Municipality/Organization: **Town of Sudbury**

EPA NPDES Permit Number: MAR04-1224

MassDEP Transmittal Number: **W-**

Annual Report Number & Reporting Period: **Year 6** **May 1, 2008 – April 30, 2009**

NPDES PII Small MS4 General Permit
Annual Report
(Due: May 1, 2009)

Part I. General Information

Contact Person: Deborah Dineen Title: Conservation Coordinator

Telephone #: 978-443-2209 1370 Email: dineend@sudbury.ma.us

Mailing Address: 275 Old Lancaster Rd., Sudbury MA 01776

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: Maureen G. Valente

Title: Town Manager

Date: January 28, 2011

Part II. Self-Assessment

Year 6 (4/1/08 – 3/31/09) was an extremely productive year for Sudbury by formally establishing mechanisms to oversee and enforce the requirements of our MS4 permit. Most importantly, a Stormwater Management Bylaw was developed to provide the regulatory structure necessary to set thresholds, criteria, performance standards, and a review mechanism for design and compliance of best management practices for the minimum control standards of our MS4 permit.

The Sudbury DPW Department now has a computerized inventory of drainage structures within Town. These structures have all been inspected in accordance with the Town's EPA Phase II MS4 DEP/EPA permit.

Structures needing repair/replacement have been prioritized and placed into five separate categories. Within each category the same scope of work and work performance standards are involved. Work will be done at a time of low flow. Haybales and/or silt fence will be installed to prevent downstream siltation.
The categories and locations for Year 6 are:

1. Culvert Replacement:
    a. Moore Road just east of #54
    b. Moore Road at #177 (if necessary, may just need cleaning maintenance rather than replacement)
    c. Peakham Road at #135

    All existing culvert sizes and inverts are to be maintained. These collapsed corrugated metal or broken rcp culverts will all be replaced with reinforced concrete culverts with flared ends on the downstream side of the road. A small area of stone/trap rock will be placed at the end of the flared end section to reduce scouring.

2. Culvert Upgrades:
    d. North Road at Concord line
    e. Bent Road at intersection of new and old roadway sections
    f. Old Sudbury Road at Rice Road and at Wolbach Road
    g. Firecut Lane between #15 and #23

    The above culvert pipes will be replaced and upgraded for wildlife movement and flow purposes with arched culverts in accordance with the new DEP stream crossing standards for new roadway crossings. Culverts will be open-bottom with a span encompassing, at a minimum, the mean annual flow of the stream. The areas listed above were chosen for this upgrade due to the documented wildlife crossings and the inability of animals to use the existing structures due to size, height from stream bed, change of surface, light reduction, etc. All old material will be removed from the site except the amount necessary to

backfill the sides of the structure.

This design will lower the invert elevations and create a broader area through which the water will pass. This is likely to result in some minor alteration of the upstream wetland area and land under water body, as well as increasing the peak rates of flow downstream to the next design point. The four areas above were chosen for this design after analysis of both the upstream and downstream flow characteristics to ensure no increased flooding issues. The new design will alleviate current artificial upstream impounding of stream flow by restoring the stream natural flow and function.

3. Culvert Repair and Upgrades

h. Kato Drive
i. Union Avenue
j. Woodside Road at Alta Road
k. French Road at Hop Brook
l. Marlboro Road at Saw Mill Brook

The above locations all currently have substandard or improperly functioning drainage structures in place. The scope of work varies for each above project based on current conditions.

Kato Drive:

Recent development on the street has resulted in additional flows that are undermining the slope below the headwall, resulting in a change in course to the runoff pattern. The runoff has been channeled outside of the drainage easement and is causing flooding damage to an abutting property. At the base of the headwall a rocked settling basin will be constructed to slow velocity and settle out particulates from the runoff. The channel within the easement will be cleared of the overgrowth of vegetation and the channel reestablished within the easement. Channel stabilization will be accomplished with rock.

Union Avenue:

This section of town has had continual flooding issues for the past several decades. The flow in this area is west to east with inadequate drainage structures and maintenance in place at Union Avenue. This is causing severe flooding problems for the buildings on the west side of Union Avenue, particularly at #55. This problem is compounded by the fact that the drainage in this area does not discharge into a drainage easement, making town maintenance of the area a problem. A solution has been worked out with the town and the property owners to allow the existing drainage culvert to be extended, a detention basin created at the outfall, and the new system placed within a drainage easement to the town for future maintenance. This will require a modification to the approved Order of Conditions on the Precourt site to change the location of the small detention area. This is being requested as part of this Notice of Intent. Please refer to Attachment A for more information.

Woodside, French, and Marlboro Road.

These three locations currently have culverts and/or paved drainage swales with outlets directly at the base of a steep slope. The culverts are cross-culverts with no roadway drainage entering through catch basins. Roadway runoff enters the stream through paved swales with no treatment. The flows erode the slope and the area around the existing end of the culvert pipe. The culverts will be

extended several feet to allow for a less steep slope that will be stabilized with rock. Drainage catch basins with grease/gas traps and deep sumps will be installed within the roadway and connect to the cross culverts to provide treatment of runoff. The paved swales will be removed and the area stabilized with rock and/or plantings.

4. Drainage Installation

m. Dakin Road between Blacksmith and Philemon Whale

n. Mossman Road at Willis Road

Both of the above areas currently have no drainage structures. They are locations where the roadway is sloped and the flow pattern crosses the road creating icing conditions in the winter and flooding and erosion problems at other times of the year. The scope of work will involve the installation of asphalt berms to channel the runoff along the roadway edge to new catch basins designed with grease/gas traps and deep sumps. After treatment, the water will discharge to a wetland area as it does now only with most particulates, grease, and oils removed.

5. Open Swale Maintenance

In areas of town where open ditches serve to collect and convey drainage, the ditches have become filled with sand and debris from the roadway and are subject to vegetative growth. All of these factors contribute to the loss of flood storage and the slight grade in the bottom of the ditch that allows the drainage to flow. This results in overtopping of the ditch, flooding and standing water that breeds mosquitoes. A small backhoe will b used to remove the accumulation of silt and debris to restore the flow and capacity of these ditches. At the time and in accordance with the EPA/DEP Phase II permit, the area will be evaluated for possible future drainage upgrades.

DEP has promulgated new stormwater regulations which became effective in 2008. These new Regulations are incorporated into the Sudbury Wetlands Bylaw.

Appropriateness of Selected BMP's

Over the past two years Sudbury (Conservation, Planning, Board of Selectmen) has been requiring developers to investigate and utilize where practical, Limited Impact Development designs into new and re-developments. New development designs are no longer looking at "end-of-pipe" design. We believe a BMP is only as good as it is maintained to function as designed. Therefore with equal or greater pollutant removal and infiltration capabilities, the best BMP is one which needs the least maintenance to continue to treat runoff to the design goals. This is particularly important when it comes to funding the initial design of a stormwater system as well as finding the funding necessary to maintain a system to function as designed.

The street sweeping program is an area where we believe we are very successful. With 100% of our town-owned roadways swept annually, we are assured that we are doing the maximum we can to prevent unnecessary sedimentation of our waterways.

PROGRESS TOWARDS ACHIEVING MEASURABLE GOALS

Year VI Measurable Goals:

Public Education and Outreach:

Sudbury again contracted for Year VI with the SuAsCo Watershed Community Council to provide both the Public Education and Outreach and the Public Involvement and Participation components of the Year VI permit requirements. A "Stormwater Awareness Ad Campaign" with seven ads covering a variety of stormwater topics was distributed beginning with receipt of the materials in early May 2008. Posters, post-cards, website information, and cable television ads promoting "Think Green" as it relates to stormwater quality, were part of this public educational endeavor. In addition, quarterly newspaper articles were published in the local Town Crier taking the Awareness Campaign to the next step through explanations of how stormwater quality can impact residents (i.e. Sudbury gets its drinking water from groundwater wells, stormwater recharges these wells).

Public Participation and Involvement

In addition to the contracted work provided by the SuAsCo Watershed Community Council, the Ponds & Waterways Committee completed the first local watershed map for the Town. The map divides the Town into the nine watersheds and names these watersheds, giving residents a "watershed address". Each watershed is defined as a region draining into a river, river system or other body of water - which gives a more organic image of the size and relationship of the ponds, streams and rivers in each sector. Each watershed is color-coded and these large, laminated, multicolored maps were provided for each municipal building and each school. The map is available on the Town website.

Illicit Discharge Detection and Elimination

Year 6 saw Sudbury focus more on IDDE. As catch basins were cleaned and inspected it was noted if any additional tie-ins to the system were visible. If so, a memo to abutting property owners (attachment) was sent. Although not many tie-ins were found, follow-up on those that were noted showed these tie-ins were mostly foundation ground water interceptor drains. Where it was determined that the drainage system and the receiving waterbody had the capacity to handle these additional flows, these tie-ins were permitted after-the-fact and added to the data base for future inspection.

Construction Site and Post-Construction Runoff Control

- The Town's practice of requiring pre-application meetings continues and includes all projects that disturb greater than one acre; are a new subdivision; are a commercial or business project requiring Selectmen Site Plan Review; or trigger new or revised storm water design or structures
- Sudbury requires the SWPPP (Storm water Pollution Prevention Plan) to be submitted to the Town for review and approval prior to the start of construction under the Planning Board and Conservation Commission permits. Larger projects are now required to hire an erosion control monitor to ensure the effectiveness the methods of site stabilization. Large projects had an environmental monitor, paid for by the developer, on-site weekly and after each rain storm.

- Sudbury is participating in the Massachusetts Environmental Trust-funded MAPC Sustainable Water Resources Project. The goal of working with MAPC was to produce a Stormwater Management Bylaw for review at the 2009 Town Meeting. Although Sudbury has had Stormwater Management requirements we did not have a separate Bylaw. Stormwater was managed by the Conservation Commission for sites within wetlands jurisdiction, the Planning Board for new subdivisions and the Water Resource District Bylaw, and the Board of Selectmen through Site Plan Review of commercial and industrial uses. All of these permitting bodies are aware that there is much overlap, however there are still a small number of projects where there is no overlap; e.g single-family house tear down where the new design results in a major increase in impervious surface on the lot. A separate, updated, Stormwater Bylaw will address these loopholes, incorporate LID designs, and be more visible to homeowners and the development community.
  To aid in implementation of this Bylaw, Sudbury is planning to publish a guidebook, checklist, submittal requirements, and design standards. At the present time, we are focusing on enforcement procedures, nutrient removal, and long-term monitoring and reporting requirements. In addition we are looking into a two-tier approach. Developers will be required to identify sub-watersheds and soils within a site and infiltrate runoff as close to pre-development conditions. We also recognize that the majority of our Zone II recharge areas are within built-out commercial or limited industrially zoned sections of town. Adopting extremely costly or otherwise overly burdensome regulations on redevelopment is not practical. To encourage redevelopment, and thereby upgrade the antiquated drainage system currently in place, we will be adopting standards and thresholds which will achieve core improvements to the quality of runoff leaving the site.
- The draft Sudbury Stormwater Management Bylaw was developed for adoption at Town Meeting last month by an in-house staff working group who worked with MAPC on the development and promotion of this Bylaw and accompanying Regulations. Town Meeting recently overwhelmingly passed this Bylaw. It will become effective upon approval by the Attorney General.
- The Town is in the final stages of writing a new Open Space and Recreation Plan. A part of this Plan, NPDES Phase II MS4 stormwater permit compliance has been added as an objective to the Goal of water supply quality and quantity protection.

Pollution Prevention/Good Housekeeping

- During Year 6, 398 catch basin sumps were cleaned. This represents over 30% of catch basins in Town. Twelve catch basins were repaired as part of the on-going maintenance program. Fourteen areas of washout were permanently repaired.

- In Year 6, the inventory of the Town's drainage structures enabled the Town to go beyond the normal cleaning and maintenance of catch basins and act on our Priority List of additional good housekeeping measures in a systematic way. Quarterly tasks were developed based on the set priorities in our permit. Tasks accomplished in addition during Year 6 include:

  Sink hole in Cuttings Field parking lot was repaired

Debris was removed from forebay to Springhouse Pond

Leach pit was installed at #67 Great Road.

Moore Road culvert replaced

Two leach pits were installed in Linden Road.

The top of Carding Mill Dam was elevated to accommodate the 100-year storm as required in the last inspection report.

The outlet control structure was repaired on Warren Road.

Drain line installed in Flynn Bldg parking lot

Hunt Rd. drainage repaired with catch basin and manhole installed

Hadley Road perimeter drain installed in cul-de-sac

Revegetation plan prepared for erosion control at the North Road Borrow Pit

Prepared drainage plan for #214 Old Lancaster Road

A box culvert was installed in Hudson Road

Culvert extended in Willis Road.

Leach pit installed at Haskell Field

Detention basin at Candy Hill Road and Concord Road cleaned out

Detention basin at the entrance to Ti-Sales cleaned out

Headwalls were built on Hudson Road and Willis Road

Catch basin installed in Hudson Road

Activities for Next Reporting Cycle

Although at this time the requirements for future reporting are unknown, the Town will continue :

- Continued sampling of catch basins for illicit discharge detection as prioritized by the Board of Health,

- Continued operation and maintenance of drainage structures in accordance with the new database schedule;
- Funding sources for the continued success of the Program will be sought;
- The Stormwater Management Bylaw will be in effect;
- Work closely with the new Ponds & Waterways Committee to identify areas where joint water quality goals can be achieved.
- The Planning Board is investigating a revision of our Earth Removal Bylaws for 2008 Annual Town Meeting. A review of site stabilization procedures brought to the town's attention the need to have regulatory control over large earth removal projects that were not part of a subdivision plan or within wetlands jurisdiction.
- Begin development of an Illicit Discharge Detection Bylaw.

Town of Sudbury
CONSERVATION COMMISSION

Sudbury Conservation Commission
275 Old Lancaster Rd.
Sudbury, MA 01776
978-443-2209 x1370

dineend@town.sudbury.ma.us http://www.sudbury.ma.us/services/Conservation

Memorandum

To:
From: Sudbury Dept. of Public Works & Sudbury Conservation Commission
Date: Jan 2, 2009
Re: Private Tie-in to Town Drainage

The Town of Sudbury is confirming and updating the database of subdrain tie-ins to the Town of Sudbury's storm drain system. New EPA regulations require the Town to track private discharges to municipal storm systems.

The Town's routine maintenance of catch basins includes a visual inspection to determine if any permitted or illicit tie-in to the town's drainage system is present. Our investigations showed that your property has a subsurface drain discharging into a town catch basin. We appreciate your cooperation in completing and returning the form below. In lieu of mailing the form back, you may enter the information using the following web-site: www.sudbury.ma.us/stormwater

Address:_____

Status (check one): Active _____ Inactive _____

Source of Discharge: groundwater interceptor_____ septic_____ gray water_____
Other_____ (please explain)

General Release Signed:_____(date)
Permit Application Requested:_____(check if application is desired)

If there is no signed General Release agreement for this tie-in, please contact the Department of Public Works at 978-443-2209 x1389 to determine if you are eligible for permitting this discharge. All non-permitted discharge pipes will be removed from the Town's drainage system.

Thank you for your cooperation. Maintaining and tracking sources of flow to our drainage system is critical for the quality and quantity of our drinking water.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 1
5 Post Office Square, Suite 100
BOSTON, MA 02109-3912

January 7, 2011

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

RECEIVED
BOARD OF SELECTMEN
SUDBURY, MA
2011 JAN 13 P 12:03

Mr. John Drobinski
Chairman, Board of Selectman
278 Old Sudbury Road
Sudbury, MA 01776

Re: Request for Information Pursuant to Section 308 of the Clean Water Act, EPA Docket No. 11-308-028

Dear Mr. Drobinski:

The Town of Sudbury ("Town") is required by the National Pollutant Discharge Elimination System General Permit for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems ("MS4 Permit") under permit number MAR041224 to submit an annual report regarding the storm water discharge-related activities over the previous year by May 1st of each year. The U.S. Environmental Protection Agency ("EPA") has not received your Annual Report Year 6 that was required to be submitted by May 1st of 2009. Failure to submit the report is a violation of both the MS4 Permit and the Clean Water Act and may result in an enforcement action by EPA pursuant to Section 309 of the Clean Water Act, 33 U.S.C. § 1319. EPA is authorized to collect penalties of up to $16,000 per day for each day during which the violation continues, up to a maximum of $177,500.

Section 308(a) of the Federal Clean Water Act (the "Act"), 33 U.S.C. § 1318(a), authorizes the EPA to require any owner or operator of a point source to provide information needed to determine whether there has been a violation of the Act. Accordingly, the Town is hereby required, pursuant to Section 308(a) of the Act, 33 U.S.C. § 1318(a) to respond to the questions contained in Attachment No. 1 of this Request for Information ("Request") **within 15 calendar days of receipt of this letter.** A PDF of the signed response will be accepted and shall be directed to Dart.Denny@epa.gov. Please carefully read the instructions in Attachment No. 2 before preparing your response.

Attachment No. 1

Respond to the Following

Please provide the following information:

1. A photocopy of the MS4 Annual Report Year 6 and the proof of delivery of the transmittal if the Annual Report Year 6 was previously provided to the EPA.
2. An Annual Report Year 6 covering the period of May 1, 2008 through April 30, 2009 if the Annual Report Year 6 was not previously submitted.

End of Questions

Attachment No. 3

Statement of Certification

I declare under penalty of perjury that I am authorized to respond on behalf of the Town of Sudbury. I certify that the foregoing responses and information submitted were prepared under my direction or supervision and that I have personal knowledge of all matters set forth in the responses and the accompanying information. I certify that the responses are true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment.

By _____
(Signature)

Town Manager
(Title)

1/28/2011
(Date)

Forwarded by Denny Dart/R1/USEPA/US on 05/03/2011 09:51 AM -----

From: "Elizabeth Faricy" <EFaricy@wbridgewater.com>
To: Denny Dart/R1/USEPA/US@EPA
Date: 01/28/2011 06:31 PM
Subject: West Bridgewater's 2009 and 2010 MS4 Annual Reports

Forwarded by Denny Dart/R1/USEPA/US on 05/03/2011 09:51 AM -----

From: "Dineen, Deborah" <DeborahD@sudbury.ma.us>
To: Denny Dart/R1/USEPA/US@EPA
Cc: "McCormack, Mary" <McCormackM@sudbury.ma.us>
Date: 02/01/2011 04:20 PM
Subject: RE: Sudbury MS4 Year 6 Reporting

Hello Ms. Denny,

I'm following up on the email to you below as well as my phone calls. We would very much appreciate it if you could not only confirm receipt of our EPA MS4 Year 6 Report, *but also confirm that it was received (via email) on January 28, 2011 (last Friday).*

Thank you in advance for taking the time to reply.

Deborah Dineen
Sudbury MS4 Co-coordinator

From: Dineen, Deborah
Sent: Monday, January 31, 2011 5:21 PM
To: 'dart.denny@epa.gov'
Cc: McCormack, Mary
Subject: Sudbury MS4 Year 6 Reporting

Ms. Denny,

I phoned you today around 12:30pm to be sure you received our fax sent on Friday, Jan. 28, 2011. This fax was our response to the EPA letter of Jan. 7, 2011, received by the Sudbury Board of Selectmen on Jan. 13, 2011, regarding our stormwater year 6 MS4 report. The fax contained our Year 6 Report along with our Statement of Certification.

We would appreciate acknowledgement that the fax was received on Jan. 28, 2011.

Thank you very much.

Deborah Dineen
Sudbury Conservation Coordinator
275 Old Sudbury Road
Sudbury MA 01776
978-443-2209 x1370
978-443-6128 (fax)