

**Municipality/Organization:** Wrentham Developmental Center

**EPA NPDES Permit Number:** MAR042030

**MassDEP Transmittal Number:** W- 035610

**Annual Report Number**

**& Reporting Period:**

April 1, 2007 – March 31, 2008

8  
5/1/2008

## **NPDES PII Small MS4 General Permit Annual Report (Due: May 1, 2008)**

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

**Contact Person:** Stephen Legendre

**Title:** Director of Operations

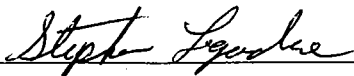
**Telephone #:** 508-384-1600, ext.1656

**Email:** [Steve.Legendre@state.ma.us](mailto:Steve.Legendre@state.ma.us)

**Mailing Address:** Wrentham Developmental center, P.O. Box 144, Wrentham, MA 02093

### **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:** Stephen Legendre

**Title:** Director of Operations

**Date:** April 18, 2008

**Wrentham Developmental Center: Permit # MAR042030, DEP Transmittal # W035610, Permit Year 5, 2007-2008**

**Part II. Self-Assessment:** The Wrentham Developmental Center has completed the required self-assessment and has determined that our municipality is in compliance with all permit conditions.

**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 5<br/>(Reliance on non-municipal partners indicated, if any)</b>   | <b>Planned Activities – Next Permit Year</b>                                                                                                                       |
|-----------------|-------------------------------------------------------------------|-------------------------------------------|--------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1-01            | Fact Sheet in newsletter                                          | Steve Legendre/<br>Director of Operations | Awareness / feedback                                               | Fact Sheet in newsletter distributed to all buildings and employees of facility                         | Maintain annual distribution of Storm Water Fact Sheet in newsletter, <u>CROSSROADS</u>                                                                            |
| Revised         |                                                                   |                                           |                                                                    |                                                                                                         |                                                                                                                                                                    |
| 1-02            | Notice posted in food and cleaning services buildings             | Steve Legendre/<br>Director of Operations | Awareness of proper disposal practices                             | Posters remain in visually conspicuous areas for the employees of these subcontracted service providers | Maintain storm water posters in designated areas                                                                                                                   |
| Revised         |                                                                   |                                           |                                                                    |                                                                                                         |                                                                                                                                                                    |
| 1-03            | Present a storm water fact sheet at each new employee orientation | Steve Legendre/<br>Director of Operations | Awareness / improved work habits                                   | Fact sheet distributed during each employee orientation                                                 | Continue to distribute fact sheet at each orientation to promote basic awareness among all new employees of SWMP, applicable BMPs, and participation opportunities |
| Revised         |                                                                   |                                           |                                                                    |                                                                                                         |                                                                                                                                                                    |
| 1-04            | Establish storm water education center in Operations Dept. Office | Steve Legendre/<br>Director of Operations | Availability of educational materials and SWMP reference materials | Storm Water education center established in Operations Dept. Office                                     | Maintain and improve storm water educational materials center                                                                                                      |
| Revised         |                                                                   |                                           |                                                                    |                                                                                                         |                                                                                                                                                                    |

**Wrentham Developmental Center: Permit # MAR042030, DEP Transmittal # W035610, Permit Year 5, 2007-2008**

**1a. Additions**

|  |  |  |  |  |  |
|--|--|--|--|--|--|
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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 5<br/>(Reliance on non-municipal partners indicated, if any)</b>                                                                                  | <b>Planned Activities – Next Permit Year</b>                                                               |
|-----------------|-----------------------------------------------------------------------|-------------------------------------------|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| 2-01            | Recruit designated person per shift; food and cleaning services       | Steve Legendre/<br>Director of Operations | Oversight with increased awareness | Annual Stormwater and Spill Prevention Meeting of all department heads, supervisory administrative personnel, food services manager, and cleaning services manager. (sign-in required) | Continue to administer Annual Storm Water and Spill Prevention Meeting.                                    |
| Revised         |                                                                       |                                           |                                    |                                                                                                                                                                                        |                                                                                                            |
| 2-02            | Request volunteers per employee Unit per shift through newsletter     | Steve Legendre/<br>Director of Operations | Oversight with increased awareness | Requests made by supervisory personnel attending Annual Storm Water Meeting                                                                                                            | Continue to request volunteers per Unit/Dept. per shift be watchful for proper disposal practices          |
| Revised         | <i>Request volunteers per Unit per shift by supervisory personnel</i> | Steve Legendre/<br>Director of Operations | Oversight with increased awareness |                                                                                                                                                                                        |                                                                                                            |
| 2-03            | Security Training/Awareness                                           | Steve Legendre/<br>Director of Operations | Reporting of incidents             | Security supervisor attendance at Annual Storm Water / Spill Prevention Meeting. Establish procedure for the reporting and response to incidents                                       | Security supervisor to attend Annual Storm Water Meeting and maintain documentation of incidents as needed |
| Revised         |                                                                       |                                           |                                    |                                                                                                                                                                                        |                                                                                                            |
| 2-04            | Training for Transport, Grounds, Paint, and all Maintenance Depts.    | Steve Legendre/<br>Director of Operations | Awareness/improved work habits     | Tailgate meetings to promote proper work habits as related to SWMP                                                                                                                     | Tailgate meetings to promote proper work habits as related to SWMP                                         |
| Revised         |                                                                       |                                           |                                    |                                                                                                                                                                                        |                                                                                                            |

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**2a. Additions**

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**3. Illicit Discharge Detection and Elimination**

| <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 5<br/>(Reliance on non-municipal partners indicated, if any)</b>                                     | <b>Planned Activities – Next Permit Year</b>                                                                                                                                                           |
|-----------------|---------------------------------------------------------------------|-------------------------------------------|---------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3-01            | Regularly inspect outfalls for dry weather discharges               | Steve Legendre/<br>Director of Operations | Early detection and correction                                                  | Continued monitoring of outfalls<br><br>No dry weather discharges detected                                                                | Continued monitoring of outfalls                                                                                                                                                                       |
| Revised         |                                                                     |                                           |                                                                                 |                                                                                                                                           |                                                                                                                                                                                                        |
| 3-02            | Use test kits for pH, nitrate, phosphate, during severe wet weather | Steve Legendre/<br>Director of Operations | Early detection and correction                                                  | Annual testing conducted during heavy rainfall event on 5-18-07. Tests seem to indicate normal outfall conditions.                        | Continue sampling during severe wet weather event each year                                                                                                                                            |
| Revised         |                                                                     |                                           |                                                                                 |                                                                                                                                           |                                                                                                                                                                                                        |
| 3-03            | Spill Response Plan                                                 | Steve Legendre/<br>Director of Operations | Spill Control Kit(s) on site; E.Q Northeast for clean-up and Emergency Response | Annual Storm Water / Spill Prevention Meeting did address Spill Response Plan.<br>Additional spill control kits in each maintenance shop. | Continue to administer Annual Storm Water/ Spill Prevention (and response) Meeting with required attendance by designated supervisory personnel. Maintain spill control kits at appropriate locations. |
| Revised         |                                                                     |                                           |                                                                                 |                                                                                                                                           |                                                                                                                                                                                                        |

**Wrentham Developmental Center: Permit # MAR042030, DEP Transmittal # W035610, Permit Year 5, 2007-2008**

**3a. Additions**

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**4. Construction Site Stormwater Runoff Control**

| <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 5<br/>(Reliance on non-municipal partners indicated, if any)</b> | <b>Planned Activities – Next Permit Year</b>                              |
|-----------------|---------------------------------------------------------------------------------|-------------------------------------------|--------------------------------------|-------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|
| 4-01            | Insert standard construction controls and penalties into contract documentation | Steve Legendre/<br>Director of Operations | Erosion, sediment, and waste control | Standard construction controls maintained in contract documentation                                   | Standard construction controls to be maintained in contract documentation |
| Revised         |                                                                                 |                                           |                                      |                                                                                                       |                                                                           |
| 4-02            | Perform site inspections and impose penalties as required                       | Steve Legendre/<br>Director of Operations | Erosion, sediment, and waste control | Site inspections performed as required                                                                | Site inspections performed as required                                    |
| 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 5<br>(Reliance on non-municipal partners indicated, if any) | Planned Activities – Next Permit Year                                     |
|----------|-------------------------------------------------------------------------------|-------------------------------------------|------------------------------------------------------------|-----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|
| 5-01     | Standard post-construction controls and penalties into contract documentation | Steve Legendre/<br>Director of Operations | Erosion, sediment, and waste control. Soil depth restored. | Standard post-construction controls maintained in contract documentation                      | Standard construction controls to be maintained in contract documentation |
| Revised  |                                                                               |                                           |                                                            |                                                                                               |                                                                           |

**5a. Additions**

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**Wrentham Developmental Center: Permit # MAR042030, DEP Transmittal # W035610, Permit Year 5, 2007-2008**

**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 5<br/>(Reliance on non-municipal partners indicated, if any)</b> | <b>Planned Activities – Next Permit Year</b>                                    |
|-----------------|----------------------------------------------------------------|-------------------------------------------|-------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| 6-01            | Contract for catch basin cleaning, inspection and repair       | Steve Legendre/<br>Director of Operations | Proper operation of storm water collection system                 | Contract activities satisfied                                                                         | Contract activities to be satisfied                                             |
| Revised         |                                                                |                                           |                                                                   |                                                                                                       |                                                                                 |
| 6-02            | Town of Wrentham to clean public roads and some parking areas  | Steve Legendre/<br>Director of Operations | Proper operation of system with reduction of sand in catch basins | Town of Wrentham cleaning/sweeping of public roadways and certain parking areas completed             | Town of Wrentham to cleaning/sweep public roadways and certain parking areas    |
| Revised         |                                                                |                                           |                                                                   |                                                                                                       |                                                                                 |
| 6-03            | Contract for remaining parking areas to be cleaned             | Steve Legendre/<br>Director of Operations | Proper operation of system with reduction of sand in catch basins | Contract for cleaning/sweeping of remaining parking areas completed                                   | Contract to continue for cleaning/sweeping of remaining parking areas           |
| Revised         |                                                                |                                           |                                                                   |                                                                                                       |                                                                                 |
| 6-04            | Limit salt use; store salt/sand mixtures under roofed area     | Steve Legendre/<br>Director of Operations | Limit salt to water table                                         | Salt use controlled. Salt/sand mixture stored under roofed area.                                      | Salt use controlled. Salt/sand mixture to be stored under roofed area           |
| Revised         |                                                                |                                           |                                                                   |                                                                                                       |                                                                                 |
| 6-05            | Inspect and clean trash and debris from roadsides and culverts | Steve Legendre/<br>Director of Operations | Proper operation of storm-drain system                            | Regular inspection and cleaning of debris from roadside and culverts completed.                       | Regular inspection and cleaning of debris from roadside and culverts completed. |
| Revised         |                                                                |                                           |                                                                   |                                                                                                       |                                                                                 |

**Wrentham Developmental Center: Permit # MAR042030, DEP Transmittal # W035610, Permit Year 5, 2007-2008**

**6a. Additions**

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**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 5<br/>(Reliance on non-municipal partners indicated, if any)</b> | <b>Planned Activities – Next Permit Year</b>                                            |
|-----------------|------------------------------------------------------------------------|-------------------------------------------|---------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 7-01            | Maintain status of all discharges being “Allowable”                    | Steve Legendre/<br>Director of Operations | No significant nutrient or sediment loading | All discharges remain “Allowable”<br><br>No illicit discharges detected                               | All discharges maintained as “Allowable.”<br>Continue to monitor for illicit discharges |
| Revised         |                                                                        |                                           |                                             |                                                                                                       |                                                                                         |
| 7-02            | Non-Storm Water Discharges not a significant contributor of pollutants |                                           |                                             |                                                                                                       | No direct receiving waters where TMDL is applicable                                     |
| Revised         |                                                                        |                                           |                                             |                                                                                                       |                                                                                         |

**7a. Additions**

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**7b. WLA Assessment:** Not Applicable

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

Water quality testing was conducted on 5-18-07 during a heavy rainfall event. Testing results for pH, Ammonia Nitrogen, (copper), and Phosphate are attached. All testing is done at our waste water treatment plant by a certified operator in accordance with NPDES and Mass DEP testing standards.

**Wrentham Developmental Center: Permit # MAR042030, DEP Transmittal # W035610, Permit Year 5, 2007-2008**

**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, 2006 through March 31, 2007)

**Programmatic**

|                                                               | (Preferred Units) | Response    |
|---------------------------------------------------------------|-------------------|-------------|
| Stormwater management position created/staffed                | (y/n)             | n           |
| Annual program budget/expenditures **                         | (\$)              | \$15,031.00 |
| Total program expenditures since beginning of permit coverage | (\$)              | \$73,079.00 |
| Funding mechanism(s) (General Fund, Enterprise, Utility, etc) |                   | Gen Fund    |
|                                                               |                   |             |

**Education, Involvement, and Training**

|                                                                                                     |               |            |
|-----------------------------------------------------------------------------------------------------|---------------|------------|
| Estimated number of property owners reached by education program(s)                                 | (# or %)      | n/a        |
| 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 ** -- <b>Meadow Brook--</b> | (y/n or mi.)  | 0.15 (all) |
| Shoreline cleaned since beginning of permit coverage                                                | (mi.)         | 0.15       |
| Household Hazardous Waste Collection Days                                                           |               |            |
| ▪ days sponsored ** <b>DEP oversight of hazardous waste collection at facility</b>                  | (#)           | n/a        |
| ▪ community participation **                                                                        | (# or %)      | n/a        |
| ▪ material collected **                                                                             | (tons or gal) | unknown    |
| School curricula implemented                                                                        | (y/n)         | n/a        |
|                                                                                                     |               |            |

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**Legal/Regulatory**

|                                                    | In Place<br>Prior to<br>Phase II | Reviewing<br>Existing<br>Authorities | Drafted             | Draft<br>in<br>Review | Adopted |
|----------------------------------------------------|----------------------------------|--------------------------------------|---------------------|-----------------------|---------|
| Regulatory Mechanism Status (indicate with "X")    | <b>**state contracts specify</b> | <b>standard</b>                      | <b>construction</b> | <b>controls</b>       |         |
| ▪ Illicit Discharge Detection & Elimination        | <b>X</b>                         |                                      |                     |                       |         |
| ▪ Erosion & Sediment Control                       | <b>X</b>                         |                                      |                     |                       |         |
| ▪ Post-Development Stormwater Management           | <b>X</b>                         |                                      |                     |                       |         |
| Accompanying Regulation Status (indicate with "X") |                                  |                                      |                     |                       |         |
| ▪ Illicit Discharge Detection & Elimination        |                                  |                                      |                     |                       |         |
| ▪ Erosion & Sediment Control                       |                                  |                                      |                     |                       |         |
| ▪ Post-Development Stormwater Management           |                                  |                                      |                     |                       |         |

| <b>Mapping and Illicit Discharges</b>                              |                                                     | <b>(Preferred Units)</b> | <b>Response</b> |
|--------------------------------------------------------------------|-----------------------------------------------------|--------------------------|-----------------|
| Outfall mapping complete                                           |                                                     | (%)                      | 100             |
| Estimated or actual number of outfalls                             |                                                     | (#)                      | 10              |
| System-Wide mapping complete (complete storm sewer infrastructure) |                                                     | (%)                      | 98              |
| Mapping method(s)                                                  |                                                     |                          |                 |
| ▪ Paper/Mylar                                                      |                                                     | (%)                      | 98              |
| ▪ CADD                                                             |                                                     | (%)                      | 98              |
| ▪ GIS                                                              |                                                     | (%)                      | 0               |
| Outfalls inspected/screened **                                     | <b>Note: inspected only / no outfalls screened</b>  | (# or %)                 | 10              |
| Outfalls inspected/screened (Since beginning of permit coverage)   |                                                     | (# or %)                 | 10              |
| Illicit discharges identified **                                   |                                                     | (#)                      | 0               |
| Illicit discharges identified (Since beginning of permit coverage) |                                                     | (#)                      | 0               |
| Illicit connections removed **                                     | <b>Note: completed and maintained since Phase 1</b> | (# ); and<br>(est. gpd)  | 0               |
| Illicit connections removed (Since beginning of permit coverage)   |                                                     | (#); and<br>(est. gpd)   | 0               |
| % of population on sewer                                           |                                                     | (%)                      | 98              |
| % of population on septic systems                                  |                                                     | (%)                      | 1               |

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**Construction**

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

**Post-Development Stormwater Management**

|                                                                                                                          |          |   |
|--------------------------------------------------------------------------------------------------------------------------|----------|---|
| Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control | (%)      | 0 |
| Site inspections (for proper BMP installation & operation) completed **                                                  | (# or %) | 0 |
| BMP maintenance required through covenants, escrow, deed restrictions, etc.                                              | (y/n)    | 0 |
| Low-impact development (LID) practices permitted and encouraged                                                          | (y/n)    | 0 |
|                                                                                                                          |          |   |
|                                                                                                                          |          |   |

**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 **                                                                 | (#)            | 82      |
| Qty. of storm drain cleaned **                                                               | (%, LF or mi.) | 0       |
| Qty. of screenings/debris removed from storm sewer infrastructure **                         | (lbs. or tons) | 10lbs   |
| Disposal or use of screenings (landfill, POTW, compost, beneficial use, etc.) **             | (location)     | compost |

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|                                                   |                         |                   |
|---------------------------------------------------|-------------------------|-------------------|
| Basin Cleaning Costs                              |                         |                   |
| • Annual budget/expenditure (labor & equipment)** | (\$)                    | \$1,062.00        |
| • Hourly or per basin contract rate **            | (\$/hr or \$ per basin) | \$12.95 per basin |
| • Disposal cost**                                 | (\$)                    | 0                 |
| Cleaning Equipment                                |                         |                   |
| • Clam shell truck(s) owned/leased                | (#)                     | 0                 |
| • Vacuum truck(s) owned/leased                    | (#)                     | 0                 |
| • Vacuum trucks specified in contracts            | (y/n)                   | n                 |
| • % Structures cleaned with clam shells **        | (%)                     | 100               |
| • % Structures cleaned with vector **             | (%)                     | 0                 |

|                                                                                         | (Preferred Units)  | Response   |
|-----------------------------------------------------------------------------------------|--------------------|------------|
| Average frequency of street sweeping (non-commercial/non-arterial streets) **           | (times/yr)         | 1          |
| Average frequency of street sweeping (commercial/arterial or other critical streets) ** | (times/yr)         | 1          |
| Qty. of sand/debris collected by sweeping **                                            | (lbs. or tons)     | unknown    |
| Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.) **                | (location)         | compost    |
| Annual Sweeping Costs                                                                   |                    |            |
| • Annual budget/expenditure (labor & equipment)**                                       | (\$)               | \$1,640.00 |
| • Hourly or lane mile contract rate **                                                  | (\$/hr. or ln mi.) | n/a        |
| • Disposal cost**                                                                       | (\$)               | 0          |
| Sweeping Equipment                                                                      |                    |            |
| • Rotary brush street sweepers owned/leased                                             | (#)                | 0          |
| • Vacuum street sweepers owned/leased                                                   | (#)                | 0          |
| • Vacuum street sweepers specified in contracts                                         | (y/n)              | n          |
| • % Roads swept with rotary brush sweepers **                                           | %                  | 100        |
| • % Roads swept with vacuum sweepers **                                                 | %                  | 0          |

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|                                                                                                                                                          |                                                                                           |                                     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-------------------------------------|
| Reduction (since beginning of permit coverage) in application on public land of:<br>("N/A" = never used; "100%" = elimination)                           |                                                                                           |                                     |
| ▪ Fertilizers                                                                                                                                            | (lbs. or %)                                                                               | 2%                                  |
| ▪ Herbicides                                                                                                                                             | (lbs. or %)                                                                               | n/a                                 |
| ▪ Pesticides                                                                                                                                             | (lbs. or %)                                                                               | n/a                                 |
| Integrated Pest Management (IPM) Practices Implemented                                                                                                   | (y/n)                                                                                     | n                                   |
|                                                                                                                                                          | (Preferred Units)                                                                         | Response                            |
| Average Ratio of Anti-/De-Icing products used **<br><br>(also identify chemicals and ratios used in specific areas, e.g., water supply protection areas) | % NaCl<br>% CaCl <sub>2</sub><br>% MgCl <sub>2</sub><br>% CMA<br>% Kac<br>% KCl<br>% Sand | 23%<br>0<br>0<br>0<br>0<br>0<br>77% |
| Pre-wetting techniques utilized **                                                                                                                       | (y/n or %)                                                                                | n                                   |
| Manual control spreaders used **                                                                                                                         | (y/n or %)                                                                                | y                                   |
| Zero-velocity spreaders used **                                                                                                                          | (y/n or %)                                                                                | n                                   |
| Estimated net reduction or increase in typical year salt/chemical application rate                                                                       | (±lbs/l <sub>n</sub> mi.<br>or %)                                                         | 0                                   |
| Estimated net reduction or increase in typical year sand application rate **                                                                             | (±lbs/l <sub>n</sub> mi.<br>or %)                                                         | 0                                   |
| % of salt/chemical pile(s) covered in storage shed(s)                                                                                                    | (%)                                                                                       | 100                                 |
| Storage shed(s) in design or under construction                                                                                                          | (y/n or #)                                                                                | 0                                   |
| 100% of salt/chemical pile(s) covered in storage shed(s) by May 2008                                                                                     | (y/n)                                                                                     | y                                   |
|                                                                                                                                                          |                                                                                           |                                     |
|                                                                                                                                                          |                                                                                           |                                     |

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**Water Supply Protection**

|                                                                                                   |          |   |
|---------------------------------------------------------------------------------------------------|----------|---|
| Storm water outfalls to public water supplies eliminated or relocated                             | # or y/n | 0 |
| Installed or planned treatment BMPs for public drinking water supplies and their protection areas | # or y/n | 0 |
| • Treatment units induce infiltration within 500-feet of a wellhead protection area               | # or y/n | 0 |

**BRP WM 08A NPDES Stormwater General Permit Notice of Intent  
for Discharges from Small Municipal Separate Storm Sewer Systems (MS4s)**

#### **F. Example Storm Water Management Program TIME FRAMES**

Transmittal Number WO35610

Facility ID (if known)

Page \_\_\_\_\_ of \_\_\_\_\_ 1

| BMP ID # | PERMIT YEAR ONE |           |         |              | PERMIT YEAR TWO |           |         |              | PERMIT YEAR THREE |           |         |              | PERMIT YEAR FOUR |           |         |              | PERMIT YEAR FIVE |           |         |              | Next Permit |
|----------|-----------------|-----------|---------|--------------|-----------------|-----------|---------|--------------|-------------------|-----------|---------|--------------|------------------|-----------|---------|--------------|------------------|-----------|---------|--------------|-------------|
|          | Spring 03       | Summer 03 | Fall 03 | Winter 03-04 | Spring 04       | Summer 04 | Fall 04 | Winter 04-05 | Spring 05         | Summer 05 | Fall 05 | Winter 05-06 | Spring 06        | Summer 06 | Fall 06 | Winter 06-07 | Spring 07        | Summer 07 | Fall 07 | Winter 07-08 |             |
| 1 01     | X               |           | X       |              | X               |           | X       |              | X                 |           |         |              | X                |           |         |              | X                |           |         |              | X           |
| 1 02     |                 |           |         |              |                 |           | X       |              | X                 |           |         |              | X                |           |         |              | X                |           |         |              | X           |
| 1 03     |                 |           |         |              |                 |           |         |              |                   |           |         |              |                  |           |         |              |                  |           |         |              | X           |
| 1 04     |                 |           |         |              |                 |           |         |              |                   |           |         |              |                  |           |         |              |                  |           |         |              | X           |
| 2 01     |                 |           |         |              |                 |           | X       |              | X                 |           |         |              | X                |           |         |              | X                |           |         |              | X           |
| 2 02     |                 |           |         |              |                 |           | X       |              | X                 |           |         |              | X                |           |         |              | X                |           |         |              | X           |
| 2 03     |                 |           |         |              |                 |           | X       |              | X                 |           |         |              | X                |           |         |              | X                |           |         |              | X           |
| 2 04     |                 |           |         |              |                 |           | X       |              | X                 |           |         |              | X                |           |         |              | X                |           |         |              | X           |
| 3 01     |                 |           |         |              |                 |           |         |              |                   |           |         |              |                  |           |         |              |                  |           |         |              | X           |
| 3 02     |                 |           |         |              |                 |           |         |              | X                 |           |         |              | X                |           |         |              | X                |           |         |              | X           |
| 3 03     |                 |           |         |              |                 |           |         |              |                   |           |         |              |                  |           |         |              |                  |           |         |              | X           |
| 4 01     |                 |           |         |              |                 |           |         |              |                   |           |         |              |                  |           |         |              |                  |           |         |              | X           |
| 4 02     |                 |           |         |              |                 |           |         |              |                   |           |         |              |                  |           |         |              |                  |           |         |              | X           |
| 5 01     |                 |           |         |              |                 |           |         |              |                   |           |         |              |                  |           |         |              |                  |           |         |              | X           |
| 6 01     | X               |           |         |              | X               |           |         |              | X                 |           |         |              | X                |           |         |              | X                |           |         |              | X           |
| 6 02     |                 |           |         |              | X               |           |         |              | X                 |           |         |              | X                |           |         |              | X                |           |         |              | X           |
| 6 03     |                 |           |         |              |                 |           |         |              | X                 |           |         |              | X                |           |         |              | X                |           |         |              | X           |
| 6 04     |                 |           |         |              |                 |           |         |              |                   |           |         |              |                  |           |         |              |                  |           |         |              | X           |
| 6 05     |                 |           |         |              |                 |           |         |              |                   |           |         |              |                  |           |         |              |                  |           |         |              | X           |



## STORM WATER OUTFALLS

5/18/07

EWALL - #1 - #2

|                        | EWALL | MMH<br># 1 | MMH<br># 2 |
|------------------------|-------|------------|------------|
| P.H.                   | 6.22  | 5.88       | 5.84       |
| PHosphorus             | 0.01  | 0.08       | 0.06       |
| Copper                 | 0.06  | 0.02       | 0.02       |
| AMMONIA AS<br>NITROGEN | 0.33  | 0.27       | 0.39       |
| NITROGEN NITRATE       | 0.15  | 0.0        | 0.32       |
| Temp C                 | 19.4  | 19.4       | 19.4       |

P.H.

WORKSEET

Sample Date 5/18/07 Time 7:50 BY SL

Analysis Date 5/18/07 Time 8:30 By SL

Calibration Check ✓ Sample type (G)

|                        | P.H.        | Temp        |
|------------------------|-------------|-------------|
| Infuent                | _____       | _____       |
| <del>EWAIT</del>       |             |             |
| <del>Aeration #1</del> | <u>6.22</u> | <u>19.3</u> |
| <del># 1</del>         |             |             |
| <del>Secondary</del>   | <u>5.84</u> | <u>19.4</u> |
| <del># 2</del>         |             |             |
| <del>Effluent</del>    | <u>5.84</u> | <u>19.4</u> |
| Downstream             | _____       | _____       |

Comments: STORM WATERS

# PHOSPHATE PROCEDURE - ASCORBIC ACID METHOD

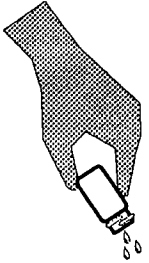
Read the 1200 Colorimeter Manual before proceeding. Carefully wipe tubes dry before inserting into the colorimeter chamber.

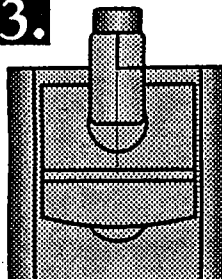


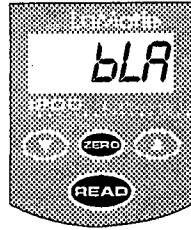
## PHOSPHATE

- 1.** Fill the Water Sample Collecting Bottle (0688) with sample water. This will be used to dispense sample water for the tests.

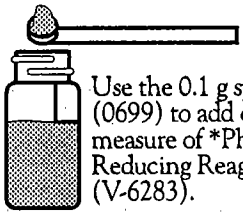

- 2.** Rinse and fill a colorimeter tube (0290) to the 10 mL line with sample water. Cap and wipe dry.

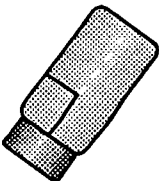

- 3.** Insert the tube into the chamber, being sure to align the index line with the arrow on the meter. Close the lid. This tube is the sample blank or zero.

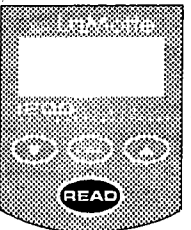

- 4.** Push the **READ** button to turn the meter on. Press the **ZERO** button and hold it for 2 seconds until **BLA** is displayed. Release the button to take a blank reading (0.0 ppm).


- 5.** Remove tube from colorimeter. Use 1.0 mL pipet (0354) to add 1.0 mL of \*Phosphate Acid Reagent (V-6282). Cap and mix.


- 6.** Use the 0.1 g spoon (0699) to add one measure of \*Phosphate Reducing Reagent (V-6283).


- 7.** Cap and shake until powder dissolves. Wait 5 minutes for full color development. Solution will turn blue if phosphates are present. Wipe tube dry.


- 8.** Align the index line with the arrow on the meter, insert tube into chamber. Close the lid. Push the **READ** button. Record results as ppm Orthophosphate.



## PHOSPHATE TEST

### WORKSHEET

Sample Date 5/18/07 Time 7:50 By SL

Sample EWRII  
Location #1 Temp 19.4  
#2

24 Hour Compost Sample (G) Other \_\_\_\_\_

Analysis Date 5/18/07 Time 9:00 By SL

Test Results EWRII #1 #2  
(0.01) (0.05) (0.06) Duplicate Results \_\_\_\_\_

Comments: STORM WATERS

Volume Used: 10 mL sample used

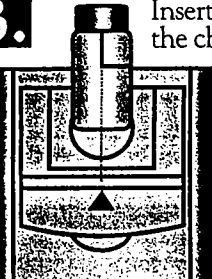
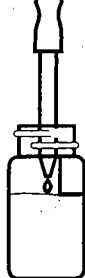
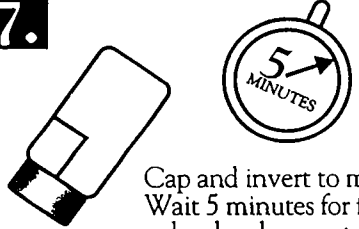
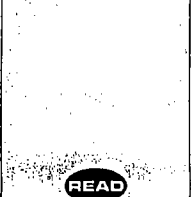
Calculations \_\_\_\_\_

# AMMONIA NITROGEN TEST PROCEDURE: NESSLER METHOD

Read the 1200 Colorimeter Manual before proceeding. Carefully wipe tubes dry before inserting into the colorimeter chamber.



## AMMONIA NITROGEN

|                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>1.</b></p>  <p>Fill the Water Sample Collecting Bottle (0688) with sample water. This will be used to dispense sample water for the tests.</p>                     | <p><b>2.</b></p>  <p>Rinse and fill a colorimeter tube (0290) to the 10 mL line with sample water. Cap and wipe dry.</p>                                                                                                       |
| <p><b>3.</b></p>  <p>Insert the tube into the chamber, being sure to align the index line with the arrow on the meter. Close the lid. This tube is the blank or zero.</p> | <p><b>4.</b></p>  <p>Push the <b>READ</b> button to turn the meter on. Press the <b>ZERO</b> button and hold it for 2 seconds until <b>BLA</b> is displayed. Release the button to take a blank reading (0.0 ppm).</p>         |
| <p><b>5.</b></p>  <p>Remove tube from colorimeter. Add 8 drops of Ammonia Nitrogen Reagent #1 (V-4797). Cap and mix.</p>                                                | <p><b>6.</b></p>  <p>Use 1.0 mL pipet (0354) to add 1.0 mL of *Ammonia Nitrogen Reagent #2 (V-4798).</p>                                                                                                                      |
| <p><b>7.</b></p>  <p>Cap and invert to mix. Wait 5 minutes for full color development. Wipe tube dry.</p>                                                               | <p><b>8.</b></p>  <p>Align the index line with the arrow on the meter, insert tube into chamber. Close the lid. Push the <b>READ</b> button. Record results as ppm Ammonia Nitrogen (<math>\text{NH}_3\text{-N}</math>).</p> |

## AMMONIA NITROGEN TEST

### WORKSHEET

Sample Date 5/18/07 Time 7:50 By SL

Sample Location Ewall #1 #2 Temp 19.4

24 Hour Compost Sample (G) Other \_\_\_\_\_

Analysis Date 5/18/07 Time 9:26 By [Signature]

Test Results Ewall #1 #2  
(0.33) (0.27) (0.39) Duplicate Results \_\_\_\_\_

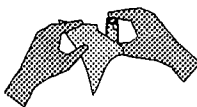
Comments: STORM WATERS

Volume Used: 10 mL sample

Calculations \_\_\_\_\_

# COPPER TEST PROCEDURE - DIETHYLDITHIOCARBAMATE

Read the 1200 Colorimeter Manual before proceeding. Carefully wipe tubes dry before inserting into the colorimeter chamber.



## COPPER

**1.** Fill the Water Sample Collecting Bottle (0688) with sample water. This will be used to dispense sample water for the tests.

**2.** Rinse and fill a colorimeter tube (0290) to the 10 mL line with sample water. Cap and wipe dry.

**3.** Insert the tube into the chamber, being sure to align the index line with the arrow on the meter. Close the lid. This tube is the blank or zero.

**4.** Push the **READ** button to turn the meter on. Press the **ZERO** button and hold it for 2 seconds until **BLA** is displayed. Release the button to take a blank reading (0.0 ppm).

**5.** Remove tube from colorimeter. Add 5 drops of \*Copper 1 (6446).

**6.** Cap and invert to mix. Wipe tube dry.

**7.** Align the index line with the arrow on the meter, insert tube into chamber. Close the lid. Push the **READ** button. Record results as ppm Copper.

## COPPER TEST

## WORKSHEET

Sample Date 5/18/07 Time 7:50 By SL

Sample Location E wall #1 #2 Temp 19.4

24 Hour Compost Sample (G) Other \_\_\_\_\_

Analysis Date 5/18/07 Time 9:10 By M

Test Results E wall #1 (0.01) #2 (0.02) (0.02) Duplicate Results \_\_\_\_\_

Comments: STORM WATERS

Volume Used: 10 mL

Calculations \_\_\_\_\_

## PROCEDURE

- ☒ NOTE: Place Dispenser Cap (0692) on \*Mixed Acid Reagent (V-6278). Save this cap for refill reagents.
1. Press and hold **ON** button until colorimeter turns on.
  2. Press **ENTER** to start.
  3. Press **ENTER** to select TESTING MENU.
  4. Select ALL TESTS (or another sequence containing 64 Nitrate-N LR) from TESTING MENU.
  5. Scroll to and select 64 Nitrate-N LR from menu.
  6. Rinse a clean tube (0290) with sample water. Fill to 10 mL line with sample.
  7. Insert tube into chamber, close lid and select SCAN BLANK.
  8. Remove tube from colorimeter and pour off 5 mL into graduated cylinder or similar. Discard the remaining sample.
  9. Pour the 5mL sample from a graduated cylinder or similar into the tube. Use the graduated cylinder or similar to measure 5 mL of \*Mixed Acid Reagent (V-6278) and add to tube. Cap and mix. Wait 2 minutes before proceeding to Step 10.
  10. Use the 0.1 g spoon (0699) to add two measures of \*Nitrate Reducing Reagent (V-6279). Cap.
  11. Hold tube by index finger and thumb and mix by inverting approximately 50-60 times a minute for four minutes. Wait 10 minutes for maximum color development.
 

☒ NOTE: At end of waiting period an undissolved portion of Nitrate Reducing Reagent may remain in bottom of the tube without affecting results.
  12. At the end of the 10 minute waiting period, mix, insert tube into chamber, close lid and select SCAN SAMPLE. Record result.
  13. Press **OFF** button to turn colorimeter off or press **EXIT** button to exit to a previous menu or make another menu selection.
- ☒ NOTE: For best possible results, a reagent blank should be determined to account for any contribution to the test result by the reagent system. To determine the reagent blank, follow the above test procedure to scan a distilled or deionized water blank. Then follow the above procedure to perform the test on a distilled or deionized water sample. This test result is the reagent blank. Subtract the reagent blank from all subsequent test results of unknown samples. It is necessary to determine the reagent blank only when a new lot number of reagents are obtained.
- To convert Nitrate Nitrogen ( $\text{NO}_3\text{-N}$ ) results to ppm Nitrate ( $\text{NO}_3$ ), multiply by 4.4.

NITRATE  
WORK SHEET

Sample Date 5/18/07 Time 7:50 By SL

Sample Location Ewall #1 Temp 18.4  
#2

24 Hour Compost Sample (G) Other \_\_\_\_\_

Analysis Date 5/18/07 Time 9:40 By M

Test Results Ewall #1 #2  
(0.15) (0.0) (0.32) Duplicate Results \_\_\_\_\_

Comments: STORM WATER

Volume Used: \_\_\_\_\_

Calculations \_\_\_\_\_



The Commonwealth of Massachusetts  
Executive Office of Health & Human Services  
Department of Mental Retardation  
Wrentham Developmental Center  
P.O. Box 144  
Wrentham, MA 02093

Deval L. Patrick  
Governor

Timothy P. Murray  
Lieutenant Governor

JudyAnn Bigby, M.D.  
Secretary

Tel. (508) 384-3114 Fax (508) 384-1619

Elin M. Howe  
Commissioner

Diane Enochs  
Assistant Commissioner  
Facilities Management

Nicholas J. D'Aluisio  
Facility Director

April 18, 2008

Ms. Ann Herrick  
U.S. Environmental Protection Agency  
1 Congress Street - Suite 1100 (CIP)  
Boston, MA 02114-2023

Dear Ms.Herrick:

RE: Annual Storm Water Report, April 1, 2007 to March 31, 2008  
NPDES General Permit for Storm Water Discharges from Small MS4s  
Permit # MAR042030; MA DEP BRP WM 08A NOI Transmittal # W035610  
Wrentham Developmental Center, Wrentham, MA

In compliance with the NPDES General Permit for Storm Water Discharges from Small MS4s, the Wrentham Developmental Center (WDC) is submitting the 2007-2008 Annual Storm Water Report.

If you have any questions, please feel free to contact me at 508-384-1656.

Sincerely,

A handwritten signature in cursive script, reading "Stephen Legendre".

Stephen Legendre  
Director of Operations

Cc: Nicholas J. D'Aluisio, DMR, WDC  
Brian Sullivan, DMR, WDC  
Paul Beaton, DMR, Boston

Thelma Murphy, EPA, Boston  
Fred Civian, DEP, Boston