# TOWN OF AUBURN

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MM 3

Board of Selectmen

2004 JUN -4 A 12:15

Charles T. O'Connor, Jr.
Town Administrator

102 CENTRAL STREET
AUBURN, MA 01501
(508)832-7720

Jeffrey P. Murray, Chairman
Carl E. Westerman, Vice Chairman
Robert D. Grossman
Elizabeth L. Prouty
William M. Gribbons

April 29, 2004

United States Environmental Protection Agency
Water Technical Unit
P.O. Box 8127
Boston, MA 02114

TO WHOM IT MAY CONCERN:

RE: NPDES General Permit for Storm Water Discharges From Small Municipal Separate Storm Sewer Systems (MS4 General Permit)
ANNUAL REPORT for
Auburn, Massachusetts

In accordance with the requirements of the MS4 General Permit the Town of Auburn as a municipality covered by the Permit respectfully submits it's Annual Report.

Very truly yours,

Jeffrey Murray, Chairman
Board of Selectmen

**Municipality/Organization: Town of Auburn**

**EPA NPDES Permit Number: MAR041088** 2005 JUN -4 A 12: 15

**MaDEP Transmittal Number: W-**

**Annual Report Number**
**& Reporting Period: No. 1: May 1, 2003-April 30, 2004**

# NPDES PII Small MS4 General Permit Annual Report

**Part I. General Information**

Contact Person: James Zingarelli Title: Town Engineer

Telephone #: (508) 832-7728 Email: jzingarelli@auburn.mec.edu

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: Jeffrey Murray

Title: Chairman, Board of Selectmen

Date: 4/29/04

**Part II. Self-Assessment**

The Town of Auburn has completed the required assessment and determined that our municipality is in compliance with all permit conditions.

Auburn's status with respect to Historic Properties is still pending. Not all outfalls have been located and mapped. During year 2 Auburn will be finishing verifying the relationship of the MS4 outfalls with Historic Properties.

## 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 1 (Reliance on non-municipal partners indicated, if any) | Planned Activities – Permit Year 2 |
|---|---|---|---|---|---|
| 1A | Mail Educational Information to Businesses and Residents | Planning Dept., Conservation Commission, and Auburn Water District | Number of articles and copies of materials. | **Education material was procured, adapted and mailed to residents as water bill inserts.** | • Mail educational information to businesses and again to residents |
| Revised | | | | | |
| 1B | Develop Stormwater Section of Town Website | Planning Dept., MIS Office and Website Manager | Measure number of hits per quarter. | **Town staff has been identified to create a stormwater section for the Town's website.**<br>**Other stormwater sites have been reviewed for content to mimic.** | • Complete the stormwater section of the Town's website and post it. |
| Revised | | | | | |
| 1C | Develop and broadcast a stormwater presentation on local cable network | Phase II Stormwater Committee and Engineering | Cable TV tapes of shows. | **One presentation to the Board of Selectmen was broadcast. .** | • Develop another presentation of Stormwater Management Plan.<br>• Inform residents of stormwater broadcast during future selectmen meetings.<br>• Show presentation at two selectmen meetings. |
| Revised | | | | | |
| 1D | Publish Quarterly Article in Local Newspaper | Planning Dept., Conservation Commission and Auburn Water District | Copies of Articles. | Was not completed in Year 1 but will be completed in Year 2: | • Develop format for quarterly news article.<br>• Submit a quarterly article to the local newspaper regarding upcoming stormwater events. |
| Revised | | | | | |

### 1a. No additions at this time.

## 2. Public Involvement and Participation

| 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 |
|---|---|---|---|---|---|
| 2A | Conduct River, Stream, and Pond Cleanups | Planning Department and Conservation Commission | Cleaner streams as documented by before and after photographs | Scheduled for years 3-5 | • Scheduled for years 3-5 |
| Revised | | | | | |
| 2B | Establish a Classroom Education Program | Planning Department, Auburn Water District, Sewer Commission and Conservation Commission | The classroom education program will be implemented by year 5. | Scheduled for years 2-5. | • Determine who will serve as the classroom education coordinator.<br>• Work with schools to determine how to best implement the program. |
| Revised | | | | | |
| 2C | Help Establish Volunteer Stormwater Organization | Phase II Stormwater Committee | Document quarterly meetings. | Scheduled for years 2-5. | • Help establish a volunteer stormwater organization.<br>• Identify stakeholders and coordinators.<br>• Meet on a quarterly basis to discuss Phase II management plan implementation status/issues. |
| Revised | | | | | |

## 2a. No additions for year 2.

## 3. Illicit Discharge Detection and Elimination

| 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 |
|---|---|---|---|---|---|
| 3A | Develop Town Storm Drain Outfall Map | Highway Department and Engineering | All outfalls mapped by year 5. | Scheduled for years 2-5. | • Map storm drain system using historical mapping projects, existing plans, and knowledge of town employees.<br>• Create a GIS base map and database for the Auburn storm drain system.<br>• Locate and field-verify storm system outfalls in highest priority sub-basins.<br>• Add outfall information and receiving water information to existing GIS base map. |
| Revised | | | | | |
| **3B** | Develop Illicit Discharge Prohibition Ordinance | Planning Department and Board of Health | Obtain authorization to control inputs to the municipal system drainage system. Bylaw at Town meeting by end of year 3. | **The Town Planner has reviewed model bylaws and concluded that a consultant is needed to assist with developing the bylaws needed for compliance with Phase II.** | • Develop language to suit town's needs.<br>• Present draft to public. |
| Revised | | | | | |
| 3C | Develop Illicit Discharge Detection and Elimination Plan and Implement Activities | Highway Department and Board of Health | All outfalls examined by year 4. Sources traced and conclusion documented within one year of discovery. | Scheduled for years 2-5. | • Develop an illicit discharge detection plan.<br>• Inspect outfalls and sample dry weather flows at stormwater outfalls in the highest priority sub-basin. |

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|---|---|---|---|---|---|
| Revised | | | | | |
| **3D** | Incorporate Information on Illicit Discharges into Public Education and Outreach Topics | Highway Department and Board of Health | Copies of materials. | **Illicit discharge education material was procured, adapted and mailed to residents as water bill inserts.** | • Incorporate public education materials on hazards associated with illegal discharges and improper disposal of waste with public education program. |
| Revised | | | | | |
| **3E** | Hold Annual Household Hazardous Waste Collections | Highway Department and Board of Health | Document quantity of wastes collected annually. | **While not planned for Year 1 a Hazardous Waste Collection Day was held on April 24th 2004.** | • Organize collection events and advertise with public education materials, emphasizing the need to collect wastes to avoid improper disposal and the resulting pollution. |
| Revised | | | | | |
| 3F | Identify Department to Take Stormwater Calls | Planning Department and Engineering | Log of complaints and actions taken. | Scheduled for years 2-5 | • Identify department to receive calls.<br>• Advertise whom to call to report dumping or other inappropriate inputs into the MS4.<br>• Develop protocol for addressing complaints.<br>• Keep records of complaints and actions taken. |
| Revised | | | | | |

**3a. No additions for Illicit Discharge Detection & Elimination at this time.**

## 4. Construction Site Stormwater Runoff Control

| 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 |
|---|---|---|---|---|---|
| 4A | Develop Erosion Control Regulation | Planning Department and Selectmen | Bylaw at Town meeting by end of year 2. | **The Town Planner has reviewed the model bylaws and concluded that a consultant will help with developing the bylaws needed for compliance with Phase II.** | • Develop additional language to suit the town's need, including sanctions for compliance.<br>• Present draft to public.<br>• Submit ordinance for Town meeting. |
| Revised | | | | | |
| 4B | Develop Guidance for Erosion Controls | Planning Department, Highway Department, Engineering and Consultant | Inspection checklist and documented inspections. | **The Town has proposed to create a new position for a "Land Use Enforcement Officer" to coordinate stormwater management, enforcement and construction site/erosion control inspections.**<br>The following was planned for Year 1 but will be completed in Year 2:<br>Develop guidance outlining specific erosion control requirements desired by Auburn.<br>Develop an inspection checklist. | • Develop guidance outlining specific erosion control requirements desired by Auburn.<br>• Develop an inspection checklist.<br>• Set up a tracking program.<br>• Conduct inspections of erosion controls. |
| Revised | | | | | |
| 4C | Identify Department to Take Stormwater Calls | Planning Department and Engineering | Record number of phone calls to hotline, copies of advertisements. | Scheduled for years 2-5. | • Identify department to receive calls.<br>• Advertise whom to call to report erosion or runoff concerns at construction sites in town.<br>• Develop protocol for addressing complaints.<br>• Keep records of complaints and actions taken. |
| Revised | | | | | |

## 4a. No additions at this time

## 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 1 (Reliance on non-municipal partners indicated, if any) | Planned Activities – Permit Year 2 |
|---|---|---|---|---|---|
| **5A** | Develop BMP Regulation | Planning Department and Selectmen | Bylaw at Town meeting by end of year 2. | **The Town Planner has reviewed the model bylaws and concluded that a consultant will help with developing the bylaws needed for compliance with Phase II.** | • Develop additional language to suit Town needs.<br>• Present draft to public.<br>• Submit ordinance for Town meeting. |
| Revised | | | | | |
| **5B** | Develop BMP Design Standards | Planning Department, Engineering and Consultant | Copy of design standards. | **Was not completed in Year 1 but will be completed in Year 2:** | • Identify specific BMP requirements desired by Auburn.<br>• Develop design standards for developers to follow including design performance criteria, BMP examples, and maintenance requirements.<br>• Set up review criteria.<br>• Incorporate by reference in bylaws. |
| Revised | | | | | |
| 5C | Develop and Implement Inspection Program | Planning Department, Engineering and Consultant | Retain copies of maintenance reports received annually, plus records of inspections completed and results. | Scheduled for years 2-5 | • Identify the department(s) who will perform inspections.<br>• Identify specific O&M requirements.<br>• Require operation and maintenance plan of developers. |
| Revised | | | | | |
| **5D** | Amend Zoning Bylaws to Regulate Impervious Areas | Planning Department and Zoning Board of Appeals | The new zoning bylaw will be implemented by the end of year 1. | **The model bylaws have been reviewed and the stormwater committee concluded that a consultant will help with developing the Zoning Bylaws to regulate the amount of impervious surface that can be created on each lot after Auburn completes the other ordinance projects and has updated the town Master Plan.** | No further action required for the until after Master Plan update, or update funding fails causing that project to be temporarily abandoned. |
| Revised | | | | | |

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|---|---|---|---|---|---|
| 5E | Adopt a Tree Preservation Bylaw | Tree Warden | Adopt a Tree Preservation Bylaw by the end of year 3. | Scheduled for year 3. | Scheduled for year 3. |
| Revised | | | | | |

**5a. No additional Post Construction Runoff Control BMPs.**

## 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 1 (Reliance on non-municipal partners indicated, if any) | Planned Activities – Permit Year 2 |
|---|---|---|---|---|---|
| **6A** | Sweep Streets in Town | Highway Department | Priority plan of sweeping based on water quality impact. Volume of sweepings collected. | **All of the streets and sidewalks were swept once this year.**<br><br>Volume collected: 8,000 yards | Sweep all streets. |
| Revised | | | | | |
| **6B** | Clean Catch Basins | Highway Department | Records of catch basins cleaned. | **500 catch basins were cleaned this year based on a prioritization determined by the Town's Highway Department.**<br><br>Volume collected: 1,000 yards | • Clean all catch basins in Town annually or as required by a prioritization scheme & schedule.<br>• Record sediment collected per catch basin or drainage network each cleaning. |
| Revised | | | | | |
| **6C** | Calibrate Salt Spreading Equipment | Highway Department | Prevent over-application of salt as shown with calibration records. | **The Highway Department uses a 3 to 1 sand/ salt ratio on the Town's roads. The amount of mixture applied is controlled inside the cab of the truck. The employee uses experience and best judgment to determine how much of the mixture to apply.** | Same as Year 1. |
| Revised | | | | | |
| **6D** | Continue Practice of Low Salt Ratio Application | Highway Department | Use low salt ratio throughout town. | **Continued the existing practice of low salt ratio application throughout town to protect groundwater and surface water resources.** | Same as Year 1. |
| Revised | | | | | |

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|---|---|---|---|---|---|
| **6E** | Develop an Inspection and Maintenance Plan | Highway Department and Engineering | Records of inspections and maintenance. | **An in-house policy for disposing of maintenance generated wastes (i.e. catch basin cleanings, street sweepings, and sediment from detention ponds has been implemented. The Highway Department met with the Board of Health and the DEP to determine a suitable location for storage of the wastes. The wastes are brought to Rochdale Street and stored away from any water bodies and off of the landfill cap.** | • Develop a written inspection/maintenance schedule for structural BMPs throughout Town.<br>• Perform inspection and maintenance, modifying frequency as necessary. |
| 6F<br>Revised | Ensure Water Quality Improvements are Considered for Flood Projects | Highway Department and Engineering | Document flood control projects | The planned drawdown of Auburn Pond has not yet taken place. | In September Auburn Pond will be lowered so a portion of the dam can be fixed. There will be a clean up day for the public to participate in to improve the water quality of the area. |
| **6G**<br>Revised | Discontinue Outdoor Vehicle Washing | All Town Departments | Written policy. | **Discontinued outdoor vehicle washing at the highway garage. Verified that all garage drains are attached to a gas trap which discharges to the sanitary sewer system. The gas trap is cleaned once per year.**<br>**The Town has complied with federal and state regulations pertaining to vehicle washing and rinsing.** | No further action is required for the rest of the permit term. |
| **6H**<br>Revised | Implement BMPs at the Highway Garage to Prevent Sedimentation to the Adjacent Waterway from Site Runoff and Road Material Storage | Highway Department | Before and after photographs. Records of sweeping and catch basin cleaning. | **The sand pile and raw material piles have been relocated away from the stream.**<br>**The yard and catch basins were cleaned more frequently.** | • Sweep the yard and clean catch basins frequently.<br>• Document sweeping and catch basin cleaning. |

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| **6I** | Cover Junk Equipment and Vehicles | All Town Departments | Cover all junk equipment and vehicles. | **All junk equipment and vehicles have been provided covers and drip pans.** | Same as Year 1. |
| **6J**<br>Revised | Dispose of Hazardous Waste Drums | All Town Departments | Keep a record of drum disposal. | **All drums are stored indoors until they can be disposed.**<br>**Drums were disposed of using a licensed professional.** | Same as Year 1. |
| **6K**<br>Revised | Inspect and Cover Dumpsters | Highway Department | Record inspections. | **Dumpsters have been inspected.**<br>**Temporary covers were provided for the dumpsters.**<br>**New dumpsters for the Highway and Sewer Departments have been ordered.** | • Develop a written inspection checklist for dumpsters.<br>• Inspect dumpsters yearly to ensure there are no leaks. |
| 6L<br>Revised | Document Protocols for Municipal Operations | Highway Department | Copies of policies. | Scheduled for year 2. | • Develop written policies for all municipal operations.<br>• Send policies to all town employees. |
| 6M<br>Revised | Conduct Town Employee Stormwater Training | Highway Department and Engineering | Attendance sheet and copy of program. | Scheduled for years 2-5 | • Identify program coordinator.<br>• Evaluate the need for stormwater training for all Town departments (i.e. Fire and Police Department) based on current and potential pollution prevention.<br>• Prepare or contract curriculum/course materials.<br>• Conduct annual stormwater training sessions for Town departments. |

**6a. No additional Good Housekeeping BMPs.**

## 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 |
|---|---|---|---|---|---|
| 7A | Develop a Water Quality Strategy for 303d Waters | Town Engineer & Consultant | Summary of existing pollution prevention efforts, future needs, and responsible parties. Copy of Surface Water Quality Strategic Plan. | Not planned for Year 1. | Not planned for Year 2. |
| Revised | | | | | |
| 7B | Implement BMPs from Water Quality Strategy | Town Engineer, Consultant, & Town Departments (to be determined) | Photographs, logs, and BMP descriptions for completed efforts and water quality improvements. | Not planned for Year 1. | Not planned for Year 2. |
| Revised | | | | | |

### 7a. No additional BMPs at this time for compliance with TMDLs.

### 7b. WLA Assessment

TMDL studies have been completed for Auburn Pond, Eddy Pond, Leesville Pond, Pondville Pond, and Stoneville Pond. The BMPs in minimum measures 1 through 6 are being applied first. These include measures recommended by the TMDLs such as public education, fostering volunteer watershed groups, street sweeping, catch basin cleaning and mapping outfalls. Once these basic BMPs are functioning it will be possible to assess their effect. Then the water quality strategy will be devised and additional measures taken as necessary.

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

500 catch basins and culverts were cleaned.
1000 cubic yards of material was removed from storm sewer structures.
8000 cubic yards of street sweepings were collected.

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

**Programmatic**

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

**Education, Involvement, and Training**

| | | |
|---|---|---|
| Estimated number of residents reached by education program(s) | (# or %) | |
| Stormwater management committee established | (y/n) | **Yes** |
| Stream teams established or supported | (# or y/n) | |
| Shoreline clean-up participation or quantity of shoreline miles cleaned | (y/n or mi.) | |
| Household Hazardous Waste Collection Days | | |
| ▪ days sponsored | (#) | **1** |
| ▪ community participation | (%) | |
| ▪ material collected | (tons or gal) | |
| School curricula implemented | (y/n) | |

| | | |
|---|---|---|
| | | |
| | | |

**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 | | | | |
| ▪ Post-Development Stormwater Management | | X | | |
| Accompanying Regulation Status (indicate with "**X**") | | | | |
| ▪ Illicit Discharge Detection & Elimination | | | | |
| ▪ Erosion & Sediment Control | | X | | |
| ▪ Post-Development Stormwater Management | | | | |

**Mapping and Illicit Discharges**

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

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|---|---|---|
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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) | **Every other year, or as needed** |
| Average frequency of catch basin cleaning (commercial/arterial or other critical streets) | (times/yr) | **Every other year, or as needed** |
| Total number of structures cleaned | (#) | **500** |
| Storm drain cleaned | (LF or mi.) | **>500** |

| | | |
|---|---|---|
| Qty. of screenings/debris removed from storm sewer infrastructure | (lbs.or tons) | **1000 yards** |
| Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.) | | |
| Cost of screenings disposal | ($) | |
| | | |
| | | |

| | | |
|---|---|---|
| Average frequency of street sweeping (non-commercial/non-arterial streets) | (times/yr) | **1/year** |
| Average frequency of street sweeping (commercial/arterial or other critical streets) | (times/yr) | **1/year** |
| Qty. of sand/debris collected by sweeping | (lbs.or tons) | **8,000yards** |
| 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 %) | |
| | | |
| | | |

| | | |
|---|---|---|
| Anti-/De-Icing products and ratios | % NaCl<br>% $CaCl_2$<br>% $MgCl_2$<br>% CMA<br>% Kac<br>% KCl<br>% Sand | **3:1 Sand to Salt ratio** |
| Pre-wetting techniques utilized | (y/n) | |
| Manual control spreaders used | (y/n) | **Yes** |
| 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) | **Yes** |
| Storage shed(s) in design or under construction | (y/n) | |
| | | |
| | | |