

**TOWN OF MASHPEE  
DEPARTMENT OF PUBLIC WORKS**

**350 Meetinghouse Road  
Mashpee, MA 02649  
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**FASCIMILE**

**DATE:** April 27, 2006

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**TO:** Ann Herrick, EPA New England

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**Fax Number:** 617-918-0505

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**FROM:** Catherine Laurent

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**re:** Year 3 Annual Report, NPDES Phase II Small MS4 General Permit

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**# of Pages (including cover page) :** 12

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**Comments:**

**Municipality/Organization: Town of Mashpee**

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**EPA NPDES Permit Number: MAR041129**

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**Annual Report Number**

**& Reporting Period: No. 3: March 05 – April 06**

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## NPDES PII Small MS4 General Permit Annual Report

### Part I. General Information

Contact Person: Catherine Laurent

Title: Assistant DPW Director

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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: Joyce M. Mason

Printed Name: Joyce M. Mason

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Title: Town Manager

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Date: April 26, 2006

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**Part II. Self-Assessment**

The Town of Mashpee has completed the required self-assessment and has determined that our municipality is in compliance with all permit conditions, except for the following provisions:

- Part 1.B.2.(k)      The Town has not yet implemented a water monitoring program so any discharges have not been conclusively determined to be contributing to exceedance of water quality standards. Until such a program is developed and implemented, the Town will continue to eliminate direct discharge from roadways, with those roadways targeted where discharge is to a surface water.
  
- Part 1.B.2.(l)      See above.
  
- Part 1.C.            See above.
  
- Part 1.D.            See above.

**Part III. Summary of Minimum Control Measures**

**1. Public Education and Outreach**

| <b>BMP ID #</b> | <b>BMP Description</b>     | <b>Responsible Dept./Person Name</b>                     | <b>Measurable Goal(s)</b>   | <b>Progress on Goal(s) – Permit Year 3<br/>(Reliance on non-municipal partners indicated, if any)</b>   | <b>Planned Activities – Permit Year 4</b>   |
|-----------------|----------------------------|--|---|---|---|
| PE1             | Zone II Information        | Public Works;<br>Water District                          | Distribute information annually on protection of drinking water                                       | Worked on brochure for distribution to water users.   | Distribute brochure with water bill.  |
| Revised         |                            |  |   |   |   |
| PE2             | Storm Water Information    | Public Works;<br>County; Private Homeowners Associations | Develop and distribute information annually on impacts of storm water on water bodies and groundwater | Met with other Phase II coordinators on Cape Cod in regional group for public education.<br><br>Displayed posters produced by County and EPA.<br><br>Distributed at Library, Town Hall, and five school classrooms bookmarks with storm water impact information. | Continue to work with regional group.<br><br>Work with Homeowner Associations adjacent to surface waters to include information in Association newsletters.<br><br>Work with local media for broadcast of information on local cable access channel or publishing in local newspaper. |
| Revised         |                            |  |   |   |   |
| PE3             | Storm Drain Stenciling     | Public Works   | Stencil drains in target areas  | None to date.   | Order markers through County if option provided. Install in target areas.   |
| PP4             | Storm Water School Program | Public Works;<br>School Dept;<br>County                  | Develop program for presentation to Grades 3-5  | Gathered information on programs/presentations used by other Cape Cod towns   | Work with School Department to schedule program for school-wide assembly.   |

## 2. Public Involvement and Participation

| BMP ID # | BMP Description            | Responsible Dept./Person Name | Measurable Goal(s)  | Progress on Goal(s) – Permit Year 3<br>(Reliance on non-municipal partners indicated, if any)   | Planned Activities – Permit Year 4  |
|----------|----------------------------|-------------------------------|---|---|---|
| PP1      | Community Cleanups         | Public Works                  | Continue to organize annual cleanups of Town properties                                 | Conducted clean ups of several Town properties (Noisy Hole Road, Mashpee Wildlife Refuge)   | Continue conducting and working with others on clean ups.                         |
| Revised  |                            |                               |   | Worked with other property owners (Trustees of the Reservation, Orenda Wildlife Trust, Waquoit Bay National Estuarine Research Reserve) on clean ups.   |   |
| PP2      | Reciprocal HHP Collections | Public Works                  | Continue to provide HHP collections   | Held and funded with towns of Sandwich, Falmouth, and Bourne four collections of HHP from residents. Residents able to participate at no direct cost. Eleven percent (11%) of Mashpee households participated.        | Continue collections. Work to increase participation through increased publicity. |
| Revised  |                            |                               |   |   |   |
| PP3      | Permanent HHP Collections  | Public Works                  | Continue to provide permanent collection of certain products at Transfer Station        | Collected used oil (2,610 gallons), spent antifreeze (160 gallons), CRTs (49 tons), car batteries (5 tons), rechargeable batteries (5 boxes), and mercury products (including over 7,070 LF of bulbs) from residents. | Continue collection.  |
| Revised  |                            |                               |   |   |   |
| PP4      | Pooper Scoopers            | Animal Control                | Expand provision of "pooper scoopers" on Town properties beginning in '03               | Maintained existing pooper scoopers.  | Identify other areas for provision of pooper scoopers and install.                |
| Revised  |                            |                               |   |   |   |
| PP5      | Fertilizer/Pesticide Use   | Public Works;<br>Health       | Develop and distribute information on effects of fertilizer and pesticides use on water | Switched to use of organic fertilizers on certain Town properties.  | Begin drafting brochure.  |
| Revised  |                            |                               |   |   |   |

|     |                            |                      |   |               |  |
|-----|----------------------------|----------------------|---|---------------|--|
| PP6 | Regulatory Board Education | Public Works; County | Develop educational program for regulatory boards/commissions | None to date. | Work with regional group to develop guide/presentation for specific regulatory boards/commissions to review their authority and to educate them on reviewing projects for storm water controls |
|-----|----------------------------|----------------------|---|---------------|--|

**3. Illicit Discharge Detection and Elimination**

| BMP ID #        | BMP Description                  | Responsible Dept./Person Name | Measurable Goal(s)  | Progress on Goal(s) – Permit Year 3<br>(Reliance on non-municipal partners indicated, if any)   | Planned Activities – Permit Year 4  |
|-----------------|----------------------------------|-------------------------------|---|---|---|
| IDD1<br>Revised | Outfall Identification           | Public Works; Shellfish       | Map drainage and outfall locations  | AmeriCorps member creating drainage data layer on Town's GIS System from drainage data points collected by Senior Environmental Corps. Spot checking data points in field for accuracy. NOTE: Town of Mashpee does not have a piped storm water system. | Update data layer as necessary.   |
| IDD2<br>Revised | Prohibition of Illicit Discharge | Public Works                  | Amend General Bylaw to explicitly prohibit illicit discharge  | Reviewed existing language in General Bylaw. Currently contains prohibition against discharge of certain substances to waters or shores of Mashpee.   | Develop amendment for Town Meeting to prohibit discharge of other substances as well as prohibition against dumping into road drainage systems. |
| IDD3<br>Revised | Reduction of Direct Discharge    | Public Works                  | Install drainage system to eliminate direct discharge   | Installed drainage structures during road reconstruction to eliminate direct discharge of street storm water runoff   | Continue to install drainage during planned road construction projects.   |
| IDD4            | Water Monitoring Program         | Public Works; Shellfish       | Develop volunteer monitoring program to test and identify pollutants and determine potential sources in '06 and '07 | None to date.   | Collect information on similar programs in other towns.   |

|      |                                     |                            |   |                        |   |
|------|-------------------------------------|----------------------------|---|------------------------|---|
| IDD5 | Identification of Illicit Discharge | Public Works; Conservation | Identify illicit discharges, contact responsible party, and work to eliminate | Outfalls mapped (IDD1) | Monitor outfalls for illicit discharge. |
|------|-------------------------------------|----------------------------|---|------------------------|---|

#### 4. Construction Site Stormwater Runoff Control

| BMP ID # | BMP Description                              | Responsible Dept./Person Name                  | Measurable Goal(s)   | Progress on Goal(s) – Permit Year 3<br>(Reliance on non-municipal partners indicated, if any)                        | Planned Activities – Permit Year 4  |
|----------|--|--|--|--|---|
| CSR1     | Review and Amendment of Existing Regulations | Public Works; Planning; Conservation           | Review regulations for existing controls and amend as necessary        | General Bylaw for Erosion and Sedimentation Control during site clearing and construction approved at Fall 2005 STM. | Work with Conservation Agent and Planner to amend Subdivision regulations and Wetlands regulations. |
| Revised  |  |  |  |  |   |
| CSR2     | Inspection Program                           | Public Works; Planning; Conservation; Building | Develop inspection program to ensure compliance with required controls | None to date.  | Begin drafting inspection program for inclusion in applicable regulations as developed by CSRI.     |
| 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 3<br>(Reliance on non-municipal partners indicated, if any) | Planned Activities – Permit Year 4  |
|----------|--------------------------------|--------------------------------------|---|---|---|
| PCR1     | Review of Existing Regulations | Public Works; Planning; Conservation | Review regulations for existing controls and amend as necessary | See CSRI above.   | See CSRI above.   |
| Revised  |                                |                                      |   |   | Work with Conservation Agent and Planner to amend Subdivision regulations and Wetlands regulations. |

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

| <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 3<br/>(Reliance on non-municipal partners indicated, if any)</b>        | <b>Planned Activities – Permit Year 4</b>          |
|-----------------|-------------------------------|--------------------------------------|--|--|--|
| MGH1<br>Revised | Street Sweeping               | Public Works                         | Continue to sweep Town roads annually                              | Swept 70± miles of road (all Town roads) in Spring 2006 after winter sanding.                                | Continue sweeping program.                         |
| MGH2<br>Revised | Catch Basin Cleaning          | Public Works                         | Continue to clean catch basins annually                            | Cleaned approximately 1,200 catch basins in Fall 2005 and Spring 2006 (some catch basins cleaned each time). | Continue semi-annual catch basin cleaning program. |
| MGH3<br>Revised | Spill Training                | Public Works                         | Provide annual training to employees                               | Provided annual training to DPW employees on spill prevention and spill clean up                             | Continue training.                                 |
| MGH4<br>Revised | Minimization of Road Salt Use | Public Works                         | Continue to minimize application of salt on roads and parking lots | Used 3:1 ratio of sand to salt during winter ice and snow operations.  | Continue with low salt use.                        |

**7. BMPs for Meeting Total Maximum Daily Load (TMDL) Waste Load Allocations (WLA) <<if applicable>>**

| <b>BMP ID #</b> | <b>BMP Description</b>        | <b>Responsible Dept./Person Name</b> | <b>Measurable Goal(s)</b> | <b>Progress on Goal(s) – Permit Year 3<br/>(Reliance on non-municipal partners indicated, if any)</b> | <b>Planned Activities – Permit Year 4</b> |
|-----------------|-------------------------------|--------------------------------------|---------------------------|---|---|
| IDD3<br>Revised | Water Monitoring Program      | Public Works;<br>Shellfish           |                           | See #3 above  |   |
| IDD2<br>Revised | Reduction of Direct Discharge | Public Works                         |                           | See #3 above  |   |



|       |  |                         |   |               |   |
|-------|--|-------------------------|---|---------------|---|
| TMDL1 | Development and Implementation of BMPs | Public Works; Shellfish | Develop BMPs to address the other sources of pollutants exceeding the TMDLs for a water body in '07 | None to date. | None directly proposed. Activities for IDD4 and IDD5 will provide base of information for this BMP in future years. |
|-------|--|-------------------------|---|---------------|---|

**7b. WLA Assessment**

A WLA has not yet been conducted.

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

No information collected.

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

**Programmatic**

|  |       |  |
|--|-------|--|
| Stormwater management position created/staffed | (y/n) |  |
| Annual program budget/expenditures             | (\$)  |  |
|  |       |  |
|  |       |  |

**Education, Involvement, and Training**

|   |          |  |
|---|----------|--|
| Estimated number of residents reached by education program(s) | (# or %) |  |
|---|----------|--|

|   |               |  |
|---|---------------|--|
| Stormwater management committee established                             | (y/n)         |  |
| Stream teams established or supported                                   | (# or y/n)    |  |
| Shoreline clean-up participation or quantity of shoreline miles cleaned | (y/n or mi.)  |  |
| Household Hazardous Waste Collection Days                               |               |  |
| ▪ days sponsored  | (#)           |  |
| ▪ community participation   | (%)           |  |
| ▪ material collected  | (tons or gal) |  |
| School curricula implemented  | (y/n)         |  |

**Legal/Regulatory**

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

**Mapping and Illicit Discharges**

|  |          |  |
|--|----------|--|
| Outfall mapping complete               | (%)      |  |
| Estimated or actual number of outfalls | (#)      |  |
| System-Wide mapping complete           | (%)      |  |
| Mapping method(s)                      |          |  |
| ▪ Paper/Mylar                          | (%)      |  |
| ▪ CADD                                 | (%)      |  |
| ▪ GIS                                  | (%)      |  |
| Outfalls inspected/screened            | (# or %) |  |

|                                   |                   |  |
|-----------------------------------|-------------------|--|
| Illicit discharges identified     | (#)               |  |
| Illicit connections removed       | (#)<br>(est. gpd) |  |
| % of population on sewer          | (%)               |  |
| % of population on septic systems | (%)               |  |

### Construction

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

### Post-Development Stormwater Management

|  |          |  |
|--|----------|--|
| Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control | (%)      |  |
| Site inspections completed   | (# or %) |  |
| Estimated volume of stormwater recharged   | (gpy)    |  |
|  |          |  |
|  |          |  |

### Operations and Maintenance

|   |                |  |
|---|----------------|--|
| Average frequency of catch basin cleaning (non-commercial/non-arterial streets)           | (times/yr)     |  |
| Average frequency of catch basin cleaning (commercial/arterial or other critical streets) | (times/yr)     |  |
| Total number of structures cleaned  | (#)            |  |
| Storm drain cleaned   | (LF or mi.)    |  |
| Qty. of screenings/debris removed from storm sewer infrastructure                         | (lbs. or tons) |  |

|  |      |  |
|--|------|--|
| Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.) |      |  |
| Cost of screenings disposal  | (\$) |  |

|  |                |  |
|--|----------------|--|
| Average frequency of street sweeping (non-commercial/non-arterial streets)           | (times/yr)     |  |
| Average frequency of street sweeping (commercial/arterial or other critical streets) | (times/yr)     |  |
| Qty. of sand/debris collected by sweeping  | (lbs. or tons) |  |
| Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)                | (location)     |  |
| Cost of sweepings disposal   | (\$)           |  |
| Vacuum street sweepers purchased/leased  | (#)            |  |
| Vacuum street sweepers specified in contracts  | (y/n)          |  |
|  |                |  |
|  |                |  |

|  |             |  |
|--|-------------|--|
| Reduction in application on public land of: ("N/A" = never used; "100%" = elimination) |             |  |
| ▪ Fertilizers  | (lbs. or %) |  |
| ▪ Herbicides   | (lbs. or %) |  |
| ▪ Pesticides   | (lbs. or %) |  |

|  |   |  |
|--|---|--|
| 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 |  |
| Pre-wetting techniques utilized                          | (y/n)   |  |
| Manual control spreaders used                            | (y/n)   |  |
| Automatic or Zero-velocity spreaders used                | (y/n)   |  |
| Estimated net reduction in typical year salt application | (lbs. or %)   |  |
| Salt pile(s) covered in storage shed(s)                  | (y/n)   |  |
| Storage shed(s) in design or under construction          | (y/n)   |  |