyers to all construction permit holders.<br>Hoedown was resurrected again this year. Stormwater brochures were made available at the Conservation Commission's booth at the hoedown. As in Y1, Y2, Y3, Y4 and Y5 continued to seek out funding for broader publication. However, we feel that we are accessing the significant population with current measures. Made brochures available at information table at annual Town Meeting.<br>Frequently broadcast the educational video "REINING IN THE STORM" on local community access television. | Assuming the Hoedown takes place in coming years, stormwater brochures will be made available at the Conservation Commission's booth at the Hoedown. Will also seek to identify any other public display opportunities and will continue development of our own information brochure. We will continue to place brochures on information table for public to pick up at annual Town Meeting. |
| PE-3 | Provide SW information at Town buildings. | Selectman's Office / David Berry                | Y1: Obtain materials<br>Y2: Provide info<br>Y3-Y6: Maintain and update info.                                                                                     | Desktop Published two brochures, one pertaining to Construction Protection Measures, and One pertaining to general "citizen awareness" for stormwater issues. Also made available EPA brochures from the EPA website Made these flyers available at Town Hall, DPW, and Library. Issued Construction Flyers to all construction permit holders.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | We will continue with the same practices as years 1, 2, 3, 4, 5 and 6 and will continue to seek out and secure funding to publish hand-out the town's own information brochure.                                                                                                                                                                                                              |

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| PE-4 | Storm water Webpage | Technology Committee / David Berry | Y1: Develop webpage content. Research logistics.<br>Y3: Have webpage up and running.<br>Y4: Add "feedback" component.<br>Y6: Update webpage. | Maintained and expanded partnering relationship with Board of Health, Sewer Commission, Conservation Commission, and Planning Board offices and the DPW to identify info to include in our future webpage. New Storm water Bylaw available on line via the Town's website. | Continue with completing logistical needs. Finalize web page content by working with Board of Health, Sewer Commission Cons Comm., Planning Board, and DPW |
| PE-6 | Storm water Hotline | DPW/Paul Farrar                    | Y1: Install hotline, mention in flyer.<br>Y2-Y6: Maintain Hotline.                                                                           | Have continued to accept reports and answer questions via most municipal departmental lines. This has proven to be very functional and will continue.                                                                                                                      | Continue to accept "hotline" reports at Planning, Cons Comm., and DPW offices.                                                                             |

## 2. Public Involvement and Participation

| BMP ID # | BMP Description                       | Responsible Dept./Person Name                   | Measurable Goal(s)                                                         | Progress on Goal(s) – Permit Year 6 (Reliance on non-municipal partners indicated, if any)                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Planned Activities – Beyond Permit Year 6                                         |
|----------|---------------------------------------|-------------------------------------------------|----------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| PP-1     | Partner/Support Local Watershed Group | Conservation Commission / Judith Kalloch-Getman | Y1: Support Nashua River Watershed Association<br>Y2:-Y6: Maintain Support | Various Commission members continue to maintain active participation in NRWA by attending meetings and participating in watershed events. Three town officials and NRWA members attended a field trip to UNH's Stormwater Research Center in Durham, NH. Town officials also participated in a NRWA joint task-force in addressing local issues in development of Stormwater Bylaws within NRWA membership area. Commission member(s) and other town staff members remain actively involved with NRWA, MACC, MSMCP, and Mass Audubon, and Trustees of the Reservation. | Maintain continued participation with NRWA and other environmental organizations. |

| PP-2 | Poster Contest | School<br>Department /<br>Superintendent | Y2: Develop concept,<br>approach, educators<br>and potential sponsors.<br>Y3: Pilot poster<br>contest in one grade.<br>Y4&Y6: Modify and<br>continue contest. | The Town's Conservation and DPW<br>have continued to work with public<br>school teachers in expanding the<br>science and geography lesson plans.<br>Services as teacher aids for the<br>stormwater science elements have also<br>been expanded and classes in waste<br>prevention, water cycling, resource<br>management and habitat values have<br>been taught. These efforts have resulted<br>in the elementary school adopting a<br>local brook which they study, clean,<br>and "maintain as a hands-on learning<br>experience". The once coolly received<br>poster contest has finally evolved into a<br>new-found appreciation for the<br>"stormwater science", which has<br>directly resulted in the first school<br>stormwater poster contest. The contest<br>was open to all grade 4 elementary<br>school classes. Based upon the large<br>number of participants, and quality of<br>posters received, it is clear that the<br>youth of our town have a very good<br>understanding of the importance of<br>stormwater issues and what they can do<br>to protect their water quality heritage. | Will continue with the successes that<br>were established over the last few<br>years. Will identify potential<br>sponsors and attempt securing<br>funding for prizes for future contests. |
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| PP-3 | Storm Drain Stenciling Program              | DPW / Paul Farrar                | <p>Y1: Outline Program; identify labor pool (scouts, inmates).</p> <p>Y2: Obtain stencils, develop plan and approach.</p> <p>Y3: Stencil 26% of catch basins.</p> <p>Y4: Stencil additional 40% of catch basins.</p> <p>Y5: Stencil remaining 36% of catch basins</p> <p>Y6: Restencil any markings that have faded</p> | <p>This program has been so successful, we will now start the process again and redo any faded stencils</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <p>Identify other individual and group volunteers whom can pick up on this program so that it remains effective over next and future years. Enhance identification program to include signage (or otherwise labeling of stream crossings along town roads. Establish a schedule were existing stencil markings are refresher periodically so that they remain legible.</p> |
| PP-4 | Incorporate SW message into public meetings | Town Administrator / David Berry | <p>Y1: Identify / target meetings and develop message content, discuss SW at one public meeting.</p> <p>Y2-Y6: Discuss SW at 2 public meetings</p>                                                                                                                                                                      | <p>Stormwater management was again discussed part and parcel with most Planning Board, Bylaw Review Committee, and Conservation Commission meetings included discussions on Stormwater Management as it pertains to impact protection by use of construction BMPs and specific conditions imposed under the authority of each board or commissions' issued permits. Stormwater management was specifically discussed before the Town's Bylaw Review Committee in debating the provisions that were proposed to be included in the Stormwater Bylaw. Two stormwater public hearings were conducted, and a warrant article for the stormwater bylaw was also acted upon at Town Meeting. Periodically broadcast the educational video "REINING IN THE STORM" on local community access television.</p> | <p>Continue to press the message on the importance of effective Stormwater Management through Bylaw development and continue to develop forums where this message can be heard by the public.</p> <p>Continue to periodically air "REINING IN THE STORM" on local community access television.</p>                                                                         |

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| PP-6 | Pet waste Control     | DPW / Paul Farrar                | <p>Y1: Develop approach and discuss with staff (exclude farm land due to BOH manure management plan in place)</p> <p>Y2: Begin visual inspections of open areas, keep record of findings.</p> <p>Y3: Evaluate contamination threat based upon inspection results and drainage system layout.</p> <p>Y4: Evaluate need for "Pooper Scooper Bylaw".</p> <p>Y6: If needed, post and enforce Bylaw, reduce amount of waste to maximum amount practicable.</p> | <p>Continued in formulation of control approach via discussions with BOH members, pet owners (found walking their dogs on public property), and municipal lawn mowing staff (whom see the waste remnants firsthand), Recreation Commission, and Fields Committee.</p> <p>Recreation Commission, and Fields Committee continue to enforce rules and regulations prohibiting unleashed pets and requiring pick-up and removal of pet wastes.</p> <p>Continued field visual inspections with consideration of threat by drainage proximity. This effort has determined that there is little to no problem with disposal of pet wastes in areas of stormwater collection and/or runoff.</p> <p>These measures put us far ahead of schedule in this BMP.</p> | Continue with success of work thus far achieved. Continue to enforce the Pet Waste Bylaw and the Recreation and Fields Rules and Regulations. |
| PP-6 | Storm Water Committee | Town Administrator / David Berry | <p>Y1: Define mission statement, identify members.</p> <p>Y2-Y6 Meet regularly</p>                                                                                                                                                                                                                                                                                                                                                                        | <p>Target membership and ex-officio staff members have been identified. Citizen appointments to the Committee have been made. The Committee is now formally adopted by local authority. The Committee, staff members and concerned citizen group members have met frequently (at least bi-weekly) over the past year. A Stormwater Bylaw was presented at two Public Hearings and was passed at the spring Special Town Meeting.</p>                                                                                                                                                                                                                                                                                                                    | Formal Stormwater Committee will continue to meet regularly.                                                                                  |

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| PP-7 | Implement Stormwater Clean-up Day | Town Administrator / David Berry | Y1: Review Clean-up Day practices<br>Y2: Identify compatible stormwater goals<br>Y3-Y6: Have one stormwater clean-up day. | Continued to undertake "Clean-up Day" with staff and partnered with two local corporations (Phoenix Park, and Bernis). Organized two formal clean-up days, on in late summer and one in mid spring. Also promoted Earth Day Clean-up through schools, Cub Scouts, Boy Scouts, and Girl Scouts. Developed daily "team litter pick-up" with local youth baseball, soccer, and football programs. Made use of Mass. Department of Corrections (MCI) inmates on a frequent basis to conduct roadside clean-up across town. | Will continue to perform Clean-up days at least once annually. Will continue to partner with local business community, and will continue to make use of MCI prison work crew. |
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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 6<br>(Reliance on non-municipal partners indicated, if any) | Planned Activities – Beyond Permit Year 6 |
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| ID-1 | Drainage Mapping | DPW/Paul Farrar | <p>Y1: Develop mapping strategy, and inventory existing plans, determine town wide GIS support, begin outfall locating in critical areas (historic properties and critical habitats)</p> <p>Y2: Locate 30% of outfalls, select mapping format.</p> <p>Y3: Locate additional 36 % of outfalls.</p> <p>Y4: Continue mapping, locate remaining 36% of outfalls.</p> <p>Y6: Complete drainage map.</p> | <p>Mapping strategy developed. Inventory of existing documents (plans and maps) made. Expanded the town's GPS (not a full-blown GIS) mapping capabilities and linked to an active catch basin database as an effective mapping tool. Identifying all large outfalls. Selected a mapping format and refined a mapping strategy and protocol. Expand mapping to complete what we believe to be all of the total outfalls. Located approximately 90% of what were suspected outfalls. The difference in percentage is likely attributed to the fact that some of the suspected outfalls do not actually exist.</p> | <p>Continue to look for new, or unknown, outfalls. Continue to inspect outfall locations for evidence of illicit connection problems. (To date no visual signs of illicit connection problems have been detected). Maintain drainage Outfall Map.</p> |
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| ID-2 | Implement Illicit Discharge Bylaw | Bylaw Committee / Paul Farrar | <p>Y1: Form Committee, research Phase II requirements and compare to existing Town regulations.</p> <p>Y2: Develop Bylaw or modify existing one.</p> <p>Y3: Present Bylaw at Town Meeting</p> <p>Y4: Implement and enforce bylaw.</p> <p>Y6: Review effectiveness of bylaw.</p> |  |  | <p>Stormwater committee fully established and met at least bi-weekly. Illicit discharge NPDES-II requirements have been reviewed. Town has obtained a number of bylaws from other communities similar in size and makeup as Shirley. The Town has also obtained copies of a number of model bylaws. The committee has incorporated various provisions of these documents into a final draft for our Illicit Discharge Bylaw. During this process it became evident that issues regarding illicit discharges were already fairly well addressed within the Town's Sewer Commission Bylaw and Rules and Regulations. The Sewer Commission's established bylaw provides for an Industrial Pretreatment Program serving commercial and industrial sewer users and speaks to identification and control of illicit discharges.</p> | <p>Formal Stormwater Committee will continue to meet regularly. The committee will work to either expand the Sewer Commission Bylaw to more completely address illicit discharges, or will work to complete a stand alone Bylaw that does not detract from the provisions covered under the Sewer Commission's prevue.</p> |
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| ID-3 | Eliminate Illicit Discharges                 | DPW                           | <p>Y1: Develop Illicit Discharge Detection and Elimination plan</p> <p>Y2: Investigate potential problem areas</p> <p>Y3: Identify sources of illicit discharges; notify owners of their legal requirement to eliminate.</p> <p>Y4: Conduct follow-up inspections, take legal action if necessary.</p> <p>Y6: Continue to identify and eliminate illicit discharges.</p> | <p>Have continued to make progress on this BMP. Sewer Commission regulates and administers its industrial pretreatment program (IPP). We continue to be satisfied with our overall determination that little problem exists with regard to illicit discharges in town. Outfall inspections during wet and dry weather support this claim.</p> <p>Continue to carryout a stringent inspection protocol for new subdivision, and commercial/industrial construction projects.</p> <p>The town has only recently seen its first municipal sewer system come on line. In this regard, the Board of Health and Sewer Commission continues its comprehensive strategy for identifying plumbing, and septic outfalls and connection (and separation) of those to the new sanitary sewer system.</p> | <p>Will continue to carry out Illicit Discharge Detection and Elimination plan. Will continue with the evaluation and investigation of potential problem areas through cooperative efforts with the Sewer Commission.</p> |
| ID-4 | Educate public regarding illicit discharges. | David Berry/own Administrator | <p>Y2: Incorporate illicit discharge information into PE BMP's</p> <p>Y3: Notify public of upcoming Bylaw vote.</p> <p>Y4: Notify public of upcoming Bylaw enactment.</p>                                                                                                                                                                                                | <p>Debated validity and importance of Stormwater impacts caused by illicit discharges at numerous public meetings and hearings.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <p>Will continue to keep public apprised of bylaw development activities.</p>                                                                                                                                             |

#### 4. Construction Site Stormwater Runoff Control

| BMP<br>D # | BMP Description                                    | Responsible<br>Dept./Person<br>Name | Measurable Goal(s)                                                                                                                                                                                                                                                                                                              | Progress on Goal(s) –<br>Permit Year 6<br>(Reliance on non-municipal partners<br>indicated, if any)                                                                                                                                                                                                                                                                        | Planned Activities –<br>Beyond Permit Year 6                                                                                                                                                                                                        |
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| CS-1       | Implement Erosion and Sedimentation Control Bylaw. | Bylaw Committee /                   | Y3: Assess current erosion and sediment control measure regulations with respect to NPDES-II<br>Y4: Modify existing subdivision regulations and/or develop and add Erosion and Sediment Control Bylaw. Create sanctions for non-compliance with Erosion and Sediment Control Bylaw and site requirements.<br>Y6: Enforce Bylaw. | Finalized development of Erosion and Sediment Control Bylaw. Bylaw was Approval by the Attorney General's Office<br><br>Continued with an aggressive inspection protocol for new subdivision, and commercial/industrial construction projects. Issued sanctions to at least two large developers for non-compliance with Erosion and Sediment Control permit requirements. | Formal Stormwater Committee will continue to meet regularly. The new bylaw will be enforced upon approval of the Attorney General. Will continue with aggressive inspections for new subdivisions, and commercial/industrial construction projects. |

| CS-2 | Site Plan Review | Planning Board | <p>Y1: Review existing site plan review procedures against NPDES-II requirements.</p> <p>Y3: Enhance or expand site plan review procedures to require waste control and to include construction site operators to implement and erosion and sedimentation control program, which includes appropriate BMP's</p> <p>Y4: Implement enhanced site plan review.</p> <p>Y6: Continue site plan reviews according to the new Erosion and Sedimentation Control Bylaw.</p> | <p>Continue to follow the Town's formal site plan review procedure and bylaw. Site plans were reviewed for applicability under NPDES-II by a combination of the DPW Director and/or the town's third-party review consultant(s).</p> | <p>Continue to follow formal site plan review procedure and bylaw that it now in place.</p> |
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| CS-3 | Site Inspection and Enforcement                         | Building Inspector / Butch Farrar | Y3: Add construction site runoff control measures to building inspector protocol<br>Y4: Implement inspection for runoff control measures and site waste control.<br>Y6: Review inspection guidelines and enhance if necessary. | Continued with an aggressive inspection protocol (one formal the second informal) for all of the construction sites in town. Provided outreach and council to contractors relative to improved use of construction BMP's. Issued a number of enforcement orders against contractors and developers for violations to erosion control procedures.                                                                                                                                                                                                                   | Continue to conduct inspections, provide outreach and guidance, and continue with enforcement as necessary and appropriate.                                                             |
| CS-4 | Solicit and record public comments regarding stormwater | Stormwater Committee              | Y1-Y2: Continue existing public hearing process to allow for public comments. Incorporate construction site concerns into PE-BMP.<br>Y3-Y6: Use hotline established in PE-6 to receive and record public comments.             | Public hearing processes for "land planning applications" have been conducted during every one of the last six years. Hearings and meetings regarding zoning, conservation, and land use issues almost always contained some element of storm water management. The feedback obtained during these hearings indicates that stormwater flooding, and water quality issues continue to be important issues to the townspeople.<br><br>Many of the issues and concerns that were raised during the various hearings have been included in the final stormwater bylaw. | Will continue to track any need for evaluation and/or changes to provisions of the bylaw, rules, and/or regulations. Will continue to conduct public hearings and meetings accordingly. |

## 6. Post-Construction Storm water Management in New Development and Redevelopment

| BMP ID # | BMP Description                                       | Responsible Dept./Person Name | Measurable Goal(s)                                                                                                                                                                                | Progress on Goal(s) – Permit Year 6 (Reliance on non-municipal partners indicated, if any)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Planned Activities – Beyond Permit Year 6                                                                                                                                                    |
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| PC-1     | Evaluate, enhance, and implement zoning requirements. | Zoning Board                  | Y2: Evaluate current zoning bylaws to determine sufficiency relative to surface water preservation. Y4: Enhance existing (or develop new) zoning bylaws focused on surface water preservation.    | Continued (ongoing by seated bylaw review committee of the town) with a comprehensive evaluation of current zoning and land use bylaws and determined that they were relatively sufficient pertaining to surface water preservation. One of the tasks charged to the Bylaw Review Committee is to make all land use bylaws consistent with each other and to clearly define which board or commission has jurisdiction and authority of certain land planning matters. This task has specifically and formally shifted land disturbance and erosion protection to the Planning Board, and at the same time allowed for overlapping authority when land disturbance activities are planned within jurisdictional areas of the Wetlands Protection Act and Local Wetland Bylaw. | Will continue to evaluate current bylaws to determine sufficiency as they directly relate to surface water preservation<br><br>Formal Storm water Committee will continue to meet regularly. |
| PC-2     | Implement Stormwater Regulations.                     | Stormwater Committee          | Y1: Review current subdivision regulations relative to NPDES-II requirements<br>Y3: Evaluate adopting MA DEP Stormwater Management Standards 2, 3, 4, 5 and 7 into local subdivision regulations. | Approved by Attorney Generals office June 2008.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Will continue to include all storm water standards in conservation and planning review.                                                                                                      |

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| PC-3 | Develop and review inspection procedures for commercial and residential drainage systems / structural BMP's | DPW / Paul Farrar | Y3: Inventory and review current maintenance procedures for private systems.<br>Y4: Develop plan, procedure, and authority for inspections. Determine O&M requirements for structural BMP's.<br>Y6: Implement inspection plan. | This Y3 BMP was first initiated by DPW in Y1, and was continued through all six years of the program. The DPW has moved towards full implementation of these procedures by increased frequency of municipal maintenance while trying to minimize the financial burden brought on by new private systems coming on line.<br><br>The new Bylaw has provisions for requiring and funding ongoing operations and maintenance and inspections at the sole cost of the system operator. | Will continue to identify, and verify all of the private storm water facilities in town. Will begin to track what O&M procedures are used at those private facilities. Upon receipt of the Attorney General's approval of the Storm water Bylaw, will implement annual reporting mechanism, gathering of data, and compliance tracking from the private system operators to the town. |
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## 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 6 (Reliance on non-municipal partners indicated, if any)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Planned Activities – Beyond Permit Year 6                                                                                                                                                                                                                                                    |
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| GH-1     | Operation and Maintenance Program. | DPW / Paul Farrar             | Y1-Y2: Inventory maintenance activities, identify potential pollutant runoff, and continue current drain system and street maintenance.<br>Y3: Identify means of reducing potential pollutant runoff, implement reductions.<br>Y4: Evaluate current drain system maintenance routine, develop schedule, identify improvements or refinements<br>Y6: Reduce pollutant runoff potential. | <p>Continued to maintain inventory of much of the town's O&amp;M activities which include: CB and detention pond cleaning, grate cleaning, headwall maintenance, street sweeping, winter sand and salt storage, vehicle washing, fleet maintenance, turf management, and floor drain liquid collection.</p> <p>Used the completed inventory of the town's O&amp;M activities and evaluated each activity for potential for pollutant runoff.</p> <p>We continued to make progress in developing various means reducing potential pollutant runoff, implement reductions.</p> <p>Achieved a measurable reduction in use of winter road sand as a way to minimize TSS loads.</p> <p>Implemented a stringent "pre-wetting" protocol as a way to increase salt melting efficiency and therefore reduce salt application total tonnage. Salt reduction is difficult to measure since there are a great many factors affecting this item. However, we have worked with the Water Department's water quality statistics which indicate that there has been a continuing trend of lowering sodium content in the sampled town wells.</p> <p>Continued with the program of roadway shoulder cleaning and litter picking as they are proven to beneficial water quality. Continued with town-wide roadway litter pick project twice during this year with use of MCI inmates.</p> <p>Continued with the program of fortifying soft roadway shoulders with stone and/or rip rap and installed treatment swales and sumps as a roadway erosion control BMP's.</p> | <p>Will continue with roadside litter and trash picking projects. Will likely continue with a roadway shoulder cleaning and grading project BMP.</p> <p>Additionally, the town will seek to identify an effective means of controlling damage and pollution caused by beaver activities.</p> |

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| GH-2 | Employee Training Program.                                        | DPW             | <p>Y2: Develop training program.</p> <p>Y3-Y6: Hold one Good Housekeeping Workshop per year at the DPW facility.</p>                                                                                                                                                                                                                              | <p>The town has developed and continued to participate in a training regime that includes partnered inter-municipal training with our neighboring towns.</p> <p>Seven years ago we developed an inter-municipal joint training consortium between our neighboring DPW's in Devens, Ayer, Lancaster, Groton, and Harvard. We continue to conduct joint training exercises for all DWP activities, many of which address matters of water quality.</p>                                                                                                                                                                                                                                  | <p>Will continue to work within the partnered inter-municipal joint training consortium between our neighboring DPW's in Devens, Ayer, Lancaster, Groton, and Harvard. Will continue to develop new training missions that continue to focus upon good (and safe) use of BMPs and their effect on minimizing the potential for release of polluted runoff.</p> |
| GH-3 | Implement Household Hazardous Waste / Appliance Recycling Program | Board of Health | <p>Y1: Assess town's current recycling program and identify all illegal dumping problem areas.</p> <p>Y2: Incorporate illegal dumping area clean-up effort as part of existing current annual clean-up.</p> <p>Y3: Implement / enhance town's recycling program.</p> <p>Y4: Implement neighborhood watch program in areas of illegal dumping.</p> | <p>During each of the past six years the town has continued to assess the town's existing recycling, and hazardous waste collection programs. We have assessed and catalogued areas of town where covert illicit dumping has been an occasional and/or recurring problem. We remain happy to report that there continues to be little problem in town regarding illegal dumping. Roadside and public areas where dumping is found is picked-up by DPW forces and /or the MCI inmate community work crew programs.</p> <p>This past year the Board of Health has twice partnered with Devens / Mass Development in conducting a regional Household Hazardous Waste Collection Day.</p> | <p>Will continue to track covert and illicit waste dumping areas. Will organize a volunteer effort to establish a clean-up day to begin to address these areas.</p> <p>Will continue to promote and participate in Household Hazardous Waste Collection program.</p>                                                                                           |

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 6 (Reliance on non-municipal partners indicated, if any)                                                                                                                                                                                                                                                                                                                        | Planned Activities – Beyond Permit Year 6                                                                                                                                                                                                                                                |
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| TMDL-1   | Check current impairment lists | Stormwater Committee          | Y1-Y6: Reference current 303(d) water impairment lists for new TMDL's for water bodies into which Shirley stormwater outfalls directly or indirectly. | As in Y1, Y2, and Y3 the town has again referred to the applicable 303(d) impairment listing located at the US-EPA Website.<br><br>Relative to the Nashua River, Squannacook River, Lake Shirley, and Catacunemaug Brook we have noted that no changes in TMDL for these water bodies were report in the past year. This is similar in that no changes were reported over the same period of the last prior year. | We will continue to reference the applicable 303(d) impairment listing relative to the Nashua River, Squannacook River, Lake Shirley, and Catacunemaug Brook.<br><br>We will continue to note any changes in TMDL for these water bodies and adjust the deployment of BMP's accordingly. |