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05

April 28, 2005

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

Subject: NPDES Phase II Small MS4 General Permit (MAR041164)
Annual Report
Taunton, Massachusetts

To Whom It May Concern:

In accordance with the provisions of the National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4s), please find enclosed the 2004 Annual Report summarizing the status of Taunton's Stormwater Management Program. As required by the NPDES General Permit, a copy of this report has also been submitted to the Massachusetts Department of Environmental Protection, the co-permitting authority for the state of Massachusetts.

Please do not hesitate to contact me with any questions or comments regarding this submission.

Very truly yours,

FAY, SPOFFORD & THORNDIKE, LLC.

By

Dianne E. Velardocchia

Dianne E. Velardocchia, PE
Senior Engineer

Enclosures: NPDES PII Small MS4 General Permit
Annual Report

Cc: Frank A. Nichols, P.E.
Commissioner of Public Works
City of Taunton, MA

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Trusted Partners for Design Solutions

Municipality/Organization: City of Taunton

EPA NPDES Permit Number: MAR041164

MaDEP Transmittal Number: W-041086

**Annual Report Number
& Reporting Period:** No. 2: March 04-March 05

NPDES PII Small MS4 General Permit Annual Report

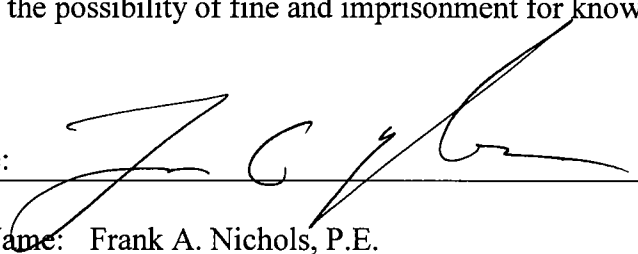
Part I. General Information

Contact Person: Frank A. Nichols, P.E. **Title:** Commissioner

Telephone #: 508-821-1434 **Email:** asstcomm@tmlp.com

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: Frank A. Nichols, P.E.

Title: Commissioner

Date: 4-27-05

Part II. Self-Assessment

The City of Taunton 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

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
1-1	Conduct an Annual Household Hazardous Waste Collection Day	Taunton Pollution Prevention Control Facility	<i>Spring '04/05/06/07</i> - Sponsor an annual household hazardous waste collection day. - Continue to develop the Taunton Recycling Information brochure and distribute to all Taunton residents via a mass mailing on an annual basis. - Track the number of brochures distributed to residence via the mass mailing each year. - Annually send a press release advertising the event to the Taunton Gazette and track whether or not it was published. - Advertise the event on the local cable access station on an annual basis. - Maintain and update the City's web page. - Track the amounts and types of waste collected each year. - Track the number of Taunton vehicles that participate in the event each year.	- Due to scheduling conflicts with Clean Harbors, the City postponed the event to April 24, 2004. - The 2004 Taunton Recycling Information brochure was developed and distribute to all Taunton residents via a mass mailing. - A press release was sent to the Taunton Gazette and appeared on April 14, 15 and 23. - The event was not advertised on the local cable access station. Instead the event was advertised via flyers posted at various municipal buildings and at local supermarkets and a large billboard placed at the City's busiest intersection. - A listing of the amounts and types of wastes collected during the event was produced by Clean Harbors and is maintained at the Taunton Wastewater Treatment Facility. 120 vehicles participated in the HHW collection Day event.	Activities to proceed as noted in the Measurable Goal's column. The hazardous waste collection day is scheduled for April 30, 2005.
1-2	Distribute a Series of Educational Flyers	Taunton Conservation Commission Taunton Environmental Awareness Movement Taunton Municipal Lighting Plant Taunton Webmaster	<i>Summer '04/06</i> <i>Revise dates to Summer '05/07</i> - Track number of flyers distributed each year. - Post the electronic version of the flyer on the City's web page.	Flyers were not distributed during Permit Year 2.	Activities to proceed as noted in the Measurable Goal's column.
Revised			<i>This BMP was not performed as originally scheduled because of staff turnover during Permit Year 2.</i>		
1-3	Post Educational Information on the City's Web Site	Taunton Department of Public Works Taunton Conservation Commission Taunton Planning Department Taunton Ecology Awareness Movement	<i>Spring '03 – Winter '07/08</i> - Post stormwater related information on the Green Page web site. - Update web site regularly.	This web site contains a variety of environmental information related to stormwater issues including links to pertinent environmental websites and information on the Town's SWMP.	Activities to proceed as noted in the Measurable Goal's column.
1-4	Promoting Water Conservation Practices for Homeowners	Taunton Water Department	<i>Spring '03 – Winter '07/08</i> - Maintain and update the water conservation tips on the Water Department's web page. - Continue to use local newspapers to promote water conservation and track the number of water conversation reminders that are placed in newspapers each year.	Water conservation tips were regularly maintained and updated on the Water Department's web page.	Activities to proceed as noted in the Measurable Goal's column.
1-5	Participate in the Annual Ecology Fair	Taunton Conservation Commission Taunton Department of Public Works Taunton Water Department Taunton Ecology Awareness Movement	<i>Fall '04, Spring '05/06/07</i> - Submit a press release advertising the event to the Taunton Gazette. - Track the number and type of educational materials that are distributed by the City's Storm Water Quality Booth at the Taunton Ecology Fair.	The Ecology Fair did not occur because of staff turnover during Permit Year 2.	City is unsure whether activities will proceed as noted in the Measurable Goal's column because of staffing turnover.

1a. Additions

No additions to report at this time.

3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
3-1	Field Verify Outfall Locations	Taunton Department of Public Works	Spring '05 – Winter '07/08 - Develop a schedule for outfall verification and outfall identification activities. - Perform and track the outfall verification and outfall identification activities as scheduled. - Continuously update the storm drainage system map as new components are added to the municipal storm drainage system.	No activities scheduled for Permit Year 2.	Activities to proceed as noted in the Measurable Goal's column.
3-2	Adopt a Stormwater Ordinance	Taunton Planning Department Taunton Conservation Commission Taunton Engineering Department	Winter '04/05 Revise date to Winter '05/06 - Draft the Stormwater Ordinance. Spring '05 Revise date to Spring '06 - Present the Stormwater Ordinance for a vote of acceptance at the Municipal Council. Spring '05 – Winter '07/08 Revise date to Spring '06 – Winter '07/08 - Track the number of enforcement actions taken. - Post Stormwater Ordinance on Town's web site.	The Stormwater Ordinance was not drafted during Permit Year 2 because of staff turnover.	Activities to proceed as noted in the Measurable Goal's column.
Revised			Dates have been revised because of staff turnover during Permit Year 2.		
3-3	Implement an Illicit Discharge Detection and Elimination Plan	Taunton Department of Public Works	Spring '04 Winter '04/05 - In August 2003, the City applied for SRF funding via a Project Evaluation Form (PEF). The proposed project consisted of 1) I/I Abatement and 2) Cross Connection Elimination. The project did not make the initial Intended Use Plan (IUP) for 2004. The City further pursued this funding by providing additional information and testifying at the 2004 IUP public hearing conducted by the DEP in Boston on January 27, 2004. In March 2004, it was announced that the City's project had been included on the 2004 IUP list. - It is anticipated that during 2004, the City will survey approximately 200 homes to "identify sanitary discharges to the storm drains. Homes identified with connections will be disconnected.	- As part of Phase I, 200 homes were dye tested during the spring and summer of 2004 to determine whether there were sanitary discharges to storm drains. The survey identified 25 homes, as well as 12 catch basins, as having cross-connections. - In August 2004, the City applied for SRF funding through a Project Evaluation Form (PEF) for Phase II. The proposed project consists of 1) I/I Abatement and 2) Cross Connection Elimination. The project qualified for the initial Intended Use Plan (IUP) for 2005, valued at just over \$2M.	Activities to proceed as noted in the Measurable Goal's column.
Revised			Spring '05-Summer '05 - The City has identified/confirmed 25 illicit cross-connections, which will be removed this summer under the Phase I Sewer Rehabilitation Project. There will also be separation of 12 cross-connected catch basins by removing their discharges from the sanitary sewer system. - As part of Phase II, the City plans to survey approximately 600 homes to identify possible sanitary discharges to the storm drains and will perform TV inspections of the sewer lines to identify I/I. Spring '06-Summer '06 - The City will remove the cross-connections identified in the Phase II survey		

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
3-4	Establish a Formal Septic System Management Program (SSMP)	Taunton Board of Health Mayor's Office of Community Development	Spring '03 – Winter '07/08 - Track the number of septic system pumping companies licensed by the City each year. - Track the number of septic system installers that are licensed by the City each year. - Track the number of Certificates of Compliance issued each year. - Track the number of failed septic systems identified each year and action taken. - Track the number of property owners that participate in the HSRLP. - Host the Septic System Maintenance Workshop. - Track the number of attendees at each Septic System Maintenance Workshop.	- There were 43 septic system-pumping companies & 81 septic system installers licensed by the City. 174 Disposal Work Construction Permits were issued. 47 Title V failed septic systems were identified. The corresponding property owners were issued Failure Order Notices (FON) and informed they had two years to upgrade their systems or tie into the City's sanitary sewer system. The BOH will track the properties compliance with these FONs. - Only 3 property owners participated in the HSRLP during 2004. - Septic System Maintenance Workshop were not conducted during 2004.	Activities to proceed as noted in the Measurable Goal's column.
3-5	Conduct I/I Removal in the Sanitary Sewer System	Taunton Department of Public Works	Fall '04 - Complete the Comprehensive Wastewater Management Study. Summer '05 - Evaluate the recommendations made in the Comprehensive Wastewater Management Study and develop a plan to perform the recommended activities. Summer '05 – Winter '07/08 - Track the City's sanitary sewer capital improvement projects conducted.	The Comprehensive Wastewater Management Study will be completed in June 2005.	Activities to proceed as noted in the Measurable Goal's column.

3a. Additions

No additions to report 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 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
4-1	Develop a Site Inspection Form and Conduct Site Inspections	Taunton Planning Board Taunton Engineering Department Taunton Conservation Commission	<i>Spring '05 – Winter '07/08</i> <i>Revise Date to Spring '06 – Winter '07/08</i> - Develop a Site Inspection Form that reflects the ESC. - Track the frequency of inspections conducted for each site. - Track the completion of inspection forms. - Track the number of failed ESC BMPs discovered on each site.	<i>No activities scheduled for Permit Year 2.</i>	Activities to proceed as noted in the Measurable Goal's column.
Revised			<i>Dates have been revised to correspond with the adoption of the Stormwater Ordinance (BMP 3-2)</i>		
4-2	Develop and Implement a Citizen Tip Line	Taunton Department of Public Works Taunton Web Master	<i>Spring '05</i> - Establish the Citizen Tip Line. - Advertise the Citizen Tip Line. - Track the number of complaints received via the Citizen Tip Line. - Track the problems/incidents remedied as a result of the Citizen Tip Line.	<i>No activities scheduled for Permit Year 2.</i>	Activities to proceed as noted in the Measurable Goal's column.

4a. Additions

No additions proposed at this time.

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 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
6-1	Develop a Formal Training Program for DPW Staff	Taunton Department of Public Works	<i>Spring '05</i> - Establish a formal training program for DPW employees. <i>Spring '05 – Winter '07/08</i> - Conduct training sessions with all current employees. - Train all new DPW employees in accordance with the training program requirements. - Track the number of employees trained. - Conduct refresher training for employees after every two years of employment.	<i>No activities scheduled for Permit Year 2.</i>	Activities to proceed as noted in the Measurable Goal's column.
6-2	Develop a Formal Catch Basin Cleaning Program	Taunton Department of Public Works Highway Division	<i>Spring '05 – Winter '07/08</i> - Use a street inventory to prioritize catch basins for cleaning by street. - Clean a minimum of ten percent of catch basins per year. - Document annual cleaning activities.	<i>No activities scheduled for Permit Year 2.</i> The City's formal catch basin cleaning program has not yet been implemented however, during Permit Year 2, catch basins located in problem areas (i.e. areas with flooding or excessive sediment) were regularly cleaned.	Activities to proceed as noted in the Measurable Goal's column.
6-3	Upgrade the Existing Parking Lot & Street Sweeping Program	Taunton Department of Public Works Highway Division	<i>Spring '04</i> - Purchase a second street sweeper. <i>Summer '04 – Winter '07/08</i> - Conduct an inventory of all publicly owned streets and parking lots. - Annually update and prioritize streets and lots for sweeping activities. - Develop a schedule for conducting sweeping activities. - Track the streets and lots that are swept each year. - Maintain a log of the disposed materials	- A street sweeper was purchased in the Fall 2004 to replace an older street sweeper. - DPW staff regularly sweeps problem areas, municipal parking lots, the downtown area, and major roads, as weather permits.	Activities to proceed as noted in the Measurable Goal's column.
6-4	Develop a Vehicle & Equipment Maintenance Policy	Taunton Department of Public Works	<i>Spring '05</i> Develop and implement a vehicle and equipment maintenance policy and incorporate policy requirements into the DPW employee-training program.	<i>No activities scheduled for Permit Year 2.</i>	Activities to proceed as noted in the Measurable Goal's column.
6-5	Develop a Vehicle & Equipment Cleaning Policy	Taunton Department of Public Works	<i>Spring '05</i> - Develop and implement a vehicle and equipment cleaning policy and place policy in the DPW employee-training manual. - Develop and implement a vehicle and equipment maintenance policy and incorporate policy requirements into the DPW employee-training program.	<i>No activities scheduled for Permit Year 2.</i> While the "formal" policy is scheduled for Spring '05, it is important to note that currently the City's vehicles are cleaned in a wash bay located at the DPW facility. The washwater from these activities is deposited into a controlled separator before being discharges to the sanitary sewer system.	Activities to proceed as noted in the Measurable Goal's column.

6a. Additions

No additions proposed at this time.

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 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
Revised					
Revised					
Revised					
Revised					
Revised					
Revised					
Revised					

7a. Additions

7b. WLA Assessment

Part IV. Summary of Information Collected and Analyzed

Each year the Taunton Department of Public Works, US Filter, and Taunton River Watershed Alliance conduct water quality monitoring activities and include the data in an annual report. The Annual Water Quality Report For the City of Taunton – Taunton River & Tributaries – 2004 was completed in early 2005 and contained a variety of information.

A total of sixteen sites have been sampled, historically. During 2004, eight sites were sampled and are indicated in bold print. Samples are taken at bridges due to safety considerations and accessibility for parking. These sites were chosen to cover a representative area of the City's waterways, to include any known problem areas or areas of critical concern, and to target areas where no previous water quality data existed. Monitoring parameters include temperature, total phosphorus, fecal coliform bacteria, dissolved oxygen, nitrate-nitrogen, total suspended solids and pH. Measurable goals for the water quality monitoring activities are identified in BMP 2-4. One of the measurable goals indicates that high fecal coliform counts will be reported to the responsible parties. Included in this section, are the monitoring locations and a summary of the fecal coliform bacteria counts taken during 2004.

STREET/BRIDGE LOCATION	RIVER	Miles from Taunton River	ID
SOMERSET AVE, RT. 138	THREE MILE	0.4	TMR 004
ROUTE 44/COHANNET ST.	THREE MILE	3.4	TMR 034
INGELL ST.	MILL	0.0	MIL-000
WASHINGTON ST.	MILL RIVER	1.4	MIL-014
WHITTENDON ST.	MILL RIVER	3.0	MIL-030
GENERAL COBB ST.	COBB BROOK	1.3	COB-013
WEST WATER ST.	COBB BROOK	0.0	COB-000
BAY ST., NORTON	SNAKE RIVER	0.5	SNK-005
MIDDLEBORO AVE.	COTLEY RIVER	0.4	COT-004
OLIVER MILL, RT.44, MIDDLEBORO	NEMASKET	4.1	NMK-041
MURDOCK ST., BRIDGEWATER	NEMASKET	2.3	NMK-023
STREET/BRIDGE LOCATION	RIVER	Miles from Berkley Bridge	ID
CENTER ST., BERKLEY BRIDGE	TAUNTON RIVER	0.0	TNT 000
PLAIN ST., TAUNTON	TAUNTON RIVER	4.3	TNT-043
LONGMEADOW BRIDGE, TAUNTON	TAUNTON RIVER	5.0	TNT-050
OLD COLONY, MIDDLEBORO	TAUNTON RIVER	11.3	TNT-113
GREEN ST., MIDDLEBORO	TAUNTON RIVER	15.8	TNT-158

FECAL COLIFORM BACTERIA 2004 (colonies/100 ml. sample)

Site	Jan	Feb	March	April	May	June	July	August	Sept	Oct	Nov	Dec
TNT 000	204	416*	520	150	300*	168	60*	36*	72*	240*	100	192
TMR 004	272*	40*	508*	55*	112	108	200	108	212	420	24*	28*
TMR 034	192	26*	632*	30*	108	136	124	160	144	36*	24*	20*
ASO030	18*	4*	8*	10*	72*	4*	192	88	64*	80	28*	4*
TNT 043							112	720	540	232	360*	340*
MIL 000				1120			900	2220*	680	200*	TNTC	520
MIL 014				680								
MIL 030				20*								

* = Count is estimated because number of colonies present were outside of the accepted range of 20-60/plate.

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic

Stormwater management position created/staffed	(y/n)	No
Annual program budget/expenditures	(\$)	

Education, Involvement, and Training

Estimated number of residents reached by education program(s)	(# or %)	
Stormwater management committee established	(y/n)	
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	(#)	
▪ 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				
▪ 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	(%)	100%
Outfalls inspected/screened	(# or %)	
Illicit discharges identified	(#)	
Illicit connections removed	(#) (est. gpd)	
% of population on sewer	(%)	40%
% of population on septic systems	(%)	60%

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	(\$)	

Average frequency of street sweeping (non-commercial/non-arterial streets)	(times/yr)	
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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)	

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 % CaCl ₂ % MgCl ₂ % CMA % Kac % KCl % Sand	
Pre-wetting techniques utilized	(y/n)	No
Manual control spreaders used	(y/n)	Yes
Automatic or Zero-velocity spreaders used	(y/n)	No
Estimated net reduction in typical year salt application	(lbs. or %)	
Salt pile(s) covered in storage shed(s)	(y/n)	Yes
Storage shed(s) in design or under construction	(y/n)	

2002
12 2004

2002
2