

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

**EPA NPDES Permit Number:** MA041221

**MaDEP Transmittal Number:** W-041141

**Annual Report Number  
& Reporting Period:** No. 3: March 06-March 07

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## NPDES PII Small MS4 General Permit Annual Report

### Part I. General Information

**Contact Person:** Joseph W. Lynch **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:** 

**Printed Name:** Joseph W. Lynch

**Title:** Director of Public Works

**Date:** April 21, 2007

## **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. The Town is committed to and has over the past four years carried out the vast majority of the BMP's described in our General Permit. 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 for the first four years and set forth in 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 has historically been receptive to reasonable and fair land planning bylaws. In fact the town has in place a controlled growth bylaw that limits new housing starts per year, which thus minimizes exposure to construction runoff discharges. Two years ago the Planning Board adopted a Site Plan Approval Bylaw, and the Conservation Commission was successful in passage of a strict re-write of its local Conservation Bylaw. The Town also enacted a pet waste bylaw, and implemented a comprehensive industrial pretreatment provision of its Sewer Commission Bylaw. Passage of all of these bylaws was possible only through the diligent work in fostering credibility of the NPDES-II provisions.

This past year the Stormwater Committee has crafted language for its proposed Stormwater Management Bylaw. During the summer of 2006, the draft bylaw was formally discussed with the Town's Bylaw Review Committee (a standing committee for all of the town bylaws). The draft stormwater bylaw language passed initial muster with the Bylaw Review Committee and the matter referred back to Stormwater Committee. The Stormwater Committee met weekly for the purpose of hammering out the final language of the bylaw. Public Hearings will be conducted during the winter and early spring months of 2007, and the goal is to put the final version of the Stormwater Management Bylaw before Town Meeting in June Of 2007.

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. During 2006 the School Department has eliminated teaching and staff positions and the Middle School (the target school for stormwater education) has had three principals in 2½ years. However, a review of the elementary school curriculum revealed that stormwater education was already an element of the existing fourth and fifth grade curricula. The Town's Conservation Administrator and I have worked with the school teachers in expanding the lesson plan as well as offering our services as teacher aids for the stormwater science elements. Both the Conservation Administrator and I have taught classes in waste prevention, water cycle, resource management and habitat values to various elementary school science classes. This contact has resulted in the elementary school adopting a local brook which they study, clean, and maintain as a hands-on learning experience. It is our hope that the planned poster contest will evolve from this dynamic.

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 (not fewer than two and this past 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 in winter months; a practice that has been improving over each of the past four years. 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**

<b>BMP ID #</b>	<b>BMP Description</b>	<b>Responsible Dept./Person Name</b>	<b>Measurable Goal(s)</b>	<b>Progress on Goal(s) – Permit Year 4</b> (Reliance on non-municipal partners indicated, if any)	<b>Planned Activities – Permit Year 5</b>
PE-1	Distribute SW Brochure	DPW/Joseph Lynch	Y1-Y5: Distribute one flyer in local newspaper	Targeted for any year during years 1 to 5. 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. Made these flyers available at Town Hall, DPW, and Library. Issued Construction Flyers to all construction permit holders. As in Y1,Y2, and Y3 continued to seek out funding for broader publication. However, we feel that we are accessing the significant population with current measures.	Continue with making the two 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.

PE-2	Feature SW info an annual town events.	Conservation Commission/ Anne Gagnon	Y1: Create or obtain SW brochures or info, solicit sponsors. Y2: Feature SW info at Cons-Comm. booth at annual hoedown. Y3-Y5: 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. Made these flyers available at Town Hall, DPW, and Library. Issued Construction Flyers to all construction permit holders. As in Y1, Y2, and Y3 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. Frequently broadcast the educational video "REINING IN THE STORM" on local community access television.	Hoedown has been canceled indefinitely due to lack of community interest. The Town will 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 / Kyle Keady	Y1: Obtain materials Y2: Provide info Y3-Y5: Maintain and update info.	Desktop Published two brochures, one pertaining to Construction Protection Measures, and One pertaining to general "citizen awareness" for stormwater issues. 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, and 4 and will continue to seek out and secure funding to publish hand-out the town's own information brochure.
PE-4	Stormwater Webpage	Technology Committee / Kyle Keady	Y1: Develop webpage content. Research logistics. Y3: Have webpage up and running. Y4: Add "feedback" component. Y5: 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. Developed DPW remote network link to Shirley main-site. Developed webpage design with local citizen expert and volunteer.	Continue with completing logistical needs. Finalize web page content by working with Board of Health, Sewer Commission Cons Comm., Planning Board, and DPW. Have web page up and running by early Y5.

PE-5	Stormwater Hotline	DPW/Joseph Lynch	Y1: Install hotline, mention in flyer. Y2-Y5: Maintain Hotline.	A dedicated telephone line for Stormwater Hotline has not yet been secured. Have continued in our attempts to seek out and secure funding to establish hotline and to publish and distribute flyer. However, continued to not attain success in this goal. Have continued to accept reports and answer questions via most municipal departmental lines. This stop-gap measure has proven to be functional and will continue until permanent hotline is established.	Will continue to seek out funding to publish and distribute flyer so that mention of Hotline can be made available. Will continue our effort to establish a dedicated hotline, and will continue to accept "hotline" reports at Planning, Cons Comm., and DPW offices.
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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 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
PP-1	Partner/Support Local Watershed Group	Conservation Commission / Anne Gagnon	Y1: Support Nashua River Watershed Association Y2:-Y5: Maintain Support	Various Commission members continue to maintain active participation in NRWA by attending meetings and participating in watershed events. 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 Department / Superintendent	Y2: Develop concept, approach, educators and potential sponsors. Y3: Pilot poster contest in one grade. Y4&Y5: Modify and continue contest.	A review of the elementary school curriculum revealed that stormwater education was already an element of the existing fourth and fifth grade curricula. The Town’s Conservation Administrator and I have worked with the school teachers in expanding the lesson plan as well as offering our services as teacher aids for the stormwater science elements. Both the Conservation Administrator and I have taught classes in waste prevention, water cycle, resource management and habitat values to various elementary school science classes. This contact has resulted in the elementary school adopting a local brook which they study, clean, and maintain as a hands-on learning experience. It is our hope that the planned poster contest will evolve from this dynamic.	Will identify potential sponsors and attempt securing funding. Will undertake pilot poster contest within the educational constraints of the School Department curriculum.

PP-3	Storm Drain Stenciling Program	DPW / Joseph Lynch	<p>Y1: Outline Program; identify labor pool (scouts, inmates).  Y2: Obtain stencils, develop plan and approach.  Y3: Stencil 25% of catch basins.  Y4: Stencil additional 40% of catch basins.  Y5: Stencil remaining 35% of catch basins</p>	<p>In Y1 and Y2 two Eagle Scout candidates undertook a catch basin program. These programs inventoried all basins in the “area north of Hazen Road and south of Great Road”, designed stencil, and painted basins along with their volunteer teams. The effort of these two scouts has resulted in approximately 80% of the town’s basins being stenciled, which puts the town far ahead of its fourth year goal.</p>	<p>Identify what other volunteers and groups 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.</p>
PP-4	Incorporate SW message into public meetings	Town Administrator / Kyle Keady	<p>Y1: Identify / target meetings and develop message content, discuss SW at one public meeting.  Y2-Y5: 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 proposed provisions to be included in the Draft Stormwater Bylaw. Frequently 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>



PP-5	Pet waste Control	DPW / Joseph Lynch	<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>Y5: 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 adopted rules and regulations prohibiting unleashed pets and requiring pick-up and removal of pet wastes in 2005. Town Meeting adopted a new Pet Waste Bylaw in 2006.</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. Enforce new Pest Waste Bylaw and the Recreation and Fields Rules and Regulations.
PP-6	Storm Water Committee	Town Administrator / Kyle Keady	<p>Y1: Define mission statement, identify members.</p> <p>Y2-Y5 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 the staff level to assure that progress is attained and maintained. A draft Stormwater Bylaw has been crafted. Public Hearings have been conducted.</p>	Formal Stormwater Committee will continue to meet regularly. The Bylaw will move forward for (hopeful) adoption at the Annual Town Meeting in June 2007.

PP-7	Implement Stormwater Clean-up Day	Town Administrator / Kyle Keady	<p>Y1: Review Clean-up Day practices</p> <p>Y2: Identify compatible stormwater goals</p> <p>Y3-Y5: Have one stormwater clean-up day.</p>	<p>Continued to undertake "Clean-up Day" with staff and partnered with two local corporations (Phoenix Park, and Bemis). Organized two formal clean-up days, one 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.</p>	<p>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.</p>
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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 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
ID-1	Drainage Mapping	DPW/Joseph Lynch	<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 35 % of outfalls.</p> <p>Y4: Continue mapping, locate remaining 35% of outfalls.</p> <p>Y5: 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 in critical areas. Selected a mapping format and refined a mapping strategy and protocol. Expand mapping of outfalls to complete all critical areas and complete mapping for approximately 60% of the total outfalls. Located approximately 90% of the suspect outfalls. The difference in percentage may be attributed to the fact that some of the suspected outfalls do not actually exist.</p>	<p>Will expand mapping of outfalls to complete all critical areas and complete mapping for the outfalls.</p>

ID-2	Implement Illicit Discharge Bylaw	Bylaw Committee / Joseph Lynch	<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>Y5: Review effectiveness of bylaw.</p>	<p>Bylaw review committee established. 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 own Bylaw. Formal Stormwater Committee continued to meet regularly. The Bylaw went to Public Hearing and came out rather contested. Comments resulting from the public hearing were discussed at the stormwater committee.</p> <p>Sewer Commission established bylaw provision for an Industrial Pretreatment Program serving commercial and industrial sewer users and speaks to control of illicit discharges.</p>	<p>Formal Stormwater Committee will continue to meet regularly. The Bylaw will move forward for (hopeful) adoption at the Annual Town Meeting in June 2007.</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>Y5: Continue to identify and eliminate illicit discharges.</p>	<p>Have made progress on this BMP. Sewer Commission regulates and administers its new industrial pretreatment program (IPP). We continue to be satisfied with our overall determination that little problem exists with regard to illicit discharges in town. This; primarily based upon the fact that all of the former failed septic systems and all of the industrially used properties have been converted from private septic to municipal sewer systems.</p> <p>Have implemented 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 Sewer Commission has developed a comprehensive strategy for identifying plumbing, and septic outfalls and connection (and separation) of those to the new sanitary sewer system.</p> <p>Formal Stormwater Committee continued to meet regularly. The Bylaw, including an entire section dedicated to Illicit Connections, went to Public Hearing and came out rather contested. Comments resulting from the public hearing were discussed at the stormwater committee.</p>	<p>Will complete development of Illicit Discharge Detection and Elimination plan. And will expand evaluation and investigation of potential problem areas through cooperative efforts with the Sewer Commission. Will move forward for (hopeful) adoption of the Stormwater Bylaw (Illicit Connection section included) at the Annual Town Meeting in June 2007.</p>
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ID-4	Educate public regarding illicit discharges.	Kyle Keady / own Administrator	Y2: Incorporate illicit discharge information into PE BMP's Y3: Notify public of upcoming Bylaw vote. Y4: Notify public of upcoming Bylaw enactment.	Debated validity and importance of Stormwater impacts caused by illicit discharges at numerous hearings.	Will continue to keep public apprised of bylaw development activities.
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#### 4. Construction Site Stormwater Runoff Control

BMPI D #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
CS-1	Implement Erosion and Sedimentation Control Bylaw.	Bylaw Committee / Joseph Lynch	Y3: Assess current erosion and sediment control measure regulations with respect to NPDES-II 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. Y5: Enforce Bylaw.	Modified existing subdivision regulations. Continued with development of Erosion and Sediment Control Bylaw.  Implemented and embarked upon an aggressive inspection protocol for new subdivision, and commercial/industrial construction projects. Issued sanctions to large developer for non-compliance with Erosion and Sediment Control permit requirements.  Formal Stormwater Committee continued to meet regularly. The draft Bylaw, including detailed regulatory control over construction disturbances of one acre or more, went to Public Hearing and came out rather contested. Comments resulting from the public hearing were discussed at the stormwater committee.	Formal Stormwater Committee will continue to meet regularly. The Bylaw will move forward for (hopeful) adoption at the Annual Town Meeting in June 2007.

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>Y5: Continue site plan reviews according to the new Erosion and Sedimentation Control Bylaw.</p>	<p>Continue to follow formal site plan review procedure and bylaw that it now in place. 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.</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	Planning Board / Joseph Lynch	<p>Y3: Add construction site runoff control measures to building inspector protocol</p> <p>Y4: Implement inspection for runoff control measures and site waste control.</p> <p>Y5: Review inspection guidelines and enhance if necessary.</p>	<p>Continued with an aggressive inspection protocol (one formal the second informal) for a couple of the more vulnerable construction sites that posed an erosion risk potential. Issued a number of enforcement orders against contractors and developers for violations to erosion control procedures.</p> <p>Implemented a formal "Clerk of the Works" "Environmental Monitor" program at one of the Town's more vulnerable (and non-compliant) construction sites. Actively worked with DEP in assuring (a return to) compliance at this site.</p>	Continue to conduct inspections and enforcement as necessary.
CS-4	Solicit and record public comments regarding stormwater	Stormwater Committee / Joseph Lynch	<p>Y1-Y2: Continue existing public hearing process to allow for public comments. Incorporate construction site concerns into PE-BMP.</p> <p>Y3-Y5: Use hotline established in PE-5 to receive and record public comments.</p>	<p>Many public hearing processes conducted during Y1, Y2, Y3, and Y4 focused on zoning, conservation, and land use issues. The feedback obtained during these hearings indicates that stormwater flooding, and water quality issues continue to be important issues to the townspeople.</p> <p>Many of these issues and concerns that were raised during the various hearings have been included in the final draft of the stormwater bylaw.</p>	Will continue to evaluate bylaw changes and conduct public hearings and meetings accordingly.

## 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 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
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 evaluation of current zoning and land use bylaws and determined that they were relatively sufficient pertaining to surface water preservation.  Made progress and completed a more clearly defined stormwater bylaw in order to preserve water quality with direct respect to NPDES-II. These provisions have been drafted into final draft model bylaw.	Will continue to evaluate current bylaws to determine sufficiency more directly and relative to surface water preservation. Will expand mission to include items learned through CS-4 BMP, above.  Formal Stormwater Committee will continue to meet regularly. The Bylaw will move forward for (hopeful) adoption at the Annual Town Meeting in June 2007.  Will develop and implement rules and regulations to administer new Bylaw.
PC-2	Implement Stormwater Regulations.	Stormwater Committee	Y1: Review current subdivision regulations relative to NPDES-II requirements Y3: Evaluate adopting MA DEP Stormwater Management Standards 2, 3, 4, and 7 into local subdivision regulations.	Incorporated all of the MS DEP Stormwater standards into “boilerplate” order of conditions for Conservation Commission. Included standards 2, 3, 4, and 7 into Planning Board review for all new projects.  Included all of the MS DEP Stormwater standards into final draft Stormwater Bylaw.	Will continue to include standards 2, 3, 4, and 7 in conservation and planning review. Will include these standards along with overall final draft bylaw, and will move towards adoption of MA DEP Stormwater Management Standards 2, 3, 4, and 7 into local bylaw.

PC-3	Develop and review inspection procedures for commercial and residential drainage systems / structural BMP's	DPW / Joseph Lynch	<p>Y3: Inventory and review current maintenance procedures for private systems.</p> <p>Y4: Develop plan, procedure, and authority for inspections. Determine O&amp;M requirements for structural BMP's.</p> <p>Y5: Implement inspection plan.</p>	<p>This Y3 BMP was first initiated by DPW in Y1, and was continued through Y2, Y3, and Y4. DPW moved towards implementation by continuation of the early phase efforts undertaken by mapping out potential policy matters regarding the increased frequency of municipal maintenance burden brought on by new private systems coming on line. DPW has identified which private facilities in town might have private stormwater systems.</p>	<p>Will continue to develop and draft official policies regarding the new private systems that come on line.</p> <p>Will continue to identify, and verify which private facilities in town might have private stormwater systems and begin to ascertain what O&amp;M procedures are used at those facilities. Consider development of a annual reporting mechanism that gathers data and compliance tracking from the private system operators to the town.</p> <p>Will incorporate a formal ongoing O&amp;M requirement and surety requirement within the new Stormwater Bylaw.</p>
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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 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
GH-1	Operation and Maintenance Program.	DPW / Joseph Lynch	<p>Y1-Y2: Inventory maintenance activities, identify potential pollutant runoff, and continue current drain system and street maintenance.</p> <p>Y3: Identify means of reducing potential pollutant runoff, implement reductions.</p> <p>Y4: Evaluate current drain system maintenance routine, develop schedule, identify improvements or refinements</p> <p>Y5: Reduce pollutant runoff potential.</p>	<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 made progress in developing a draft of probability and means for reducing runoff and pollution potential. Continued to identify means of reducing potential pollutant runoff, implement reductions.</p> <p>Determined that roadway shoulder cleaning and litter picking are likely beneficial future programs. Undertook an entire town-wide roadway litter pick project twice during this year with use of MCI inmates.</p> <p>Fortified soft roadway shoulders with stone and/or rip rap and installed treatment swales and sumps as a roadway erosion control BMP’s.</p>	<p>In Y5 the town will complete inventory of the town’s O&amp;M activities and will evaluate each activity for potential for pollutant runoff.</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>

GH-2	Employee Training Program.	DPW	<p>Y2: Develop training program.</p> <p>Y3-Y5: 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>These trainings this year included basin cleaning, detention pond maintenance, equipment wash down, beaver control, and siltation control during dewatering, and roadway shoulder BMP's.</p> <p>We have developed an inter-municipal joint training consortium between our neighboring DPW's in Devens, Ayer, Lancaster, Groton, and Harvard.</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 and more formalized training protocol that focuses 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 Y4, as in Y1, Y2, and Y3, the town has continued to assess the town's existing recycling, and hazardous waste collection programs. Have assessed and catalogue assessed 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>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>>**

<b>BMP ID #</b>	<b>BMP Description</b>	<b>Responsible Dept./Person Name</b>	<b>Measurable Goal(s)</b>	<b>Progress on Goal(s) – Permit Year 4</b> (Reliance on non-municipal partners indicated, if any)	<b>Planned Activities – Permit Year 5</b>
TMDL-1	Check current impairment lists	Stormwater Committee	Y1-Y5: Reference current 303(d) water impairment lists for new TMDL's for water bodies into which Shirley stormwater outfalls directly or indirectly.	<p>As in Y1, Y2, and Y3 the town has again referred to the applicable 303(d) impairment listing located at the US-EPA Website.</p> <p>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.</p> <p>We have sought out assistance in reading, and understanding the information contained in the impairment listing.</p>	<p>We will continue to reference the applicable 303(d) impairment listing relative to the Nashua River, Squannacook River, Lake Shirley, and Catacunemaug Brook.</p> <p>We will continue to note any changes in TMDL for these water bodies and adjust the deployment of BMP's accordingly.</p>