

Municipality/Organization: Rowley

EPA NPDES Permit Number: MAR041218

MaDEP Transmittal Number: W-03572

**Annual Report Number
& Reporting Period:** March 06– March 07

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: Deborah Eagan Title: Town Administrator

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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: _____

Printed Name: Deborah Eagan

Title: Town Administrator

Date: 07/13/07

Part II. Self-Assessment

The Town of Rowley has made progress in our Storm Water Management goals for Years One, Two, Three and Four. The town department heads worked towards the Town's goals. During Year Four we started an inventory of the town's riverways, brooks and streams. We also completed a storm drain stenciling program with a local Boy Scouts troop. As part of this program, door hanger flyers with information showing what shouldn't be dumped down a storm drain, were provided to homeowners. In February 2007, the Board of Selectmen held a joint meeting with the Board of Health, Conservation Commission, the Town's Brooks, Streams & Riverways Committees and the Parker River Clean Water Association for the purpose of discussing the quality of the town's waterways. A representative from the State Division of Fisheries and Wildlife's Riverways program provided the Town officials with a report on the town's waterways. This meeting resulted in a formal collaboration between the Parker River Clean Water Association and the Town for a stream monitoring program. In 2007 five stream teams were formed. In 2007, the Board of Selectmen also voted to participate in the Greenscapes program, a coalition of the Ipswich River Watershed Association, Eight Towns and A Bay, and the Salem Sound Coastalwatch, which assists the Town in reaching the public participation component of the Town's goals. The Greenscapes program provides the Town with: reference guide, citizen workshops, email newsletter, Greenscapes North Shore Website, targeted outreach, demonstrations and site tours, rain barrel discounts, irrigation system audit discounts, coupons and media relations. The Town will continue participation in the Greenscapes program through the upcoming year. The Conservation Commission is finalizing language on a bylaw to be presented at the Fall 2007 Special Town meeting. The Town has rated the other aspects of the Town's goals as a "high priority" for completion for Year 5.

**Deborah Eagan
Town Administrator
July 13, 2007**

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 Years 1, 2, 3 & 4 (Reliance on non-municipal partners indicated, if any) | Planned Activities Permit Year 5 |
|-----------------|------------------------|--------------------------------------|-----------------------------------|---|---|
| 1 Revised | Homeowners | Sel/ConCom | Pamphlets/local TV | Researched for potential grant funds to cover the cost of printing/distributing grants. Created an informational door hanger flyer. No progress on televised Sel/ConCom meetings. Conducted a storm drain stenciling program with local Boy Scouts troop. Approximately 90 storm drains were labeled with warnings such as “Dump No Waste, Drains to Streams.” Homeowners were provided with door hangers with information on ways to reduce stormwater pollution runoff. | Through the Greenscapes program, the ConCom will distribute reference guides to property owners at the May 2007 Annual Town Meeting. |
| 2 Revised | Targeting Education | Sel/ConCom/ Board of Health | Workshops/meetings | The ConCom and Boy Scouts distributed door hangers to residents as part of the storm drain stenciling program. In Feb. 2007 Board of Selectmen held a joint meeting w/Board of Health, ConCom and the Parker River Clean Water Association to discuss implementing a stream monitoring program for the town. | The Board of Health held a meeting in May 2007 on stream monitoring. More than 20 residents attended the meeting. Five stream teams were set up and the Parker River Clean Water Monitoring Program (PWCWMP) was established. Also through the Town’s participation in the Greenscapes program the Town will be able to meet this goal. |
| 3 | New Development | Sel/ConCom | Participation in project approval | Goal achieved. All new development must follow required stormwater management regulations. ConCom, Planning Board and Highway all work as checks and balances on this process. | |

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|---------|----------------------|------------|-------------------|--|---|
| 4 | Existing Development | Sel/ConCom | Mailings/Meetings | Door hanger was delivered by the Boy Scouts are part of the storm drain stenciling program. In the process of developing pamphlet which will be used for distribution. | Pamphlet distributed through door to door distribution, Town Hall, library and other public sites, the media and at businesses. Greenscapes information to be distributed to property owners. |
| Revised | | | | | |

1a. Additions

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|-----|----------------------------|--------|---|--|--|
| 1.5 | Develop stormwater website | ConCom | Add section to town website on stormwater by April 06 | No progress in Year Four. The Town planned to change the URL of the website and re-do it entirely. By joining Greenscapes, residents are able to get information from Greenscapes website. | ConCom Agent will be working with town administrator on posting info. Most info will be from information pamphlet. Links to relevant agencies, including Greenscapes will be on town website |
|-----|----------------------------|--------|---|--|--|

2. Public Involvement and Participation

| BMP ID # | BMP Description | Responsible Dept./Person Name | Measurable Goal(s) | Progress on Goal(s) – Permit Years 1, 2, 3 & 4 (Reliance on non-municipal partners indicated, if any) | Planned Activities – Permit Year 5 |
|-----------------|--|--------------------------------------|---|---|--|
| 5 Revised | Activities/public participation – Stream clean-up & monitoring | ConCom changed to Board of Health | Organize stream clean up day/ develop monitoring program | Board of Health has teamed with the Parker River Clean Water Association in Feb 2007. | A formal stream monitoring program has been established using town volunteers who are trained by the PRCWA. |
| 5 Revised | Activities/public participation – Volunteer monitoring | ConCom changed to Board of Health | Establish volunteer watershed teams | Local residents are working with the Board of Health and PRCWA. | Volunteers have been recruited to participate in the storm monitoring program. Five stream teams were formed in Year 5. |
| 5 Revised | Activities/public Participation Storm Drain Stenciling | Highway ConCom | Identify storm drainage systems Stencil storm drains | The ConCom has been able to compile an electronic database. The ConCom has developed a storm drain stenciling program using the local Boy Scouts. Part of the town was completed. | The ConCom & Highway Dept. will continue with storm drain stenciling throughout the year. This will be an ongoing project. |
| 5 Revised | Adopt a Stream Program – Adopt a stream | ConCom changed to Board of Health | Recruit Volunteers | Volunteers recruited through the stream monitoring program. | Town will continue working with volunteers from the Town and the PRCWA. |
| 6. | Involvement/public opinion – Watershed Organization | ConCom changed to Board of Health | Establish watershed organization from stream monitoring group | Goal met. Board of Health and PRCWA have formed collaboration to monitor streams for pollution. | Five stream teams were formed in Year 5. Training and sites visits have begun. Health Dept. will test waterways. |
| 6. | Involvement/public opinion | ConCom changed to Board of Health | Organize to encourage public participate | Goal met. Volunteers are working with Board of Health and PRCWA in the town's stream monitoring program. | Stream teams are meeting and will continue to meet through Year 5. |

3. Illicit Discharge Detection and Elimination

| BMP ID # | BMP Description | Responsible Dept./Person Name | Measurable Goal(s) | Progress on Goal(s) – Permit Years 1, 2, 3 & 4 (Reliance on non-municipal partners indicated, if any) | Planned Activities – Permit Year 5 |
|----------------|--|-------------------------------|--|--|---|
| 7 Revised | Develop Storm Water System Map | Highway | Complete sub-basin drainage maps | Purchased new high tech GPS device which allows info to be uploaded to computer program. Most of data is now computerized. | ConCom Agent is working on map. Map to include existing and new drains created through new development |
| 8 Revised | Develop storm water bylaw to prevent illicit discharges | Selectmen/ConCom | Draft bylaw | ConCom Agent attended workshop on writing bylaw. Compared existing bylaws to NPDES Phase II model stormwater bylaws. Local departments are reviewing draft. ConCom has consulted with neighboring Town that got bylaw approved recently. | ConCom Agent has draft bylaw and Board of Selectmen and ConCom plan to present it to the Fall 2007 Special Town Meeting for adoption. |
| 9 Revised | Develop & implement plan to detect & address non storm water discharges | Board of Health | Complete plan and distribute to volunteer groups | No progress in writing the plan. BOH uses existing state regulations and local regulations on drains to promote the information. | Health Dept. has partial list. Health Dept. is working on a formal plan that addresses detection of non-storm water discharges. |
| 10. Revised | Educate public employees, businesses, public, etc. on illegal discharge & improper disposal of waste | Highway | Workshops, flyers and posters | Using the door hanger flyer as noted in BMPs #1, 2, 4 & 5, we have begun the important goal of communicating to the public about the dangers of illegal/improper disposal of waste/discharge into the storm drain system. | Through the Town's participation in Greenscapes the Town plans to reach this goal in Year 5. |
| 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 Years 1, 2, 3 & 4 (Reliance on non-municipal partners indicated, if any) | Planned Activities – Permit Year 5 |
|----------------|---|-------------------------------|--|---|--|
| 12 Revised | Develop Bylaw requiring erosion & sediment controls | Planning | Adopt bylaw | Working on draft bylaw. Currently erosion control is part of all new construction through regulations. Using the Town’s existing earth removal bylaw, the Town has been able to control erosion. | Working on draft bylaw. |
| 13 Revised | Requirements for construction site waste control | Planning | Prepare guidelines for site operators | Construction site waste controls are controlled by various departments, such as Planning, building inspector, Board of Health and Conservation Commission. Through the current application review process, the relevant departments have been able to thoroughly review and comment on construction site waste matters. | The ConCom Agent will develop a uniform set of guidelines. |
| 14 Revised | Procedures for site inspection and enforcement | Planning | Implement site inspections and enforcement | Site inspections are done through the Planning Board’s consultant engineer. | Planning Board will be formalizing the existing practice by drafting a regulation for regular site inspection and enforcement. |
| 15. Revised | Site Plan Review Procedure | Planning | Participation in review and approval process for new sites | A comprehensive site plan review currently takes place. Stormwater runoff considerations are part of that review process. | Planning Board will memorialize current practice in a written procedure. |

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|---------|---|----------------|---|---|---|
| 16. | Identify BMPs for specific construction sites | Highway | Prepare checklist for site review process | Highway Department works with Planning Board consulting engineer on ensuring BMPs are implemented during construction. | Will develop formal written checklists. |
| Revised | | | | | |
| 17. | Public Input Procedures | Selectmen | Engage watershed organizations in project planning | Through the Town's participation in Greenscapes and the collaboration of the Town and the PRCWA this goal is met. | The Town will be participating in the Greenscapes program. The Town will continue in the Parker River Clean Water Monitoring Program. |
| Revised | | | | | |
| 18 | Construction site operator training | Highway | Workshop/Flier | | |
| 19. | Preservation of natural vegetation | ConCom | Identify sensitive areas in planning/review process | ConCom reviews all plans and offers recommendations and in some cases town's Wetlands Bylaw may apply, if not within jurisdiction of the state Wetlands Protection Act. | |
| 20. | Good housekeeping | Planning Board | Perform site inspection | Presently Planning Board engineer, building inspector and BOH conduct site inspections. | ConCom Agent will as cited BMP #13, will coordinate a uniform set of procedures. |
| 21. | Spill Prevention | Fire Dept. | Identify designated materials storage sites | Fire Chief has informal list. | Fire Chief will complete a formal list. |
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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 Years 1, 2, 3 & 4 (Reliance on non-municipal partners indicated, if any) | Planned Activities – Permit Year 5 |
|----------|---|-------------------------------|--|--|---|
| 24 | Evaluate existing drainage structures | Highway | Inventory existing catch basins & other treatment facilities | List of catch basins nearly complete. List has been computerized. | Highway and ConCom will continue working on database. Database will be maintained throughout the year. |
| Revised | | | | | |
| 25 | Develop and implement strategies which include structural & non-structural management practices | Highway | Prepare Best Management Practices Checklist | No progress made on this goal. | Will work on this goal in Year 5 |
| Revised | | | | | |
| 26 | Develop bylaw on post construction runoff from new development | ConCom | Adopt bylaw | ConCom Agent is working on bylaw. | Year 5 goal. ConCom/BOS will present bylaw to the Fall Special Town Meeting. |
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| 27 | Plan to implement BMP's in design | Highway | Participation in design of redevelopment projects | Highway Department currently works with Planning Board engineer in stormwater runoff on redevelopment projects | Highway Surveyor reviews roadway on redevelopment projects. His recommendations and comments are taken into consideration in Planning Board approval process. |
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| 30 | Establish Goals for Storm Water Runoff Quantity and Quality | Conservation Commission | Incorporate standards in plan approval | Goal complete. ConCom is following this practice on plan reviews | |
| Revised | | | | | |
| 31 | Coordinate BMP with upstream and downstream municipalities | Sel/ConCom | Coordinate water quality goals with Georgetown and Ipswich | ConCom Agent has met with neighboring ConCom agents to discuss this matter, as well as other related topics. Through the Town's participation in the Parker River Clean Water Monitoring Program, we are making progress in this goal. | ConCom Agent, Board of Health and PRCWA will communicate with neighboring towns to review goals. PRCWA is working in Newbury and Georgetown. |
| 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 Years 1, 2, 3 & 4 (Reliance on non-municipal partners indicated, if any) | Planned Activities – Permit Year 5 |
|---------------|---|-------------------------------|---|---|---|
| 32 Revised | Inventory all municipal operations which may contribute to storm water runoff water quality | Highway | Prepare a list of municipal operations. | Highway Department has list. | Highway Department will work with ConCom agent on making a computerized database. |
| 34 Revised | Employee Training | Highway | Workshops/Posters | Highway Department supervisor has provided verbal instruction and training. Supervisor has provided re-training when necessary. | Will create flyers and post in the workplace. |
| 36 Revised | Storage Facility Management | Fire Department | Inventory Stored Materials | Fire Chief has identified buildings containing stored materials | Fire Chief still must complete list of all materials stored in buildings on his list. He will be mailing a survey out to all relevant business in order to collect this data. |
| 39 Revised | Spill Response Plan | Fire Department | Prepare plan and distribute to affected departments | Fire Chief is working on this plan. He already has several emergency preparedness plans in place dealing with certain types of hazardous waste disasters. He will incorporate some of these into a new “Spill Response Plan” as part of compliance with Phase II. | Fire Chief still must complete the plan and distribute it to relevant departments. Chief is chairman of the Local Emergency Planning Commission, which oversees hazardous spills. |
| 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 1 (Reliance on non-municipal partners indicated, if any) | Planned Activities – Permit Year 2 |
|-----------------|------------------------|--------------------------------------|---------------------------|--|---|
| Revised | | | | | |

7a. Additions

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7b. WLA Assessment

Part IV. Summary of Information Collected and Analyzed

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic

| | | |
|--|------------|--|
| Stormwater management position created/staffed – department heads share the responsibilities of the goal completion. | N | |
| Annual program budget/expenditures – Greenscapes Enrollment – Dues | \$1,500.00 | |
| | | |
| | | |

Education, Involvement, and Training

| | | |
|---|-------------------|--|
| Estimated number of residents reached by education program(s) | 200 | |
| Stormwater management committee established - | N | |
| Stream teams established or supported | (5 teams in 2007) | |
| Shoreline clean-up participation or quantity of shoreline miles cleaned | N | |
| Household Hazardous Waste Collection Days | Yes | |
| ▪ days sponsored | 1 | |
| ▪ community participation | 8% | |
| ▪ material collected: hazardous waste, television, propane tanks, fluorescent light bulbs | | |
| School curricula implemented | N | |

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Legal/Regulatory

| | In Place Prior to Phase II | Under Review | Drafted | Adopted |
|--|----------------------------------|-----------------|---------|---------|
| Regulatory Mechanism Status (indicate with “X”) | | | | |
| ▪ Illicit Discharge Detection & Elimination | | | | |
| ▪ Erosion & Sediment Control | | | | |
| ▪ 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 | (%) | |
| Estimated or actual number of outfalls | (#) | |
| System-Wide mapping complete | (%) | |
| Mapping method(s) | | |
| ▪ Paper/Mylar | (%) | |
| ▪ CADD | (%) | |
| ▪ GIS | (%) | |
| Outfalls inspected/screened | (# or %) | |
| Illicit discharges identified | (#) | |
| Illicit connections removed | (#) (est. gpd) | |
| % of population on sewer | (%) | |
| % of population on septic systems | (%) | |

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Construction

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

Post-Development Stormwater Management

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

Operations and Maintenance

| | | |
|--|----------------|--|
| Average frequency of catch basin cleaning (non-commercial/non-arterial streets) | (times/yr) | |
| Average frequency of catch basin cleaning (commercial/arterial or other critical streets) | (times/yr) | |
| Total number of structures cleaned | (#) | |
| Storm drain cleaned | (LF or mi.) | |
| Qty. of screenings/debris removed from storm sewer infrastructure | (lbs. or tons) | |
| Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.) | | |
| Cost of screenings disposal | (\$) | |
| | | |
| | | |

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|--|----------------|--|
| Average frequency of street sweeping (non-commercial/non-arterial streets) | (times/yr) | |
| Average frequency of street sweeping (commercial/arterial or other critical streets) | (times/yr) | |
| Qty. of sand/debris collected by sweeping | (lbs. or tons) | |
| Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.) | (location) | |
| Cost of sweepings disposal | (\$) | |
| Vacuum street sweepers purchased/leased | (#) | |
| Vacuum street sweepers specified in contracts | (y/n) | |
| | | |
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|--|-------------|--|
| Reduction in application on public land of: (“N/A” = never used; “100%” = elimination) | | |
| ▪ Fertilizers | (lbs. or %) | |
| ▪ Herbicides | (lbs. or %) | |
| ▪ Pesticides | (lbs. or %) | |
| | | |
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|--|---|--|
| Anti-/De-Icing products and ratios | % NaCl % CaCl ₂ % MgCl ₂ % CMA % Kac % KCl % Sand | |
| Pre-wetting techniques utilized | (y/n) | |
| Manual control spreaders used | (y/n) | |
| Automatic or Zero-velocity spreaders used | (y/n) | |
| Estimated net reduction in typical year salt application | (lbs. or %) | |
| Salt pile(s) covered in storage shed(s) | (y/n) | |
| Storage shed(s) in design or under construction | (y/n) | |
| | | |
| | | |