TOWN OF SUDBURY
Office of the Town Manager

5/9/06

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April 28, 2006

Mr. Glenn Haas
Division of Watershed Management
Commonwealth of Massachusetts Bureau of Resource Protection
One Winter Street
Boston, MA 02108

United Stated Environmental Protection Agency Region 1
Office of Ecosystem Protection
One Congress St., Suite 1100
Boston, MA 02114-2023

Re: NPDES DEP & EPA Permit #MAR041224
Year III Report

Dear DEP and EPA:

In accordance with our NPDES permit, please accept this document as our third annual report required under our MS4 Phase II Storm water Permit. The Town of Sudbury continues our comprehensive efforts to protect our water quality through appropriate use of storm water best management practices, controlling erosion, and public education.

Assessment of Compliance with Permit

The updating of database information, mapping, and prioritizing actions related to our storm water is ongoing as new drainage structures are added due to new construction or reconstruction projects.

Appropriateness of Selected BMP's

The Town of Sudbury has extensive information available for soils types, depth to groundwater, and current storm water structures. In the past year, we have made some modifications in the Route 20 Business and Commercial District due to the shallow depth to groundwater. Above-ground stormceptors have been utilized in worst cases. In addition, the Town is beginning to incorporate the designs promoted by the new Limited Impact Development (LID) standards, particularly in redevelopments where space is limited and landscape areas can serve a dual purpose. Another application for LID standards is large developments where a storm water detention basin size results in the alteration of undisturbed area. Incorporating LID practices have reduced the size, or eliminated the need for the storm water detention basin while collecting, filtering, and infiltrating runoff closer to its origin.

PROGRESS TOWARDS ACHIEVING MEASURABLE GOALS

Year III Measurable Goals:

Public Education and Outreach:

Sudbury again contracted for Year III with the SuAsCo Watershed Community Council to provide both the Public Education and Outreach and the Public Involvement and Participation components of the Year III permit requirements. Please see the attached documents for the specifics of these requirements.

Below is listed several activities and programs that are in addition to the SuAsCo materials.

Public Participation and Involvement

- The Ponds & Waterways Committee was established in 2005. This Committee of seven citizens is responsible for studying and recommending strategies and options for remediation, and promoting pond and waterway sustainability for all publicly owned ponds and waterways throughout the Town, including education, consensus building, coordination of funding activities, and development of a Ponds and Waterways Master Plan. The Committee must raise public awareness, provide education about the problems and solutions, and build public support in the community for the proposed monitoring and remediation efforts. A large number of individuals and entities (corporations, non-profit organizations and foundations) in the region committed to this vision are needed to become stewards, financial supporters and advocates for the Town's ponds and waterways. The Committee will explore potential partnerships with such organizations and advocate for their sustained commitment to maintaining pond and waterway quality. The Committee considers the citizens of Sudbury as a "key constituency" whose support and cooperation will be of critical importance. This Committee's recommendations are based on public input and will be assessed in depth for future prioritization of drainage projects.

Illicit Discharge Detection and Elimination

- The town-wide catch basin sampling program continued during the summer of 2005. Sampling results to date have discovered an area of town where house foundation interceptor drains are picking up some flow from the subsurface system systems and discharging it into catch basins within the public ways. These drainage systems all discharge directly to wetlands. Property owners of these lots have been notified and the town is following up with the owners to correct the situation.
- The Town-wide sampling program will continue in 2006, pending funding. There appears to be some funding within the Board of Health budget; however, the use of these funds is subject to review and prioritizing.
- A separate data base was developed as a central clearing house for all drainage tie-ins.
- Sudbury Town Meeting approved funding a Hazardous Waste Day to be held in the fall of 2006

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.
- The DPW now has a more efficient process for reporting storm water structure maintenance needs. This process has the ability to prioritize the work through a ranking method based on the degree of threat to water quality as well as public safety.
- A Storm Water Management Maintenance Fund is in place and active. It is funded from fees paid for new residential subdivisions to offset the increased street maintenance burden on the DPW. This fund is used to purchase new equipment and roadway repair costs, including storm water upgrades.
- The Rail Trail Conversion Committee has issued an RFP for the feasibility study of the proposed Bruce Freeman Memorial Rail Trail. The study will look at the type of trail surface and the extent of runoff mitigation required. It is the intent of the Town to comply with the requirements of our DEP/EPA for all municipal projects, including trails.

Pollution Prevention/Good Housekeeping

- The Planning Board is investigating the adoption of new Earth Removal and Erosion Control bylaws for 2007 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 pa of a subdivision plan or within wetlands jurisdiction.
- The Planning Board will be adopting new regulations for Water Resource Protection District Bylaw during 2006 as a result of the amendments to the Bylaw at the 2005 Town Meeting.
- The Planning Board will be working on revisions to subdivision Rules and Regulations, which will include requiring the use of the most advanced stormwater management practices, for any given situation, and a requirement for Stormwater Pollution Prevention plans for all wastewater treatment facilities, industrial areas, commercial areas, and business zoned areas that are not currently in compliance with the Stormwater Management Guidelines.
- The Noyes School septic system was flagged as a pollutant generator due to the design and location of the septic system leach field in the water table and in close proximity to a pond. As a result, the pond and groundwater is degraded in this area. The Conservation Commission, Board of Health and the School Committee will be discussing upgrades to this system in 2006.
- A new Generic Order of Conditions from the Conservation Commission was issued to the DPW for the top 15 drainage structures needing repair/replacement. These projects have been prioritized by using the criteria of most positive impact, and placed

into five separate categories. Within each category, the same scope of work and work performance standards are involved with work to be done at a time of low flow. Haybales and/or silt fence will be installed to prevent downstream siltation. All scheduled and unscheduled cross-culvert repairs have been reviewed for compliance with the EPA/DEP regulations regarding the use of bridges rather than culverts for new wetland crossings. The standards for new bridge crossings are being applied to culvert repairs and replacements to the greatest extent possible. The full details of these priority activities are attached to this report.

- All catch basins south of Route 20 have been cleaned. This is an ongoing process and the town is investigating the hiring of a private cleaning service after July 1 (next fiscal year) to help complete the rest of the town. We have over 2,000 structures to inspect routinely and cleaned as needed.
- The town has enlisted the assistance of the East Middlesex Mosquito Control District in situations where stream cleaning will achieve both the town's goals of water quality and the possible reduction in mosquito breeding areas. EMMC cleaned approximately 1,000 ft. of a stream at Alta and Wright Roads adjacent to an elementary school.
- As mitigation for work within 100' of wetlands, the Conservation Commission is now requiring developers to install or upgrade drainage structures in existing road along the project frontage. Drainage upgrades by private developers under the direction of the DPW Department is in process on Newbridge, Dakin, Ronald, Union, and
- Route 20.

- Street sweeping will be completed by the middle of May 2006.

Activities for Next Reporting Cycle

- Continued sampling of catch basins 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;
- Earth Removal and Erosion Control Bylaws will be presented to Town Meeting;
- Work closely with the new Ponds & Waterways Committee to identify areas where joint water quality goals can be achieved.

We once again appreciate this opportunity to provide a status report on Sudbury's progress toward our Storm water Management Goals.

Sincerely,

Maureen G. Valente

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Town Manager

cc: Nancy Bryant, SuAsCo

DPW Drainage Projects
Notice of Intent Narrative
January 25, 2006

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 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

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.