

**Municipality/Organization:** Town of Chelmsford

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**EPA NPDES Permit Number:** MAR041185

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**MaDEP Transmittal Number:** W-039848

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**Annual Report Number**

**& Reporting Period:** No. 9: March 2011-March 2012

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

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

Contact Person: Stephen Jahnle

Title: Town Engineer

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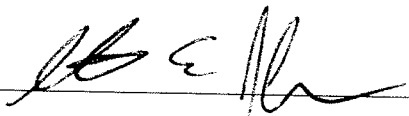
Telephone #: 978-250-5228

Email: [sjahnle@townofchelmsford.us](mailto:sjahnle@townofchelmsford.us)

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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: STEPHEN JAHNLE

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Title: TOWN ENGINEER

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Date: APRIL 26, 2012

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## Part II. Self-Assessment

The Town of Chelmsford has completed year 2 of the Stormwater Phase 2 program. In our required self-assessment study, we have determined that the Town of Chelmsford is in full compliance with all permit conditions, except for the following:

**BMP # 1-2: Stormwater lesson plan for 5<sup>th</sup> grade students.** The package received from the Suasco Watershed Council has been received and delivered to the school department. The school department has decided not to use the supplied materials. We are exploring other options at this time.

**BMP # 1-6: Stormwater web page.** Our web page is in need of updates. The Town of Chelmsford is beginning the process of updating the entire web site. Once the main site is updated, we plan on rebuilding all the Public Works pages.

**BMP # 2-2: Stormwater poster contest for 5<sup>th</sup> grade students.** The school department has decided not to use the supplied materials. We are exploring other options at this time.

**BMP # 2-3: Stormwater photo contest for high school students.** The Suasco Watershed Council has decided to abandon this contest and replace it with a different activity.

**BMP # 2-7: Develop a catch basin stenciling program.** We did not stencil any last year. We are in the process of working with a Cub Scout group to stencil some targeted areas as well as looking for volunteers to stencil other areas.

**BMP # 3-1: Create a stormwater system map.** The Town of Chelmsford recently purchased new survey equipment with GPS capabilities. In the upcoming years we plan on finalizing our full system map, which is 95% complete. We are currently compiling all the data, both in cadd/GIS and on paper plan into one complete base drawing of the entire Towns drainage system.

**BMP # 4-1: Development of an erosion and sediment control by-law for construction projects.** The draft version of this bylaw is currently under review. Currently the Town has authority through the site plan process to regulate erosion and sediment control based upon approvals for a specific project.

**BMP # 5-1: Development of a by-law to require certain construction sites to follow MADEP Stormwater Standards 2, 3, 4 and 7.** The Town has authority currently to find property owners in violation for not up keeping stormwater facilities based upon approved operation and maintenance manuals included with site plan or subdivision approvals.

In October 2011, we received a request for information from EPA region 1, Office of Environmental Stewardship. The request included a copy of our outfall map, information on our illicit discharge detection program and a listing of sanitary sewer overflows, spills or unauthorized releases since January 1, 2007. This information was compiled and sent both via email and certified mail to the attention of David Turin at EPA. The information was sent December 29, 2011 and received by EPA.

The submittal included a copy of our outfall map, 511 total, overlaid onto our street map. It also included a summary listing of all roads we have done illicit discharge investigative work on. Also included was a detailed listing of sewer backups and overflows including the estimated amount of discharge and if any property or drainage/watersheds were affected.

### 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 9<br>(Reliance on non-municipal partners indicated, if any)                                        | Planned Activities – Permit Year                                                               |
|----------------|-------------------------------------------------------------------|-------------------------------|-----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| 1-1<br>Revised | Stormwater flyer/survey distributed to residents                  | DPW/Suasco                    | Distribute flyers to a minimum of 75% of the residents                                        | Flyers have been distributed to residents and copies are available with the traveling display and online via the town web site.      | Continued distribution of flyers to help awareness.                                            |
| 1-2<br>Revised | Stormwater lesson plan for 5 <sup>th</sup> grade students         | DPW/Suasco                    | Develop and distribute lesson plan to 5 <sup>th</sup> grade                                   | The poster contest will be run by the School Department when they incorporate the lesson plan into their curriculum.                 | School department has decided not to use the supplied package. We are exploring other options. |
| 1-6<br>Revised | Stormwater web page                                               | DPW                           | Creation of a stormwater web page                                                             | A stormwater web page has been added to the DPW web page and has links, pictures and information for a variety of stormwater issues. | We plan on rebuilding our entire DPW website once upgrades are made to the Town website.       |
| 1-7<br>Revised | Provide brochures on recycling, composting and water conservation | DPW/Recycling                 | Maintain a supply of brochures                                                                | Currently have a supply of brochures from the SuAsCo Watershed, EPA, Mass DEP and other organizations available                      | Continuation of current supply                                                                 |
| 1-3<br>Revised | Stormwater flyer to business community                            | DPW/Suasco                    | Flyer distributed to a minimum of 50% of businesses and a logo to be displayed for compliance | Flyer will be included in the spring newsletter.                                                                                     | The flyer will be updated and distributed to business this later this year.                    |
| 1-4<br>Revised | Stormwater media campaign                                         | DPW/Suasco                    | Develop a media information packet to be distributed                                          | We received a press release from the Suasco Watershed and we plan on adding in local information to it.                              | The press release will be updated and run later this year.                                     |

| BMP ID # | BMP Description  | Responsible Dept./Person Name | Measurable Goal(s)                                                            | Progress on Goal(s) – Permit Year 9<br>(Reliance on non-municipal partners indicated, if any) | Planned Activities – Permit Year |
|----------|------------------|-------------------------------|-------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|----------------------------------|
| 1-5      | Stormwater video | DPW/Suasco                    | Show a stormwater video at one public meeting and re-air video on local cable | We received the video package from the SuAsCo Watershed. Video ran on local cable.            | Continued airing of video.       |
| Revised  |                  |                               |                                                                               |                                                                                               |                                  |
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## 2. Public Involvement and Participation

| <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 9</b><br>(Reliance on non-municipal partners indicated, if any)                           | <b>Planned Activities – Permit Year</b>                                                                                                                                |
|-----------------|--------------------------------------------------------------|--------------------------------------|-------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2-1<br>Revised  | Stormwater traveling display                                 | DPW/SuAsCo                           | Display and circulate traveling display at various buildings and events | Since receiving the display, it has been set up at various town buildings with supplies of brochures                           | Continued rotation throughout town buildings and events                                                                                                                |
| 2-6<br>Revised  | Provide support for clean up and collection days             | DPW/Recycling                        | Provide support at least twice per year                                 | Support has been provided for brush drop off, haz mat, town clean up.                                                          | Continued support for these days. The recycling office has entered into an agreement with other towns to provide homeowners a program for white goods and electronics. |
| 2-7<br>Revised  | Develop a catch basin stenciling program                     | DPW                                  | Develop a program to stencil catch basins in priority areas             | We had several volunteers and stenciled a few hundred catch basins in critical areas.                                          | As stated in the self-assessment, we are currently coordinating with a Cub Scout group to stencil this summer.                                                         |
| 2-2<br>Revised  | Stormwater poster contest for 5 <sup>th</sup> grade students | DPW/SuAsCo                           | Hold a stormwater awareness poster contest, judge and display it.       | Since we received the plan from SuAsCo later than expected, this will be implemented in the fall of 2005 with the lesson plan. | School department has decided not to use the supplied package. We are exploring other options.                                                                         |
| 2-3<br>Revised  | Stormwater photo contest for high school students            | DPW/Suasco                           | A stormwater photo contest is held, judged, and displayed               | SuAsCo has decided to abandon the contest.                                                                                     | None at this time.                                                                                                                                                     |
| 2-4<br>Revised  | Stormwater Summit event                                      | DPW/Suasco                           | Hold a local Stormwater event                                           | Information has been gathered to support a public event.                                                                       | Currently on hold until the issuance of the next permit.                                                                                                               |



### 3. Illicit Discharge Detection and Elimination

| BMP ID # | BMP Description                                                                   | Responsible Dept./Person Name | Measurable Goal(s)                                                                                               | Progress on Goal(s) – Permit Year 9<br>(Reliance on non-municipal partners indicated, if any)                                                                                                                                           | Planned Activities – Permit Year                                                                      |
|----------|-----------------------------------------------------------------------------------|-------------------------------|------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| 3-1      | Create a stormwater system map                                                    | DPW                           | Develop a stormwater system map, maintain and update as needed                                                   | Approximately 95% of the town drainage system mapped and all new construction added.                                                                                                                                                    | Continued mapping and updating of existing information. See self-assessment.                          |
| Revised  |                                                                                   |                               |                                                                                                                  |                                                                                                                                                                                                                                         |                                                                                                       |
| 3-4      | Increase number of Haz Mat days                                                   | Recycling/DPW                 | Make disposal easier of hazardous materials                                                                      | Days have been expanded to spring and fall haz mat days, electronics days, brush drop off days and metal drop off days. There are also bins available in Town Hall for recycling of light bulbs, batteries cardboard, etc all the time. | Continued support for these days                                                                      |
| Revised  |                                                                                   |                               |                                                                                                                  |                                                                                                                                                                                                                                         |                                                                                                       |
| 3-2      | Create an illicit discharge inspection/elimination plan                           | DPW                           | Develop a plan to locate and eliminate illicit and illegal connections                                           | Target areas and map system for connections                                                                                                                                                                                             | We have inspected multiple areas for connections and plan on continued inspections in targeted areas. |
| Revised  |                                                                                   |                               |                                                                                                                  |                                                                                                                                                                                                                                         |                                                                                                       |
| 3-3      | Develop and implement an ordinance that prohibits illicit and illegal connections | DPW                           | An ordinance is developed to prevent illicit and illegal stormwater and non-stormwater connections to the system | Working to develop this into a bylaw that will best suit the Town of Chelmsford                                                                                                                                                         | Bylaw was approved at April 2010 Town Meeting.                                                        |
| Revised  |                                                                                   |                               |                                                                                                                  |                                                                                                                                                                                                                                         |                                                                                                       |
| Revised  |                                                                                   |                               |                                                                                                                  |                                                                                                                                                                                                                                         |                                                                                                       |
| Revised  |                                                                                   |                               |                                                                                                                  |                                                                                                                                                                                                                                         |                                                                                                       |





#### 4. Construction Site Stormwater Runoff Control

| BMP ID #       | BMP Description                                                                          | Responsible Dept./Person Name | Measurable Goal(s)                                                     | Progress on Goal(s) – Permit Year 9<br>(Reliance on non-municipal partners indicated, if any)                                                                     | Planned Activities – Permit Year                                                                                     |
|----------------|------------------------------------------------------------------------------------------|-------------------------------|------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| 4-2<br>Revised | Plan reviews                                                                             | DPW                           | All plans reviewed for water quality issues and concerns               | Currently reviewing plans for standard water protection theories and making contractors aware of the Phase 2 program and its requirements                         | Continued review of plans for revised current stormwater regulations.                                                |
| 4-3<br>Revised | Site inspections of construction projects                                                | DPW/Community Development     | Periodic inspection of ongoing sites                                   | Have worked with contractors on installation of hay bales/straw wattles and silt fencing, construction entrances and protective measures                          | Continued inspections and enforcement of the proposed erosion and sediment control plans presented by the developers |
| 4-4<br>Revised | All work with the public right of way inspected to prevent erosion and sediment build up | DPW                           | Minimize and/or prevent sediment from entering the public right of way | Have instructed all contractors to have gravel construction entrances, periodically sweep streets and all silt sack protection to existing basins where necessary | Continued inspections and enforcement.                                                                               |
| 4-1<br>Revised | Development of an erosion and sediment control by-law for all construction projects      | DPW/Community Development     | Develop and implement a by-law                                         | See self assessment.                                                                                                                                              | See self assessment.                                                                                                 |
| Revised        |                                                                                          |                               |                                                                        |                                                                                                                                                                   |                                                                                                                      |
| Revised        |                                                                                          |                               |                                                                        |                                                                                                                                                                   |                                                                                                                      |
| 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 9 (Reliance on non-municipal partners indicated, if any)                                                                                                           | Planned Activities – Permit Year                                                                                                                                                                               |
|----------|----------------------------------------------------------------------------------------------------------|-------------------------------|----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5-3      | Post construction inspection of regulated projects                                                       | DPW                           | Inspections are performed to ensure proper construction and that facilities are working as they where proposed | Design engineers are required to submit as-builts and letters certifying construction in accordance with the plans and follow up inspections by DPW to ensure the facilities are working as proposed | Continued inspection and recommend to private system owners maintain their systems in accordance with the design or proposed post construction plan along with the approved operations and maintenance manual. |
| Revised  |                                                                                                          |                               |                                                                                                                |                                                                                                                                                                                                      |                                                                                                                                                                                                                |
| 5-2      | Develop a list of BMP's for the post construction maintenance schedule                                   | DPW                           | Develop a list as a guideline for post construction maintenance                                                | We have worked with the local engineers and developers to have parameters for post construction maintenance of facilities.                                                                           | Continued work on a finalized list to be added into our regulations. Also have worked with private property owners on maintenance of systems.                                                                  |
| Revised  |                                                                                                          |                               |                                                                                                                |                                                                                                                                                                                                      |                                                                                                                                                                                                                |
| 5-1      | Develop a by-law to require certain construction sites to follow MADEP stormwater standards 2,3,4, and 7 | DPW/Community Development     | All regulated projects required to follow same standards                                                       | See self assessment.                                                                                                                                                                                 | See self assessment                                                                                                                                                                                            |
| Revised  |                                                                                                          |                               |                                                                                                                |                                                                                                                                                                                                      |                                                                                                                                                                                                                |
| Revised  |                                                                                                          |                               |                                                                                                                |                                                                                                                                                                                                      |                                                                                                                                                                                                                |
| Revised  |                                                                                                          |                               |                                                                                                                |                                                                                                                                                                                                      |                                                                                                                                                                                                                |
| Revised  |                                                                                                          |                               |                                                                                                                |                                                                                                                                                                                                      |                                                                                                                                                                                                                |

## 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 9<br>(Reliance on non-municipal partners indicated, if any)                     | Planned Activities – Permit Year                                                                                                                                         |
|----------------|--------------------------------------------------------------------------------|-------------------------------|--------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 6-1<br>Revised | Catch Basin cleaning                                                           | DPW                           | Continuation of current catch basin cleaning schedule                                                  | Every catch basin was cleaned last year due to the town receiving a grant to supplement the regular budget.       | Catch basin cleaning is currently scheduled for the upcoming season and additional funding opportunities are being explored to ensure that all catch basins are cleaned. |
| 6-2<br>Revised | Street Sweeping                                                                | DPW                           | Continuation of the current street sweeping program                                                    | All public streets, sidewalks and municipal parking lots are swept utilizing the town owned and operated sweepers | Continued spring sweeping schedule                                                                                                                                       |
| 6-3<br>Revised | Stormwater pollution plan in place and in effect for DPW facility              | DPW                           | Maintain the current plan and update as needed                                                         | Continued maintenance of oil separator, traps and containment systems.                                            | Ongoing operation and maintenance                                                                                                                                        |
| 6-6<br>Revised | Identify catch basins in poor condition and repair or replace those structures | DPW                           | Utilize mapping to identify facilities in poor condition and repair or replace a minimum of 5 per year | Repaired or replaced approximately 75 drainage structures.                                                        | Ongoing maintenance                                                                                                                                                      |
| 6-7<br>Revised | DPW drainage maintenance permit                                                | DPW                           | Renew drainage facility maintenance permit                                                             | Town wide permit was renewed in December 2007. Several areas were dredged or cleaned over the past winter.        | Continued drainage area maintenance and renewal of our permit.                                                                                                           |
| 6-4<br>Revised | Develop a training program for DPW employees                                   | DPW                           | Employee training program established                                                                  | Employees have been trained in spill prevention and recovery and proper disposal of hazardous materials           | Continued training                                                                                                                                                       |

**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 9<br>(Reliance on non-municipal partners indicated, if any) | Planned Activities – Permit Year |
|----------|-----------------|-------------------------------|--------------------|-----------------------------------------------------------------------------------------------|----------------------------------|
|          | Not applicable  |                               |                    |                                                                                               |                                  |
| Revised  |                 |                               |                    |                                                                                               |                                  |
| Revised  |                 |                               |                    |                                                                                               |                                  |
| Revised  |                 |                               |                    |                                                                                               |                                  |
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| Revised  |                 |                               |                    |                                                                                               |                                  |