S E A Consultants Inc.
Scientists/Engineers/Architects

May 9, 2006

U. S. Environmental Protection Agency
Water Technical Unit
P.O. Box 8127
Boston, MA 02114

RE: Town of Ipswich – NPDES Annual Report No. 3
S E A Reference No.: 2003008.05-A

Dear Sir/Madam:

Enclosed is the NPDES Phase II Small MS4 General Permit Annual Report (Permit Year 3) for the Town of Ipswich, Massachusetts. As required, the report has been signed and certified by an authorized representative of the community.

Questions pertaining to the report may be directed to Robert Gravino, Department of Public Works Director, at 978-356-6612.

Respectfully yours,

S E A CONSULTANTS INC.

Betsy C. Frederick
Project Manager

cc: Robert Gravino, Town of Ipswich
file

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Municipality/Organization: **Town of Ipswich, MA**

EPA NPDES Permit Number: **MA041199**

MaDEP Transmittal Number: **W-035827**

Annual Report Number & Reporting Period: **No. 3: March 05-March 06**

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: Mr. Robert Gravino Title: Director, Dept. of Public Works

Telephone #: 978-356-6612 Email: robertg@town.ipswich.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: Patrick J McNally

Printed Name: Mr. Patrick J. McNally

Title: Chairman, Board of Selectmen

Date: May 8, 2006

Part II. Self-Assessment

The Town of Ipswich has completed the required self-assessment and has determined that our municipality is in compliance with all permit conditions. Specific considerations were given to the following:

Part I. D. 4 - The Town of Ipswich is familiar with the state's Draft TMDL for pathogens/bacteria in the Ipswich River. The Town will consider measures to address bacteria as a pollutant of concern in subsequent permit periods. In the interim, the Town is exploring structural and non-structural BMPs for implementation in the Farley Brook sub-basin, which drains downtown Ipswich, discharges to the Ipswich River, and has been demonstrated to contribute pollutants to the river. In particular, the Town will focus on source reduction measures in tandem with other BMP's, as recommended in the Draft TMDL Report.

Part II.B.8 - In the course of a drainage improvement project in the area of Green, Summer and Water Streets, the Town evaluated physical conditions, design alternatives and possible infiltration or recharge BMPs and determined that such measures were infeasible for the area of improvement. Although aquifer recharge was not an option, the Town did install two water quality control units such that water quality of stormwater discharged to the Ipswich River has been improved. Construction of the improvements was completed in April 2006.

Part II.F – The Town failed to submit annual report on or before May 1st. The report was submitted on May 9, 2006.

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	Procurement/Development of educational material	DPW Director	Procure or adapt four brochures for distribution and posting in subsequent permit years.	Public meetings regarding stormwater management were included as part of the ongoing stormwater improvement projects in Downtown Ipswich. No published material was sent via direct mail. Links to public websites have been provided to the Town for uploading to existing stormwater page associated with Conservation Commission site.	Distribution to targeted audiences – for years 4 – 5. Improvement of stormwater information available through web page and specific linkage to educational material themes.
Revised			Will post through existing stormwater page with link through Cons. Commission		
				The Town continued several additional educational programs. The Town publishes an Annual Recycling Calendar. In the calendar, information is provided regarding household hazardous waste days and other general information regarding appropriate management of household wastes. The Ipswich Recycling Committee contributes a weekly column to the local newspaper on issues of environmental concern. Finally, the DPW provides news releases to the local news media regarding issues of household waste management, recycling and stormwater.	Continue to provide public information on environmental issues that impact water quality.

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 - 5
2-1	Conduct joint Household Hazardous Waste and Oil/Paint Collection Day	BOH with DPW Director	Conduct one joint day annually and an additional oil-based paint (plus tires, batteries, fluorescent bulbs) collection day conducted by DPW alone.	Conducted one joint collection day, and one DPW collection day in the Permit year.	Household hazardous waste collection days are scheduled annually in the Spring and Fall.

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
3-1	Map outfalls and receiving waters	DPW Director with Utilities Director	Develop system for informing all public departments of changes in MS4 resulting from new development or re-dev.; field verify ICPCC mapping and Parker River Watershed Outfall Mapping.	Outfall mapping for entire community has been completed. In addition to mapping outfalls, condition assessments were performed on all accessible outfalls, and the information has been integrated into the Town's asset management database. The database is available to all Town departments through implementation of a web-based asset management system.	Personnel from various Town Departments, including Utilities, DPW, Planning, Assessors (and others to be identified by the Town) will be trained in the use of the mapping and database tools. Training is expected to take place in late Spring/Summer 2006.
Revised					
3-2	Detect and eliminate illicit discharges	DPW Director	Develop Illicit Discharge Detection and Elimination Plan; dry weather discharge evaluation of the top priority area.	Outfall mapping has been completed, and condition assessments of outfalls included preliminary assessments (although no sampling) regarding potential illicit discharges was also part of the program. During the drainage infrastructure construction in the Green Street Area, the old drain system was replaced in its entirety and any existing illicit connections were eliminated. Detailed mapping of the Farley Brook sub-basin drainage infrastructure has been completed, including dye testing to establish connectivity of pipes and potential unknown discharge locations. This sub-basin is one of the Town's priority planning area's, since it drains most of Ipswich Downtown. Historical sampling indicates the area contributes contaminants of concern to the Ipswich River.	Additional priority sub-basins will be identified for infrastructure mapping and condition assessment, including determination of illicit connections or discharges. This is a continuous program expected to be completed over a 2 -3 year period.
Revised					

3-4 Revised	Develop Bylaw Prohibiting Illegal Dumping of Non-SW into MS4	DPW Director	Develop Draft By-law.	The Town has created a Stormwater Committee, chaired by the Chairman of the Conservation Commission, which has been given the mission to evaluate needs and develop a by-law prohibiting non-stormwater discharges in conformance with the regulation and which also meets the needs of the community. The committee has been meeting for over six months. A draft by-law has been developed, but not yet submitted to Town Meeting. The Town is working with several non-municipal partners, including 8 Towns and a Bay, to identify opportunities for monitoring and identification of illicit discharges in priority sub-basins.	Committee timeline is to finalize proposed by-law and submit to Town Meeting for approval within the next year.
3-5 Revised	Develop Regulations and Policies to Enforce By-law	DPW Director	Policies and Regulations	Until the Committee completes its task, rules and regulations can not be developed.	Potential system for instituting permits and permit condition enforcement is anticipated for Years 4 – 5.

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	Revise Site Plan Review By-law	Planning Director	Draft amendment to the Site Plan Review section of the Zoning By-law for review of projects > 1 acre. PB intends to draft by-law that will address projects of < 1 acre as well.	Preliminary draft of an amendment to the by-law regarding site plan review is under discussion. Planning Board has also researched options to address projects of less than 1 acre, which make up the majority of projects undertaken in the town. This information has been shared with the Stormwater Committee for consideration of draft by-laws. The Stormwater Committee has also outlined their mission to include adoption of a "stormwater management and land disturbance by-law" that contains the following components: illicit connections and discharges, erosion and sedimentation control, low impact development and inspection and site supervision during construction.	The Town is researching alternatives to address disturbance of less than an acre, and other "by right" redevelopment that is otherwise reviewed only by the Building Inspector. The goal of the Stormwater Committee is to adopt a bylaw at Fall Town Meeting that addresses, at a minimum, the illicit connections and discharges. The intention is that the Committee will stay together until all of the items have been addressed within the comprehensive by-law.
4-2 Revised	Improve Site Plan Review Process	DPW Director	Draft revised process and tracking tool.	Based on discussions between the DPW and the Planning Board, the Planning Board's engineering design consultant incorporated DPW-specific concerns related to stormwater BMP operation and maintenance issues into their protocol for Planning Board site plan reviews. Review comments are provided to the DPW electronically for approval and further comment. DPW concerns must be part of the site developers response to PB comments.	Continue to implement the new process and improve upon as experience provides opportunities.

4-3	Procedures for Receipt of Public Information	Planning Director	Review existing procedures for consideration of improvements or compliance with Phase II.	Existing procedures under review.	This process is intended to complement the review described above. When that process has been further clarified, the appropriate means for soliciting and documenting public input will be developed. Anticipate this to take place during Year 4.
Revised					

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	Post-Construction Run-off By-law	Planning Director	Complete Draft by-law by end of Permit Year 2. Develop associated regulations and guidance in year 3.	A Draft by-law was to be developed during this permit year. The Stormwater Committee has been reviewing draft by-laws and/or considering modifications to existing by-laws over the past six months.	The Stormwater Committee will develop a draft by-law and associated regulations and guidance documents.
5-2.1 Revised	DPW Review of Structural BMPs	DPW Director	Draft procedure for evaluation of BMP's from O& M perspective.	Plan to incorporate this process into site plan review procedures for MCM 4. Thus far, that site plan review process has not been definitively determined. Informal processes have evolved, but are not intended to suffice for this BMP. The DPW intends to incorporate an inventory of publicly owned BMPs as part of the asset management program. The intent is to establish a more uniform maintenance schedule and allow for longer term evaluation of BMP effectiveness and cost impacts to community. The town currently employs a contractor to perform annual catch basin cleaning, and they provide a maintenance log to the Town.	Plan to finalize procedure and implement process. The current catch basin cleaning program will be modified once the Town creates a database to track conditions, volumes and effectiveness of annual "once a year" program town-wide. The objective is to provide more frequent clean-out where required, and less frequent clean-outs where sediment volume or conditions do not warrant it.
5-2.2 Revised	Establish Funding Mechanism for O&M of structural BMPs.	DPW Director	Investigation of potential funding mechanisms.	The Town Stormwater Committee has had several presentations from consultants on Stormwater Utilities. The Town is currently seeking grant funding opportunities to explore a Stormwater Utility as an administrative management and funding mechanism for capital and O&M drainage projects.	Further investigations are proposed for this year.

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	Educate Municipal Employees	DPW Director	Annual Storm Water Training Sessions	The Town sent two Highway Department personnel to an Essex County Highway Association seminar this year. The topic was stormwater management.	An in-house training program will be completed and implemented to augment the training sessions offered through non-municipal partners.
Revised					
6-2	Develop and Implement Municipal Operations Stormwater Plan	DPW Director	Develop and Adopt the plan by the end of Permit Year 2.	Asset management software has been purchased and is now in use. Database is being developed to assist Director with operational schedules and costs. No formal plan has yet been developed.	The Town will continue to map drainage infrastructure, perform condition assessments, and revise operating plans in accordance with findings. The operations stormwater plan will be a dynamic document that is continually updated.

7. BMPs for Meeting Total Maximum Daily Load (TMDL) Waste Load Allocations (WLA)

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
	Not Applicable – No TMDL's have been approved for any Waters within the Town of Ipswich.			The Town will work with regulators and watershed stakeholders to develop appropriate goals for the next five year permit term.	
Revised	*A Draft Report for bacteria/pathogen TMDLs in the Ipswich River Basin has recently been submitted for review and comment to USEPA. Implications of the TMDL will be addressed in the next 5-year permit program.*				