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**Municipality/Organization:** Town of Marion  
**EPA NPDES Permit Number:** 416-9000  
**MassDEP Transmittal Number:** W-  
**Annual Report Number & Reporting Period:** Year 10  
April 1, 2012 – March 31, 2013

## NPDES PII Small MS4 General Permit Annual Report (Due: May 1, 2013)

### Part I. General Information

**Contact Person:** Robert C. Zora **Title:** DPW Superintendent  
**Telephone #:** 508-748-3540 ext. 107 **Email:** rzora@marionma.gov  
**Mailing Address:** P.O. Box 1050, Marion, MA 02738

### Certification:

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

**Signature:** 

**Printed Name:** Robert C. Zora

**Title:** DPW Superintendent

**Date:** April 25, 2013

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

Working with our engineers, CDM Smith, the Town prepared a village area stormwater evaluation report, conducted a village area building inspection program to locate private I & I sources and implemented a wet-weather sampling program which has been completed. In 2013, we submitted a grant application to the Buzzards Bay National Estuaries Program for dry weather sampling but were denied. We will continue to look for other possible grants and money to proceed with this program. Once funding is located, we plan to continue with a dry weather sampling at 15 outfalls within the village area and other areas of Town to characterize stormwater run-off during the year.

At the Annual Town Meeting in May 2013, we will be asking for funding for Phase 1A of the Five-Phase Capital Improvement Plan. Phase 1A will replace 4,500 feet of drains and two down-stream defenders to improve water quality in Sippican Harbor.

### 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                                                            |
|----------------|------------------------|-------------------------------|-------------------------------|------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| 1-1<br>Revised | Educational Flyer      | DPW – Rob Zora                | Flyer printed and delivered   | Flyer has been prepared and distributed                                                        | Print and mail annually with May water & sewer bills.                         |
| 1-2<br>Revised | Annual Meeting Hearing | DPW – Rob Zora                | Meeting advertised and held   | Stormwater meetings held with Town Engineers CDM - Smith and working committee                 | On-Going meeting to be held with engineers on stormwater issues and projects. |
| 1-3<br>Revised | Posting of Maps        | DPW – Rob Zora                | Maps displayed                | Maps on display at Town Hall and DPW office                                                    | Maps displayed, On-Going                                                      |
| 1-4<br>Revised | Web Page               | Webmaster                     | Page developed and maintained | On-Going                                                                                       | On-Going                                                                      |
| Revised        |                        |                               |                               |                                                                                                |                                                                               |
| Revised        |                        |                               |                               |                                                                                                |                                                                               |

#### 1a. Additions

|  |  |  |  |  |  |
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## 2. Public Involvement and Participation

| BMP ID #       | BMP Description                 | Responsible Dept./Person Name | Measurable Goal(s)                             | Progress on Goal(s) – Permit Year 10 (Reliance on non-municipal partners indicated, if any) | Planned Activities                 |
|----------------|---------------------------------|-------------------------------|------------------------------------------------|---------------------------------------------------------------------------------------------|------------------------------------|
| 2-1<br>Revised | Public participation            | Board of Health and DPW       | Maintain a complaint report file               | On-Going                                                                                    | On-Going                           |
| 2-2<br>Revised | Stormwater Management Committee | DPW – Rob Zora                | Meet once a year                               | Held with CDM Smith. Towns engineer review sampling program held for meeting.               | Meeting semi annually, Aug and Nov |
| 2-3<br>Revised | Annual Selectmen's meeting      | DPW – Rob Zora                | Meeting advertised and held                    | Meeting held March with Selectmen and Town Engineers, CDM Smith                             | On-Going, meeting as needed        |
| 2-4<br>Revised | Storm Drain Stenciling          | DPW – Rob Zora                | Documentation of number of catch basins        | Stenciled and Painting need to be redone                                                    | Repainted, On-Going yearly         |
| 2-5<br>Revised | Hazardous Material Collection   | DPW – Rob Zora                | Documentation of Hazardous Material collection | May 4, 2013                                                                                 | On-Going, held yearly in May       |
| Revised        |                                 |                               |                                                |                                                                                             |                                    |

## 2a. Additions

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### 3. Illicit Discharge Detection and Elimination

| BMP ID #       | BMP Description                  | Responsible Dept./Person Name      | Measurable Goal(s)                      | Progress on Goal(s) – Permit Year 10<br>(Reliance on non-municipal partners indicated, if any) | Planned Activities |
|----------------|----------------------------------|------------------------------------|-----------------------------------------|------------------------------------------------------------------------------------------------|--------------------|
| 3-1<br>Revised | Discharge Identification         | Harbormaster and Marine Department | Production of maps                      | All located and checked yearly                                                                 | On-Going           |
| 3-2<br>Revised | Drainage mapping                 | Harbormaster and Marine Department | Production of maps                      | Displayed – Town Hall, Library and DPW office                                                  | On-Going           |
| 3-3<br>Revised | Illicit Discharge Identification | DPW and Board of Health            | Quantity illicit discharges and correct | Fall                                                                                           | On-Going           |
| 3-4<br>Revised | Illicit Discharge Identification | Board of Health                    | Necessary Regulation changes made       | None                                                                                           | On-Going           |
| 3-5<br>Revised | Board of Health Training         | Board of Health                    | Meeting held                            | Winter                                                                                         | On-Going annually  |
| Revised        |                                  |                                    |                                         |                                                                                                |                    |

### 3a. Additions

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#### 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 |
|----------------|----------------------------------------------|-------------------------------|-----------------------------------------------------|------------------------------------------------------------------------------------------------|--------------------|
| 4-1<br>Revised | Conservation Committee Bylaw Review          | Conservation Committee        | Submission of articles at Town Meeting if necessary | On-Going Annually no articles                                                                  | On-Going Annually  |
| 4-2<br>Revised | Planning Board Subdivision Regulation Review | Planning Board                | Submission of articles at Town Meeting if necessary | No articles                                                                                    | On-Going Annually  |
| 4-3<br>Revised | Planning Board Zoning Bylaw Review Change    | Planning Board                | Submission of articles at Town Meeting if necessary | On-Going annually no articles                                                                  | On-Going Annually  |
| Revised        |                                              |                               |                                                     |                                                                                                |                    |
| Revised        |                                              |                               |                                                     |                                                                                                |                    |
| Revised        |                                              |                               |                                                     |                                                                                                |                    |
| Revised        |                                              |                               |                                                     |                                                                                                |                    |

#### 4a. Additions

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## 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 (Reliance on non-municipal partners indicated, if any) | Planned Activities |
|----------------|-----------------------------------------------------|-------------------------------|--------------------------------------------------|---------------------------------------------------------------------------------------------|--------------------|
| 5-1<br>Revised | Conservation Committee By-Law                       | Conservation Committee        | Reviewed Wetland By-Law                          | On-Going                                                                                    | On-Going           |
| 5-2<br>Revised | Planning Board Subdivision Regulations Review       | Planning Board                | Necessary regulation changes made                | Review, On-Going                                                                            | Review, On-Going   |
| 5-3<br>Revised | Planning Board, Zoning and new Zoning By-Law review | Planning Board                | Submission of town meeting articles if necessary | Review by March                                                                             | On-Going           |
| Revised        |                                                     |                               |                                                  |                                                                                             |                    |
| Revised        |                                                     |                               |                                                  |                                                                                             |                    |
| Revised        |                                                     |                               |                                                  |                                                                                             |                    |
| Revised        |                                                     |                               |                                                  |                                                                                             |                    |

### 5a. Additions

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## 6. Pollution Prevention and Good Housekeeping in Municipal Operations

| BMP ID #       | BMP Description     | Responsible Dept./Person Name | Measurable Goal(s)            | Progress on Goal(s) – Permit Year 10 (Reliance on non-municipal partners indicated, if any) | Planned Activities      |
|----------------|---------------------|-------------------------------|-------------------------------|---------------------------------------------------------------------------------------------|-------------------------|
| 6-1<br>Revised | DPW Policy Guide    | DPW – Rob Zora                | Preparation of policy guide   | On-Going                                                                                    | On-Going                |
| 6-2<br>Revised | DPW Annual Training | DPW – Rob Zora                | Completion of annual training | Annual in January                                                                           | On-Going in January     |
| 6-3<br>Revised | DPW Permit Filing   | DPW – Rob Zora                | Copies of permits on file     | Permits filed, On-Going                                                                     | Permits filed, On-Going |
| Revised        |                     |                               |                               |                                                                                             |                         |
| Revised        |                     |                               |                               |                                                                                             |                         |
| Revised        |                     |                               |                               |                                                                                             |                         |
| Revised        |                     |                               |                               |                                                                                             |                         |

### 6a. Additions

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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 8<br>(Reliance on non-municipal partners indicated, if any) | Planned Activities |
|----------|-----------------|-------------------------------|--------------------|-----------------------------------------------------------------------------------------------|--------------------|
| Revised  |                 |                               |                    |                                                                                               |                    |
| Revised  |                 |                               |                    |                                                                                               |                    |
| Revised  |                 |                               |                    |                                                                                               |                    |
| Revised  |                 |                               |                    |                                                                                               |                    |
| Revised  |                 |                               |                    |                                                                                               |                    |
| Revised  |                 |                               |                    |                                                                                               |                    |
| Revised  |                 |                               |                    |                                                                                               |                    |

7a. Additions

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7b. WLA Assessment

## Part IV. Summary of Information Collected and Analyzed

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

(Since beginning of permit coverage unless specified otherwise by a \*\*, which indicates response is for period covering April 1, 2010 through March 31, 2011)

#### Programmatic

|                                                               | (Preferred Units) | Response |
|---------------------------------------------------------------|-------------------|----------|
| Stormwater management position created/staffed                | (y/n)             |          |
| Annual program budget/expenditures **                         | (\$)1500          | Estimate |
| Total program expenditures since beginning of permit coverage | (\$)6500          | Estimate |
| Funding mechanism(s) (General Fund, Enterprise, Utility, etc) | DPW<br>Budget     |          |
|                                                               |                   |          |

#### Education, Involvement, and Training

|                                                                            |               |         |
|----------------------------------------------------------------------------|---------------|---------|
| Estimated number of property owners reached by education program(s)        | (# or %)      | 85      |
| Stormwater management committee established                                | (y/n)         | Y       |
| Stream teams established or supported                                      | (# or y/n)    | N       |
| Shoreline clean-up participation or quantity of shoreline miles cleaned ** | (y/n or mi.)  | Y - May |
| Shoreline cleaned since beginning of permit coverage                       | (mi.)         |         |
| Household Hazardous Waste Collection Days                                  |               |         |
| ■ days sponsored **                                                        | (#)           | 1       |
| ■ community participation **                                               | (# or %)      | unknown |
| ■ material collected **                                                    | (tons or gal) |         |
| School curricula implemented                                               | (y/n)         | N       |
|                                                                            |               |         |

## Legal/Regulatory

| Regulatory Mechanism Status (indicate with "X")    | In Place<br>Prior to<br>Phase II | Reviewing<br>Existing<br>Authorities | Drafted | Draft<br>in<br>Review | Adopted |
|----------------------------------------------------|----------------------------------|--------------------------------------|---------|-----------------------|---------|
| ▪ Illicit Discharge Detection & Elimination        | X                                | 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

|                                                                    | (Preferred Units)      |  | Response |
|--------------------------------------------------------------------|------------------------|--|----------|
| Outfall mapping complete                                           | (%)                    |  | 100      |
| Estimated or actual number of outfalls                             | (#)                    |  | 127      |
| System-Wide mapping complete (complete storm sewer infrastructure) | (%)                    |  | 100      |
| Mapping method(s)                                                  |                        |  |          |
| ▪ Paper/Mylar                                                      | (%)                    |  | 100      |
| ▪ CADD                                                             | (%)                    |  | 100      |
| ▪ GIS                                                              | (%)                    |  | 100      |
| Outfalls inspected/screened **                                     | (# or %)               |  | 0        |
| Outfalls inspected/screened (Since beginning of permit coverage)   | (# or %)               |  | 0        |
| Illicit discharges identified **                                   | (#)                    |  | 0        |
| Illicit discharges identified (Since beginning of permit coverage) | (#)                    |  | 0        |
| Illicit connections removed **                                     | (#); and<br>(est. gpd) |  | 0        |
| Illicit connections removed (Since beginning of permit coverage)   | (#); and<br>(est. gpd) |  | 0        |
| % of population on sewer                                           | (%)                    |  | 75       |
| % of population on septic systems                                  | (%)                    |  | 25       |

## Construction

|                                                                                                      | (Preferred Units) | Response |
|------------------------------------------------------------------------------------------------------|-------------------|----------|
| Number of construction starts (>1-acre) **                                                           | (#)               | 2        |
| Estimated percentage of construction starts adequately regulated for erosion and sediment control ** | (%)               | 100      |
| Site inspections completed **                                                                        | (# or %)          | 100      |
| 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)    | N   |
| 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)     | 1            |
| Qty of structures cleaned **                                                                 | (#)            | 350          |
| Qty. of storm drain cleaned **                                                               | (%, LF or mi.) | 2 Miles Est. |
| Qty. of screenings/debris removed from storm sewer infrastructure **                         | (lbs. or tons) | 20 Tons      |
| Disposal or use of screenings (landfill, POTW, compost, beneficial use, etc.) **             | (location)     | Compost      |



|                                                   |                         |         |
|---------------------------------------------------|-------------------------|---------|
| Basin Cleaning Costs                              |                         |         |
| • Annual budget/expenditure (labor & equipment)** | (\$)                    | 6,000   |
| • Hourly or per basin contract rate **            | (\$/hr or \$ per basin) | N/A     |
| • Disposal cost**                                 | (\$)                    | 0       |
| Cleaning Equipment                                |                         |         |
| • Clam shell truck(s) owned/leased                | (#)                     |         |
| • Vacuum truck(s) owned/leased                    | (#)                     | 1 owned |
| • Vacuum trucks specified in contracts            | (y/n)                   |         |
| • % Structures cleaned with clam shells **        | (%)                     |         |
| • % Structures cleaned with vacor **              | (%)                     | 350     |

|                                                                                         | (Preferred Units)  | Response       |
|-----------------------------------------------------------------------------------------|--------------------|----------------|
| Average frequency of street sweeping (non-commercial/non-arterial streets) **           | (times/yr)         | 2              |
| Average frequency of street sweeping (commercial/arterial or other critical streets) ** | (times/yr)         | 2              |
| Qty. of sand/debris collected by sweeping **                                            | (lbs. or tons)     | 150 Ton        |
| Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.) **                | (location)         | Town Compost   |
| Annual Sweeping Costs                                                                   |                    |                |
| • Annual budget/expenditure (labor & equipment)**                                       | (\$)               | 10,000         |
| • Hourly or lane mile contract rate **                                                  | (\$/hr. or In mi.) | Town, in house |
| • Disposal cost**                                                                       | (\$)               | 0              |
| Sweeping Equipment                                                                      |                    |                |
| • Rotary brush street sweepers owned/leased                                             | (#)                | 0              |
| • Vacuum street sweepers owned/leased                                                   | (#)                | 1 owned        |
| • Vacuum street sweepers specified in contracts                                         | (y/n)              | N              |
| • % Roads swept with rotary brush sweepers **                                           | %                  | 0              |
| • % Roads swept with vacuum sweepers **                                                 | %                  | 100            |



Reduction (since beginning of permit coverage) 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 | (y/n)       |     |

|                                                                                                  | (Preferred Units)                                                                         | Response                       |
|--------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|--------------------------------|
| Average Ratio of Anti-/De-Icing products used **                                                 | % NaCl<br>% CaCl <sub>2</sub><br>% MgCl <sub>2</sub><br>% CMA<br>% Kac<br>% KCl<br>% Sand | 10%<br><br><br><br><br><br>80% |
| (also identify chemicals and ratios used in specific areas, e.g., water supply protection areas) |                                                                                           |                                |
| Pre-wetting techniques utilized **                                                               | (y/n or %)                                                                                | N                              |
| Manual control spreaders used **                                                                 | (y/n or %)                                                                                | N                              |
| Zero-velocity spreaders used **                                                                  | (y/n or %)                                                                                | Y                              |
| Estimated net reduction or increase in typical year salt/chemical application rate               | (±lbs/ln mi.<br>or %)                                                                     | Less                           |
| Estimated net reduction or increase in typical year sand application rate **                     | (±lbs/ln mi.<br>or %)                                                                     | Less                           |
| % of salt/chemical pile(s) covered in storage shed(s)                                            | (%)                                                                                       | 0                              |
| Storage shed(s) in design or under construction                                                  | (y/n or #)                                                                                | N                              |
| 100% of salt/chemical pile(s) covered in storage shed(s) by May 2008                             | (y/n)                                                                                     | No, covered only               |
|                                                                                                  |                                                                                           |                                |
|                                                                                                  |                                                                                           |                                |

## Water Supply Protection

|                                                                                                   |  |          |   |
|---------------------------------------------------------------------------------------------------|--|----------|---|
| Storm water outfalls to public water supplies eliminated or relocated                             |  | # or y/n | Y |
| Installed or planned treatment BMPs for public drinking water supplies and their protection areas |  | # or y/n | Y |
| Treatment units induce infiltration within 500-feet of a wellhead protection area                 |  | # or y/n | N |