

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

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**EPA NPDES Permit Number:** MA 041186

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**MassDEP Transmittal Number:**

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**Annual Report Number**

**& Reporting Period:** No. 10: April 1, 2012-March 31, 2013

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## **NPDES PII Small MS4 General Permit Annual Report**

### **Part I. General Information**

**Contact Person:** Christopher J McGown

**Title:** Superintendent of Public Works

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**Email:** cmcgown@clintonma.gov

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**Mailing Address:** 242 Church St Clinton, MA 01510

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#### **Certification:**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**Signature:**

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**Printed Name:** Christopher J. McGown

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**Title:** Superintendent of Public Works

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**Date:**

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

The Town of Clinton has completed the required self-assessment and has determined that our municipality is in compliance with the permit conditions. Town of Clinton Department of Public Works has continued to work diligently to coordinate the local committees and departments of the Town to address Stormwater Management. During the 2012-2013 permit year, the Town of Clinton continued implementation of the minimum control measures. Discussions of the progress on BMPs toward the measurable goals, as well as quantification of some of the programs, are included in the following sections. The Department of Public Works continues to meet with the Selectmen and the Budget Committee to provide an update on progress. Our consulting engineering firm continues to assist us in completing and working on the compliance with all our various BMP's.

The Town continued its work on public education. The Town of Clinton School Department continued their program with the Nashua River Watershed Association where members of the association conduct educational programs for the middle and high school students. Classroom topics include watershed protection and pollution prevention, storm water management, protection and chemical analysis of water.

The Town continued the development of a Town wide stormwater map, to spatially locate the stormwater drainage system. Progress has continued in mapping all catch basins, manholes, culverts, and outfalls via GPS and has been uploaded into a GIS base map. Pipes and structures were inspected for material, size and structural integrity. Outfalls were inspected for structural integrity and monitored for possible illicit discharges. In addition, the Town's consulting engineering firm is in the process of developing a Stormwater Management Plan for the Town, including an assessment of water quality and options for implementing BMPs to address identified water quality issues.

### 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 10<br>(Reliance on non-municipal partners indicated, if any)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Planned Activities – Next Permit Term                                                                                                                                                                                                      |
|----------|----------------------|------------------------------------------------------|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1A       | Class Room Education | School Science Department/Department of Public Works | Conduct annual activities for children. | The Town of Clinton School Department implemented a program with the Nashua River Watershed Association where members of the association conduct educational programs for the middle and high school students. Classroom topics include watershed protection and pollution prevention, storm water management, protection and chemical analysis of water. The students also took a field trip to Coachlace Pond to conduct water quality testing. Students at the Clinton High School regularly take nature hikes along the North Dyke of the Wachusett Reservoir. Conservation and Watershed protection measures are discussed during the hikes. Sixth grade students attend Natures Classroom for a week each fall in Connecticut. Natures Classroom was weeklong, hands on, study of nature and the effects that pollution has on our watersheds and the environment. | Continue to work with school personnel and consultants. Information will be included on an annual basis in this program. At a minimum, the curriculum will include one presentation given to the students about stormwater related topics. |
| Revised  |                      |                                                      |                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                            |

### 1a. Additions

| <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 10</b><br>(Reliance on non-municipal partners indicated, if any)                                                                                                                                    | <b>Planned Activities – Next Permit Term</b>                                                                                                                                                                                                                                     |
|-----------------|------------------------|------------------------------------------------|--------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1B              | Local Cable Access     | Department of Public Works                     | # of posted informational bulletins ,amount of run time.                                   | The Town did not post a stormwater related bulletin during this reporting period on the Local Cable Access.                                                                                                                              | Continue to post stormwater related bulletins on the Local Cable Access channel once during the summer, with a run time of a month.                                                                                                                                              |
| 1C              | Education Displays     | Department of Public Works                     | Public distribution, # of brochures taken, # flyers mailed, and # places poster displayed. | Surface and Ground Water Pollution Prevention Measures were posted on the Town Hall bulletin board. The planning/conservation committee displayed a poster entitled "Stormwater and the Construction Industry" in their conference room. | Continue to publish brochures, bookmarks and flyers. The postings will be updated with new information and will be posted each year.                                                                                                                                             |
| Revised         |                        |                                                |                                                                                            |                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                  |
| 1D              | Community Website      | Board of Selectman /Department of Public Works | # of hits on the website.                                                                  | The Town posted stormwater related information on their website including a link to DEP's website. Copies of the stormwater by-laws are available on the website.                                                                        | Continue to update the highway website with information on stormwater and add links to stormwater BMPs. Create links on the Town website advertising the hazardous waste events, and roadside cleanup. Explore the use of a hit counter to record number of hits to the website. |
| Revised         |                        |                                                |                                                                                            |                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                  |

## 2. Public Involvement and Participation

| BMP ID # | BMP Description                | Responsible Dept./Person Name                  | Measurable Goal(s)                                                                                              | Progress on Goal(s) – Permit Year 10<br>(Reliance on non-municipal partners indicated, if any)                                                                                                                                                                                                                                                                                                       | Planned Activities – Next Permit Term                                                                                                                                                                                                               |
|----------|--------------------------------|------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2A       | Hazardous Waste Collection Day | Recycling Committee/Department of Public Works | Track number of articles and volunteers. Coordinate with BMPs Publish results/information on collection events. | The Town was not involved in a Hazardous Waste Collection Day during this reporting period. Waste oil is collected daily at the Town's DPW Facility.                                                                                                                                                                                                                                                 | Continue to work on holding a Hazardous Waste Collection Day.                                                                                                                                                                                       |
| Revised  |                                |                                                |                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                     |
| 2B       | House Hold Recycling Day       | Recycling Committee/Department of Public Works | Record the amount of items collected and percentage of people who participate in the program                    | The Town was not involved in a House Hold Recycling Day during this reporting period.                                                                                                                                                                                                                                                                                                                | Continue to work on holding a Household Recycling Day.                                                                                                                                                                                              |
| Revised  |                                |                                                |                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                     |
| 2C       | Yard Waste Collection Day      | Recycling Committee/Department of Public Works | Track resident participation. Record the amount of yard waste collected.                                        | The Town sponsored a series of Yard Waste Collection Days that allowed residents to drop off leaves and other yard waste at the DPW facility each Saturday in the month of November. This event was advertised in the local newspaper, DPW facility and at Town Hall. The DPW brings the collected materials to a composting center outside of Town where the materials are composted to create loam | Continue to sponsor series of Yard Waste Collection Days that will allow residents to drop off leaves and other yard waste at the DPW facility each Saturday in the month of November. This program is very successful and will continue each year. |
| Revised  |                                |                                                |                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                     |

## 2a. Additions

| <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 10</b><br>(Reliance on non-municipal partners indicated, if any)                                                                                                                                                                                                                                                                                                                                                                                              | <b>Planned Activities – Next Permit Term</b>                                                                                                                                                                                                                                                           |
|-----------------|------------------------|------------------------------------------------------------------------|----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2D              | Adopt-a-Stream         | Department of Public Works working with Wachusett Chamber of Commerce. | # of business or groups solicited. Areas that have been adopted                  | The Nashua River Watershed Association organized a Nashua River Clean up Day. The South Meadow Pond Wildlife Association cleaned the area around South Meadow Pond and South Meadow Brook. Local businesses continue to clean sections of streams throughout the town. The Town also utilizes the Worcester County Sheriff's Department inmate work programs to clean streams twice a year.                                                                                                        | Continue to solicit local businesses or groups to volunteer their time and effort to clean up the Town's streams and other receiving waters. The DPW will supply signs identifying the organization or group that has adopted the stream.                                                              |
| Revised         |                        |                                                                        |                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                        |
| 2E              | Storm Drain Stenciling | Department of Public Works                                             | # volunteers, # of catch basin stenciled, # of high priority stenciled annually. | The DPW Superintendent worked with a local Boy Scout Troop for an Eagle Scout project in each year. To date, the Scouts have stenciled all of the towns storm drains with "No Dumping". This information will aid in tracking problem catch basins. The selection of targeted priority storm drain locations will be based on the delineation of the urbanized area and DPW knowledge of contamination found during the Catch Basin Cleaning Program (BMP # 6A) and Dry Season Inspection Program. | Continue to work with the local Boy Scouts to mark additional catch basins with DPW staff to identify discharges to waterways. Catchbasins that are identified as high priority drains will be stenciled annually. Stenciled messages may include such phrases as "Do Not Dump" or "Drains to Stream". |
| Revised         |                        |                                                                        |                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                        |

|         |                                             |                            |                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                              |
|---------|---------------------------------------------|----------------------------|-------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2F      | Volunteer Clean Up Days                     | Department of Public Works | # of events held, # of volunteers, amount of trash removed. | The South Meadow Pond Wildlife Association held its annual Clean-up Day. The Clinton Community Initiative held its 2 <sup>nd</sup> Annual Town Cleanup event in October 2012. The DPW utilized the Worcester County Sheriff's Department Community Service Program to clean the streets and other heavy dumping areas. The DPW participated in these events, including disposal of the items collected from these events.                                                                                                                                                                                                                                                           | Continue to hold these events. Search for additional associations to continue with clean-up.                                                                                                                                                                                                                                 |
| Revised |                                             |                            |                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                              |
| 2G      | Watershed and Wildlife Organization Meeting | Department of Public Works | Results of report findings.                                 | The DPW and the South Meadow Pond Wildlife Association have discussed Watershed protection measures. The DPW, the Town Administrator, the DEP and the South Meadow Pond Wildlife Association have worked together to fund and hire a consultant to study discoloration of the water entering South Meadow Pond adjacent to the landfill. A Comprehensive Site Assessment has been prepared by the consulting engineer and was submitted to the DEP for review. The Town has completed a corrective action alternative analysis and is working with the DEP on a suitable corrective action. Monitoring wells have been added to the site and there are on-going sampling practices. | The DPW will annually contact Town Watershed and Wildlife Organizations in an effort to facilitate a meeting to discuss stormwater related topics. DPW will contact these organizations and provide guidance and information to assist in the meeting and add programs that may be developed from these meetings to the SMP. |
| Revised |                                             |                            |                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                              |

### 3. Illicit Discharge Detection and Elimination

| BMP ID # | BMP Description                                      | Responsible Dept./Person Name | Measurable Goal(s)                                                                                 | Progress on Goal(s) – Permit Year 10<br>(Reliance on non-municipal partners indicated, if any)                                                                                                                                                                                                                                                                                                                                                                           | Planned Activities – Next Permit Term                                                                                                             |
|----------|------------------------------------------------------|-------------------------------|----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| 3A       | Map Stormwater Infrastructure                        | Department of Public Works    | Locate all culverts and drainage systems within the Urbanized Area (UA). Generate system base map. | The Town and its consultant have developed a comprehensive Geographic Information System (GIS) program. The program included complete mapping of the storm water system with culverts, manholes, catch basins and outfalls. Structures were mapped using a GPS unit. Survey information included condition, presence of dry weather flows , location, source of flow, and receiving water body. In addition the program included the delineation of the catchment areas. | Continue to add additional outfalls, catch basins, manholes and/or culverts as constructed into the Town GIS system.                              |
| Revised  |                                                      |                               |                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                   |
| 3B       | Dry Weather Outfall Screening for Illicit Discharges | Department of Public Works    | Locate and determine illicit discharges. # of outfalls screened, samples collected.                | Stormwater outfalls were re-inspected and re-evaluated during dry weather, as part of the ongoing comprehensive GIS system mapping                                                                                                                                                                                                                                                                                                                                       | Continue to monitor and inspect outfalls, catch basins, and manholes. If present, analyze dry weather flows from outfalls not previously sampled. |
| Revised  |                                                      |                               |                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                   |
| 3C       | Develop an Illicit Discharge Prohibition Ordinance   | Department of Public Works    | Ways to effectively prohibit discharges.                                                           | An illicit discharge bylaw was voted on and approved at the June 2006 Annual Town Meeting.                                                                                                                                                                                                                                                                                                                                                                               | Continue to enforce ordinance to prohibit illicit discharges.                                                                                     |
| Revised  |                                                      |                               |                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                   |



### 3a. Additions

|         |                                                                      |                                                |                                                                                               |                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                |
|---------|----------------------------------------------------------------------|------------------------------------------------|-----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3D      | Assessment of Priority Catchments and Problem Catchments             | Department of Public Works and Consultant      | Clinton will develop and implement an Illicit Discharge Detection and Elimination (IDDE) plan | Priority catchments were established as part of the Town's Stormwater Management Plan that is currently being completed. An assessment is being conducted to identify areas in the Town with problem catchments and high potential for illicit discharges.                      | The Town will continue the IDDE program.                                                                                                                                                                       |
| Revised |                                                                      |                                                |                                                                                               |                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                |
| 3E      | Develop an IDDE Plan                                                 | Department of Public Works and Consultant      | Develop a written Documentation IDDE Plan                                                     | An illicit discharge bylaw was voted on and approved at the June 2006 Annual Town Meeting. Town continued to enhance its IDDE program through the development of a draft written IDDE plan, as part of the ongoing development of its comprehensive Stormwater Management Plan. | The written IDDE plan will be revised as necessary.                                                                                                                                                            |
| Revised |                                                                      |                                                |                                                                                               |                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                |
| 3F      | Incorporate Illicit Discharge Information into Public Education BMPs | Department of Public Works and Consultant      | IDDE information in public education BMPs annually.                                           | The Town reviewed results of past IDDE activities and planned to use this information to update the public.                                                                                                                                                                     | Provide public education information on results of Town inspection and sampling of outfalls. Inform public that all Town drainage structures were mapped. Evaluate options for incorporating into the website. |
| Revised |                                                                      |                                                |                                                                                               |                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                |
| 3H      | Non-Stormwater Ordinance                                             | Department of Public Works/ Board of Selectman | Record number of approvals                                                                    | The Town adopted an ordinance to prohibit non-stormwater discharges into the system at the 2006 Annual Town meeting.                                                                                                                                                            | Continue to enforce ordinance prohibiting non-stormwater discharges.                                                                                                                                           |
| Revised |                                                                      |                                                |                                                                                               |                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                |

#### 4. Construction Site Stormwater Runoff Control

| BMP ID # | BMP Description                | Responsible Dept./Person Name          | Measurable Goal(s)                                           | Progress on Goal(s) – Permit Year 10<br>(Reliance on non-municipal partners indicated, if any)                                                                                                                                                                                                                                                                                                                                                                                         | Planned Activities – Next Permit Term                                                                                                     |
|----------|--------------------------------|----------------------------------------|--------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 4A       | Construction Runoff Ordinances | Planning Board/Conservation Commission | Ordinances to address construction issues.                   | A Stormwater Management and Land Disturbance bylaw was voted on and approved at the June 2006 Annual Town Meeting.                                                                                                                                                                                                                                                                                                                                                                     | Continue to enforce ordinance for construction sites.                                                                                     |
| Revised  |                                |                                        |                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                           |
| 4B       | Plan Review                    | Planning Board                         | Developer's compliance, record of plan review.               | Plan reviews were completed in accordance with the newly adopted Stormwater Management and Land Disturbance bylaw                                                                                                                                                                                                                                                                                                                                                                      | Continue to review plans per the new ordinance.                                                                                           |
| Revised  |                                |                                        |                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                           |
| 4C       | Inspection/Reporting           | Building Inspector                     | # calls received and records of follow-up actions.           | Inspections and reporting were completed as specified in the newly adopted Stormwater Management and Land Disturbance bylaw. Under the Construction Site Runoff Ordinance (or other regulatory mechanism), projects with disturbance over one acre were required to have regular inspections of sediment and erosion controls and reporting of construction activities.                                                                                                                | Continue to be proactive in the inspection of developments that are required to file a NOI and enforce construction site runoff controls. |
| Revised  |                                |                                        |                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                           |
| 4D       | Building Permit Application    | Building Inspector                     | Standardized form & record of inspections/follow-up actions. | Building permit applicants were required to comply with the newly adopted runoff ordinance. This requirement applies to applicants disturbing more than one acre of land. The Building Permit Applications triggers the notice to applicants of the new EPA Phase II Storm water Program requirements for construction activities greater than 1 acre. Applicants for projects over 1 acre in total disturbance were required to confirm that they have obtained an EPA permit number. | Continue to review Building Permit Applications per the new adopted runoff ordinance.                                                     |
| Revised  |                                |                                        |                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                           |

## 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 10<br>(Reliance on non-municipal partners indicated, if any)                                                                                                                                                                                                                                                                       | Planned Activities – Next Permit Term                                                                         |
|----------|-------------------------------------|-------------------------------|-------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| 5A       | Post Construction Runoff Ordinances | Planning Board                | Bylaws to address Post – Construction Stormwater Management | A Post-Construction Stormwater Management bylaw was voted on and approved at the June 2006 Annual Town Meeting. The Town adopted an ordinance to address post construction runoff from projects with over 1 acre in total disturbance.                                                                                                                               | Town will continue to review new development and redevelopment plans in accordance with existing regulations. |
| Revised  |                                     |                               |                                                             |                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                               |
| 5B       | Construction Site Plan Review       | Planning Board                |                                                             | Stormwater Management and Land Disturbance by laws were adopted. Inspections and reporting were completed as specified in the new bylaws. Under the Post Construction Runoff Ordinance (or other regulatory mechanism), applicants with projects with disturbance over one acre are required to submit stormwater control plans to the Town for review and approval. | Town will continue to review new development and redevelopment plans in accordance with existing regulations. |
| Revised  |                                     |                               |                                                             |                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                               |

### 5a. Additions

| <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 10</b><br>(Reliance on non-municipal partners indicated, if any)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>Planned Activities – Next Permit Term</b>                                                                                                                     |
|-----------------|-------------------------------|--------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5C              | Storm System Maintenance Plan | Board of Selectman                   |                                                                                     | A Post-Construction Stormwater Management bylaw has been adopted. Operation and Maintenance of stormwater facilities was performed as required under the new bylaw. Under the Post Construction Runoff Ordinance (or other regulatory mechanism), projects with disturbance over one acre were required to include a program outlining enhanced procedures for long term operations and maintenance of stormwater facilities. Additional operation and maintenance requirements for storm water facilities constructed as part of new development and redevelopment project are being enforced. | Operation and maintenance requirements for stormwater facilities constructed as part of new development and redevelopment projects will continue to be enforced. |
| Revised         |                               |                                      |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                  |
| 5D              | Culvert Maintenance           | Department of Public Works/          | Maintain culverts and general maintenances. Records of inspections and maintenance. | All culverts were located and mapped as part of the Town's development of its Stormwater Management Plan. Monitored culverts for blockages, especially during high rain flows. Removed blockages and repaired washouts as needed.                                                                                                                                                                                                                                                                                                                                                               | Continue to check all culverts and maintain as needed. Follow SOPs for maintenance/repair and record activities.                                                 |

## 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 10<br>(Reliance on non-municipal partners indicated, if any)                                                                                                                                                                                                                                                                                                                                                                                                                              | Planned Activities – Next Permit Term                                                                                                                                                                                                                                                                              |
|----------|------------------------------|-------------------------------|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 6A       | Catch Basin Cleaning Program | Department of Public Works    | Clean All Catch Basins annually | The catch basin cleaning program is ongoing except in the winter season. The Town utilizes a Vactor truck. The truck has been used in conjunction with our catch basin cleaner to clean drain lines and structures. The DPW has greatly reduced its sand use in the winter months. All of the Town's catch basins are inspected and cleaned as needed. Specifically, structures identified with sediment accumulation during the comprehensive mapping and inspection of the stormwater system were subsequently addressed. | The Town will continue the implementation of the current Catch Basin Cleaning Program. Those catch basins found to have excessive sediment will be cleaned on multiple occasions. The program starts in spring, and is completed by the fall. All of the Town's catch basins are inspected and cleaned as needed.  |
| Revised  |                              |                               |                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                    |
| 6B       | Street Sweeping Program      | Department of Public Works    | Sweep streets annually          | The street sweeping program is ongoing except in the winter season. The DPW has greatly reduced the winter sand use. The streets and catch basins had far less sand to be cleaned than in previous years. The Town swept all of its streets at least once annually. Under this program, secondary streets were cleaned once, and major streets were cleaned on multiple occasions.                                                                                                                                          | The Town will sweep all of its streets at least once annually. Under this program, secondary streets will be cleaned once, and major streets will be cleaned on multiple occasions. Develop a system to prioritize areas and streets for cleaning, as part of the Town's comprehensive Stormwater Management Plan. |
| Revised  |                              |                               |                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                    |

| <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 10</b><br>(Reliance on non-municipal partners indicated, if any)                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>Planned Activities – Next Permit Term</b>                                                                                                       |
|-----------------|------------------------|--------------------------------------|----------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| 6D              | Used Oil Collection    | Department of Public Works           | Assist with bi-annual household hazardous waste drop-off days. | The Town collected used oil from its residents with the purpose of recycling. Residents were able to drop off used oil at the DPW yard on Monday through Friday from 7:00a.m. to 3:00 p.m. There are no fees or limits associated with this program. Residents were required to label all containers with their name, address, and telephone number, and fill out an inventory log that is maintained by the DPW. The DPW has a waste oil burner at our facility on Woodlawn St. All waste oil collected is used to heat the DPW garage. | The Town will continue to collect used oil from its residents for the purpose of recycling. The used oil collection program is ongoing year round. |

## 6a. Additions

| <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 10</b><br>(Reliance on non-municipal partners indicated, if any)                                                                                                                                                                                                             | <b>Planned Activities – Next Permit Term</b>                                                                                                                                                                                                                                                                                                                         |
|-----------------|-----------------------------|--------------------------------------|--------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 6E              | Vehicle Washing Program     | Department of Public Works           | Operation of the maintained Washing Program System.    | In 2006, several catch basins inside the Department of Public Works building were sealed to provide containment for truck washing water. Pressure washers are used to minimize the amount of water used.                                                                                                          | Continue to follow the Vehicle Washing Program. The system will be maintained and if necessary, improved.                                                                                                                                                                                                                                                            |
| Revised         |                             |                                      |                                                        |                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                      |
| 6F              | Illegal Dumping             | Department of Public Works           | # of reports, # of inspections, amount debris removed. | In an effort to reduce illegal dumping of waste materials, the Town posted signage at common dumping areas indicating the dumping of waste is illegal and prohibited. The DPW removed furniture, tires, appliances, and other rubbish as soon as it was reported or noticed.                                      | The DPW will clean up and dispose of illegally dumped waste materials as they are identified. Continue to search for areas used as common dumping sites.                                                                                                                                                                                                             |
| Revised         |                             |                                      |                                                        |                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                      |
| 6G              | Dumpster Recycling Programs | Recycling Committee                  |                                                        | The recycling program continued this year. Glass, plastic, paper products, cardboard and cans were collected on site at the Recycling Center. Approximately 400 tons of recycled items were collected. Vendors pick up the dumpsters of separated recyclable products and drop off empty containers to be filled. | The Town will continue to offer the ongoing Dumpster Recycling Program to its residents in an effort to reduce pollution and promote recycling. Under this program, residents may bring paper, glass, and metal containers to the DPW yard and deposit them in a series of material specific dumpsters. Once full, the materials are shipped off-site for recycling. |
| Revised         |                             |                                      |                                                        |                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                      |

| <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 10</b><br>(Reliance on non-municipal partners indicated, if any)                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>Planned Activities – Next Permit Term</b>                                                                                                                                                                                                                                                                                                                                   |
|-----------------|------------------------|-------------------------------------------|--------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 6H              | Curbside Trash Removal | Department of Public Works                |                                                                                | The curbside trash pick-up program continued this past year. Residents are required to purchase stickers from the Town and affix them to the trash bags, as an incentive to reduce waste. Approximately 1535 tons of trash was removed from the town. The trash was picked-up with the rubbish compactor and delivered to Waste Management in Fitchburg MA. The DPW also picks up trash at the schools, the fire department, the police department, the Parks and Recreation Department, and from public trash barrels in the downtown commercial district. | The Town will continue to offer curbside removal of solid waste to its residents annually through this program. It is estimated that 3,000 tons of waste is removed annually from the Town through this program. Residents are required to purchase stickers from the Town and affix them to the trash bags. The Town will pick up the materials and dispose of them properly. |
| Revised         |                        |                                           |                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                |
| 6G              | Water Testing          | Department of Public Works and Consultant | Water testing of drainage outfalls. Record # of samples collected and results. | The Town's engineering firm sampled and evaluated the water quality at 100% of the stormwater outfalls with observed dry weather flows, as part of the Town's ongoing development of a Stormwater Management Plan.                                                                                                                                                                                                                                                                                                                                          | Review results and continue to monitor outfalls and perform testing if a suspect discharge is found.                                                                                                                                                                                                                                                                           |
| Revised         |                        |                                           |                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                |



## 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 10<br>(Reliance on non-municipal partners indicated, if any)                                                                                                           | Planned Activities – Next Permit Term                                                                                                                            |
|----------|--------------------------------------------------|-------------------------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 7A       | Develop a Water Quality Strategy for 303d Waters |                               |                    | Initial assessment of available strategies and potential benefits for BMPs to address water quality issues is being conducted as part of the Town's ongoing development of a Stormwater Management Plan. | Continue development of strategies to address identified water quality issues, specifically with recommended BMPs and estimated benefit or waste load reduction. |
| Revised  |                                                  |                               |                    |                                                                                                                                                                                                          |                                                                                                                                                                  |

### 7a. Additions

No additions at this time

### 7b. WLA Assessment

Massachusetts Division of Watershed Management released the 2012 Proposed 303d Integrated List of Waters in January of 2012. The following updated 303d list outlines several water bodies in Clinton that are impaired:

- 1) Category 5 Nashua River (8143500) MA81-09 Clinton WWTP Clinton to confluence with North Nashua River, Lancaster("South Branch" Nashua River).
- 2) Category 4A Wachusett Reservoir (81147) MA81147 Boylston/West Boylston/Clinton/Sterling 3966 acres -Mercury in Fish Tissue [12/20/2007-NEHgTMDL] (Non-Native Aquatic Plants\*) -(Eurasian Water Milfoil, *Myriophyllum spicatum*\*)

Although a portion of Wachusett Reservoir is physically located within the Town's boundaries, only a limited portion of the Town's stormwater runoff discharges to this water body due to topography.

Once a TMDL is developed for the Nashua River (8143500) MA81-09, section 7 of the annual report will be updated to reflect changes associated with each TMDL. Water quality concerns associated with 303d waters are also being addressed through the implementation of BMPs under the six minimum measures for Phase II. Separately, a specific assessment of water quality issues and potential BMP options is being conducted as part of the Town's ongoing development of a Stormwater Management Plan. The approach for addressing impaired waters is tentatively being based on the draft permit requirements.

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

During the permit year, the Town continued to work with their consulting engineering firm to develop a comprehensive Stormwater Management Plan, funded through the Massachusetts Clean Water State Revolving Fund (SRF) program. The Stormwater Management Plan includes development of a town-wide stormwater system map that is being used as a basis for illicit discharge detection. Stormwater outfalls, catch basins, manholes and culverts have been mapped via GPS coordinates. Structure locations were imported into a GIS base map to form a complete map depicting all structures in the Town limits. Town outfalls were screened for potential illicit discharges. If dry weather flow was observed, then samples were sent to the laboratory to test for e.coli, ammonia, surfactants (as MBAS), conductivity.

## Part V. Program Outputs & Accomplishments (OPTIONAL)

### Programmatic

|                                                               |       |              |
|---------------------------------------------------------------|-------|--------------|
| Stormwater management position created/staffed                | (y/n) |              |
| Annual program budget/expenditures                            | (\$)  |              |
| Total program expenditures since beginning of permit coverage | (\$)  | General fund |
| Funding mechanism(s) (General Fund, Enterprise, Utility, etc) |       |              |

### Education, Involvement, and Training

|                                                                         |               |      |
|-------------------------------------------------------------------------|---------------|------|
| Estimated number of residents reached by education program(s)           | (# or %)      | 60%  |
| Stormwater management committee established                             | (y/n)         |      |
| Stream teams established or supported                                   | (# or y/n)    | Y    |
| Shoreline clean-up participation or quantity of shoreline miles cleaned | (y/n or mi.)  | Y    |
| Shoreline cleaned since beginning of permit coverage                    | (mi)          | 6 mi |
| Household Hazardous Waste Collection Days                               |               |      |
| ▪ days sponsored                                                        | (#)           | 0    |
| ▪ community participation                                               | (%)           |      |
| ▪ material collected                                                    | (tons or gal) |      |
| School curricula implemented                                            | (y/n)         | Y    |

### Legal/Regulatory

|                                                    | In Place<br>Prior to<br>Phase II | Under<br>Review | Drafted | Adopted |
|----------------------------------------------------|----------------------------------|-----------------|---------|---------|
| Regulatory Mechanism Status (indicate with "X")    |                                  |                 |         |         |
| ▪ Illicit Discharge Detection & Elimination        |                                  |                 |         | X       |
| ▪ Erosion & Sediment Control                       |                                  |                 |         | X       |
| ▪ Post-Development Stormwater Management           |                                  |                 |         | X       |
| Accompanying Regulation Status (indicate with "X") |                                  |                 |         |         |
| ▪ Illicit Discharge Detection & Elimination        |                                  |                 |         | X       |
| ▪ Erosion & Sediment Control                       |                                  |                 |         | X       |
| ▪ Post-Development Stormwater Management           |                                  |                 |         | X       |

**Mapping and Illicit Discharges**

|                                        |                    |               |
|----------------------------------------|--------------------|---------------|
| Outfall mapping complete               | (%)                | 100 % of town |
| Estimated or actual number of outfalls | (#)                | 150           |
| System-Wide mapping complete           | (%)                | 95 % of Town  |
| Mapping method(s)                      |                    |               |
| ▪ Paper/Mylar                          | (%)                | -             |
| ▪ CADD                                 | (%)                | -             |
| ▪ GIS                                  | (%)                | 95%           |
| Outfalls inspected/screened            | (# or %)           | 100%          |
| Illicit discharges identified          | (#)                | 0             |
| Illicit connections removed            | (# )<br>(est. gpd) | N/A           |
| % of population on sewer               | (%)                | 98%           |
| % of population on septic systems      | (%)                | 2 %           |

**Construction**

|                                                                                                   |            |     |
|---------------------------------------------------------------------------------------------------|------------|-----|
| Number of construction starts (>1-acre)                                                           | (#)        | 0   |
| Estimated percentage of construction starts adequately regulated for erosion and sediment control | (%)        | N/A |
| Site inspections completed                                                                        | (# or %)   | 0   |
| Tickets/Stop work orders issued                                                                   | (# or %)   | 0   |
| Fines collected                                                                                   | (# and \$) | 0   |
| Complaints/concerns received from public                                                          | (#)        | 0   |

## Post-Development Stormwater Management

|                                                                                                                          |          |      |
|--------------------------------------------------------------------------------------------------------------------------|----------|------|
| Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control | (%)      | 100% |
| Site inspections (for proper BMP installation & operation) completed                                                     | (# or %) | 100% |
| BMP maintenance required through covenants, escrow, deed restrictions, etc.                                              | (y/n)    | Y    |
| Low-impact development (LID) practices permitted and encouraged                                                          | (y/n)    | Y    |

## Operations and Maintenance

|                                                                                                |                         |                |
|------------------------------------------------------------------------------------------------|-------------------------|----------------|
| Average frequency of catch basin cleaning (non-commercial/non-arterial streets)                | (times/yr)              | 1              |
| Average frequency of catch basin cleaning (commercial/arterial or other critical streets)      | (times/yr)              | 2              |
| Total number of structures cleaned                                                             | (#)                     | Approx 280     |
| Storm drain cleaned                                                                            | (LF or mi.)             |                |
| Qty. of screenings/debris removed from storm sewer infrastructure                              | (lbs. or tons)          | Approx 30      |
| Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.) |                         | Beneficial use |
| Basin Cleaning Costs                                                                           |                         |                |
| • Annual budget/expenditure (labor & equipment)                                                | (\$)                    | 10,000         |
| • Hourly or per basin contract rate                                                            | (\$/hr or \$ per basin) | N/A            |
| • Disposal cost                                                                                | (\$)                    | N/A            |
| Cleaning Equipment                                                                             |                         |                |
| • Clam shell truck(s) owned/leased                                                             | (#)                     | 1 owned        |
| • Vacuum truck(s) owned/leased                                                                 | (#)                     | 1 owned        |
| • Vacuum trucks specified in contracts                                                         | (y/n)                   | N/A            |
| • % Structures cleaned with clam shells                                                        | (%)                     | 80             |
| • % Structures cleaned with vacuor                                                             | (%)                     | 20             |
| Average frequency of street sweeping (non-commercial/non-arterial streets)                     | (times/yr)              | 1              |
| Average frequency of street sweeping (commercial/arterial or other critical streets)           | (times/yr)              | 2              |
| Qty. of sand/debris collected by sweeping                                                      | (lbs. or tons)          | Approx 200     |
| Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)                          | (location)              | Beneficial     |
| Annual Sweeping Costs                                                                          |                         |                |
| • Annual budget/expenditure (labor & equipment)                                                | (\$)                    | 10,000         |

|                                                                                        |                                                                                           |                                  |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|----------------------------------|
| • Hourly or lane mile contract rate                                                    | (\$/hr or per lane mile)                                                                  |                                  |
| • Disposal cost                                                                        | (\$)                                                                                      |                                  |
| Sweeping Equipment                                                                     |                                                                                           |                                  |
| • Rotary brush street sweepers owned/leased                                            | (#)                                                                                       | 1 owned                          |
| • Vacuum street sweepers purchased/leased                                              | (#)                                                                                       |                                  |
| • Vacuum street sweepers specified in contracts                                        | (y/n)                                                                                     |                                  |
| • % Roads swept with rotary brush sweepers                                             | (%)                                                                                       | 100                              |
| • % Roads swept with vacuum sweepers                                                   | (%)                                                                                       |                                  |
| Reduction in application on public land of: (“N/A” = never used; “100%” = elimination) |                                                                                           |                                  |
| ▪ Fertilizers                                                                          | (lbs. or %)                                                                               | N/A                              |
| ▪ Herbicides                                                                           | (lbs. or %)                                                                               | N/A                              |
| ▪ Pesticides                                                                           | (lbs. or %)                                                                               | N/A                              |
| Integrated Pest Management (IPM) practices implemented                                 |                                                                                           |                                  |
| Anti-/De-Icing products and ratios                                                     | % NaCl<br>% CaCl <sub>2</sub><br>% MgCl <sub>2</sub><br>% CMA<br>% Kac<br>% KCl<br>% Sand | 75%<br>5%<br><br><br><br><br>20% |
| Pre-wetting techniques utilized                                                        | (y/n)                                                                                     | Y                                |
| Manual control spreaders used                                                          | (y/n)                                                                                     | N                                |
| Zero-velocity spreaders used                                                           | (y/n)                                                                                     | N                                |
| Estimated net reduction or increase in typical year salt/chemical application rate     | (lbs. or %)                                                                               | 0%                               |
| Estimated net reduction or increase in typical year sand application rate              | (lbs. or %)                                                                               |                                  |
| % of salt/chemical pile(s) covered in storage shed(s)                                  | %                                                                                         | 100%                             |
| Storage shed(s) in design or under construction                                        | (y/n)                                                                                     | N                                |
| 100% of salt/chemical pile(s) covered in storage shed(s) by 2010                       | (y/n)                                                                                     | Y                                |