Town of Marshfield
COMMONWEALTH OF MASSACHUSETTS
870 MORAINE STREET
MARSHFIELD, MASSACHUSETTS 02050

OFFICE OF
DEPARTMENT OF PUBLIC WORKS

APR 30 2008

April 30, 2008

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

Massachusetts Department of Environmental Protection
Division of Watershed Management
627 Main Street
Worcester, Massachusetts 01608

RE: NPDES Phase II Small MS4 General Permit
Town of Marshfield, Massachusetts Annual Report
MADEP Transmittal No. W-036194
EPA Permit Number MA 041048

To Whom It May Concern:

The Town of Marshfield, Massachusetts is pleased to provide you with the attached National Pollutant Discharge Elimination System (NPDES) Phase II Small MS4 General Permit Annual Report for the period from March 2007 to March 2008.
Should you have any questions, do not hesitate to call me at (781) 834-5575. The contact person for this project is Rod Procaccino, Town Engineer.

Sincerely,

David E. Carriere
Supt. of Public Works

cc: Rocco Longo, Town Administrator

Municipality/Organization: Marshfield, Dept.of Public Works

EPA NPDES Permit Number: MA 041048

MassDEP Transmittal Number: W- 036194

Annual Report Number & Reporting Period: **April 1, 2007 – March 31, 2008**

NPDES PII Small MS4 General Permit Annual Report (Due: May 1, 2008)

Part I. General Information

Contact Person: Roderic J Procaccino Title: Town Engineer Dept.Public Works

Telephone #: 781 -834-5561 Email: Rprocaccino@townof marshfield.org

Mailing Address: 870 Moraine St. Marshfield, MA 02050

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: David E. Carriere

Title: Supt. Department of Public Works

Date: April 30,2008

Part II. Self-Assessment

The Town of Marshfield's stormwater management activities for the fourth year of the General Permit (March 2007 through March 2008) were in compliance with the Notice of Intent (Massachusetts DEP form BRP WM 08A) and schedule submitted dated July 21, 2003 with the exception of major effort conducting a illicit discharge detection. The following assessment of activities that were included in the plan is provided below:

Public Education: 1. Continue Partnership with North and South River Watershed Association (NSRWA) (BMP ID No.1) The Town continues it's support of NSRWA Greenscapes Program. Brochures and Reference guide are on display at the Town Hall and referenced in the Town's CCR Report. This information is posted on the Town's Website.

(Website - http://www.townofmarsfield.org)

The Town's Conservation Agent, Town Planner, and DPW Environmental Engineer attended two workshops regarding Stormwater and Low Impact Development sponsored by Mass. Coastal Zone Management (CZM), Non– point Source Pollution Grant Program on 5-10-07 , and 6-11-07.

2. Develop Brochures: (BMP ID No. 2)

The Town added language to the Water Quality Report to emphasize Storm Water Management. This information is sent out on an annual basis. The water quality report was sent out to all customers representing 98% of the Town.

The DPW contracts with the North and South River Association Greenscapes program to send out brochures to single family residences. The brochures promoted alternative landscaping, ground water recharge, pesticide and fertilizer alternatives and water conservation through workshops advertised.

The Water Quality Report, and DPW monthly report are distributed to Town offices and are made available at the DPW office.

3. Develop Web Site for Public Service Posting: (BMP ID No. 3)

The IT department has developed the Town wide website and is responsible for it's maintenance. Visit the Town's website at http://www.townofmarsfield.org Access the NPDES Phase II Small MS4 General Permit Annual Report.

Public Participation:

1. Water Quality Testing (BMP ID No. 4)

   No Water Quality Testing was initiated this period by the DPW. Green Harbor is being monitored by volunteers under the direction of Lauri Bianchi, Whitman/Hanson High School Professor and students. State CZM personnel have conducted water quality sampling and will continue monitoring the Green Harbor River Estuary while participating in a joint state- town effort to capture real time water levels and subsequently water quality data with newly purchased instrumentation with access to collected data on web- based server.

   The Town's consultant Vine Associates conducted water level survey for environmental permitting required for the Bass Creek Dredging Project. The dredging project will improve water quality by allowing the Bass Creek to flow into Green Harbor. (Construction has not been funded.)

   Community Cleanup Days (BMP ID No. 5)

   The Town conducted its annual cleanup day in May 5, 2007 (Rid Litter day) The next Rid litter day is scheduled for May 3, 2008.

2. An open space committee with representation from the DPW, Town Assessors, and Conservation Commission and other volunteers from the general public developed an Open Space Plan. Watershed protection was the highest priority included in the evaluation criteria. The DPW obtained support and authorization through Open Space Committee and funding from Town Meeting to acquire one 7.11 acre parcel for watershed and for a water supply protection (Davis Property) and 2.99 acre parcel on Main St.(Cecil Property). Several other parcels were sought after but the department was unsuccessful.

3. Telegraph Hill Moratorium: The Town imposed a building Moratorium on approximately 35 acres of land subdivided into 5000 and 10,000 sq. foot lots for a period of one year. The Moratorium was extended until Fall of 2007. There are severe erosion and drainage problems related to recent building on steep slopes and poor soils within the old subdivision. A committee was appointed with representation from DPW, Conservation, Building, Planning departments, and 3 private citizens to provide a conceptual plan to address the problems. The committee met several times and the drainage design has advanced and the

1. Improved Street sweeping (BMP ID No. 11)

The Town had implemented a plan to sweep the entire Town during the spring of 2007 by subcontract. The Town purchased a new street sweeper in the Fall 2007.

2. Improved Catch Basin Cleaning (BMP ID No. 12)

There are approximately 1200 manholes, 3200 catch basins and 100 drop- inlets that require extensive cleaning. The Town was unable to obtain additional funding to hire a private contractor to expedite the catch basin cleaning process. Approximately 61 structures of the drainage system were repaired that were reported as in need of masonry repair or outright replacement. The remaining work will be accomplished partly with in house staff and by contract through state funding. Approximately 400 catch basins were cleaned by subcontract during the Spring 2007 due to available funding. The remaining catch basins were cleaned with Town forces. Extensive brush clearing and trash collection was conducted by the DPW on Plymouth Ave.

3. Household Hazardous Waste Days: (BMP ID No. 13)

The Town conducted its Household Hazardous Waste Day on September 15, 2007 and continues to participate in the South Shore Recycling Organization. As a member of this organization residents are allowed to participate throughout the year in hazardous waste collection days offered by surrounding member Towns.

4. Drain Stenciling: (BMP ID No. 14)

The Town has taken no action to date.

5. Degraded pond -Landfill

The DPW investigated solutions to improve a degraded pond located at the Town's Landfill which is part of the Landfill's Stormwater Management System. The composting operation is affecting the water quality of this isolated manmade pond. The pond was dredged and spoils were stored onsite for reuse as capping material for the landfill.(the material sampled and tested for contaminants) The Town installed a electrical connection and obtained a grinder pump to control water levels.

BMP's for Meeting TMDL:

Water Quality Testing (BMP ID No. 4)

Water quality testing was performed in the Green Harbor River. The Town received the draft report on Green Harbor River Tidal Hydraulics Study, by Applied Coastal Research and Engineering, Inc. March 2007 and draft report on Hydrology and Ecological Analysis of the Upper Green Harbor River, by Dr. David S. White & Dr. Brian L. Howes Coastal Systems Program February 23, 2007. Louis Berger Group Inc. is the Prime Contractor. This study was funded by a Grant obtained through CZM and the Gulf of Maine Council on Marine Environment. The Tidal Hydraulics portion of the study considered the impact of altering the flow through the tide gates for the purpose of improving the water quality of a severely degraded upper Green Harbor. The water quality portion of the project involved estimate of freshwater flow and nutrient discharge from the fresh water portion of the Green Harbor River, evaluate the nutrient loading from two tributaries Bass Creek and Wharf Creek, and evaluate sediment/ porewater constituents in restricted and unrestricted wetland habitats within the Green Harbor River. The DPW helped fund the project by providing Topographical Survey of the area with one foot contour accuracy. The DPW provided contract labor to support inspection and manipulation of the tidegates.

The DPW is reviewing a proposed drainage improvement at the Union St. Bridge proposed as part of the Bridge reconstruction project. The State Highway Dept. refused to participate in the proposed improvement due to potential delays in permitting and the need to expedite the bridge reconstruction. The DPW is working with the Conservation Agent and NSWRA to implement the proposal.

1. Storm Water Modeling (BMP ID no. 15)

No further modeling was completed.

The Town has obtained approval to acquire property for a sediment forebay and retention area for a proposed drainage collection system in South River St. near Parkway. (Cost $238,000) The design was approved by Conservation Commission which included off site mitigation requirement to rehabilitate a sediment forebay at the intersection of Church St. and Ferry St. The modeling and design for the Telegraph Hill Drainage Trunkline was completed last February. Town meeting approved design funding and authorized land takings and easements for the project. Project was constructed in 2007.

Status of the following drainage improvement projects:

Telegraph Hill Drainage Trunkline $360,000	Project constructed
Summer St. and Ferry St. Drainage $ 200,000	Preliminary Design is complete (no funding for construction)
Rexhame/ Fieldston Drainage Construction $ 508,806	Design is complete (Construction Contract awarded)
	Portion to match Potential Hazard Mitigation Grant (Total $920,000) Grant Decision – May 2007 **NO Grant Awarded**
	The Army Corp. Coastal Grant program ruled not applicable to both Bass Creek and Rexhame/ Fieldston Drainage Construction.
Bass Creek dredging/channel restoration $ 650,000	Permitting under way. No Funding for Construction
	Received funding for semi amphibious excavator to dredge channel and clean detention basins $220,000 (April 2008)
Plymouth Ave. drainage structure replacement	Drainage work complete.
Down- town Improvement Project including Drainage BMP	Project substantially complete.
EPA Phase II- SW Compliance Testing and Mapping $25,000	for Illicit Detection and Elimination

End of Report.