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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: March 24, 2005

Part II. Self-Assessment

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. However, as a small rural community with a very small portion of commercial or industrial tax base we, like many of our contemporary communities, find it extremely difficult to maintain existing levels of service, let alone undertake a great effort in fostering new programs like NPDES-II. Nevertheless, the Town is committed to, and has in year-one 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, I believe the town has made a more than fair effort in achieving the year-one BMP's set forth in our General Permit. We do find it very constraining to have met these permit obligations during the difficult financial times that we have faced over recent years. I fully expect that the financial strain will eventually weight heavily on the undertaking of future year BMP's. In the meantime, the town will continue to do its best to carry out all of the low cost or volunteer BMP's, make use of 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. Contrary to the towns' willingness to pass land planning bylaw, the Conservation Commission sought out a sweeping and strict re-write of its local Conservation Bylaw. It failed by a very large margin at Annual Town Meeting. Unfortunately, many of the bylaw provisions sought out in our NPDES-II BMP's were to be annexed to the Conservation Bylaw. We now have to work even harder to foster credibility of the NPDES-II provisions and separate them from the other more controversial provisions of the Conservation Bylaw. This separation of issues will be difficult for the public to readily grasp and will take a lot of discussion and education to get the point across.

The town has also found it financially difficult to set in place some of the basic logistical platforms on which to base its Public Education and Public Participation BMP's. Reduction in the use of the town department's telephone connections and remote computing networks have all but eliminated the timely implementation of the Stormwater Hotline and Stormwater Web Page. Also, significant cuts in the School Department budget have resulted in elimination of teaching and staff positions and essentially has resulted in the delay in expanding stormwater education into the school system. However, 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. Also, the Town's DPW has always been 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 new and waste petroleum products. Most recently they have employed more responsible irrigation, fertilization, and pest management practices. They have also reduced their application of road salt in winter months.

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 1 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 2
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 started compiling information suitable for inclusion in flyer, development of info outline, reviewed samples from other communities and periodical references. Sought out but was unable to secure funding.	Finalize info gathering and complete outline. Seek funding partner, publish, and distribute brochure.
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 started compiling information suitable for inclusion in our own brochure; developed an info outline. Sought out but was unable to secure funding or sponsorships. Have made available generalized SW info pamphlets obtained at MACC conference. Displayed SW NPDES posters in permit office.	Hoedown has been canceled due to lack of community interest. Will seek to identify other public display opportunity. Will continue development of our own information brochure.
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.	Have identified what SW info is available at Cons Comm. office. Have made referrals of inquiries to Cons Comm. office (located adjacent to Selectman's office)	Continue with same practice as year 1.
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.	Conferred with Cons Comm. office and DPW to identify info to include. Developed DPW remote network link to Shirley main-site. Established hardware needs, and developed purchase schedule for necessary equipment.	Continue with completing logistical needs. Finalize web page content by working with Cons Comm. and DPW.

PE-5	Stormwater Hotline	DPW/Joseph Lynch	Y1: Install hotline, mention in flyer. Y2-Y5: Maintain Hotline.	Sought out but was unable to secure funding to publish and distribute flyer, therefore mention of Hotline not available. Dedicated telephone line for Stormwater Hotline not secured. In fact, budget limitations town-wide have resulted in a net reduction of service phone lines. Researched phone traffic on existing phone lines. Have determined that since low call volume exists at both the DPW and Cons Comm. office that it is reasonable to use each of these lines as Hotline.	Will continue to seek out funding to publish and distribute flyer so that mention of Hotline can be made available.

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 1 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 2
PP-1	Partner/Support Local Watershed Group	Conservation Commission / Anne Gagnon	Y1: Support Nashua River Watershed Association Y2:-Y5: Maintain Support	Various Commission members maintain active participation in NRWA meetings. Commission member(s) actively involved with MACC, and Mass Audubon.	Continue with participation.
PP-2	Poster Contest	School Department / Patricia Stearn	Y2: Develop concept, approach, educators and potential sponsors. Y3: Pilot poster contest in one grade. Y4&Y5: Modify and continue contest.	N/A (not programmed until year 2).	Develop concept, approach, educators and potential sponsors.

PP-3	Storm Drain Stenciling Program	DPW / Joseph Lynch	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	Identified Eagle Scout candidate. Candidate was interested in developing such a program. He inventoried all basins in "area south of Hazen Road", designed stencil, and painted basins along with his volunteer team. His efforts resulted in approximately 50% of the town's basins being stenciled, which puts the town far ahead of its third year goal.	Identify what other volunteers can pick up on this program.
PP-4	Incorporate SW message into public meetings	Exec Secretary / Kyle Keady	Y1: Identify / target meetings and develop message content, discuss SW at one public meeting. Y2-Y5: Discuss SW at 2 public meetings	Stormwater management was discussed part and parcel with the Local Wetlands Bylaw Warrant Article and the Annual Town Meeting. Though there was considerable debate, and an overall appreciation for the concept of SW management there was little support for the bylaw article, which was withdrawn without prejudice before it was taken to vote (which likely would have failed by a very large margin). Many Planning Board, Bylaw Review Committee, and Conservation Commission meetings contained discussions on Stormwater Management. These discussions were productive and informative.	Continue to press the message on the importance of effective Stormwater Management and continue to develop forums where this message can be heard by the public.

PP-5	Pet waste Control	DPW / Joseph Lynch	Y1: Develop approach and discuss with staff (exclude farm land due to BOH manure management plan in place) Y2: Begin visual inspections of open areas, keep record of findings. Y3: Evaluate contamination threat based upon inspection results and drainage system layout. Y4: Evaluate need for "Pooper Scooper Bylaw". Y5: If needed, post and enforce Bylaw, reduce amount of waste to maximum amount practicable.	Begun to formulate control approach via discussions with BOH members, pet owner (found walking their dogs on public property), and lawn mowing staff (whom see the waste remnants), Recreation Commission, and Fields Committee. Begun field visual inspections with consideration of threat by drainage proximity. Discussed and implement formal policy (short of Bylaw) whereby pet waste must be picked up from public property, and pets must be secured on a lease on public property. These measures put us far ahead of schedule in this BMP.	Continue with success of work thus far achieved.
PP-6	Storm Water Committee	Exec. Secretary / Kyle Keady	Y1: Define mission statement, identify members. Y2-Y5 Meet regularly	List of target membership and staff made. Appointments not made, Committee not formally adopted by local authority.	Formalize committee's local authority. Make formal committee appointments. Organize steering committee sessions to develop and define formal mission.
PP-7	Implement Stormwater Clean-up Day	Exec. Secretary / Kyle Keady	Y1: Review Clean-up Day practices Y2: Identify compatible stormwater goals Y3-Y5: Have one stormwater clean-up day.	Discussed "Clean-up Day" concept with staff. Determined that to be successful it is best organized and implemented by Stormwater Committee.	Will add this goal and concept to the Stormwater Committee's mission frameworks.

3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 1 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 2
ID-1	Drainage Mapping	DPW/Joseph Lynch	Y1: Develop mapping strategy, and inventory existing plans, determine town wide GIS support, begin outfall locating in critical areas (historic properties and critical habitats) Y2: Locate 30% of outfalls, select mapping format. Y3: Locate additional 35 % of outfalls. Y4: Continue mapping, locate remaining 35% of outfalls. Y5: Complete drainage map.	Mapping strategy developed. Inventory of existing documents (plans and maps) made. Determined that there is little to no existing GIS support on a town wide basis. However, have determined that GPS mapping capabilities linked to an active database presents itself as an effective mapping tool. Have begun identifying large outfalls in critical areas.	Select mapping format and refine mapping strategy and protocol. Expand mapping of outfalls to complete all critical areas and complete mapping for approximately 30% of the total outfalls.
ID-2	Implement Illicit Discharge Bylaw	Bylaw Committee / Joseph Lynch	Y1: Form Committee, research Phase II requirements and compare to existing Town regulations. Y2: Develop Bylaw or modify existing one. Y3: Present Bylaw at Town Meeting Y4: Implement and enforce bylaw. Y5: Review effectiveness of bylaw.	Bylaw committee formed and put in place. NPDES-II requires have been reviewed. Town moves forward to making changes to its various land planning / land use bylaws in preparation to tackle mission of NPDES-II.	Complete research on NPDES-II requirements versus existing bylaws. Will prepare bylaw document by considering either a new bylaw, or revision or expansion of existing bylaw.

ID-3	Eliminate Illicit Discharges	DPW	Y1: Develop Illicit Discharge Detection and Elimination plan Y2: Investigate potential problem areas Y3: Identify sources of illicit discharges; notify owners of their legal requirement to eliminate. Y4: Conduct follow-up inspections, take legal action if necessary. Y5: Continue to identify and eliminate illicit discharges.	Have made little progress on this BMP. However, have made an overall determination that little problem exists with regard to illicit discharges in town.	Will complete development of Illicit Discharge Detection and Elimination plan. And will expand evaluation and investigation of potential problem areas
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.	No progress made (Y2 BMP)	Will proceed based upon findings of Y2: implementation of ID-3. Will keep public apprised of bylaw development activities.

4. Construction Site Stormwater Runoff Control

BMPID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 1 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 2
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.	No progress made (Y3 BMP)	Will prepare to make assessment per Y3 goal.

CS-2	Site Plan Review	Planning Board	Y1: Review existing site plan review procedures against NPDES-II requirements. 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 Y4: Implement enhanced site plan review. Y5: Continue site plan reviews according to the new Erosion and Sedimentation Control Bylaw.	Existing site plan review regulations and procedures were reviewed. In fact, site plan review regulations in town are non-existent. The town immediately adopted a policy whereby site plans are reviewed for applicability under NPDES-II by a combination of the DPW Director re and/or the town's third-party review consultant.	Expand upon the policy implemented under Y1 and draft bylaw to require site plan review for certain threshold projects.
CS-3	Site Inspection and Enforcement	Planning Board / Joseph Lynch	Y3: Add construction site runoff control measures to building inspector protocol Y4: Implement inspection for runoff control measures and site waste control. Y5: Review inspection guidelines and enhance if necessary.	No progress made (Y3 BMP)	No progress planned (Y3 BMP)

CS-4	Solicit and record public comments regarding stormwater	Stormwater Committee / Joseph Lynch	Y1-Y2: Continue existing public hearing process to allow for public comments. Incorporate construction site concerns into PE-BMP. Y3-Y5: Use hotline established in PE-5 to receive and record public comments.	Little direct (to NPDES-II) progress made since committee remained in "fact finding" mode for most of Y1. Public hearing process during Y1 focused exclusively on zoning and land use bylaw changes. However, many of the proposed bylaw changes would ultimately serve and benefit the town's NPDES-II initiatives.	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 1 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 2
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.	No progress made (Y2 BMP)	Will evaluate current zoning bylaws to determine sufficiency more directly and relative to surface water preservation. Will expand mission to include items learned through CS-4 BMP, above.
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.	Reviewed current subdivision regulations relative to NPDES-II requirements. A public hearing process was undertaken during Y1, but focused nearly exclusively on zoning and land use bylaw changes. However, many of the proposed bylaw changes will ultimately serve and benefit the town's NPDES-II initiatives.	Will continue (and hopefully conclude) that new and/or expanded land use and zoning bylaws are sufficient to adequately address the town's interest under NPDES-II.
PC-3	Develop and review inspection procedures for commercial and residential drainage systems / structural BMP's	DPW / Joseph Lynch	Y3: Inventory and review current maintenance procedures for private systems. Y4: Develop plan, procedure, and authority for inspections. Determine O&M requirements for structural BMP's. Y5: Implement inspection plan.	No substantial progress (Y3 BMP) Have begun to map out potential policy matters regarding the increased frequency of which new private systems come on line. Have begun to identify which private facilities in town might have private stormwater systems.	Will continue to develop and draft official policies regarding the new private systems that come on line. Will continue to identify, and verify, which private facilities in town might have private stormwater systems and begin to ascertain what O&M procedures are used at those facilities. No substantial progress expected until Y3 (Y3 BMP)

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 1 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 2
GH-1	Operation and Maintenance Program.	DPW / Joseph Lynch	Y1-Y2: Inventory maintenance activities, identify potential pollutant runoff, and continue current drain system and street maintenance. Y3: Identify means of reducing potential pollutant runoff, implement reductions. Y4: Evaluate current drain system maintenance routine, develop schedule, identify improvements or refinements Y5: Reduce pollutant runoff potential.	Have inventoried the town's O&M activities which include, CB cleaning, grate cleaning, street sweeping, vehicle washing, fleet maintenance, turf management, and floor drain liquid collection.	In Y2 will continue and complete the inventory of the town's O&M activities. Will evaluate each activity for potential for pollutant runoff. Will begin to develop draft of potential and means for reducing runoff and pollution potential.
GH-2	Employee Training Program.	DPW	Y2: Develop training program. Y3-Y5: Hold one Good Housekeeping Workshop per year at the DPW facility.	Little progress made as this BMP is a Y2 BMP. However, have developed an inter-municipal joint training consortium between our neighboring DPW's in Devens, Ayer, Lancaster, Groton, and Harvard.	Will continue to work within the new inter-municipal joint training consortium between our neighboring DPW's in Devens, Ayer, Lancaster, Groton, and Harvard. Will develop formal training protocol that focuses upon good (and safe) use of BMPs and their effect on minimizing the potential for release of polluted runoff. Will work towards formalization of a policy for an annual good housekeeping workshop.

GH-3	Implement Household Hazardous Waste / Appliance Recycling Program	Board of Health	Y1: Assess town's current recycling program and identify all illegal dumping problem areas. Y2: Incorporate illegal dumping area clean-up effort as part of existing current annual clean-up. Y3: Implement / enhance town's recycling program. Y4: Implement neighborhood watch program in areas of illegal dumping.	Have assessed 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. Happy to report that there is little problem in town regarding illegal dumping.	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.

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 1** (Reliance on non-municipal partners indicated, if any)	**Planned Activities – Permit Year 2**
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.	Have referred to the applicable 303(d) impairment listing relative to the Nashua River, Squannacook River, and Catacunemaug Brook. Have noted the changes in TMDL for the water bodies.	Will continue to reference the applicable 303(d) impairment listing relative to the Nashua River, Squannacook River, and Catacunemaug Brook. Will continue to note any changes in TMDL for these water bodies and adjust the emplolyment of these BMP's accordingly.