

Municipality/Organization: TOWN OF BEDFORD

EPA NPDES Permit Number: MA 041028

MaDEP Transmittal Number: W-079978

**Annual Report Number
& Reporting Period:** No. 3: March 2005-March 2006

9

MAY - 7

NPDES PII Small MS4 General Permit Annual Report

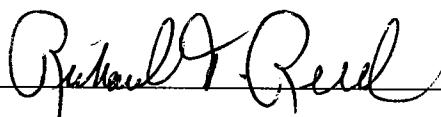
Part I. General Information

Contact Person: Adrienne St. John **Title:** Public Works Engineer

Telephone #: 781-275-7605 **Email:** adrienne@town.bedford.ma.us

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: Richard T. Reed

Title: Town Manager

Date: April 28, 2006

Part II. Self-Assessment

Part 1.B.2(e)vi

The Town of Bedford has researched the most recent Endangered and Threatened Species list and found 20 species to be present in the Town. The effects of the Town's discharges has not been determined at this time.

Part 1.B.2(k)(l)

The Town is performing water quality testing to identify sources and the extent of bacteria at sites along the Shawsheen River.

Part III. Summary of Minimum Control Measures

1. Public Education and Outreach

| BMP ID # | BMP Description | Responsible Dept./Person Name | Measurable Goal(s) | Progress on Goal(s) – Permit Year 3 (Reliance on non-municipal partners indicated, if any) | Planned Activities – Permit Year 4 |
|----------------|--------------------------------|----------------------------------|--------------------------------------|---|--|
| 1-1 Revised | Residential Flyer | DPW/SuAsCo | Distribute to 75% of residents | Flyer produced and sent out to 95% of residents. Flyer displayed at Bedford Day and also distributed to Town Clerk and Conservation Commission. PDF placed on web-site. | Continue to distribute/display as needed. |
| 1-2 Revised | Education Program | DPW/SuAsCo | Teach in 5 th grade class | N/A | Teach in class. |
| 1-3 Revised | Develop web site link | DPW | Have in place by 7/05 | Web site in place. | Continue to add information/update web site. |
| 1-4 Revised | Stormwater Flyer to Businesses | DPW, SuAsCo, Chamber of Commerce | Distribute to 50% of businesses | Targeted 33% of gas stations to discuss pollution prevention. | Continue targeted approach of businesses and discussing pollution prevention |
| 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 3 (Reliance on non-municipal partners indicated, if any) | Planned Activities – Permit Year 4 |
|----------------|----------------------------|-------------------------------|---|--|------------------------------------|
| 2-1 Revised | Stormwater Display | DPW | 3 months at library, Town Hall, schools | Displayed at Hartwell Forest Conservation Area, DPW, Bedford Day, Town Meeting | Continue displaying. |
| 2-2 Revised | Local Stormwater Committee | DPW | Form by 12/04 | Existing Drainage Committee expands focus to include stormwater quality. | Expand membership. |
| 2-3 Revised | Stormwater Meetings | DPW/SW Committee | Meet 3x/year | N/A | Convene three times. |
| Revised | | | | | |
| Revised | | | | | |
| 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 3 (Reliance on non-municipal partners indicated, if any) | Planned Activities – Permit Year 4 |
|----------------|-------------------------------|-------------------------------|--|--|---------------------------------------|
| 3-2 Revised | Map SW outlets > 6" | DPW, MRWC | 75% capture rate | Continue (127 outlets mapped) | Continue |
| 3-3 Revised | Identify critical resources | DPW, Con Com | Map, notify abutters, develop BMPs | Targeted abutters to Hartwell Forest to stop illegal dumping of brush, debris. Notified them of approved site. | Continue |
| 3-4 Revised | Perform water quality testing | DPW, MRWC | 3 sites—residential, municipal, commercial, industrial | Conducted dry weather E. Coli and fecal coliform testing at two residential drainage outlets, one river sample on Elm Brook, one sample on Shawsheen River | Continue targeted testing of hotspots |
| Revised | | | | | |
| Revised | | | | | |
| Revised | | | | | |

3a. Additions

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4. Construction Site Stormwater Runoff Control

| BMP ID # | BMP Description | Responsible Dept./Person Name | Measurable Goal(s) | Progress on Goal(s) – Permit Year 3 (Reliance on non-municipal partners indicated, if any) | Planned Activities – Permit Year 4 |
|----------------|---|-------------------------------|--|---|---|
| 4-1 Revised | Develop awareness of construction site issues | DPW, Con Com, Code Enf. | Write guidelines, distribute to all builders with a permit | Require Erosion and Sediment Control plans during Site Plan review, Con Com review. Require stone entrances on single family home construction sites. | Develop guidelines |
| 4-2 Revised | Control construction site waste | DPW, Con Com, Code Enf. | Reduce litter, erosion, dust, sediment | DPW requires weekly trench paving of disturbed areas of utility/road projects. Worked with Con Com to control erosion at Freedom Estates subdivision. Performed site inspections at other construction sites within town. | Continue to monitor construction projects |
| Revised | | | | | |
| Revised | | | | | |
| Revised | | | | | |
| Revised | | | | | |

4a. Additions

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5. Post-Construction Stormwater Management in New Development and Redevelopment

| BMP ID # | BMP Description | Responsible Dept./Person Name | Measurable Goal(s) | Progress on Goal(s) – Permit Year 3 (Reliance on non-municipal partners indicated, if any) | Planned Activities – Permit Year 4 |
|----------------|--|---------------------------------|---|---|------------------------------------|
| 5-1 Revised | Develop stormwater bylaw | Selectmen, Planning, Cons., DPW | In place by 12/05 | DPW staff attended additional trainings including information on stormwater bylaws | Develop by-law |
| 5-2 Revised | Promote infiltration | Planning, DPW, Con Com | No increase in flooding levels or locations | Recommend improvements to site plans encouraging use of infiltration. Require gutters, downspouts, and infiltrators on single family homes. | Continue |
| 5-3 Revised | Expand grass plots, reduce pavement widths | DPW, planning, SW committee | Improve infiltration | Recommend low impact development techniques during Site Plan and Con Com review. | Continue |
| 5-4 Revised | Research rain barrels | SW Committee | Distribute to 10 households for pilot program | N/A—lack of rain during summer '05. | Implement Summer '06 |
| Revised | | | | | |
| Revised | | | | | |
| Revised | | | | | |

5a. Additions

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6. Pollution Prevention and Good Housekeeping in Municipal Operations

| BMP ID # | BMP Description | Responsible Dept./Person Name | Measurable Goal(s) | Progress on Goal(s) – Permit Year 3 (Reliance on non-municipal partners indicated, if any) | Planned Activities – Permit Year 4 |
|----------------|--|-------------------------------|--------------------------------|--|------------------------------------|
| 6-1 Revised | Street Sweeping, CB Cleaning | DPW | 2 x per year in critical areas | Continued program. Swept all 80 miles of roadways. Commercial area swept 6 times per year. | Continue. |
| 6-2 Revised | Inspect older sewer mains | DPW, MWRA | TV 1 mile per year | Approximately 60,000 LF inspected. | Repair identified problems. |
| 6-3 Revised | Promote/use alternative fertilizers and pesticides | Con. Com, DPW | Reduce nitrogen loading. | Using fertilizer on as-needed basis only. | Continue |
| 6-5 Revised | Site better snow dump | DPW, Con Com. | Locate by 12/05 | Site is located on Springs Road near the VA Hospital. | |
| Revised | | | | | |
| Revised | | | | | |

6a. Additions

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Part IV. Summary of Information Collected and Analyzed

Results of dry weather E. Coli and fecal coliform testing:

| | Fecal Coliform per 100mL | E. Coli per 100mL |
|---|-----------------------------|----------------------|
| 12" outlet behind #1 Washington Street | <4 | <2 |
| 12" outlet behind #11 Washington Street | <4 | <2 |
| Elm Brook near #1 Washington Street | 92 | 84 |
| Shawsheen River at Page Road | 1160 | 205 |

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic

| | | |
|--|-------|----------|
| Stormwater management position created/staffed | (y/n) | Y |
| Annual program budget/expenditures | (\$) | \$10,000 |
| | | |
| | | |

Education, Involvement, and Training

| | | |
|---|---------------|-----------|
| Estimated number of residents reached by education program(s) | (# or %) | 95% |
| Stormwater management committee established | (y/n) | Yes |
| Stream teams established or supported | (# or y/n) | Supported |
| Shoreline clean-up participation or quantity of shoreline miles cleaned | (y/n or mi.) | 700 ft |
| Household Hazardous Waste Collection Days | | |
| ▪ days sponsored | (#) | 8 |
| ▪ community participation | (%) | 10 |
| ▪ material collected | (tons or gal) | 400 |

| | | |
|------------------------------|-------|----|
| School curricula implemented | (y/n) | No |
| | | |
| | | |

Legal/Regulatory

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

Mapping and Illicit Discharges

| | | |
|--|------------|-----|
| Outfall mapping complete | (%) | 50 |
| Estimated or actual number of outfalls | (#) | 250 |
| System-Wide mapping complete | (%) | 75 |
| Mapping method(s) | | |
| ▪ Paper/Mylar | (%) | 15 |
| ▪ CADD | (%) | 10 |
| ▪ GIS | (%) | 75 |
| Outfalls inspected/screened | (# or %) | 40 |
| Illicit discharges identified | (#) | 0 |
| Illicit connections removed | (#) | 0 |
| % of population on sewer | (est. gpd) | 92 |
| % of population on septic systems | (%) | 8 |

Construction

| | | |
|---|------------|-----|
| Number of construction starts (>1-acre) | (#) | 8 |
| Estimated percentage of construction starts adequately regulated for erosion and sediment control | (%) | 100 |
| Site inspections completed | (# or %) | 300 |
| Tickets/Stop work orders issued | (# or %) | 1 |
| Fines collected | (# and \$) | 0 |
| Complaints/concerns received from public | (#) | 2 |
| | | |
| | | |

Post-Development Stormwater Management

| | | |
|--|----------|---------|
| Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control | (%) | 90 |
| Site inspections completed | (# or %) | 20 |
| Estimated volume of stormwater recharged | (gpy) | 600,000 |
| | | |
| | | |

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) | 2 |
| Total number of structures cleaned | (#) | 1600 |
| Storm drain cleaned | (LF or mi.) | 1500 LF |
| Qty. of screenings/debris removed from storm sewer infrastructure | (lbs. or tons) | 40 tons |
| Disposal or use of screenings (landfill, POTW, compost, recycle for sand, beneficial use, etc.) | | Compost |
| Cost of screenings disposal | (\$) | \$15,000 |

| | | |
|--|------------|---|
| 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) | 2 |

| | | |
|---|----------------|----------|
| Qty. of sand/debris collected by sweeping | (lbs. or tons) | 600 tons |
| Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.) | (location) | Compost |
| Cost of sweepings disposal | (\$) | \$28,000 |
| Vacuum street sweepers purchased/leased | (#) | 0 |
| Vacuum street sweepers specified in contracts | (y/n) | N |
| | | |
| | | |

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|--|-------------|-----|
| Reduction in application on public land of: ("N/A" = never used; "100%" = elimination) | | |
| ▪ Fertilizers | (lbs. or %) | 25% |
| ▪ Herbicides | (lbs. or %) | N/A |
| ▪ Pesticides | (lbs. or %) | 25% |
| | | |
| | | |

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|--|---------------------|-----|
| Anti-/De-Icing products and ratios | % NaCl | 45% |
| | % CaCl ₂ | 5% |
| | % MgCl ₂ | |
| | % CMA | |
| | % Kac | |
| | % KCl | |
| | % Sand | 50% |
| Pre-wetting techniques utilized | (y/n) | Y |
| Manual control spreaders used | (y/n) | Y |
| Automatic or Zero-velocity spreaders used | (y/n) | Y |
| Estimated net reduction in typical year salt application | (lbs. or %) | 0 |
| Salt pile(s) covered in storage shed(s) | (y/n) | Y |
| Storage shed(s) in design or under construction | (y/n) | N |