

**Municipality/Organization:** Westwood Massachusetts

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**EPA NPDES Permit Number:** MA 041069/MA DEP

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**MaDEP Transmittal Number:** W- 036108

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**Annual Report Number  
& Reporting Period:** No. 4: March 06-March 07

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05/01/07  
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## NPDES PII Small MS4 General Permit Annual Report

### Part I. General Information

**Contact Person:** Timothy Walsh **Title:** Director of Public Works

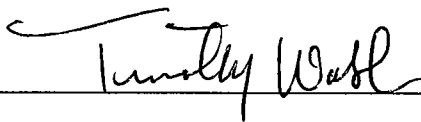
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**Telephone #:** 781-326-8661 **Email:** twalsh@townhall.westwood.ma.us

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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:** Timothy Walsh

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**Title:** Director of Public Works

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**Date:** April 30, 2007

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

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

Part 1.5 Survey of public awareness. The Survey has been posted online, the public has been notified and responses are on their way. (Attached)

Part 1.10 Catch Basin Stencil. A search is in process to find a company to create the stencils.

Part 3.13 Effective storm sewer bylaw – Bylaw has been written, needs to be reviewed by stormwater committee and needs approval.

Part 3.31 TMDL plans for implementation of BMP's to clean up polluted water bodies is in progress but yet to be completed.

**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 4</b><br>(Reliance on non-municipal partners indicated, if any)                                    | <b>Planned Activities – Permit Year 5</b>   |
|-----------------|--|--------------------------------------|---------------------------------------|---|---|
| 1.1             | Develop brochure to be Distributed with sewer bills. | DPW/<br>J.T. Walsh                   | Brochure 1/yr for 3 years             | Year 4 – Brochure was printed and mailed (see enclosure)  | Adjust brochure based on responses from public survey.  |
| Revised         |  |                                      | Brochures continue to be distributed. |   |   |
| 1.3             | Establish storm water hotline.                       | DPW/<br>J.T. Walsh                   | Storm water hotline 781-326-8661      | Maintained on website.  | Continue program.   |
| Revised         |  |                                      |                                       |   |   |
| 1.4             | Newspaper Article                                    | DPW/<br>J.T. Walsh                   | Article 1/yr for 3 years              | Article run in local paper explaining proposed by-law. (see enclosure) A second article was published describing an illicit connection. | An article will be written to address concerns raised from the public survey, after a substantial amount of them can be reviewed. |
| Revised         |  |                                      | Articles continue to be published.    |   |   |
| 1.5             | Survey of public awareness                           | DPW/<br>J.T. Walsh                   | Compilation of survey data            | Survey has been placed online and results have been coming in.  | Review survey results and adjust public education based on those results.   |
| Revised         |  |                                      |                                       |   |   |
| 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 4<br>(Reliance on non-municipal partners indicated, if any)  | Planned Activities – Permit Year 5  |
|-----------------|------------------------------------|-------------------------------|--|--|---|
| 2.6<br>Revised  | Signage for major tributaries      | DPW/<br>J.T. Walsh            | Signs  | Completed - Signs installed  | Maintain signs as needed.   |
| 2.7<br>Revised  | Storm water planning committee     | DPW/<br>J.T. Walsh            | Storm water planning committee                 |  | Reestablish committee. Review first 5 years of program, assess progress.                                |
| 2.8<br>Revised  | Volunteer water quality monitoring | DPW/<br>J.T. Walsh            | Monitoring results, identify cleanup if needed | Work done with NepRWA, sampling of brooks in Westwood. Volunteers take samples during dry weather and wet weather events. "Town Cleanup" website created by resident.<br><a href="http://www.keepourtownclean.com/ma/westwood/westwood.php">http://www.keepourtownclean.com/ma/westwood/westwood.php</a> | Continue work with NepRWA<br>Establish "Adopt a Stream/Area of Town" program to get residents involved. |
| 2.10<br>Revised | Catch basin stencil program        | DPW/<br>J.T. Walsh            | Catch basin Stenciling                         | Work was done to create the stencils to be used.   | Catch basins already stenciled will be identified and new basins will be stenciled.                     |
| 2.11<br>Revised | Establish Education Program        | Sch. Dept.                    | Engender public education support              | Working with existing 7 <sup>th</sup> grade program. Added program on watersheds and stormwater. Watershed in a box and 2' Topo mapping.   | Continue with this program.   |
| 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 4<br>(Reliance on non-municipal partners indicated, if any)   | Planned Activities – Permit Year 5  |
|------------------------|---|-------------------------------|---|---|---|
| 3.12<br>Revised        | Map outfalls & receiving waters                         | DPW/<br>J.T. Walsh            | GPS/GIS mapping                                       | Completed - 100% of drainage and sewer system mapped, including 220 outfalls.   | Add new drainage as needed.   |
| 3.13<br>Revised        | Effective storm sewer bylaw                             | DPW/<br>J.T. Walsh            | Storm Sewer Bylaw                                     | Bylaw has been drafted.   | Have stormwater committee review bylaw, and then obtain approval of selectmen and town meeting vote.                        |
| 3.14<br>Revised        | Dry weather screening of outfalls                       | DPW/<br>J.T. Walsh            | Report on dry weather screening                       | Samples taken of flowing outfalls during dry weather. One illicit connection found and removed.   | Re-Inspect all outfalls during dry weather to determine if any have illicit connections.<br>Program up to date and ongoing. |
| 3.15                   | Develop system for elimination of illicit discharges    | DPW/<br>J.T. Walsh            | Identification of illicit discharges                  | Combined efforts of the Engineering and Sewer department take several steps to identify source of E. Coli and Fecal Coli form in streams. | Program up to date. Continue program.   |
| 3.16                   | Apply the system from BMP 15, above                     | DPW<br>J.T. Walsh             | Remove Illicit discharge                              | Steps were applied and illicit connection was found and removed.  | Program up to date. Continue program.   |
| 3.18<br>Revised        | Hazardous waste recycling day                           | DPW/<br>J.T. Walsh            | Hazardous Waste Recycling Day                         | A town wide hazardous waste recycling day in September 2007.  | Anticipated Hazardous Waste Recycling Day in Fall 2008  |
| 3.20, 21,22<br>Revised | Dry & Wet weather sampling                              | DPW/<br>J.T. Walsh            | Reports on sampling                                   | Dry weather sampling see enclosed.  | Program ongoing and up to date.   |
| 3.23<br>Revised        | Dye test to find source of identified illicit discharge | DPW/<br>J.T. Walsh            | Reports for dye tests on identified illicit Discharge | Dye testing was the final step to determine the source of the illicit connection.   | Identification Completed.   |

|         |   |                    |                                       |   |   |
|---------|---|--------------------|---------------------------------------|---|---|
| 3.24    | Clean 5 miles of sanitary sewer each year           | DPW/<br>J.T. Walsh | Reports on cleaned sewer              | Cleaned 14.3 miles of sanitary sewer cleaned.         | Anticipated 10 miles of sanitary sewer will be cleaned. |
| Revised |   |                    |                                       |   |   |
| 3.25    | Camera to identify problem areas of sanitary sewer  | DPW/<br>J.T. Walsh | Reports on cleaned sewer              | 14.3 miles of sanitary sewer televised.               | Anticipated 10 miles of sanitary sewer will be cleaned. |
| Revised |   |                    |                                       |   |   |
| 3.28    | Publicize Reports of illicit discharges             | DPW/<br>J.T. Walsh | Newspaper article publicizing reports | Article in local newspaper and the NepRWA newsletter. | If illicit connection found, publicize report.          |
| Revised |   |                    |                                       |   |   |
| 3.29    | Sump pumps – 5 year program to eliminate surcharge. | DPW/<br>R. Angelo  | Elimination of illegal connections    | House to house inspections have continued.            | Continue house inspections within sewer I&I program.    |
| Revised |   |                    |                                       |   |   |

#### 4. Construction Site Stormwater Runoff Control

| BMP ID # | BMP Description                                   | Responsible Dept./Person Name | Measurable Goal(s)                        | Progress on Goal(s) – Permit Year 4<br>(Reliance on non-municipal partners indicated, if any) | Planned Activities – Permit Year 5   |
|----------|---|-------------------------------|---|---|--|
| 4.35     | Conduct regular inspections during construction   | DPW/<br>J.T. Walsh            | Inspections                               | Engineering Dept and Conservation Agent conduct inspections during construction               | Continue Program   |
| Revised  |   |                               |   |   |  |
| 4.37     | Mechanism for inquiries of on-going projects      | DPW/<br>J.T. Walsh            | Mechanism for public inquiries            | Monthly update on Web site  | Continue program, website to be expanded.  |
| Revised  |   |                               |   |   |  |
| 4.45     | Inspection of sites by Town Engineer w/ checklist | DPW/<br>J.Bertorelli          | Construction site inspection by checklist | Checklist has been established.   | Checklist will be used throughout the upcoming construction season. Permit will be distributed to bldg. department for earth removal and const. Sites. |
| Revised  |   |                               |   |   |  |
| Revised  |   |                               |   |   |  |
| Revised  |   |                               |   |   |  |
| Revised  |   |                               |   |   |  |

#### 4a. Additions

## 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 4<br>(Reliance on non-municipal partners indicated, if any) | Planned Activities – Permit Year 5  |
|-----------------|---|-------------------------------|--------------------------|---|---|
| 5.48<br>Revised | Add specific BMPs to Subdivision Rules/Regs       | PL.BD                         |                          | Revised Planning Board Rules/Regs being done.   | Complete Rules/Regs.  |
| 5.49<br>Revised | Require installation of Water Quality Enhancement | PL.BD                         | Water Quality Structures | Water quality structures included in design of new land development.                          | Continue to require water quality structures for development. Incorporate LID as part of plan review. |
| 5.50<br>Revised | Yearly report on installed BMPs                   |                               |                          |   |   |
| 5.51<br>Revised | Inspect discharges once a year                    | DPW/<br>J.T. Walsh            | Inspect Discharges       | Samples of known problems areas were taken.   | Re-inspect all outfalls during dry weather.   |
| 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 4<br>(Reliance on non-municipal partners indicated, if any) | Planned Activities – Permit Year 5    |
|-----------------|--|-------------------------------|---------------------------------------|---|---------------------------------------|
| 6.53<br>Revised | Improve street and parking lot sweeping    | DPW/<br>J.T. Walsh            | Cleaner streets and parking areas.    | Major roads are swept twice a year, Secondary roads once a year and then as needed.           | Continue street sweeping program.     |
| 6.55<br>Revised | Experiment with alternatives to road salt. | DPW/<br>J.T. Walsh            | Alternative roadway De-icing methods. | Ice-Ban is used to aid in de-icing roadways.  | Ice-Ban use will continue.            |
| 6.54<br>Revised | Improve CB operations.                     | DPW/<br>R. Phaneuf            | Report on material removed.           | All 2141 catch basins were cleaned in 2006.   | Catch basins will be cleaned in 2007. |
| 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 4<br>(Reliance on non-municipal partners indicated, if any) | Planned Activities – Permit Year 5 |
|----------|-----------------|-------------------------------|--------------------|---|------------------------------------|
| Revised  |                 |                               |                    |   |                                    |
| Revised  |                 |                               |                    |   |                                    |
| Revised  |                 |                               |                    |   |                                    |
| Revised  |                 |                               |                    |   |                                    |
| Revised  |                 |                               |                    |   |                                    |
| Revised  |                 |                               |                    |   |                                    |
| Revised  |                 |                               |                    |   |                                    |

**7a. Additions**

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## **7b. WLA Assessment**

The Town of Westwood's Phase II plan includes BMPs to identify bacteria sources in the stormwater system. Public education will provide residents with information about potential problems added to bacteria counts in the system. A program has been in place to teach the 7<sup>th</sup> graders in the Town of Westwood about stormwater and watersheds and how pollution can affect their lives. Field inspections and dry weather sampling have been conducted to detect bacteria in stormwater outfalls. Work has also been conducted with the Neponset River Watershed Association. Along with inspecting stormwater outfalls, approximately twelve miles of the sewer system was cleaned and videoed to detect any potential deficiencies.

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

The outfall to Mill Brook described in last years report was found to have an illicit connection in the drainage system upstream. This connection was located and has been corrected.

Several other outfalls were tested on August 31, 2006 and the results were not representative of any problems.

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

**Programmatic**

|  |       |      |
|--|-------|------|
| Stormwater management position created/staffed | (y/n) | n    |
| Annual program budget/expenditures             | (\$)  | 7000 |
|  |       |      |
|  |       |      |

**Education, Involvement, and Training**

|   |               |       |
|---|---------------|-------|
| Estimated number of residents reached by education program(s)           | (# or %)      | 14000 |
| 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.)  | n     |
| Household Hazardous Waste Collection Days                               |               |       |
| ▪ days sponsored  | (#)           | 1/yr  |
| ▪ community participation   | (%)           | 12    |
| ▪ material collected  | (tons or gal) |       |
| School curricula implemented  | (y/n)         | y     |

**Legal/Regulatory**

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

**Mapping and Illicit Discharges**

|  |                   |      |
|--|-------------------|------|
| Outfall mapping complete               | (%)               | 100% |
| Estimated or actual number of outfalls | (#)               | 220  |
| System-Wide mapping complete           | (%)               | 100% |
| Mapping method(s)                      |                   |      |
| ▪ Paper/Mylar                          | (%)               | 100% |
| ▪ CADD                                 | (%)               | 0    |
| ▪ GIS                                  | (%)               | 100% |
| Outfalls inspected/screened            | (# or %)          | 100% |
| Illicit discharges identified          | (#)               | 1    |
| Illicit connections removed            | (#)<br>(est. gpd) | 1    |
| % of population on sewer               | (%)               | 96%  |
| % of population on septic systems      | (%)               | 4%   |
|  |                   |      |
|  |                   |      |

**Construction**

|   |            |      |
|---|------------|------|
| Number of construction starts (>1-acre)   | (#)        | 2    |
| Estimated percentage of construction starts adequately regulated for erosion and sediment control | (%)        | 100  |
| Site inspections completed  | (# or %)   | 1/wk |
| 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 completed   | (# or %) |      |
| Estimated volume of stormwater recharged   | (gpy)    |      |
|  |          |      |
|  |          |      |

**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        |
| Total number of structures cleaned   | (#)            | 2141     |
| Storm drain cleaned  | (LF or mi.)    | 2 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.) |                | Landfill |
| Cost of screenings disposal  | (\$)           |          |
|  |                |          |
|  |                |          |

|  |                |         |
|--|----------------|---------|
| Average frequency of street sweeping (non-commercial/non-arterial streets)           | (times/yr)     | 1/yr    |
| Average frequency of street sweeping (commercial/arterial or other critical streets) | (times/yr)     | 2/yr    |
| Qty. of sand/debris collected by sweeping  | (lbs. or tons) |         |
| Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)                | (location)     | Compost |
| Cost of sweepings disposal   | (\$)           | 600     |
| Vacuum street sweepers purchased/leased  | (#)            | 0       |
| Vacuum street sweepers specified in contracts  | (y/n)          | 0       |
|  |                |         |
|  |                |         |

|  |             |   |
|--|-------------|---|
| Reduction in application on public land of: ("N/A" = never used; "100%" = elimination) |             |   |
| ▪ Fertilizers  | (lbs. or %) | 0 |
| ▪ Herbicides   | (lbs. or %) | 0 |
| ▪ Pesticides   | (lbs. or %) | 0 |
|  |             |   |
|  |             |   |

|  |   |         |
|--|---|---------|
| Anti-/De-Icing products and ratios: straight salt and magic used as needed<br>Ice Magic at 8 gallons per ton of salt<br>Magic = MgCL2 15.11% Protein 4.50% Iron 0.20ppm<br>Cacl2 1.5% Fat 0.80% Copper 0.70ppm<br>Crube Fibre 1.2% Manganese 0.50ppm<br>Kcl 1.00% Phosphorous 0.34% Zinc 1.3ppm<br>Nacl 1.00% Sulfur 0.34% Carbohydrates 11%<br>Magic is bio-degradable, safe around vegetation and people | % NaCl<br>% CaCl <sub>2</sub><br>% MgCl <sub>2</sub><br>% CMA<br>% Kac<br>% KCl<br>% Sand | 20% +/- |
| Pre-wetting techniques utilized  | (y/n)   | No      |
| Manual control spreaders used  | (y/n)   | Yes     |
| Automatic or Zero-velocity spreaders used  | (y/n)   | No      |
| Estimated net reduction in typical year salt application   | (lbs. or %)   | 10%     |
| Salt pile(s) covered in storage shed(s)  | (y/n)   | Yes     |
| Storage shed(s) in design or under construction  | (y/n)   | No      |
|  |   |         |
|  |   |         |