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Transmittal

To: Mr. Eric Durling, P.E.
Town of Littleton
39 Ayer Road
Littleton, MA 01460

Date: February 20, 2003

Project No.: 08292

From: Christine Wallace, P.E.

Re: Draft Stormwater Management Plan
NPDES Stormwater Phase II

For your review and comment, enclosed please find Littleton's draft NPDES Phase II Stormwater Management Plan Report.

PLEASE PROVIDE WRITTEN COMMENTS OR REVISIONS TO ME BY FRIDAY FEBRUARY 28th
via one of the following methods:

- e-mail at cwallace@vhb.com
- fax at 617-924-2286
- mail at the address above

This will be the last opportunity to comment on the plan before it is submitted to EPA on March 10. Once the plan is submitted, the Town is committed to performing the outlined tasks over the next five years.

Thanks to everyone for your hard work and input over the last several months. Feel free to call me, or Bethany Eisenberg, any time at 617-924-1770.

cc w/attach: Jim Clyde, Highway Department
Savas Danos, Water Department
Greg Woods, Water Department
Barbara Chapin, Conservation Commission
Marin Toohill, Planning Board
Board of Selectmen
Bethany Eisenberg, VHB

NPDES Phase II Stormwater Management Plan

Littleton, Massachusetts

Prepared for **Town of Littleton Highway Department**
39 Ayer Road
Littleton, MA 01460
(978) 486-3778

Prepared by **VHB/Vanasse Hangen Brustlin, Inc.**
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February 2003

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NPDES Phase II Stormwater Management Plan

Introduction

The Town of Littleton, Massachusetts has contracted Vanasse Hangen Brustlin, Inc. (VHB) to prepare its stormwater management plan to achieve compliance with the Environmental Protection Agency's (EPA) National Pollutant Discharge Elimination System (NPDES) Stormwater Phase II regulations. These regulations are designed to reduce and eliminate potential stormwater pollutants from small Municipal Separate Storm Sewer Systems (MS4s). A municipal separate storm sewer is defined as a conveyance or system of conveyances, including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains.

Littleton, historically an agricultural community, is a small suburban town approximately 26 miles northwest of Boston, with a population of just over 7,000. It is bordered by Ayer and Harvard to the west, Groton to the northwest, Westford to the northeast, Acton to the southeast, and Boxborough to the south. See Figure 1 for a site location map. Littleton has been designated by the EPA as a regulated municipality due its portions of urbanized areas as defined by 2000 U.S. Census data. See Figure 2 for the urbanized area map.

Littleton covers about 16.5 square miles of gently rolling hills in northwest Middlesex County. The elevation above sea level ranges between 200 and 500 feet with the higher areas located mostly toward the western end of town. Nearly two-thirds of the town contains generally well drained stony soil, often with hardpan, bedrock, and/or rock outcrops. Approximately one third of Littleton is composed of sandy gravelly soils, mostly located west of Route 495.

Water and wetlands occupy over 1000 acres in town. Two major watersheds lie within town. The SuAsCo basin drains southern areas into the Assabet River, which then joins the Concord River. In the northern regions of town Beaver and Bennetts Brooks drain into Stony Brook, this eventually joins the Merrimack River. The Town's major bodies of water are listed below in Table 1.

Table 1: Major Bodies of Water in Littleton

Name	Location	Basin	Size
Forge Pond	Littleton, Westford	Merrimack	179 acres
Fort Pond	Littleton	Concord	100 acres
Long Lake	Littleton	Concord	98.6 acres
Mill Pond	Littleton	Merrimack	22 acres
Nagog Pond	Littleton, Acton	Concord	284 acres
Spectacle Pond	Littleton, Ayer	Merrimack	79 acres
Beaver Brook	Littleton	Merrimack	
Bennetts Brook	Littleton	Merrimack	

Long Lake, Mill Pond, and Spectacle Pond are the focus of the Town's water resource restoration efforts. These ponds all have public access and all suffer to some degree from the effects of urbanization. Further discussion of these three waterbodies is included in the "Discharges to Water Quality Impaired Waters" section later in this report.

Nagog Pond is located on the Acton-Littleton town line. It is the towns' largest waterbody and functions as the water supply for the town of Concord. Other open water bodies in Littleton include Fort Pond, Forge Pond (Lake Mattawanakee) and numerous smaller ponds and streams.

Stormwater from the Town's systems is discharged to all waterbodies listed in Table 1, for a total of approximately 200 known outfalls. In addition to discharges from the municipal system, discharges from Massachusetts Highway Department Roads also enter the Town's receiving waters or drainage systems.

Littleton has no piped sewer systems or waste water treatment plant. All sewage in town is treated with subsurface disposal, via septic systems.

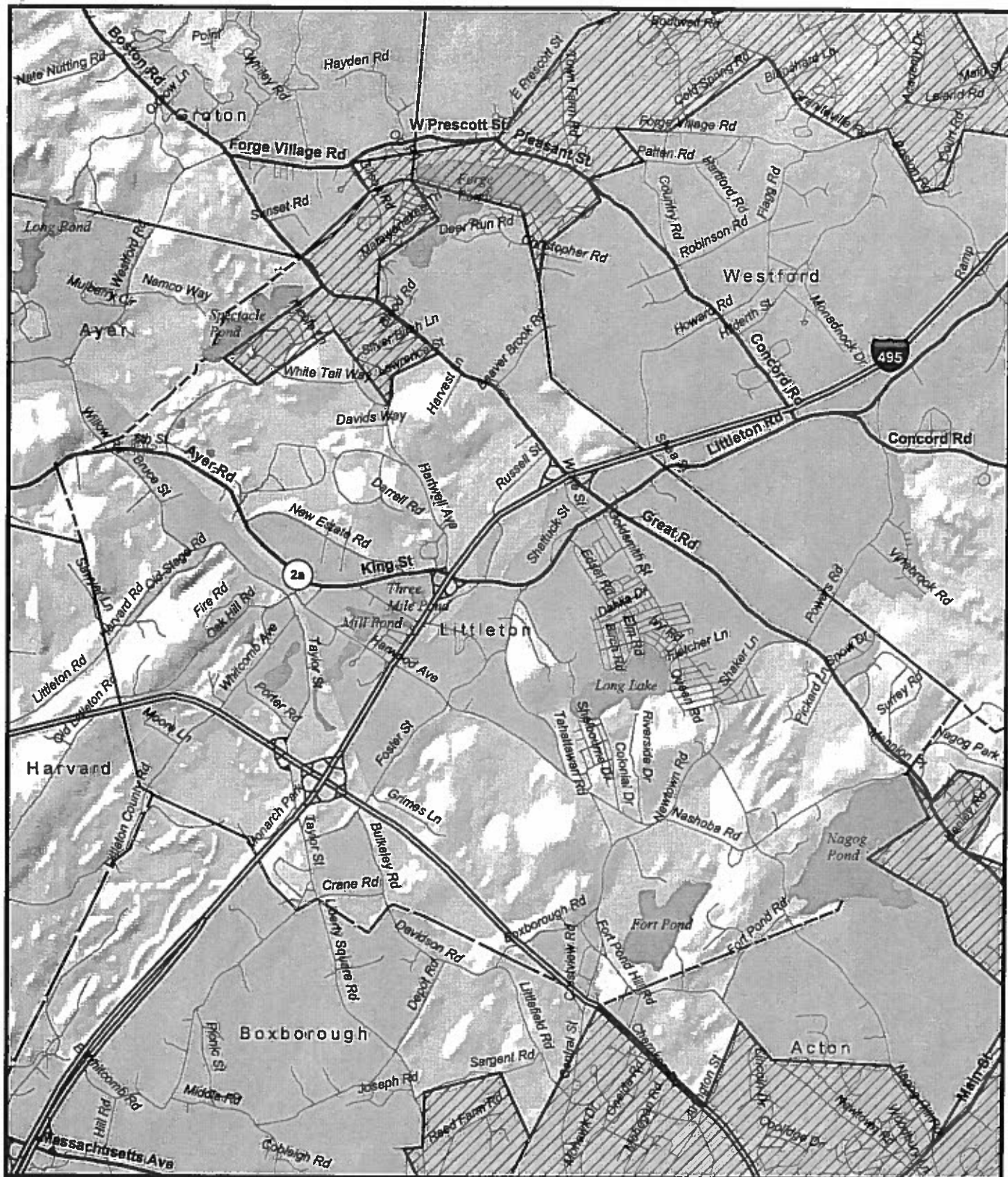
Littleton receives all of its drinking water from wells within the Town. The Town's Water Department has been very proactive in protecting its water supply, including continuous monitoring to ensure a high quality of water. The drinking water supply is dependent on wells from the Bennetts Brook And Beaver Brook Watersheds. Water supplies to the community have a current safe maximum yield from the towns 4 wells, spread over 3 well sites. The stored water supply is held in three standpipes located around town.

According to the 2002 Master Plan, one of Littleton's environmental priorities is "to protect aquifers and watersheds and to maintain the present regulatory vigilance in protecting the groundwater supply." Specifically, the water resources goal is that "Littleton will maintain groundwater of good quantity and quality to meet existing and future demand, taking into account both municipal and private wells."



Source: Massachusetts GIS: USGS Quadrangles Ayer and Westford, Massachusetts
Vanassee Hangen Brustlin, Inc.

Figure 1
Site Locus Map



Urbanized Area

MA - Littleton

Legend



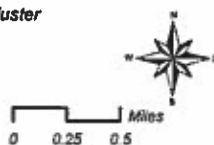
1990 Urban Area
Source: ESRI, U.S. Census 1990



2000 Urban Area \ Urban Cluster
Source: U.S. Census 2000



Nov. 7, 2002



EPA NPDES Stormwater Phase II Regulations

In December of 1999 EPA promulgated new NPDES Stormwater Phase II regulations (Final Rule 40 CFR Parts 122, 123, 124 December 8, 1999). Under these regulations, municipal separate storm sewer systems (MS4s) in urbanized areas, as determined by US census data, must develop a stormwater management program that will, to the "maximum extent practicable," prevent harmful pollutants from entering receiving water bodies. These regulations require municipalities to prepare and implement Stormwater Management Programs that comply with six minimum control measures defined by the EPA. The six minimum control measures that each community must implement are:

1. Public Education and Outreach
2. Public Participation and Involvement
3. Illicit Discharge Detection and Elimination
4. Construction Site Runoff Control
5. Post-Construction Runoff Control
6. Pollution Prevention/Good Housekeeping for Municipal Operations

The NPDES Phase II regulations require a schedule for implementing each one of these six minimum measures over the initial five-year term of the permit. The plan must also identify measurable goals for each BMP, in the form of a narrative or numeric standard. In addition to the six minimum measures, municipalities are required to obtain individual industrial permits for operations where industrial activities occur outside. These permit applications are being prepared separately. Municipalities must submit their plan to the EPA by March 10, 2003.

Project Overview

VHB developed and provided to Littleton a NPDES Stormwater Phase II reference binder, which included a variety of training and resource materials such as: EPA Phase II Fact Sheets; March 2000 EPA Stormwater Phase II Compliance Assistance Guide; Printouts of slide presentations for each of the six minimum control measures presented during meetings; Stormwater BMP Menu information; List of valuable internet sites for reference material; and VHB-designed matrices for developing the framework for a 5-year compliance plan.

VHB prepared a comprehensive questionnaire to assess existing stormwater management practices. Town of Littleton representatives met with VHB to discuss these practices and determine what new practices would be required to achieve compliance. The resulting plan (included in Attachment A) is shown in a matrix detailing each measure, program and party responsible for implementation, and schedule. Table 2 summarizes the major categories of programs Littleton will implement. Some of these programs will be further broken down into more specific Best Management Practices to be determined during the planning process of the five-year permit cycle.

Table 2: Program Summary

Measure	Program
1. Public Education	<ul style="list-style-type: none"> a) Stormwater Flyer for Community Residents b) Stormwater Lesson Plan for Fifth Grade Students c) Stormwater Flyer for Community Businesses d) Stormwater Media Campaign e) Stormwater Video f) Littleton-Specific Stormwater Flyers g) Community Education: Hazardous Waste Day and Recycling advertised h) Business Education: Coordinate with Local Chamber of Commerce i) Agricultural Education: Flyer for Good Stormwater Practices in Agriculture j) Education via the Media: Newsletter and Newspaper Articles k) Education via the Internet: Stormwater Information on Town's Website
2. Public Involvement	<ul style="list-style-type: none"> a) Stormwater Traveling Display b) Stormwater Poster Contest for Fifth Grade Students c) Stormwater Photo Contest for High School Students d) Stormwater Summit Special Event e) Stormwater Super Summit and Evaluate/Assess Public Awareness of Stormwater f) Annual Public Meeting/Hearing Regarding Plan Status and Reports to EPA g) Involve Watershed Groups: Clean Lakes Committee, Spectacle, Mill, Long, & Forge Ponds h) Involve Littleton Children's Groups (such as 4H, Scouts)
3. Illicit Discharge Detection	<ul style="list-style-type: none"> a) Illicit Discharge Bylaw / Regulatory Mechanism b) Storm Sewer Map c) Illicit Discharge Detection and Elimination Plan d) Illicit Discharge Education for General Public & Businesses e) Illicit Discharge Education for Municipal Employees
4. Construction Site Runoff Controls	<ul style="list-style-type: none"> a) Construction Site Runoff Bylaw / Regulatory Mechanism b) BMPs for Construction Site Erosion, Sediment, and Waste Controls c) Construction Site Plan Review Procedures d) Construction Site Inspection and Enforcement Procedures e) Response to Public - "Stormwater Hotline"
5. Post-Construction Runoff Controls	<ul style="list-style-type: none"> a) Post-Construction Site Runoff Bylaw / Regulatory Mechanism b) Choose Structural and Non-Structural BMPs c) Long-Term BMP Operation and Maintenance Procedures d) Structural BMP Implementation Procedures
6. Good Housekeeping	<ul style="list-style-type: none"> a) Employee Training to Prevent/Reduce Stormwater Pollution b) Maintenance/Inspection of Storm Sewers and Structural/Non-Structural Controls c) Pollutant Source Reduction/Elimination from Municipal Facilities & Activities d) Waste Disposal Procedures from Storm Sewers & Municipal Facilities/Activities

Measure 1: Public Education and Outreach

The intent of Measure 1 is to educate residents and businesses about stormwater pollution prevention. Municipalities must, at a minimum, implement a public education and outreach program to distribute educational materials to the community. The program will provide information concerning the impact of storm water discharges on water bodies. The program will also address steps and/or activities that the public can take to reduce the pollutants in stormwater runoff. Littleton will implement the following practices to meet the requirements of Measure 1:

A) Stormwater Flyer for Community Residents

Responsible Party: SuAsCo & Water Department

Status: New Program

Description: The stormwater flyer will cover topics such as pesticide and herbicide use in lawns and gardens, water conservation practices, pet waste management, trash management, car washing, and proper disposal of household hazardous wastes including motor oil. The flyer will include a storm water awareness survey that citizens can tear-off and submit to the municipality for compilation.

Measurable Goals: Year 1: Flyer distributed to a minimum of 75% of residents; Compiled and considered municipal and multi-watershed-wide "survey" results

B) Stormwater Lesson Plan for Fifth Grade Students

Responsible Party: SuAsCo & Water Department

Status: New Program

Description: The lesson plan will be a self-explanatory, easy to teach, stand-alone lesson plan that can be readily fit into the curriculum, consisting of a few simple teaching exercises and worksheets. It will cover: what is a watershed, what is storm water, why storm water is a concern, what students can do to lessen their impacts on storm water, and a reminder of the poster contest.

Measurable Goals: Year 2: Develop and distribute lesson plan to implement at grade 5 level; Lesson plan is taught in one or more grade 5 classrooms in the community

C) Stormwater Flyer for Community Businesses

Responsible Party: SuAsCo & Water Department

Status: New Program

Description: The storm water flyer will explain what storm water is and will frame storm water concerns from a watershed perspective. The flyer will discuss potential impacts by businesses on storm water quality and flow. The flyer will include a self-test for businesses to grade their own storm water "compliance". Businesses that deem themselves "storm water aware and participatory", will be given a decal sticker of the storm water logo to display.

Measurable Goals: *Year 3: Flyer distributed to a minimum of 50% of businesses in municipality; Stormwater Logo displayed by half of the businesses receiving the flyer*

D) Stormwater Media Campaign

Responsible Party: SuAsCo & Water Department

Status: New Program

Description: The Storm Water Media Campaign will engage local news media (newspapers, radio stations, and cable stations) in raising public awareness about storm water. Media information packets and periodic press releases will be developed for use in the "campaign". The media information packet will explain general storm water issues and impacts, the NPDES Storm Water Phase II program, and the municipality's and the SuAsCo WCC's role in storm water management.

Measurable Goals: *Year 4: Media Information Packet Delivered to the Local Media; 4 press releases generated and issued to local media and major media outlets*

E) Stormwater Video

Responsible Party: SuAsCo & Water Department

Status: New Program

Description: A high-quality video about storm water will be shown to the general public at local meetings and through local cable stations. In a user-friendly and engaging manner, the video will explain what storm water is and will address how citizens can help improve storm water quality and flow.

Measurable Goals: *Year 5: Show stormwater video at a minimum of one public meeting; Air stormwater video at least once on local cable station*

F) Littleton-Specific Stormwater Flyers

Responsible Party: Water Department

Status: Expanded Program

Description: The Town will distribute flyers already created by the Clean Lakes Committee specifically for Littleton Water Resources. One of the flyers specifically targets Long Lake, while the other flyer targets Long Lake, Mill Pond, Spectacle Pond and Lake Mattawanakee. The flyers contain information on septic system care, lawn care, mulching, composting, hazardous household products, auto care, rain barrels, invasive plants, and specific restoration efforts at Lake Mattawanakee, Spectacle Pond, Mill Pond, and Long Lake.

Measurable Goals: Year 1,3: Distribute Littleton-Specific Brochure along with SuAsCo Brochures

G) Community Education: Hazardous Waste Day and Recycling Advertised

Responsible Party: Highway & Water Departments

Status: Existing Program

Description: The Town currently advertises its annual hazardous waste day and recycling opportunities at the transfer station with articles in the local paper and on the Town's website.

Measurable Goals: Year 1-5: Continue to Write At Least One Article Per Year in the Local Paper and post announcements elsewhere.

H) Business Education: Coordinate with Local Chamber of Commerce

Responsible Party: Water Department

Status: Expanded Program

Description: The Town will coordinate with the Nashoba Valley Chamber of Commerce to expand its program of commending businesses for good environmental practices – it will also commend businesses for good stormwater practices.

Measurable Goals: Year 3-5: Expand Commending Businesses for Environmental Practices to Stormwater Practices Also

I) Agricultural Education: Flyer for Good Stormwater Practices in Agriculture

Responsible Party: Water Department

Status: New Program

Description: The Town will develop and distribute an educational flyer for to encourage proper stormwater practices for agricultural operations.

Measurable Goals: Year 3: Distribute Flyers to Agricultural Owners/Properties

J) Education via the Media: Newsletter and Newspaper Articles

Responsible Party: Water Department

Status: Expanded Program

Description: The Town will continue to include articles in the Watts&Drops Newsletter and local paper, but will focus on stormwater management issues.

Measurable Goals: Year 2-5: Write At Least One Article in the Watts & Drops newsletter & another in the Newspaper per year

K) Education via the Internet: Stormwater Information on Town's Website

Responsible Party: Water Department

Status: New Program

Description: The Town will provide stormwater links and Littleton-specific stormwater information on the web.

Measurable Goals: Year 2-4: Provide Links by Year 2; Provide more Littleton-Specific Information by Year 4

Measure 2: Public Participation and Involvement

Measure 2 is similar to Measure 1 and serves to both involve the public and to encourage them to participate in stormwater management activities. The Town will provide opportunity for the public to participate in the development, implementation and review of the stormwater management program. Littleton will implement the following practices to achieve compliance with Measure 2:

A) Stormwater Traveling Display

Responsible Party: SuAsCo & Water Department

Status: New Program

Description: The Storm Water Traveling Display will be conveniently placed on a table in a visible and central location frequented by the general public. Extra storm water flyers will be posted with the display along with a collection box for the citizen storm water survey. The display will present practical ideas for how citizens can manage housekeeping practices so as to have a positive impact on storm water. Such practices may include pesticide and herbicide use on lawns and gardens, water conservation, pet waste management, trash management, car washing, and proper disposal of household hazardous wastes including motor oil.

Measurable Goals: *Year 1-5: Stormwater display circulates around the community for a minimum of 3 months; Stormwater display is posted at a minimum of 3 different public locations in the community; Stormwater display is also used in future permit years for posting in public places or stormwater events*

B) Stormwater Poster Contest for Fifth Grade Students

Responsible Party: SuAsCo & Water Department

Status: New Program

Description: The Storm Water Poster Contest will engage fifth grade students in understanding storm water and creatively depicting their knowledge through a poster medium. The general public will also be involved in the poster contest through parent interaction with the students, the creation of a panel of judges, and display of the posters in public locations.

Measurable Goals: *Year 2: Poster contest is held and entries are received, judged and displayed*

C) Stormwater Photo Contest for High School Students

Responsible Party: SuAsCo & Water Department

Status: New Program

- Description:** The Storm Water Photo Contest will engage high school students in understanding storm water, its effect on water quality, and good storm water management strategies. The photo contest will challenge high school students to creatively depict their knowledge through a photographic medium. The general public will also be involved in the photo contest through parent interaction with the students, the creation of a panel of judges, and display of the photographs in a public location.
- Measurable Goals:** Year 3: Photo contest is held and entries are received, judged and displayed

D) Stormwater Summit Special Event

- Responsible Party:** SuAsCo & Water Department
- Status:** New Program
- Description:** A "Storm Water Summit" will be held as a special event for the general public (residents and community businesses). The Storm Water Summit will show case the municipality's storm water program and progress. The agenda will include guest speakers on topics such as the municipality's storm water program and good housekeeping practices that citizens and businesses can employ to reduce the pollutants in and volume of storm water. The summit may also be used as a forum to seek input on new or proposed bylaws that address pre- and post-construction site runoff. The summit will also provide citizens with an opportunity to raise concerns about storm water situations in their own neighborhoods. The poster contest and photo contest entries, as well as the traveling display, may be exhibited at the summit.
- Measurable Goals:** Year 4: Hold local or multi-community Stormwater Summit; Advertise to encourage Stormwater Summit community attendance

E) SuAsCo Stormwater Super Summit, Evaluate/Assess Public Awareness of Stormwater

- Responsible Party:** SuAsCo & Water Department
- Status:** New Program
- Description:** The SuAsCo "Watershed-Wide Super Summit" will be held as part of the River Visions 2007 Forum. It will include speakers from agencies, businesses, and municipalities, providing a unique opportunity for communities to share information and exchange experiences about their storm water programs. The Evaluation and Assessment will provide municipal citizens with a storm water "self-test" through which they can "grade" their own storm water knowledge. The purpose of the self-test will be to see how widely received the storm water program activities have been over the past four years and to gauge the public's familiarity with storm water concepts.

Measurable Goals: Year 5: Municipal participation in the Stormwater Super Summit; Stormwater Self Test distributed to a minimum of 75% of residents; Compiled and considered municipal and multi-watershed-wide "self test" results

F) Hold Annual Public Meeting/Hearing Regarding Plan Status and Reports to EPA

Responsible Party: Highway Department & Board of Selectmen

Status: New Program

Description: The Town will hold a public hearing/meeting every year prior to submission of the annual report to EPA, to inform the public of the Town's stormwater management programs and to allow input from all interested citizens, businesses, and government entities.

Measurable Goals: Year 1-5: Hold Public Hearing by February of each year

G) Involvement Through Watershed Groups: Clean Lakes Committee, Spectacle Pond, Mill Pond, and Long Lake, Lake Mattawanakee /Forge Pond

Responsible Party: Water Department & Local Groups

Status: Existing Program

Description: The Town will continue to coordinate with local watershed groups through the Clean Lakes Committee, which currently has a Town Representative from the Water Department. Through the Clean Lakes Committee meetings, representatives from all other watershed groups will provide input on the Town's stormwater management programs. Educational materials and other information will be shared between the Town and all watershed groups for distribution.

Measurable Goals: Year 1-5: Continue meetings at least 4 times/yr; Continue annual cleanup days; Educational Information Shared by Town

H) Involve Littleton Children's Groups (such as 4H, Scouts)

Responsible Party: Water Department

Status: New Program

Description: The Town will coordinate with local children's groups to involve them with volunteer events, or to help the Town distribute or display stormwater educational materials.

Measurable Goals: Year 2-5: Children's Groups at least once per year help distribute or display educational information

Measure 3: Illicit Discharge Detection and Elimination

Measure 3 requires municipalities to develop, implement and enforce a program to detect and eliminate illicit discharges. An illicit discharge is any discharge to a municipal separate storm sewer that is not composed entirely of stormwater. The municipality will address the following categories of non-storm water discharges or flows only if they are identified as significant contributors of pollutants: water line flushing, landscape irrigation, diverted stream flows, rising ground waters, uncontaminated ground water infiltration, uncontaminated pumped ground water, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, springs, water from crawl space pumps, footing drains, lawn watering, individual residential car washing, flows from riparian habitats and wetlands, dechlorinated swimming pool discharges, and street wash water. Discharges or flows from fire fighting activities are excluded from the effective prohibition against non-storm water and need only be addressed where they are identified as significant sources of pollutants.

Littleton will implement the following practices to meet the requirements of Measure 3:

A) Illicit Discharge Bylaw / Regulatory Mechanism

Responsible Party:	Highway Department
Status:	Expanded Program
Description:	The Town will prohibit through a bylaw, or other regulatory mechanism, non-storm water discharges into the storm sewer system, including implementing appropriate enforcement procedures and actions.
New Programs to Consider:	Assess if additional discharges beyond EPA requirements should be prohibited.
Measurable Goals:	<p><i>Year 1: Initial discussions; Review current local/state regulations; Review proposed samples.</i></p> <p><i>Year 2: Develop draft bylaw; Involve & educate public, municipal officials, developers, contractors.</i></p> <p><i>Year 3: Float new bylaw as Guidance; One year of comment period.</i></p> <p><i>Year 4: Public Hearing on Bylaw; Attempt to pass bylaw; Revise bylaw if does not pass.</i></p> <p><i>Year 5: Final attempt to pass bylaw.</i></p>

B) Storm Sewer Map

Responsible Party:	Highway Department
Status:	Expanded Program
Description:	The town will develop a storm sewer system map, showing the location of all outfalls and the names and location of all waters that receive discharges from those outfalls.

Measurable Goals: *Year 1: Compile existing record plans and surveyed data*
Year 1-5: Find, GPS survey, and map outfalls and waterbodies (at least 20% each year)

C) Illicit Discharge Detection and Elimination Plan

Responsible Party: Highway Department
Status: Expanded Program
Description: The Town will develop and implement a plan to detect and address non-storm water discharges, including illegal dumping, to the municipal system. In addressing priority areas, the Town will consider older areas of the Town, areas of high public complaints, areas of high recreational value or high environmental value such as beaches and drinking water sources, and areas listed as impaired.
New Programs to Consider: Address detecting and eliminating septic system failures and residential wastewater hookups to storm drain system
Measurable Goals: *Year 1: Determine Priority Areas and Discuss Plan*
Year 1-5: Visually Screen Outfalls During Dry Weather (at least 20% each year)
Year 3-5: Trace the Source of the Illicit Discharge (25% by year 3, 50% by 4, and 100% by 5)
Year 3-5: Remove the Source of the Illicit Discharge (25% by year 3, 50% by 4, and 100% by 5)

D) Illicit Discharge Education for General Public & Businesses

Responsible Party: Water Department
Status: Expanded Program
Description: The Town will inform businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste.
New Programs to Consider: Homeowner education on septic system monitoring, repair, maintenance; Require "do not dump" catch basin castings for all new and redevelopment
Measurable Goals: *Year 1,3: Include illicit discharge education in the community, business, and Littleton-specific flyers*

E) Illicit Discharge Education for Municipal Employees

Responsible Party: Water Department
Status: Expanded Program
Description: The Town will inform public employees of hazards associated with illegal discharges and improper disposal of waste.
Measurable Goals: *Year 2-5: Include Illicit Discharge Education under Training under Measure 6*

Measure 4: Construction Site Runoff Control

Measure 4 requires that municipalities develop, implement, and enforce a program to reduce pollutants in any stormwater runoff from construction activities that result in a land disturbance of greater than or equal to one acre. The municipality must also include disturbances less than one acre if part of a larger common plan. Littleton will implement the following practices to achieve compliance with Measure 4:

A) Construction Site Runoff Bylaw / Regulatory Mechanism

Responsible Party: Water & Planning Departments

Status: Expanded Program

Description: The Town will develop and implement a bylaw or other regulatory mechanism to require erosion and sediment controls at construction sites, as well as sanctions to ensure compliance.

Measurable Goals: Year 1: Initial discussions; Review current local/state regulations; Review proposed samples.

Year 2: Develop draft bylaw; Involve & educate public, municipal officials, developers, contractors.

Year 3: Float new bylaw as Guidance; One year of comment period.

Year 4: Public Hearing on Bylaw; Attempt to pass bylaw; Revise bylaw if does not pass.

Year 5: Final attempt to pass bylaw.

B) BMPS for Construction Site Erosion, Sediment, and Waste Controls

Responsible Party: Water & Planning Departments

Status: Expanded Program

Description: The Town will develop and implement requirements for construction site operators to implement a sediment and erosion control program which includes BMPs that are appropriate for the conditions at the construction site, including efforts to minimize the area of land disturbance. The Town will also develop and implement requirements to control wastes, including but not limited to discarded building materials, concrete truck washout, chemicals, litter, and sanitary wastes.

Measurable Goals: Year 1: Assess existing and brainstorm proposed

Year 2: Prepare draft, to include in draft bylaw

Year 3-5: Final, to include in bylaw. Revise as necessary.

C) Construction Site Plan Review Procedures

Responsible Party: Water & Planning Departments

Status: Expanded Program

Description: The Town will develop and implement procedures for site plan review including procedures which incorporate consideration of potential water quality impacts. The site plan review will include procedures for preconstruction review.

New Programs to Consider: Address disturbance amount, earth removal, triggers, and waivers for review process and requirements; Checklist for developers with requirements and recommendations;

Measurable Goals: Year 1: Assess existing and brainstorm proposed
Year 2: Prepare draft, to include in draft bylaw
Year 3-5: Final, to include in bylaw. Revise as necessary.

D) Construction Site Inspection and Enforcement Procedures

Responsible Party: Water & Planning Departments

Status: Expanded Program

Description: The Town will develop and implement procedures for inspections and enforcement of control measures at construction sites.

Measurable Goals: Year 1: Assess existing and brainstorm proposed
Year 2: Prepare draft, to include in draft bylaw
Year 3-5: Final, to include in bylaw. Revise as necessary.

E) Response to Public – “Stormwater Hotline”

Responsible Party: Water Department

Status: New Program

Description: The Town will develop and implement procedures for receipt and consideration of information submitted by the public. The Town will develop and implement a “Stormwater Hotline” for the public to call to report pollution such as erosion or illicit discharges, and to have questions answered regarding general stormwater management practices.

Measurable Goals: Year 1: Assess and brainstorm procedures for “stormwater hotline”
Year 2: Advertise and test hotline
Year 3-5: Hotline fully implemented, with ongoing advertising

Measure 5: Post-Construction Runoff Control

Measure 5 requires that municipalities develop, implement, and enforce a program to address stormwater runoff from new development and redevelopment projects that disturb greater than or equal to one acre and discharge into the municipal system. The program must include projects of less than one acre if the project is part of a larger common plan of development. Littleton will implement the following practices to achieve compliance with Measure 5:

A) Post-Construction Site Runoff Bylaw / Regulatory Mechanism

Responsible Party: Water & Planning Departments

Status: Expanded Program

Description: The Town will develop and implement a bylaw or other regulatory mechanism to address post- construction runoff from new development and redevelopment.

Measurable Goals: Year 1: Initial discussions; Review current local/state regulations; Review proposed samples.
 Year 2: Develop draft bylaw; Involve & educate public, municipal officials, developers, contractors.
 Year 3: Float new bylaw as Guidance; One year of comment period.
 Year 4: Public Hearing on Bylaw; Attempt to pass bylaw; Revise bylaw if does not pass.
 Year 5: Initial discussions; Review current local/state regulations; Review proposed samples.

B) Choose Structural and Non-Structural BMPs

Responsible Party: Water & Planning Departments

Status: Expanded Program

Description: The Town will develop and implement strategies which include a combination of structural and/or non-structural best management practices (BMPs) appropriate for the community. The BMPs chosen will be appropriate for the local community; minimize water quality impacts; and attempt to maintain pre-development runoff conditions. The BMP requirements will be responsive to changes, developments or improvements in control technologies.

New Programs to Consider: Include public in selection process; Review and revise design standards for site and subdivision projects; Choose BMPs that relate to the Master Plan; Require "Do Not Dump" catch basin castings for all new and redevelopment; Require sufficient access for maintenance at detention basins, swales, or other structural BMPs; Assess the need for innovative bmps, particularly at hot spots like Spectacle Pond

Measurable Goals: Year 1: Assess existing and brainstorm proposed
Year 2: Prepare draft, to include in draft bylaw
Year 3-5: Final, to include in bylaw. Revise as necessary.

C) Long-Term BMP Operation and Maintenance Procedures

Responsible Party: Water & Planning Departments

Status: Expanded Program

Description: The Town will develop and implement procedures to ensure adequate long-term operation and maintenance of BMPs.

Measurable Goals: Year 1: Assess existing and brainstorm proposed
Year 2: Prepare draft, to include in draft bylaw
Year 3-5: Final, to include in bylaw. Revise as necessary.

D) Structural BMP Implementation Procedures

Responsible Party: Water & Planning Departments

Status: Expanded Program

Description: The Town will ensure the appropriate implementation of the structural BMPs by considering: Pre-construction review of BMP designs; inspections during construction to verify BMPs are built as designed; Post-construction inspection and maintenance of BMPs; and penalty provisions for the noncompliance with design, construction or operation and maintenance.

New Programs to Consider: Address site and subdivision plan reviews; Address disturbance amount, earth removal, triggers, and waivers for review process and requirements; Checklist for developers with requirements and "encouraged" BMPs

Measurable Goals: Year 1: Assess existing and brainstorm proposed
Year 2: Prepare draft, to include in draft bylaw
Year 3-5: Final, to include in bylaw. Revise as necessary.

Measure 6: Pollution Prevention / Good Housekeeping for Municipal Operations

Measure 6 requires that municipalities develop and implement an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations. Littleton will implement the following practices to achieve compliance with Measure 6:

A) Employee Training to Prevent/Reduce Stormwater Pollution

Responsible Party: Highway & Water Departments
Status: Expanded Program
Description: The Town will develop and implement an employee training program to prevent and reduce stormwater pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and storm water system maintenance.
New Programs to Consider: Include illicit discharge & SPCC training
Measurable Goals: Year 1: Assess who, when, and what topics; Create schedule and checklist
 Year 2: Sample / test training
 Year 3: Fully implement training
 Year 4: Compile into Overall Municipal Operation and Maintenance Plan
 Year 5: Assess who, when, and what topics; Create schedule and checklist

B) Maintenance/Inspection of Storm Sewers and Structural / Non-Structural Controls

Responsible Party: Highway Department
Status: Expanded Program
Description: The Town will develop and implement maintenance activities, maintenance schedules, and long-term inspection procedures for structural and non-structural storm water controls to reduce floatables and other pollutants discharged from your separate storm sewers.
New Programs to Consider: Prioritize maintenance and inspection programs based on local needs and sensitive areas; Maintenance schedules for detention basins, swales, and other structural BMPs besides catch basins; Coordinate with MassHighway regarding drainage from Routes 110, 119, 2, 495

Measurable Goals: Year 1: Assess existing controls, maintenance activities, schedules, and long-term inspection procedures
 Year 2: Develop Draft New/Improved Activities, Schedules, and Procedures
 Year 3: Finalize Maintenance Activities and Schedules, and Long-Term Inspection Procedures
 Year 4: Compile into Overall Municipal Operation and Maintenance Plan
 Year 5: Fully Implement maintenance and inspection procedures

C) Pollutant Source Reduction/Elimination from Municipal Facilities & Activities

Responsible Party: Highway Department
Status: Expanded Program
Description: The Town will develop and implement controls for reducing or eliminating the discharge of pollutants from streets, roads, highways, municipal parking lots, maintenance and storage yards, fleet or maintenance shops with outdoor storage areas, salt/sand storage locations and snow disposal areas operated by the Town, and waste transfer stations.
New Programs to Consider: Cover fueling area at DPW yard; Removing transformers in the DPW yard; SPCC plan for DPW facility, with training; Prioritize programs based on local needs and sensitive areas; Assess Flood Management Water Quality; Coordinate with the private company that stores buses at Town school property
Measurable Goals: Year 1: Assess existing facilities, activities, & BMPs; Brainstorm improved/new BMPs
 Year 2: Develop Draft BMPs
 Year 3: Finalize BMPs
 Year 4: Compile into Overall Municipal Operation and Maintenance Plan
 Year 5: Fully Implement BMPs

D) Waste Disposal Procedures from Storm Sewers & Municipal Facilities/Activities

Responsible Party: Highway Department
Status: Expanded Program
Description: The Town will develop and implement procedures for properly disposing of waste removed from the separate storm sewers and areas listed above under part C (such as dredge spoil, accumulated sediments, floatables, and other debris)
Measurable Goals: Year 1: Assess existing waste disposal procedures; Review MA guidelines; Brainstorm improved/new procedures.
 Year 2: Develop Draft Procedures
 Year 3: Finalize Procedures
 Year 4: Compile into Overall Municipal Operation and Maintenance Plan
 Year 5: Fully Implement waste disposal procedures

Evaluation, Record Keeping, and Reporting

The following tasks apply to all aspects of the permit:

Evaluation and Assessment

The Town will evaluate program compliance annually, the appropriateness of the identified best management practices, and progress towards achieving the identified measurable goals.

Record keeping

The Town will keep records required by the NPDES permit for at least 3 years. The Town will submit records to the NPDES permitting authority only when specifically asked to do so. The records, including a description of your storm water management program, will be available to the public at reasonable times during regular business hours.

Annual Reporting

The Town will submit annual reports to the NPDES permitting authority for the first permit term. For subsequent permit terms, the Town will submit reports in year two and four unless the NPDES permitting authority requires more frequent reports. The report will include:

- The status of compliance with permit conditions, an assessment of the appropriateness of the identified best management practices and progress towards achieving the identified measurable goals for each of the minimum control measures
- Results of information collected and analyzed, including monitoring data, if any, during the reporting period
- A summary of the storm water activities to undertake during the next reporting cycle
- A change in any identified best management practices or measurable goals for any of the minimum control measures
- Notice that the Town is relying on another governmental entity to satisfy some of the permit obligations (if applicable).

Discharges to Water Quality Impaired Waters

Five water bodies in Littleton have been identified as Category 5 impaired waters, or “Waters Requiring a TMDL”, as listed in the Massachusetts 2002 Integrated List of Waters, prepared by the Executive Office of Environmental Affairs. The locations are summarized in Table 3.

Table 3: Water Quality Impaired Waters in Littleton

Name	Description	Pollutants of Concern
Beaver Brook	Outlet Mill Pond, Littleton to inlet Forge Pond, Weston. Miles 4.8-0.0.	Nutrients; pH; Organic enrichment / Low DO; Pathogens; Suspended Solids
Long Lake	Littleton	Nutrients; Organic enrichment/ Low DO; Noxious aquatic plants
Mill Pond	Littleton	Noxious aquatic plants
Reedy Meadow Brook	Headwaters, outlet of small unnamed impoundment west / upstream of Bruce Rd. to inlet Mill Pond, Littleton. 1.5 miles.	Nutrients; pH; Organic enrichment / Low DO; Pathogens; Suspended Solids
Spectacle Pond	Littleton/Ayer	Organic enrichment / Low DO; Noxious aquatic plants; exotic species

Littleton’s Stormwater Management Program will control the discharge of the pollutants of concern and ensure that the discharges will not cause or contribute to in-stream exceedance of the water quality standards. The five locations listed above are associated with three main waterbodies: Long Lake, Mill Pond, and Spectacle Pond. This stormwater management plan will focus education and participation efforts at these locations. In addition, these areas will be considered priority in the illicit discharge and municipal pollution prevention programs.

The greatest effort in reducing pollutants to these impaired waters is already underway by the Town. The following discussion identifies how current control measures and BMPs in this collectively control the discharge of the pollutants of concern.

The Town of Littleton is currently addressing the impairments of Long Lake, Mill Pond, and Spectacle Pond. The Littleton Clean Lakes Committee (CLC) is actively involved with efforts to clean up all three. Littleton Light and Water is now actively involved with the CLC and effectively coordinates the pursuit of grant money for studies and restorations. All three lakes have completed diagnostic feasibility studies that determine the costs and best course of action for restoration.

Long Lake

With considerable development of lakeside homes, water quality is compromised by non-point sources at Long Lake. Public access, including a boat launch and the town's only public beach, is located here. The lake suffers from high nutrient loadings and organic enrichment that causes low dissolved oxygen and noxious aquatic plants.

Long Lake is currently undergoing clean up efforts funded by a 319 grant and matching Town funds. A watershed assessment study was completed and the clean up activities began in the summer of 2001. These efforts include aquatic plant reduction measures and land-based implementation of BMPs that will reduce future water quality impacts. Land-based, low-impact solutions are planned for over the next 4-5 years such as constructed wetlands, swale drainage, bioretention gardens, and rain barrels. Educational flyers have been distributed in the watershed that covered topics such as septic system care, lawn care, mulching, composting, hazardous household products, auto care, rain barrels, invasive plants. In addition, the Long Lake Neighborhood Association continues to be very proactive in educating the community and holding participation events such as annual shoreline cleanups.

Mill Pond

Mill Pond suffers from advanced eutrophication and invasive plants, which affects boating and fishing. The inlet to Mill Pond at Reedy Meadow Brook, and the outlet from Mill Pond at Beaver Brook also have impairments, as listed in Table 3 above.

Studies funded by the Town and grants have determined that sediment removal is best way to restore the Pond. Dredging is planned at Mill Pond and is currently about to begin a permitting process, however, land ownership issues of the pond bed are complicating this process. The Mill Pond cleanup effort is also subject to Army Corps approval. The Mill Pond Association continues to be very proactive in educating the community and holding participation events.

Spectacle Pond

Spectacle Pond is affected by a combination of natural eutrophication and non-point source pollution, that causes invasive aquatic weeds. The lake suffers from high nutrient loadings and organic enrichment that causes low dissolved oxygen and these noxious plants and exotic species.

A diagnostic and feasibility study has been completed to assess the pond's weed problems. The Town is currently looking for funds to mitigate the weeds, but is expected to have aquatic plant reduction efforts and BMP implementations with the help of Department of Environmental Management funding attained through the town of Ayer. In addition, the Spectacle Pond Association continues to be very proactive in educating the community through their quarterly meetings, website, and holding participation events.

Total Maximum Daily Load Allocations

No Total Maximum Daily Load (TMDL) allocations have been approved for any water body into which the Town of Littleton discharges. Therefore, this stormwater management plan does not highlight control measures currently being implemented or planned to be implemented to control pollutants of concern identified in approved TMDLs.

Groundwater Recharge

Where feasible, the Town of Littleton will consider opportunities for groundwater recharge and infiltration in the implementation of the six minimum control measures. Littleton currently has strict requirements for groundwater recharge under its existing regulations. However, additional recharge and infiltration requirements will be addressed for each measure during the five-year permit cycle.

Drinking Water Sources

Littleton considers public drinking water sources and their protection areas a priority in implementation of the stormwater management program. Upon field locations and testing of the municipal outfalls, the Town will identify which outfalls discharge to drinking water sources or protection areas, and will assess the impacts of the discharges to the water supply. The Town will consider providing pretreatment and spill control capabilities to the extent feasible for these discharges. The Town will also consider how to avoid, to the extent feasible, any direct discharges to Class A waters and Zone 1 wellhead protection areas.

Interconnected Municipal Separate Storm Sewer Systems

The Town of Littleton will coordinate with the owners/operators of interconnected municipal separate storm sewer systems (MS4s). The Town will first identify interconnections within the system, and will attempt to work cooperatively with the interconnected MS4s in instances of discharges impacting Littleton's systems. The Massachusetts Highway Department is a known contributor to the Town's drainage systems and receiving waters. Adjacent towns' systems will be identified and assessed during the five-year permit cycle.

Endangered Species

Coverage under this permit is available only if the stormwater discharges, allowable non-stormwater discharges, and discharge related activities are not likely to jeopardize the continued existence of any species that are listed as endangered or threatened ("listed") under the Endangered Species Act (ESA) or result in the adverse modification or destruction of habitat that is designated as critical under the ESA ("critical habitat").

The most recent Endangered and Threatened Species County-Species List available from EPA at <http://cfpub.epa.gov/npdes/stormwater/endangersearch.cfm> was used to determine if the endangered or threatened species or critical habitat are in proximity to the Town of Littleton or the point where authorized discharges reach the receiving waters. Middlesex County has three listed species, however, species within the Town boundaries and possible impacts of discharges to them will be determined once all outfalls have been located. Because the outfalls within the town have not yet been located, the eligibility requirement is listed as "pending".

Once all outfalls have been located, and the Town consults with the U.S. Fish and Wildlife, if it is determined these outfalls have no impact on endangered species, a confirmation letter will be included in the annual report for this permit.

Historic Places

Discharges, or implementation of a stormwater management program, which adversely effects properties listed or eligible to be listed on the National Register of Historic Places, are not allowed under this NPDES permit. Discharges may be eligible for coverage under this permit if the permittee is in compliance with requirements of the National Historic Preservation Act and has coordinated any necessary activities to avoid or minimize impacts. These requirements must be coordinated with the State Historic Preservation Officer.

According to the listing on the National Register of Historic Places (<http://www.nr.nps.gov>), there are several historic properties listed or eligible for listing in Littleton, Massachusetts. Because the outfalls within the town have not yet been located, the eligibility requirement is listed as "pending".

Once all outfall locations within the Town have been identified, a letter will be sent to the Massachusetts Historical Commission to verify that stormwater discharge related activities will not result in an adverse effect on any archeological resources or historic properties of National Significance. A copy of all confirmations will be included in the annual report for this permit.

Summary

The Town of Littleton, led by the Highway and Water Departments, has prepared this stormwater management plan to further reduce and eliminate stormwater pollutants to its already well-protected water resource areas.

The Town will address the general public and businesses through watershed-based stormwater education and participation programs from the SuAsCo Watershed Community Council, as well as education and participation programs focused on locally impaired waters.

Through expanded programs and bylaws to reduce pollutants from illicit discharges, construction runoff, and post-construction runoff, the Town will tighten up its current procedures to inspect and enforce against potential stormwater contamination.

In addition to reaching out to public and private entities to reduce stormwater pollution, the Town will do its part by continuing to improve upon its own operations with increased employee training and expanded procedures to control any potential pollutants and waste from municipal facilities and activities.

These efforts over the next five years, in addition to the Town's existing efforts, will further protect and improve the quality of Littleton's water resources. These programs are in accordance with priorities stated in the Town's 2002 Master Plan: "to protect aquifers and watersheds, and to maintain the present regulatory vigilance in protecting the groundwater supply."



Appendix A: Five-Year Outline

Five-Year Stormwater Management Plan Outline
Littleton, MA
NPDES Stormwater Phase II Compliance: March 2003-2008

Stormwater Program	Status	Responsible Party	Description / Measurable Goals	Year				
				1	2	3	4	5
GENERAL								
A) REQUIRED: Annual Report to EPA	New	Highway / Selectmen	Submit annual status report by March 10 of each year	X	X	X	X	X
1) PUBLIC EDUCATION AND OUTREACH REQUIRED: Pollution Prevention, Involvement, Specific Audiences & Groups, Diversity								
A) Stormwater Flyer for Community Residents	New	SuAsCo / Water Dept	Flyer distributed to a minimum of 75% of residents; Compiled/considered "survey" results	X				
B) Stormwater Lesson Plan for Fifth Grade Students	New	SuAsCo / Water Dept	Develop/distribute lesson plan for grade 5 level; Lesson plan taught in one or more classrooms		X			
C) Stormwater Flyer for Community Businesses	New	SuAsCo / Water Dept	Flyer distributed to a minimum of 50% of businesses; Logo displayed by half of those businesses			X		
D) Stormwater Media Campaign	New	SuAsCo / Water Dept	Media Information Packet Delivered to the Local Media; 4 press releases generated and issued				X	
E) Stormwater Video	New	SuAsCo / Water Dept	Show video at a minimum of one public meeting; Air video at least once on local cable station					X
F) Littleton-Specific Stormwater Flyers	Expanded	Water Dept	Distribute Littleton-Specific along with SuAsCo Brochures	X	X			
G) Community Education: Hazardous Waste Day and Recycling advertised	Existing	Highway / Water Dept	Continue to Write At Least One Article Per Year in the Local Paper and post announcements elsewhere	X	X	X	X	X
H) Business Education: Coordinate with Local Chamber of Commerce	Expanded	Water Dept	Expand Commending Businesses for Environmental Practices to Stormwater Practices Also			X	X	X
I) Agricultural Education: Flyer for Good Stormwater Practices in Agriculture	New	Water Dept	Distribute Flyers to Agricultural Owners/Properties			X		
J) Education via the Media: Newsletter and Newspaper Articles	Expanded	Water Dept	Write At Least One Article in the Watts & Drops newsletter & another in the Newspaper per year		X	X	X	X
K) Education via the Internet: Stormwater Information on Town's Website	New	Water Dept	Provide Links by Year 2; Provide more Littleton-Specific Information by Year 4		X	X	X	X
2) PUBLIC INVOLVEMENT AND PARTICIPATION REQUIRED: Involve the Public								
A) Stormwater Traveling Display	New	SuAsCo / Water Dept	Display circulates for a min of 3 months per year; Display is posted at a min of 3 locations per year	X	X	X	X	X
B) Stormwater Poster Contest for Fifth Grade Students	New	SuAsCo / Water Dept	Poster contest is held and entries are received, judged and displayed		X			
C) Stormwater Photo Contest for High School Students	New	SuAsCo / Water Dept	Photo contest is held and entries are received, judged and displayed			X		
D) Stormwater Summit Special Event	New	SuAsCo / Water Dept	Hold local or multi-community Stormwater Summit; Advertise to encourage community attendance				X	
E) Stormwater Super Summit and Evaluate/Assess Public Awareness of Stormwater	New	SuAsCo / Water Dept	Municipal participation in the Stormwater Super Summit; Compiled and considered "self test" results.					X
F) Annual Public Meeting/Hearing Regarding Plan Status and Reports to EPA	New	Highway / Selectmen	Hold Public Hearing by February of each year	X	X	X	X	X
G) Involve Watershed Groups: Clean Lakes Committee, Spectacle, Mill, Long, & Forge Ponds	Existing	Water Dept & Local Groups	Continue meetings at least 4 times/yr; Continue annual cleanup days; Educational Information Shared by Town;	X	X	X	X	X
H) Involve Littleton Children's Groups (such as 4H, Scouts)	New	Water Dept	Children's Groups at least once per year help distribute or display educational information		X	X	X	X

Five-Year Stormwater Management Plan Outline
Littleton, MA
NPDES Stormwater Phase II Compliance: March 2003-2008

Stormwater Program	Status	Responsible Party	Description / Measurable Goals	Year				
				1	2	3	4	5
3) ILLICIT DISCHARGE DETECTION AND ELIMINATION								
A) REQUIRED: Illicit Discharge Bylaw / Regulatory Mechanism	Expanded	Highway	Initial discussions; Review current local/state regulations; Review proposed samples. Develop draft bylaw; Involve & educate public, municipal officials, developers, contractors. Float new bylaw as <i>Guidance</i> ; One year of comment period. Public Hearing on Bylaw; Attempt to pass bylaw; Revise bylaw if does not pass. Final attempt to pass bylaw.	X				
Hazardous material bylaw, with enforcement	Existing	Board of Health/Selectmen			X			
Review of new construction projects to identify cross connections and floor drains connected to storm drain system	Existing	Highway				X		
Assess if Additional Discharges Beyond EPA Requirements Should be Prohibited	New	Highway	Priority to be considered in proposed program				X	
								ONGOING
								ONGOING
B) REQUIRED: Storm Sewer Map	Expanded	Highway	Compile existing record plans and surveyed data Find, GPS survey, and map outfalls and waterbodies (at least 20% each year)	X				
Partial storm drain map in GIS. Database of surface features for Asset Management software.	Existing	Highway		X	X	X	X	X
								ONGOING
C) REQUIRED: Illicit Discharge Detection and Elimination Plan	Expanded	Highway	Determine Priority Areas and Discuss Plan Visually Screen Outfalls During Dry Weather (at least 20% each year) Trace the Source of the Illicit Discharge (25% by year 3, 50% by 4, and 100% by 5) Remove the Source of the Illicit Discharge (25% by year 3, 50% by 4, and 100% by 5)	X				
Recycling drop off and hazardous waste collection at the Transfer Station	Existing	Highway		X	X	X	X	X
Staff reports or searches for illicit discharges if complaints or suspicions arise	Existing	Highway				X	X	X
Address Detecting and Eliminating Septic System Failures	New	Highway	Priority to be considered in proposed program				X	X
Address Detecting and Eliminating residential wastewater hookups to storm drain system	New	Highway	Priority to be considered in proposed program					
								ONGOING
								ONGOING
D) REQUIRED: Illicit Discharge Education for General Public & Businesses	Expanded	Water Dept	Include illicit discharge education in the community, business, and Littleton-specific flyers	X		X		
Storm drain stenciling near Nagog Pond (completed)	Existing	Concord Water Dept						COMPLETED
Recycling drop off and hazardous waste collection at the Transfer Station advertised	Existing	Highway						
Homeowner Education on Septic System Monitoring, Repair, Maintenance	Expanded	Water Dept	Priority to be considered in proposed program					
Require "Do Not Dump" Catch Basin Castings for all New and Redevelopment	New	Water Dept / Highway	Priority to be considered in proposed program					
								ONGOING
E) REQUIRED: Illicit Discharge Education for Municipal Employees	Expanded	Water Dept	Include Illicit Discharge Education in Training under Measure 6		X	X	X	X
Municipal employees in the Electric, Fire and Water departments are trained in spill prevention and containment	Existing	Water Dept						ONGOING

**Five-Year Stormwater Management Plan Outline
Littleton, MA
NPDES Stormwater Phase II Compliance: March 2003-2008**

Stormwater Program	Status	Responsible Party	Description / Measurable Goals	Year				
				1	2	3	4	5
4) CONSTRUCTION SITE RUNOFF CONTROLS								
A) REQUIRED: Construction Site Runoff Bylaw / Regulatory Mechanism	Expanded	Water Dept / Planning	Initial discussions; Review current local/state regulations; Review proposed samples. Develop draft bylaw; Involve & educate public, municipal officials, developers, contractors. Float new bylaw as <i>Guidance</i> ; One year of comment period. Public Hearing on Bylaw; Attempt to pass bylaw; Revise bylaw if does not pass. Final attempt to pass bylaw.	X				
Wetlands Protection Act and DEP Stormwater Management Policy, No Local Wetland Bylaw	Existing	Con Com			X			
Site Plan and Subdivision Regulations	Existing	Con Com				X		
				ONGOING				
				ONGOING				
B) REQUIRED: BMPs for Construction Site Erosion, Sediment, and Waste Controls	Expanded	Water Dept / Planning	Assess existing and brainstorm proposed Prepare draft, to include in draft bylaw Final, to include in bylaw. Revise as necessary.	X				
Erosion Controls required under Wetlands Protection Act and DEP Stormwater Management Policy	Existing	Con Com			X			
Erosion controls are minimal under Site Plan and Subdivision Regulations	Existing	Planning				X	X	X
				ONGOING				
				ONGOING				
C) REQUIRED: Construction Site Plan Review Procedures	Expanded	Water Dept / Planning	Assess existing and brainstorm proposed Prepare draft, to include in draft bylaw Final, to include in bylaw. Revise as necessary.	X				
Site Plan and Subdivision Review Process	Existing	Planning			X			
Conservation Commission Review Process	Existing	Con Com				X	X	X
Address disturbance amount, earth removal, triggers, and waivers for review process and requirements	New	Water Dept / Planning	Priority to be considered in proposed program					
Checklist for Developers with Requirements and Recommendations	New	Water Dept / Planning	Priority to be considered in proposed program					
				ONGOING				
				ONGOING				
D) REQUIRED: Construction Site Inspection and Enforcement Procedures	Expanded	Water Dept / Planning	Assess existing and brainstorm proposed Prepare draft, to include in draft bylaw Final, to include in bylaw. Revise as necessary.	X				
Site inspection by Conservation Commission of erosion control for wetland filings as needed or as requested	Existing	Con Com			X			
Building department inspects construction sites, but not for erosion controls	Existing	Building				X	X	X
Enforcement/penalty by Con Com if needed for impacts within jurisdiction	Existing	Con Com						
Planning Board requires fixing problems after the fact	Existing	Planning Board						
				ONGOING				
				ONGOING				
				ONGOING				
				ONGOING				
E) REQUIRED: Response to Public - "Stormwater Hotline"	New	Water Dept	Assess and brainstorm procedures for "stormwater hotline" Advertise and test hotline Hotline fully implemented, with ongoing advertising	X				
Review of complaints about construction site erosion for Conservation Commission projects	Existing	Con Com			X			
						X	X	X
				ONGOING				

Five-Year Stormwater Management Plan Outline
Littleton, MA
NPDES Stormwater Phase II Compliance: March 2003-2008

Stormwater Program	Status	Responsible Party	Description / Measurable Goals	Year				
				1	2	3	4	5
5) POST-CONSTRUCTION SITE RUNOFF CONTROLS								
A) REQUIRED: Post-Construction Site Runoff Bylaw / Regulatory Mechanism	Expanded	Water Dept / Planning	Initial discussions; Review current local/state regulations; Review proposed samples. Develop draft bylaw; Involve & educate public, municipal officials, developers, contractors. Float new bylaw as <i>Guidance</i> ; One year of comment period. Public Hearing on Bylaw; Attempt to pass bylaw; Revise bylaw if does not pass. Final attempt to pass bylaw.	X	X	X	X	X
MA Wetlands Protection Act and DEP Stormwater Management Policy, No Local Wetland Bylaw	Existing	Con Com						
Site Plan Regulations: minimal design requirements	Existing	Planning						
Subdivision Regulations: recharge, environmental analysis over 10 lots, and other design requirements	Existing	Planning						
Aquifer and Water Resource Protection Overlay Districts: recharge required	Existing	Planning						
Wetlands and Floodplain Overlay Districts: special permit required	Existing	Planning						
B) REQUIRED: Choose Structural and Non-Structural BMPs	Expanded	Water Dept / Planning	Assess existing and brainstorm proposed Prepare draft, to include in draft bylaw Final, to include in bylaw. Revise as necessary.	X	X	X	X	X
Littleton Master Plan - August 2002	Existing	Planning						
Conservation easements are encouraged	Existing	Planning						
Open space cluster for subdivisions over 10 acres	Existing	Planning						
BMPs required to meet 80% TSS Removal under DEP Stormwater Management Policy	Existing	Con Com						
Recharge and other design requirements under subdivision, site plan, overlay districts	Existing	Planning						
Include Public in Selection Process	New	Water Dept / Planning	Priority to be considered in proposed program					
Review and revise design standards for site and subdivision projects	New	Water Dept / Planning	Priority to be considered in proposed program					
Choose BMPs that relate to the Master Plan	New	Water Dept / Planning	Priority to be considered in proposed program					
Require "Do Not Dump" Catch Basin Castings for all New and Redevelopment	New	Water Dept / Planning	Priority to be considered in proposed program					
Require sufficient access for maintenance at detention basins, swales, or other structural BMPs	New	Water Dept / Planning	Priority to be considered in proposed program					
Assess the need for innovative BMPs, particularly at hot spots like Spectacle Pond	New	Water Dept / Planning	Priority to be considered in proposed program					
C) REQUIRED: Long-Term BMP Operation and Maintenance Procedures	Expanded	Water Dept / Planning	Assess existing and brainstorm proposed Prepare draft, to include in draft bylaw Final, to include in bylaw. Revise as necessary.	X	X	X	X	X
Operation and maintenance plan required under DEP Stormwater Management Regulations	Existing	Con Com						
Con Com or Planning Board requires fixing problems after the fact	Existing	Con Com / Planning						
D) REQUIRED: Structural BMP Implementation Procedures	Expanded	Water Dept / Planning	Assess existing and brainstorm proposed Prepare draft, to include in draft bylaw Final, to include in bylaw. Revise as necessary.	X	X	X	X	X
Address site and subdivision plan reviews	New	Water Dept / Planning	Priority to be considered in proposed program					
Address disturbance amount, earth removal, triggers, and waivers for review process and requirements	New	Water Dept / Planning	Priority to be considered in proposed program					
Checklist for Developers with Requirements and "Encouraged" BMPs	New	Water Dept / Planning	Priority to be considered in proposed program					

Five-Year Stormwater Management Plan Outline
Littleton, MA
NPDES Stormwater Phase II Compliance: March 2003-2008

Stormwater Program	Status	Responsible Party	Description / Measurable Goals	Year				
				1	2	3	4	5
6) MUNICIPAL GOOD HOUSEKEEPING AND POLLUTION PREVENTION								
A) REQUIRED: Employee Training to Prevent/Reduce Stormwater Pollution	Expanded	Highway / Water Dept	Assess who, when, and what topics; Create schedule and checklist Sample / test training Fully implement training Compile into Overall Municipal Operation and Maintenance Plan	X				
Municipal employees in the Electric, Fire and Water departments are trained in spill prevention and containment Include Illicit Discharge & SPCC Training	Existing	Water Dept	Priority to be considered in proposed program		X	X	X	X
B) REQUIRED: Maintenance/Inspection of Storm Sewers and Structural/Non-Structural Controls	Expanded	Highway	Assess existing controls, maintenance activities, schedules, and long-term inspection procedures Develop Draft New/Improved Activities, Schedules, and Procedures Finalize Maintenance Activities and Schedules, and Long-Term Inspection Procedures Compile into Overall Municipal Operation and Maintenance Plan Fully Implement maintenance and inspection procedures	X				
Annual cleaning of storm drain system: once a year for catch basins with a clamshell, as needed for storm lines	Existing	Highway			X			
Basic records of cleaning/maintenance kept by operator	Existing	Highway				X		
Repair stormwater infrastructure as needed	Existing	Highway					X	
Annual sweeping and cleaning of municipal lots and streets, as early in the Spring as possible	Existing	Highway						X
Prioritize maintenance and inspection programs based on local needs and sensitive areas	New	Highway	Priority to be considered in proposed program					
Maintenance schedules for detention basins, swales, and other structural BMPs besides catch basins	New	Highway	Priority to be considered in proposed program					
Coordinate with MassHighway regarding drainage from Routes 110, 119, 2, 495	New	Highway	Priority to be considered in proposed program					
C) REQUIRED: Pollutant Source Reduction/Elimination from Municipal Facilities & Activities	Expanded	Highway	Assess existing facilities, activities, & BMPs; Brainstorm improved/new BMPs Develop Draft BMPs Finalize BMPs Compile into Overall Municipal Operation and Maintenance Plan Fully Implement BMPs	X				
Municipal Garage:					X			
Municipal hazardous materials are stored inside	Existing	Highway				X		
Used oil is removed from by licensed hazardous materials contractor	Existing	Highway					X	
Salt storage is covered	Existing	Highway						X
Wash and maintain equipment and vehicles in garage	Existing	Highway						
Required manifests kept for hazardous materials handling and waste material disposal	Existing	Highway						
Dumpsters are covered, trash is hauled offsite	Existing	Highway						
Cover fueling area at DPW yard	New	Highway	Priority to be considered in proposed program					
Removing transformers in the DPW yard	New	Highway	Priority to be considered in proposed program					
SPCC plan for DPW facility, with training	Expanded	Highway	Priority to be considered in proposed program					
Other Municipal Activities/Locations:								
Municipal yard debris collection program. Brush is chipped or ground for disposal and leaves are composted	Existing	Highway						
Measures to reduce littering (signs, adequate receptacles, and clean out)	Existing	Highway						
Hazardous materials audits by the Water Department to monitor pollution prevention practices	Existing	Water Dept						
Recycling drop off and hazardous waste collection at the Transfer Station	Existing	Highway						
Water Quality Monitoring Stations	Existing	Water Dept						
Ongoing improvement Projects at Long Lake, Spectacle Pond, Mill Pond	Existing	Water Dept						
Prioritize programs based on local needs and sensitive areas	New	Highway	Priority to be considered in proposed program					
Assess Flood Management Water Quality	New	Highway	Priority to be considered in proposed program					
Coordinate with the private company that stores buses at Town school property	New	Highway	Priority to be considered in proposed program					
D) REQUIRED: Waste Disposal Procedures from Storm Sewers & Municipal Facilities/Activities	Expanded	Highway	Assess existing waste disposal procedures; Review MA guidelines; Brainstorm improved/new proced. Develop Draft Procedures Finalize Procedures Compile into Overall Municipal Operation and Maintenance Plan Fully Implement waste disposal procedures	X				
					X			
						X		
							X	
								X

Appendix B: Annual Implementation Checklists

NPDES Phase II Stormwater Management Plan Implementation Checklist

Littleton, MA

Year 1: March 2003-February 2004

Stormwater Program	Description / Measurable Goals
GENERAL	
A) REQUIRED: Annual Report to EPA	Submit annual status report by March 10 of each year
1) PUBLIC EDUCATION AND OUTREACH	
A) Stormwater Flyer for Community Residents	Flyer distributed to a minimum of 75% of residents; Compiled/considered "survey" results
F) Littleton-Specific Stormwater Flyers	Distribute Littleton-Specific Brochure along with SuAsCo Brochures
G) Community Education: Hazardous Waste Day and Recycling advertised	Continue to Write At Least One Article Per Year in the Local Paper and post announcements elsewhere
2) PUBLIC INVOLVEMENT AND PARTICIPATION	
A) Stormwater Traveling Display	Display circulates for a min of 3 months per year; Display is posted at a min of 3 locations per year
F) Annual Public Meeting/Hearing Regarding Plan Status and Reports to EPA	Hold Public Hearing by February of each year
G) Involve Watershed Groups: Clean Lakes Committee, Spectacle, Mill, Long, & Forge Ponds	Continue meetings at least 4 times/year; Continue annual cleanup days; Educational Information Shared from Town
3) ILLICIT DISCHARGE DETECTION AND ELIMINATION	
A) REQUIRED: Illicit Discharge Bylaw / Regulatory Mechanism	Initial discussions; Review current local/state regulations; Review proposed samples.
B) REQUIRED: Storm Sewer Map	Compile existing record plans and surveyed data
C) REQUIRED: Illicit Discharge Detection and Elimination Plan	Find, GPS survey, and map outfalls and waterbodies (at least 20% each year)
D) REQUIRED: Illicit Discharge Education for General Public & Businesses	Determine Priority Areas and Discuss Plan
	Visually Screen Outfalls During Dry Weather (at least 20% each year)
	Include illicit discharge education in the community, business, and Littleton-specific flyers
4) CONSTRUCTION SITE RUNOFF CONTROLS	
A) REQUIRED: Construction Site Runoff Bylaw / Regulatory Mechanism	Initial discussions; Review current local/state regulations; Review proposed samples.
B) REQUIRED: BMPs for Construction Site Erosion, Sediment, and Waste Controls	Assess existing and brainstorm proposed
C) REQUIRED: Construction Site Plan Review Procedures	Assess existing and brainstorm proposed
D) REQUIRED: Construction Site Inspection and Enforcement Procedures	Assess existing and brainstorm proposed
E) REQUIRED: Response to Public - "Stormwater Hotline"	Assess and brainstorm procedures for "stormwater hotline"
5) POST-CONSTRUCTION SITE RUNOFF CONTROLS	
A) REQUIRED: Post-Construction Site Runoff Bylaw / Regulatory Mechanism	Initial discussions; Review current local/state regulations; Review proposed samples.
B) REQUIRED: Choose Structural and Non-Structural BMPs	Assess existing and brainstorm proposed
C) REQUIRED: Long-Term BMP Operation and Maintenance Procedures	Assess existing and brainstorm proposed
D) REQUIRED: Structural BMP Implementation Procedures	Assess existing and brainstorm proposed
6) MUNICIPAL GOOD HOUSEKEEPING AND POLLUTION PREVENTION	
A) REQUIRED: Employee Training to Prevent/Reduce Stormwater Pollution	Assess who, when, and what topics; Create schedule and checklist
B) REQUIRED: Maintenance/Inspection of Storm Sewers and Structural/Non-Structural Controls	Assess existing controls, maintenance activities, schedules, and long-term inspection procedures
C) REQUIRED: Pollutant Source Reduction/Elimination from Municipal Facilities & Activities	Assess existing facilities, activities, & BMPs; Brainstorm improved/new BMPs
D) REQUIRED: Waste Disposal Procedures from Storm Sewers & Municipal Facilities/Activities	Assess existing waste disposal procedures; Review MA guidelines; Brainstorm improved/new proced.

NPDES Phase II Stormwater Management Plan Implementation Checklist
Littleton, MA
Year 2: March 2004-February 2005

Stormwater Program	Description / Measurable Goals
GENERAL	
A) REQUIRED: Annual Report to EPA	Submit annual status report by March 10 of each year
1) PUBLIC EDUCATION AND OUTREACH	
B) Stormwater Lesson Plan for Fifth Grade Students	Develop/distribute lesson plan for grade 5 level; Lesson plan taught in one or more classrooms
G) Community Education: Hazardous Waste Day and Recycling advertised	Continue to Write At Least One Article Per Year in the Local Paper and post announcements elsewhere
J) Education via the Media: Newsletter and Newspaper Articles	Write At Least One Article in the Watts & Drops newsletter & another in the Newspaper per year
K) Education via the Internet: Stormwater Information on Town's Website	Provide Links by Year 2; Provide more Littleton-Specific Information by Year 4
2) PUBLIC INVOLVEMENT AND PARTICIPATION	
A) Stormwater Traveling Display	Display circulates for a min of 3 months per year; Display is posted at a min of 3 locations per year
B) Stormwater Poster Contest for Fifth Grade Students	Poster contest is held and entries are received, judged and displayed
F) Annual Public Meeting/Hearing Regarding Plan Status and Reports to EPA	Hold Public Hearing by February of each year
G) Involve Watershed Groups: Clean Lakes Committee, Spectacle, Mill, Long, & Forge Ponds	Continue meetings at least 4 times/year; Continue annual cleanup days; Educational Information Shared from Town
H) Involve Littleton Children's Groups (such as 4H, Scouts)	Children's Groups at least once per year help distribute or display educational information
3) ILLICIT DISCHARGE DETECTION AND ELIMINATION	
A) REQUIRED: Illicit Discharge Bylaw / Regulatory Mechanism	Develop draft bylaw; Involve & educate public, municipal officials, developers, contractors.
B) REQUIRED: Storm Sewer Map	Find, GPS survey, and map outfalls and waterbodies (at least 20% each year)
C) REQUIRED: Illicit Discharge Detection and Elimination Plan	Visually Screen Outfalls During Dry Weather (at least 20% each year)
E) REQUIRED: Illicit Discharge Education for Municipal Employees	Include Illicit Discharge Education in Training under Measure 6
4) CONSTRUCTION SITE RUNOFF CONTROLS	
A) REQUIRED: Construction Site Runoff Bylaw / Regulatory Mechanism	Develop draft bylaw; Involve & educate public, municipal officials, developers, contractors.
B) REQUIRED: BMPs for Construction Site Erosion, Sediment, and Waste Controls	Prepare draft, to include in draft bylaw
C) REQUIRED: Construction Site Plan Review Procedures	Prepare draft, to include in draft bylaw
D) REQUIRED: Construction Site Inspection and Enforcement Procedures	Prepare draft, to include in draft bylaw
E) REQUIRED: Response to Public - "Stormwater Hotline"	Advertise and test hotline
5) POST-CONSTRUCTION SITE RUNOFF CONTROLS	
A) REQUIRED: Post-Construction Site Runoff Bylaw / Regulatory Mechanism	Develop draft bylaw; Involve & educate public, municipal officials, developers, contractors.
B) REQUIRED: Choose Structural and Non-Structural BMPs	Prepare draft, to include in draft bylaw
C) REQUIRED: Long-Term BMP Operation and Maintenance Procedures	Prepare draft, to include in draft bylaw
D) REQUIRED: Structural BMP Implementation Procedures	Prepare draft, to include in draft bylaw
6) MUNICIPAL GOOD HOUSEKEEPING AND POLLUTION PREVENTION	
A) REQUIRED: Employee Training to Prevent/Reduce Stormwater Pollution	Sample / test training
B) REQUIRED: Maintenance/Inspection of Storm Sewers and Structural/Non-Structural Controls	Develop Draft New/Improved Activities, Schedules, and Procedures
C) REQUIRED: Pollutant Source Reduction/Elimination from Municipal Facilities & Activities	Develop Draft BMPs
D) REQUIRED: Waste Disposal Procedures from Storm Sewers & Municipal Facilities/Activities	Develop Draft Procedures

NPDES Phase II Stormwater Management Plan Implementation Checklist
Littleton, MA
Year 3: March 2005-February 2006

Stormwater Program	Description / Measurable Goals
GENERAL	
A) REQUIRED: Annual Report to EPA	Submit annual status report by March 10 of each year
1) PUBLIC EDUCATION AND OUTREACH	
C) Stormwater Flyer for Community Businesses	Flyer distributed to a minimum of 50% of businesses; Logo displayed by half of those businesses
F) Littleton-Specific Stormwater Flyers	Distribute Littleton-Specific Brochure along with SuAsCo Brochures
G) Community Education: Hazardous Waste Day and Recycling advertised	Continue to Write At Least One Article Per Year in the Local Paper and post announcements elsewhere
H) Business Education: Coordinate with Local Chamber of Commerce	Expand Commending Businesses for Environmental Practices to Stormwater Practices Also
I) Agricultural Education: Flyer for Good Stormwater Practices in Agriculture	Distribute Flyers to Agricultural Owners/Properties
J) Education via the Media: Newsletter and Newspaper Articles	Write At Least One Article in the Watts & Drops newsletter & another in the Newspaper per year
K) Education via the Internet: Stormwater Information on Town's Website	Provide Links by Year 2; Provide more Littleton-Specific Information by Year 4
2) PUBLIC INVOLVEMENT AND PARTICIPATION	
A) Stormwater Traveling Display	Display circulates for a min of 3 months per year; Display is posted at a min of 3 locations per year
C) Stormwater Photo Contest for High School Students	Photo contest is held and entries are received, judged and displayed
F) Annual Public Meeting/Hearing Regarding Plan Status and Reports to EPA	Hold Public Hearing by February of each year
G) Involve Watershed Groups: Clean Lakes Committee, Spectacle, Mill, Long, & Forge Ponds	Continue meetings at least 4 times/year; Continue annual cleanup days; Educational Information Shared from Town
H) Involve Littleton Children's Groups (such as 4H, Scouts)	Children's Groups at least once per year help distribute or display educational information
3) ILLICIT DISCHARGE DETECTION AND ELIMINATION	
A) REQUIRED: Illicit Discharge Bylaw / Regulatory Mechanism	Float new bylaw as <i>Guidance</i> ; One year of comment period.
B) REQUIRED: Storm Sewer Map	Find, GPS survey, and map outfalls and waterbodies (at least 20% each year)
C) REQUIRED: Illicit Discharge Detection and Elimination Plan	Visually Screen Outfalls During Dry Weather (at least 20% each year)
	Trace the Source of the Illicit Discharge (25% by year 3, 50% by 4, and 100% by 5)
	Remove the Source of the Illicit Discharge (25% by year 3, 50% by 4, and 100% by 5)
	Include illicit discharge education in the community, business, and Littleton-specific flyers
	Include Illicit Discharge Education in Training under Measure 6
D) REQUIRED: Illicit Discharge Education for General Public & Businesses	
E) REQUIRED: Illicit Discharge Education for Municipal Employees	
4) CONSTRUCTION SITE RUNOFF CONTROLS	
A) REQUIRED: Construction Site Runoff Bylaw / Regulatory Mechanism	Float new bylaw as <i>Guidance</i> ; One year of comment period.
B) REQUIRED: BMPs for Construction Site Erosion, Sediment, and Waste Controls	Final, to include in bylaw. Revise as necessary.
C) REQUIRED: Construction Site Plan Review Procedures	Final, to include in bylaw. Revise as necessary.
D) REQUIRED: Construction Site Inspection and Enforcement Procedures	Final, to include in bylaw. Revise as necessary.
E) REQUIRED: Response to Public - "Stormwater Hotline"	Hotline fully implemented, with ongoing advertising
5) POST-CONSTRUCTION SITE RUNOFF CONTROLS	
A) REQUIRED: Post-Construction Site Runoff Bylaw / Regulatory Mechanism	Float new bylaw as <i>Guidance</i> ; One year of comment period.
B) REQUIRED: Choose Structural and Non-Structural BMPs	Final, to include in bylaw. Revise as necessary.
C) REQUIRED: Long-Term BMP Operation and Maintenance Procedures	Final, to include in bylaw. Revise as necessary.
D) REQUIRED: Structural BMP Implementation Procedures	Final, to include in bylaw. Revise as necessary.
6) MUNICIPAL GOOD HOUSEKEEPING AND POLLUTION PREVENTION	
A) REQUIRED: Employee Training to Prevent/Reduce Stormwater Pollution	Fully implement training
B) REQUIRED: Maintenance/Inspection of Storm Sewers and Structural/Non-Structural Controls	Finalize Maintenance Activities and Schedules, and Long-Term Inspection Procedures
C) REQUIRED: Pollutant Source Reduction/Elimination from Municipal Facilities & Activities	Finalize BMPs
D) REQUIRED: Waste Disposal Procedures from Storm Sewers & Municipal Facilities/Activities	Finalize Procedures

NPDES Phase II Stormwater Management Plan Implementation Checklist

Littleton, MA

Year 4: March 2006-February 2007

Stormwater Program	Description / Measurable Goals
GENERAL	
A) REQUIRED: Annual Report to EPA	Submit annual status report by March 10 of each year
1) PUBLIC EDUCATION AND OUTREACH	
D) Stormwater Media Campaign	Media Information Packet Delivered to the Local Media; 4 press releases generated and issued
G) Community Education: Hazardous Waste Day and Recycling advertised	Continue to Write At Least One Article Per Year in the Local Paper and post announcements elsewhere
H) Business Education: Coordinate with Local Chamber of Commerce	Expand Commending Businesses for Environmental Practices to Stormwater Practices Also
J) Education via the Media: Newsletter and Newspaper Articles	Write At Least One Article in the Walls & Drops newsletter & another in the Newspaper per year
K) Education via the Internet: Stormwater Information on Town's Website	Provide Links by Year 2; Provide more Littleton-Specific Information by Year 4
2) PUBLIC INVOLVEMENT AND PARTICIPATION	
A) Stormwater Traveling Display	Display circulates for a min of 3 months per year; Display is posted at a min of 3 locations per year
D) Stormwater Summit Special Event	Hold local or multi-community Stormwater Summit; Advertise to encourage community attendance
F) Annual Public Meeting/Hearing Regarding Plan Status and Reports to EPA	Hold Public Hearing by February of each year
G) Involve Watershed Groups: Clean Lakes Committee, Spectacle, Mill, Long, & Forge Ponds	Continue meetings at least 4 times/year; Continue annual cleanup days; Educational Information Shared from Tow
H) Involve Littleton Children's Groups (such as 4H, Scouts)	Children's Groups at least once per year help distribute or display educational information
3) ILLICIT DISCHARGE DETECTION AND ELIMINATION	
A) REQUIRED: Illicit Discharge Bylaw / Regulatory Mechanism	Public Hearing on Bylaw; Attempt to pass bylaw; Revise bylaw if does not pass.
B) REQUIRED: Storm Sewer Map	Find, GPS survey, and map outfalls and waterbodies (at least 20% each year)
	Visually Screen Outfalls During Dry Weather (at least 20% each year)
	Trace the Source of the Illicit Discharge (25% by year 3, 50% by 4, and 100% by 5)
	Remove the Source of the Illicit Discharge (25% by year 3, 50% by 4, and 100% by 5)
E) REQUIRED: Illicit Discharge Education for Municipal Employees	Include Illicit Discharge Education in Training under Measure 6
4) CONSTRUCTION SITE RUNOFF CONTROLS	
A) REQUIRED: Construction Site Runoff Bylaw / Regulatory Mechanism	Public Hearing on Bylaw; Attempt to pass bylaw; Revise bylaw if does not pass.
B) REQUIRED: BMPs for Construction Site Erosion, Sediment, and Waste Controls	Final, to include in bylaw. Revise as necessary.
C) REQUIRED: Construction Site Plan Review Procedures	Final, to include in bylaw. Revise as necessary.
D) REQUIRED: Construction Site Inspection and Enforcement Procedures	Final, to include in bylaw. Revise as necessary.
E) REQUIRED: Response to Public - "Stormwater Hotline"	Hotline fully implemented, with ongoing advertising
5) POST-CONSTRUCTION SITE RUNOFF CONTROLS	
A) REQUIRED: Post-Construction Site Runoff Bylaw / Regulatory Mechanism	Public Hearing on Bylaw; Attempt to pass bylaw; Revise bylaw if does not pass.
B) REQUIRED: Choose Structural and Non-Structural BMPs	Final, to include in bylaw. Revise as necessary.
C) REQUIRED: Long-Term BMP Operation and Maintenance Procedures	Final, to include in bylaw. Revise as necessary.
D) REQUIRED: Structural BMP Implementation Procedures	Final, to include in bylaw. Revise as necessary.
6) MUNICIPAL GOOD HOUSEKEEPING AND POLLUTION PREVENTION	
A) REQUIRED: Employee Training to Prevent/Reduce Stormwater Pollution	Fully implement training
	Compile into Overall Municipal Operation and Maintenance Plan
B) REQUIRED: Maintenance/Inspection of Storm Sewers and Structural/Non-Structural Controls	Compile into Overall Municipal Operation and Maintenance Plan
C) REQUIRED: Pollutant Source Reduction/Elimination from Municipal Facilities & Activities	Compile into Overall Municipal Operation and Maintenance Plan
D) REQUIRED: Waste Disposal Procedures from Storm Sewers & Municipal Facilities/Activities	Compile into Overall Municipal Operation and Maintenance Plan

NPDES Phase II Stormwater Management Plan Implementation Checklist

Littleton, MA

Year 5: March 2007-February 2008

Stormwater Program	Description / Measurable Goals
GENERAL	
A) REQUIRED: Annual Report to EPA	Submit annual status report by March 10 of each year
1) PUBLIC EDUCATION AND OUTREACH	
E) Stormwater Video	Show video at a minimum of one public meeting; Air video at least once on local cable station
G) Community Education: Hazardous Waste Day and Recycling advertised	Continue to Write At Least One Article Per Year in the Local Paper and post announcements elsewhere
H) Business Education: Coordinate with Local Chamber of Commerce	Expand Commending Businesses for Environmental Practices to Stormwater Practices Also
J) Education via the Media: Newsletter and Newspaper Articles	Write At Least One Article in the Watts & Drops newsletter & another in the Newspaper per year
K) Education via the Internet: Stormwater Information on Town's Website	Provide Links by Year 2; Provide more Littleton-Specific Information by Year 4
2) PUBLIC INVOLVEMENT AND PARTICIPATION	
A) Stormwater Traveling Display	Display circulates for a min of 3 months per year; Display is posted at a min of 3 locations per year
E) Stormwater Super Summit and Evaluate/Assess Public Awareness of Stormwater	Municipal participation in the Stormwater Super Summit; Compiled and considered "self test" results.
F) Annual Public Meeting/Hearing Regarding Plan Status and Reports to EPA	Hold Public Hearing by February of each year
G) Involve Watershed Groups: Clean Lakes Committee, Spectacle, Mill, Long, & Forge Ponds	Continue meetings at least 4 times/year; Continue annual cleanup days; Educational Information Shared from Tow
H) Involve Littleton Children's Groups (such as 4H, Scouts)	Children's Groups at least once per year help distribute or display educational information
3) ILLICIT DISCHARGE DETECTION AND ELIMINATION	
A) REQUIRED: Illicit Discharge Bylaw / Regulatory Mechanism	Final attempt to pass bylaw.
B) REQUIRED: Storm Sewer Map	Find, GPS survey, and map outfalls and waterbodies (at least 20% each year)
C) REQUIRED: Illicit Discharge Detection and Elimination Plan	Visually Screen Outfalls During Dry Weather (at least 20% each year)
	Trace the Source of the Illicit Discharge (25% by year 3, 50% by 4, and 100% by 5)
	Remove the Source of the Illicit Discharge (25% by year 3, 50% by 4, and 100% by 5)
E) REQUIRED: Illicit Discharge Education for Municipal Employees	Include Illicit Discharge Education In Training under Measure 6
4) CONSTRUCTION SITE RUNOFF CONTROLS	
A) REQUIRED: Construction Site Runoff Bylaw / Regulatory Mechanism	Final attempt to pass bylaw.
B) REQUIRED: BMPs for Construction Site Erosion, Sediment, and Waste Controls	Final, to include in bylaw. Revise as necessary.
C) year 5: March 2007-February 2008	Final, to include in bylaw. Revise as necessary.
D) REQUIRED: Construction Site Inspection and Enforcement Procedures	Final, to include in bylaw. Revise as necessary.
E) REQUIRED: Response to Public - "Stormwater Hotline"	Hotline fully implemented, with ongoing advertising
5) POST-CONSTRUCTION SITE RUNOFF CONTROLS	
A) REQUIRED: Post-Construction Site Runoff Bylaw / Regulatory Mechanism	Final attempt to pass bylaw.
B) REQUIRED: Choose Structural and Non-Structural BMPs	Final, to include in bylaw. Revise as necessary.
C) REQUIRED: Long-Term BMP Operation and Maintenance Procedures	Final, to include in bylaw. Revise as necessary.
D) REQUIRED: Structural BMP Implementation Procedures	Final, to include in bylaw. Revise as necessary.
6) MUNICIPAL GOOD HOUSEKEEPING AND POLLUTION PREVENTION	
A) REQUIRED: Employee Training to Prevent/Reduce Stormwater Pollution	Fully implement training
B) REQUIRED: Maintenance/Inspection of Storm Sewers and Structural/Non-Structural Controls	Fully implement maintenance and inspection procedures
C) REQUIRED: Pollutant Source Reduction/Elimination from Municipal Facilities & Activities	Fully implement BMPs
D) REQUIRED: Waste Disposal Procedures from Storm Sewers & Municipal Facilities/Activities	Fully implement waste disposal procedures

Appendix C: EPA and DEP Submission

DRAFT

March 10, 2003

Ref: 08292.00

United States Environmental Protection Agency
Municipal Assistance Unit (CMU)
One Congress Street, Suite 1100
Boston, MA 02114-2023

Re: NPDES Stormwater Phase II Compliance
Littleton, Massachusetts

Dear Sir or Madam:

On behalf of the Town of Littleton, Vanasse Hangen Brustlin, Inc. is pleased to submit the enclosed Municipal Stormwater Management Program permit application. This submittal is in accordance with the Environmental Protection Agency's (EPA) National Pollutant Discharge Elimination System (NPDES) Stormwater Phase II Regulations. The following documents are attached:

- Massachusetts Department of Environmental Protection (DEP) Transmittal Form
- DEP Notice of Intent Form BRP WM 08A
- DEP Notice of Intent Form BRP WM 08A Time Frames
- Five-Year Stormwater Management Plan Outline

Please note that a complete Stormwater Management Plan report has been prepared and is on file with the Town.

Town Description

Littleton, historically an agricultural community, is a small suburban town approximately 26 miles northwest of Boston, with a population of just over 7,000. Littleton covers about 16.5 square miles of gently rolling hills in northwest Middlesex County. The Town has eight major bodies of water that include: Forge Pond, Fort Pond, Long Lake, Mill Pond, Nagog Pond, Spectacle Pond, Beaver Brook, and Bennetts Brook. Long Lake, Mill Pond, and Spectacle Pond are the focus of the Town's current water resource restoration efforts.

Littleton receives all of its drinking water from wells within the Town. The Town's Water Department has been very proactive in protecting its water supply, including continuous monitoring to ensure a high quality of water.

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Stormwater Management Program

The Town of Littleton has been proactive and enthusiastic during the preparation of their five-year stormwater management plan. The Town held several public meetings and Stormwater Committee meetings consisting of members from the Highway, Water, Conservation, and Planning Departments. The following meetings were held:

- Kickoff with the Highway Department – September 10, 2002
- Stormwater Committee Kickoff and Public Presentation - October 16, 2002
- Municipal Facility Site Walk – October 30, 2002
- Stormwater Committee Meeting #1 - November 18, 2002
- Stormwater Committee Meeting #2 – November 25, 2002
- Planning Board Public Discussion – January 16, 2003
- Stormwater Committee Meeting #3 – January 21, 2002
- Board of Selectmen Public Presentation – January 27, 2003

In its five-year stormwater plan, the Town will address the general public and businesses through watershed-based stormwater education and participation programs from the SuAsCo Watershed Community Council, as well as education and participation programs focused on locally impaired waters. Through expanded programs and bylaws to reduce pollutants from illicit discharges, construction runoff, and post-construction runoff, the Town will tighten up its current procedures to inspect and enforce against potential stormwater contamination. In addition to reaching out to public and private entities to reduce stormwater pollution, the Town will do its part by continuing to improve upon its own operations with increased employee training and expanded procedures to control any potential pollutants and waste from municipal facilities and activities.

Other Permit Requirements

THESE SECTIONS TO BE COMPLETED BY VHB FOR THE FINAL DRAFT OF THIS LETTER. FOR DISCUSSION ON THESE TOPICS FOR NOW, SEE THE REPORT TEXT.

- Discharges to Water Quality Impaired Waters
- Total Maximum Daily Load Allocationss
- Groundwater Recharge
- Drinking Water Sources
- Interconnected Municipal Separate Storm Sewer Systems (MS4s)
- Endangered Species
- Historic Places

Project No.: 08292.00
March 10, 2003
Page 3

DRAFT

Summary

Littleton's stormwater management plan efforts over the next five years, in addition to the Town's existing efforts, will further protect and improve the quality of Littleton's water resources. These programs are in accordance with priorities stated in the Town's 2002 Master Plan: "to protect aquifers and watersheds, and to maintain the present regulatory vigilance in protecting the groundwater supply."

The enclosed permit application and its components were prepared jointly by VHB and the Town of Littleton. If you have any questions or comments, please contact me at 617-924-1770. Thank you.

Very truly yours,

VANASSE HANGEN BRUSTLIN, INC.

Bethany Eisenberg
Project Manager

cc: MA Department of Environmental Protection - Office of Watershed Management
Eric Durling, Littleton Highway Department
Savas Danos, Littleton Water Department
Littleton Board of Selectmen



Hand-enter Your Transmittal Number

W 035458

Your unique Transmittal Number can be accessed through DEP's web site or by calling the DEP InfoLine as listed on the last page of this document

Massachusetts Department of Environmental Protection Transmittal Form for Permit Application and Payment

Instructions

1. Please type or print. A separate Transmittal Form must be completed for each permit application.

2. Your check should be made payable to the Commonwealth of Massachusetts. Please mail your check along with a copy of this form to: DEP, P.O. Box 4062, Boston, MA 02211.

3. Three (3) copies of this form will be needed.

Copy 1 (the original) must accompany your permit application.

Copy 2 must accompany your fee payment.

Copy 3 should be retained for your records

4. Both fee-paying and exempt applicants must mail a copy of this transmittal form to DEP, P.O. Box 4062, Boston, MA 02211

For DEP Use Only

Permit No. _____
Rec'd Date _____
Reviewer _____

A. Application Information

DEP Permit Code (the 7 or 8 character code from first page of permit application instructions):
BRPWM08A

Name of Permit Category:

NPDES Stormwater Gen Permit Notice of Intent for Discharges from Small MS4s

Type of Project or Activity:

Municipal Small MS4 NPDES Phase II 5-Year Stormwater Management Plan

B. Applicant Information (Firm or Individual)

Name of Firm:

Town of Littleton, Massachusetts

Or, if party needing this approval is clearly an individual:

Individual's Last Name:

First Name

MI

Street Address

City/Town

Littleton

State

MA

Zip Code

Telephone Number

()

ext.

Contact:

e-mail address (optional)

C. Facility, Site or Individual Requiring Approval

Name of Facility, Site or Individual

Town of Littleton, Massachusetts

DEP Facility Number (if Known)

Street Address

e-mail address:

(optional)

City/Town

Littleton

State

MA

Zip Code

Telephone Number

()

ext.

D. Application Prepared by (if different from Section B)

Name of Individual or Firm:

Vannasse Hangen Brustlin, Inc.

Address

101 Walnut Street, P.O. Box 9151

City/Town

Watertown

State

MA

Zip Code

02471 9151

Telephone Number

(617) 924-1770

ext.

Contact:

Bethany Eisenberg

LSP Number (21E only)

E. Permit - Project Coordination

Is this project subject to MEPA review? ☐ yes ☒ no

If yes, indicate the project's EOE file number (assigned when an Environmental Notification Form is submitted to the MEPA unit)
EOEA # _____ Is an Environmental Impact Report Required? ☐ yes ☒ no

Is this application part of a larger project for which two or more DEP permits are being or will be sought? ☐ yes ☒ no

List any other DEP permits that apply to this project:

Permit Category	Date of Submission (tentative or actual)	Transmittal Number (if application already submitted)

F. Amount Due

Special Provisions:

- ☒ Fee Exempt* (city, town or municipal housing authority) (state agency if fee is \$100 or less)
☐ Hardship Request [payment extensions according to 310 CMR 4.04(3)(c)]
☐ Alternative Schedule Project (according to 310 CMR 4.05 and 4.10)

*There are no fee exemptions for 21E, regardless of applicant status

Check #: N/A Dollar Amount: N/A Date: March 10, 2003

Please make check payable to the Commonwealth of Massachusetts and mail check and one copy of this form to DEP, P.O. Box 4062, Boston, MA 02211



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Watershed Management

W035458

Transmittal Number

BRP WM 08A NPDES Stormwater General Permit

Notice of Intent for Discharges from Small Municipal Separate
Storm Sewer Systems (MS4s)

Facility ID (if known)

A. Instructions

Important:
When filling out
forms on the
computer, use
only the tab key
to move your
cursor - do not
use the return
key.



Submission of this Notice of Intent constitutes notice that the entity named at item B1. of this form intends to be authorized by the DEP General Permit issued jointly with EPA for stormwater discharges from the small municipal separate storm sewer system (MS4), in the location identified at item B2. of this form. Submission of the Notice of Intent also constitutes notice that the party identified at item B1. has read, understands and meets the eligibility conditions of Part I.B. of the NPDES Small MS4 General Permit, agrees to comply with all applicable terms and conditions of the NPDES Small MS4 General Permit, and understands that continued authorization to discharge is contingent on maintaining eligibility for coverage. **In order to be granted coverage, all information required on BRP WM 08A, including the Stormwater Management Program Summary and Time Frames form, must be completed. Please read the permit and make sure you comply with all requirements, including the requirement to develop and implement a stormwater management program.**

B. Applicant Information

1. Small MS4 Operator/Owner Information:

Name

Mailing Address

Littleton

City/Town

MA

State

Telephone Number

Email (if available)

2. Municipality Name

Town of Littleton, Massachusetts

City/Town

3. Legal Status:

☐ Federal

☒ City/Town

☐ State

☐ Tribal

☐ Private

☐ Other public entity:

Specify Public Entity

4. Other regulated MS4(s) within municipal boundaries:

Massachusetts Highway Department

5. Based on the instructions provided in Part I of the NPDES Small MS4 General Permit, have the eligibility criteria for "listed species" and critical habitat been met?

☐ yes

☒ pending

☐ no



Massachusetts Department of Environmental Protection
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BRP WM 08A NPDES Stormwater General Permit

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Storm Sewer Systems (MS4s)

Facility ID (if known)

B. Applicant Information (cont.)

6. Based on the instructions provided in Part I of the NPDES Small MS4 General Permit, have the eligibility criteria for protection of historic properties been met?

☐ yes ☒ pending ☐ no

Note:
Section C may
be duplicated to
accommodate a
larger list of
receiving waters

C. Names of (Presently Known) Receiving Waters

Receiving Water:	No. of Outfalls	Listed as Impaired?	Impairment
Beaver Brook	XX	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	nutr/pH/organics/pathogens/solids
Name	Number		Specify
Bennetts Brook	XX	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Name	Number		Specify
Forge Pond	XX	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Name	Number		Specify
Fort Pond	XX	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Name	Number		Specify
Long Lake	XX	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	nutrients/organics/ noxious plants
Name	Number		Specify
Mill Pond	XX	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	noxious aquatic plants
Name	Number		Specify
Nagog Pond	XX	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Name	Number		Specify
Spectacle Pond	XX	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	organics/noxious plants/exo species
Name	Number		Specify
Reedy Meadow Brook	XX	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	nutr/pH/organics/pathogens/solids
Name	Number		Specify
Name	Number	<input type="checkbox"/> Yes <input type="checkbox"/> No	Specify
Name	Number	<input type="checkbox"/> Yes <input type="checkbox"/> No	Specify
Name	Number	<input type="checkbox"/> Yes <input type="checkbox"/> No	Specify
Name	Number	<input type="checkbox"/> Yes <input type="checkbox"/> No	Specify
Name	Number	<input type="checkbox"/> Yes <input type="checkbox"/> No	Specify
Name	Number	<input type="checkbox"/> Yes <input type="checkbox"/> No	Specify
Name	Number	<input type="checkbox"/> Yes <input type="checkbox"/> No	Specify
Name	Number	<input type="checkbox"/> Yes <input type="checkbox"/> No	Specify
Name	Number	<input type="checkbox"/> Yes <input type="checkbox"/> No	Specify



Massachusetts Department of Environmental Protection
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W035458

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BRP WM 08A NPDES Stormwater General Permit

Notice of Intent for Discharges from Small Municipal Separate
Storm Sewer Systems (MS4s)

Facility ID (if known)

D. Stormwater Management Program Summary

1. Public Education:

1A

BMP ID #

Stormwater Flyer for Residents

Specify Best Management Practice

SuAsCo & Water Department

Responsible Dept./Person Name

See Attached Outline

Specify Measurable Goal

1B

BMP ID #

Lesson Plan for Fifth Graders

Specify Best Management Practice

SuAsCo & Water Department

Responsible Dept./Person Name

See Attached Outline

Specify Measurable Goal

1C

BMP ID #

Stormwater Flyer for Businesses

Specify Best Management Practice

SuAsCo & Water Department

Responsible Dept./Person Name

See Attached Outline

Specify Measurable Goal

1D

BMP ID #

Stormwater Media Campaign

Specify Best Management Practice

SuAsCo & Water Department

Responsible Dept./Person Name

See Attached Outline

Specify Measurable Goal

1E

BMP ID #

Stormwater Video

Specify Best Management Practice

SuAsCo & Water Department

Responsible Dept./Person Name

See Attached Outline

Specify Measurable Goal

1F

BMP ID #

Littleton-Specific Stormwater Flyers

Specify Best Management Practice

Water Department

Responsible Dept./Person Name

See Attached Outline

Specify Measurable Goal

1G

BMP ID #

Hazardous Waste Day & Recycling

Specify Best Management Practice

Highway & Water Departments

Responsible Dept./Person Name

See Attached Outline

Specify Measurable Goal

1H

BMP ID #

Coordinate w/ Chamber of Commerce

Specify Best Management Practice

Water Department

Responsible Dept./Person Name

See Attached Outline

Specify Measurable Goal

1I

BMP ID #

Stormwater Flyer for Agriculture

Specify Best Management Practice

Water Department

Responsible Dept./Person Name

See Attached Outline

Specify Measurable Goal

1J

BMP ID #

Newsletter/Newspaper Articles

Specify Best Management Practice

Water Department

Responsible Dept./Person Name

See Attached Outline

Specify Measurable Goal

1K

BMP ID #

Stormwater Info on Town Website

Specify Best Management Practice

Water Department

Responsible Dept./Person Name

See Attached Outline

Specify Measurable Goal



Massachusetts Department of Environmental Protection
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BRP WM 08A NPDES Stormwater General Permit
Notice of Intent for Discharges from Small Municipal Separate
Storm Sewer Systems (MS4s)

Facility ID (if known)

D. Stormwater Management Program Summary (Cont.)

2. Public Participation:

2A

BMP ID #

Stormwater Traveling Display
Specify Best Management Practice

SuAsCo & Water Department
Responsible Dept./Person Name

See Attached Outline
Specify Measurable Goal

2B

BMP ID #

Poster Contest for Fifth Graders
Specify Best Management Practice

SuAsCo & Water Department
Responsible Dept./Person Name

See Attached Outline
Specify Measurable Goal

2C

BMP ID #

Photo Contest for High Schoolers
Specify Best Management Practice

SuAsCo & Water Department
Responsible Dept./Person Name

See Attached Outline
Specify Measurable Goal

2D

BMP ID #

Stormwater Summit Event
Specify Best Management Practice

SuAsCo & Water Department
Responsible Dept./Person Name

See Attached Outline
Specify Measurable Goal

2E

BMP ID #

Stormwater Super Summit Event
Specify Best Management Practice

SuAsCo & Water Department
Responsible Dept./Person Name

See Attached Outline
Specify Measurable Goal

2F

BMP ID #

Annual Stormwater Public Hearing
Specify Best Management Practice

Highway Dept. & Board of Selectmen
Responsible Dept./Person Name

See Attached Outline
Specify Measurable Goal

2G

BMP ID #

Involve Local Watershed Groups
Specify Best Management Practice

Water Department
Responsible Dept./Person Name

See Attached Outline
Specify Measurable Goal

2H

BMP ID #

Involve Local Children's Groups
Specify Best Management Practice

Water Department
Responsible Dept./Person Name

See Attached Outline
Specify Measurable Goal

BMP ID #

Specify Best Management Practice

Responsible Dept./Person Name

Specify Measurable Goal

BMP ID #

Specify Best Management Practice

Responsible Dept./Person Name

Specify Measurable Goal

BMP ID #

Specify Best Management Practice

Responsible Dept./Person Name

Specify Measurable Goal



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Watershed Management

W035458

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BRP WM 08A NPDES Stormwater General Permit

Notice of Intent for Discharges from Small Municipal Separate
Storm Sewer Systems (MS4s)

Facility ID (if known)

D. Stormwater Management Program Summary (Cont.)

3. Illicit Discharge Detection and Elimination:

3A

BMP ID #

Illicit Discharge Bylaw

Specify Best Management Practice

Highway Department

Responsible Dept./Person Name

See Attached Outline

Specify Measurable Goal

3B

BMP ID #

Storm Sewer Map

Specify Best Management Practice

Highway Department

Responsible Dept./Person Name

See Attached Outline

Specify Measurable Goal

3C

BMP ID #

Detection & Elimination Plan

Specify Best Management Practice

Highway Department

Responsible Dept./Person Name

See Attached Outline

Specify Measurable Goal

3D

BMP ID #

Education for Public & Businesses

Specify Best Management Practice

Water Department

Responsible Dept./Person Name

See Attached Outline

Specify Measurable Goal

3E

BMP ID #

Education for Municipal Employees

Specify Best Management Practice

Water Department

Responsible Dept./Person Name

See Attached Outline

Specify Measurable Goal

4. Construction Site Runoff Control:

4A

BMP ID #

Construction Site Runoff Bylaw

Specify Best Management Practice

Water & Planning Departments

Responsible Dept./Person Name

See Attached Outline

Specify Measurable Goal

4B

BMP ID #

Erosion, Sediment, & Waste Controls

Specify Best Management Practice

Water & Planning Departments

Responsible Dept./Person Name

See Attached Outline

Specify Measurable Goal

4C

BMP ID #

Site Plan Review Procedures

Specify Best Management Practice

Water & Planning Departments

Responsible Dept./Person Name

See Attached Outline

Specify Measurable Goal

4D

BMP ID #

Site Inspection & Enforcement

Specify Best Management Practice

Water & Planning Departments

Responsible Dept./Person Name

See Attached Outline

Specify Measurable Goal

4E

BMP ID #

Stormwater Hotline

Specify Best Management Practice

Water Department

Responsible Dept./Person Name

See Attached Outline

Specify Measurable Goal



Massachusetts Department of Environmental Protection
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BRP WM 08A NPDES Stormwater General Permit

Notice of Intent for Discharges from Small Municipal Separate
Storm Sewer Systems (MS4s)

Facility ID (if known)

D. Stormwater Management Program Summary (Cont.)

5. Post Construction Runoff Control:

5A

BMP ID #

Post-Construction Site Runoff Bylaw
Specify Best Management Practice

Water & Planning Departments
Responsible Dept./Person Name

See Attached Outline
Specify Measurable Goal

5B

BMP ID #

Structural & Non-Structural BMPs
Specify Best Management Practice

Water & Planning Departments
Responsible Dept./Person Name

See Attached Outline
Specify Measurable Goal

5C

BMP ID #

Long-Term Operation & Maintenance
Specify Best Management Practice

Water & Planning Departments
Responsible Dept./Person Name

See Attached Outline
Specify Measurable Goal

5D

BMP ID #

Struct BMP Implement. Procedures
Specify Best Management Practice

Water & Planning Departments
Responsible Dept./Person Name

See Attached Outline
Specify Measurable Goal

BMP ID #

Specify Best Management Practice

Responsible Dept./Person Name

Specify Measurable Goal

6. Municipal Good Housekeeping:

6A

BMP ID #

Municipal Employee Training
Specify Best Management Practice

Highway & Water Departments
Responsible Dept./Person Name

See Attached Outline
Specify Measurable Goal

6B

BMP ID #

Maintenance & Inspection Procedures
Specify Best Management Practice

Highway Department
Responsible Dept./Person Name

See Attached Outline
Specify Measurable Goal

6C

BMP ID #

Municipal Pollutant Source Reduction
Specify Best Management Practice

Highway Department
Responsible Dept./Person Name

See Attached Outline
Specify Measurable Goal

6D

BMP ID #

Waste Disposal Procedures
Specify Best Management Practice

Highway Department
Responsible Dept./Person Name

See Attached Outline
Specify Measurable Goal

BMP ID #

Specify Best Management Practice

Responsible Dept./Person Name

Specify Measurable Goal



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Watershed Management

BRP WM 08A NPDES Stormwater General Permit
Notice of Intent for Discharges from Small Municipal Separate
Storm Sewer Systems (MS4s)

W035458

Transmittal Number

Facility ID (if known)

D. Stormwater Management Program Summary (cont.)

7. BMPs for Meeting TMDL:

BMP ID #

Specify Best Management Practice

Responsible Dept./Person Name

Specify Measurable Goal

BMP ID #

Specify Best Management Practice

Responsible Dept./Person Name

Specify Measurable Goal

BMP ID #

Specify Best Management Practice

Responsible Dept./Person Name

Specify Measurable Goal

BMP ID #

Specify Best Management Practice

Responsible Dept./Person Name

Specify Measurable Goal

BMP ID #

Specify Best Management Practice

Responsible Dept./Person Name

Specify Measurable Goal

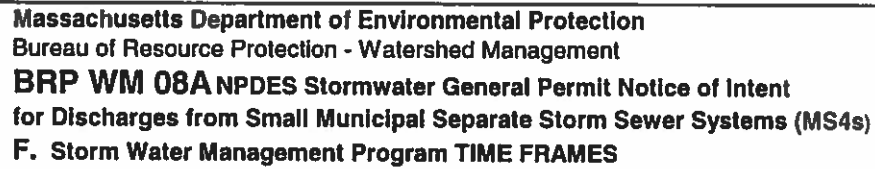
E. Certification

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, I certify that 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.

Printed Name

Signature

Date



Transmitted Number	Littleton, MA W035458	
Facility ID (if known)		
Page 1 of 1		

[illegible]

Appendix D: SuAsCo Watershed Community Council Final Report

SuAsCo Storm Water Phase II Community Assistance Program

5-Year Storm Water Management Program Plan

January 31, 2003

SuAsCo Storm Water Phase II Community Assistance Program Description

The SuAsCo Watershed Community Council (WCC) has developed the "SuAsCo Storm Water Phase II Community Assistance Program (SuAsCo Storm Water CAP)" to aid municipalities in their compliance with two of the six storm water control measures, specifically minimum control measure #1: "Public Education & Outreach" and minimum control measure #2: "Public Involvement & Participation". The SuAsCo WCC is providing contracted communities with a 5-year storm water management program plan for the public education & outreach and public involvement & participation control measures, as well as assistance with the Notice of Intent language on this portion of their permit. Municipalities annually contracting with the SuAsCo WCC's storm water service will receive yearly education & outreach and involvement & participation materials to implement in their community.

The SuAsCo Storm Water CAP provides a uniform and consistent approach to storm water education from a watershed perspective. Because municipal boundaries do not align with watershed boundaries, the materials created in this program will recognize that a municipality may be in more than one watershed. The SuAsCo Storm Water CAP materials and activities can be applied in all watersheds.

The SuAsCo Storm Water CAP materials developed under this Program will feature a unique "storm water logo" that will help the public to identify with the concept of storm water. The storm water logo will be simple and uniquely identifiable, instituting an effect of concept recognition similar to the well-known three-arrowed recycle logo.

The five years of education & outreach and involvement & participation materials and activities developed under this Program are intended to build upon themselves, instilling in the community a momentum of increased understanding and recognition of storm water issues. Although created for a particular permit year, these materials and activities may be used over and over again as appropriate.

A team of diverse watershed professionals including consultants, municipal officials, state agency staff, teachers, and interested citizens are creating the SuAsCo Storm Water CAP education & outreach and involvement & participation materials and activities. The watershed citizenry will benefit from the breadth and excellence of the program materials and the uniformity of the storm water education message. In turn, this greater awareness and involvement by the populace will lead to changes in behavior and decision-making that will translate into improved water quality.

Responsible Party: SuAsCo Watershed Community Council Description

The SuAsCo Watershed Community Council (WCC) is a unique non-profit corporation. It brings diverse interest groups together – **businesses, municipal officials, environmental organizations, and state and federal government** - to collaborate on environmental issues in the Sudbury-Assabet-Concord River (SuAsCo) Watershed. The SuAsCo WCC is modeled after the philosophy of the Massachusetts Watershed Initiative. The Council concept is viewed by the Commonwealth and the nation as a model for how to identify, prioritize, and implement solutions to watershed issues through collaboration.

The SuAsCo WCC is organized into a Steering Committee, Executive Committee and Task Forces. The **Steering Committee** provides a policy voice for the watershed. The Steering Committee representatives are nominated to ensure a balanced representation of the four interest groups: business and industry; municipal government; environmental organizations; and state, federal, regional government and the Legislature. A balanced subset of the Steering Committee is elected to serve on the **Executive Committee** (Board of Directors) to manage the administrative affairs of the SuAsCo WCC. The **Task Forces** are composed of Steering Committee members and other volunteers for the purpose of carrying out specific action plans on key issues in the watershed. To date, the SuAsCo WCC has sponsored four Task Forces: Water Quality and Quantity; Biodiversity; Land Use and Open Space; and Outreach and Education. The Water Quality and Quantity Task Force is the team working on the SuAsCo Storm Water CAP.

The Annual SuAsCo River Visions Forum will be used as a venue for furthering storm water education & outreach and involvement & participation. The Forum is typically held between March and May on either a Saturday or a weekday evening at a location within the SuAsCo Watershed. The River Visions Forum attracts a large and diverse audience and receives considerable media attention. The Forum agenda typically includes a keynote speaker, workshops on a variety of topics, a "state-of-the-watershed" panel, an awards presentation, and exhibitor tables.

Mission Statement of the SuAsCo WCC

The mission of the SuAsCo WCC is "to build a community-based alliance that promotes the sustainable economic and environmental well-being of the SuAsCo Watershed. The alliance is working together to:

- protect the natural resources of the SuAsCo Watershed,
- restore water quality and flow,
- coordinate land use and water resource planning across community boundaries,
- encourage stewardship of the recreational and historic character of the watershed,
- foster cooperation among divergent interest groups,
- promote education on watershed challenges, assets, and opportunities, and
- channel financial and technical assistance to creatively solve identified problems."

SuAsCo WCC Contact Information:

Address: Suite 500

2 Clock Tower Place

Maynard, MA 01754

Phone: 978-461-0735

Fax: 978-461-0322

E-mail: suasco@compuserve.com

Website: www.suasco.org

Contact person: Nancy A. Bryant, Executive Director

Permit Year # 1: March 2003-March 2004

Control Measure # 1: Public Education and Outreach

Best Management Practice: Send out Storm Water Flyer to Community Residents

BMP Description: A storm water flyer will be sent to residents in the community during year #1. The flyer will cover topics such as pesticide and herbicide use in lawns and gardens, water conservation practices, pet waste management, trash management, car washing, and proper disposal of household hazardous wastes including motor oil. In a user-friendly and appealing manner, the flyer will explain what storm water is and will frame storm water concerns from a watershed perspective. The flyer is meant to be both an educational and motivational tool, increasing public awareness of storm water and empowering citizens regarding their influence on storm water quality and flow.

The flyer will include a storm water awareness survey that citizens can tear-off and submit to the municipality for compilation. The tear-off survey can be returned at the storm water display (see Permit Year #1, Control Measure #2), through the mail to a storm water municipal official, or by some other means. The purpose of the survey is to establish a baseline on general awareness of storm water issues in the municipality.

Primary Audience: homeowners and general public

Measurable Goal:

- ✓ flyer distributed to a minimum of 75% of residents
- ✓ compiled and considered municipal and multi-watershed-wide "survey" results

Responsible Parties: SuAsCo Watershed Community Council (WCC), municipality

Implementation Strategies: The SuAsCo WCC will create the text and layout of the flyer. The SuAsCo WCC will provide a master hard copy and an electronic copy of the flyer to the municipality. The SuAsCo WCC will also post a generic version of the flyer on its website.

The municipality will duplicate the flyer and distribute the flyer to residents. Implementation strategies for distribution of the flyer include sending it as a water or utility bill insert, sending it with property tax bills, sending it home via school children, posting flyers in strategic places around the community, or by some other means.

Timeline: The flyer will be distributed in the Fall of 2003. Survey results will be compiled by February of 2004.

Annual Evaluation: The SuAsCo WCC will provide a master tabulation form to the municipality for compiling the results of returned flyer surveys. The municipality will compile survey results on the tabulation form and provide the completed tabulation form to the SuAsCo WCC. The SuAsCo WCC will compile the survey results from all of the municipalities into a multi-watershed-wide survey summary that it will provide to the municipality. The municipality may use these survey results as a baseline from which to gauge the effectiveness of its storm water education and participation program.

The SuAsCo WCC will prepare an annual summary on the education and outreach BMP for permit year #1, the storm water flyer for community residents. The municipality will revise this summary to reflect its community-specific experience with the storm water flyer for residents.

Permit Year # 1: March 2003-March 2004

Control Measure # 2: Public Involvement and Participation

Best Management Practice: Circulate Storm Water Traveling Display in Community

BMP Description: The Storm Water Traveling Display is a portable folding display board that can be located at various locations in the community, such as the municipal building, public library, schools, post office, and at community events. The display will have a professional, attractive appearance that is eye-catching and appealing. The display can be conveniently placed on a table in a visible and central location frequented by the general public. Extra storm water flyers will be posted with the display along with a collection box for the citizen storm water survey.

Similar to the flyer, the display will explain what storm water is and will frame storm water concerns from a watershed perspective. The display will present practical ideas for how citizens can manage housekeeping practices so as to have a positive impact on storm water. Such practices may include pesticide and herbicide use on lawns and gardens, water conservation, pet waste management, trash management, car washing, and proper disposal of household hazardous wastes including motor oil. The display is meant to be both an educational and motivational tool, increasing public awareness of storm water and empowering citizens regarding their influence on storm water quality and flow.

Primary Audience: homeowners and general public

Measurable Goals:

- ✓ storm water display circulates around the community for a minimum of 3 months in permit year #1
- ✓ storm water display is posted at a minimum of 3 different public locations in the community in permit year #1
- ✓ storm water display is also used in future permit years for posting in public places or at storm water events

Responsible Parties: SuAsCo Watershed Community Council (WCC), municipality

Implementation Strategies: The SuAsCo WCC will create the text and layout of the storm water traveling display. The SuAsCo WCC will provide one completely prepared folding display board to the municipality in the Fall of 2003.

The municipality will comply with the state public notice requirements at MGL Chapter 39 Section 23B in implementing this BMP. The municipality will identify and arrange for display locations, such as the municipal building, public library, schools, post office and specific community events. The municipality will rotate the display around the community by transporting it and posting it in these identified public places. Periodically, the municipality will check the display integrity, replenish the flyers, and collect the surveys.
Timeline: The storm water traveling display will be exhibited during the period from the Fall of 2003 through March of 2004.

Annual Evaluation: The SuAsCo WCC will prepare an annual summary on the involvement and participation BMP for permit year #1, the storm water traveling display. The municipality will revise this summary to reflect their community-specific experience with the storm water traveling display.

Permit Year # 2: March 2004-March 2005

Control Measure # 1: Public Education and Outreach

Best Management Practice: Teach Storm Water Lesson Plan to 5th Grade Students

BMP Description: The lesson plan for the fifth grade level will be straightforward, self-explanatory and easy to teach. It will be a stand-alone lesson plan that can be readily fit into the curriculum. The lesson plan will consist of a few simple teaching exercises and worksheets. The lesson plan will cover: what is a watershed (including a map), what is storm water, why storm water is a concern, what students can do to lessen their impacts on storm water, and a reminder of the poster contest (see Permit Year #2, Control Measure #2).

Primary Audience: fifth grade school students and the general public

Measurable Goals:

- ✓ develop and distribute lesson plan to implement at the Grade 5 level
- ✓ lesson plan is taught in one or more Grade 5 classrooms in the community

Responsible Parties: SuAsCo Watershed Community Council (WCC), municipality

Implementation Strategies: The SuAsCo WCC will create the text of the lesson plan and accompanying worksheets. The SuAsCo WCC will provide a master copy of the lesson plan and worksheets in hard copy and electronic copy to the municipality.

At River Visions 2004, the SuAsCo WCC will host a workshop for teachers to familiarize them with the storm water lesson plan. Attendance at the workshop will be optional as it will enhance but not be necessary to the effective instruction of the lesson plan.

The municipality will duplicate and distribute the lesson plan packets to the fifth grade teachers, recommending implementation.

Teachers may elect to combine the lesson plan with similar subject matter, such as activities from Project WET or Project WILD. Teachers may also expand on the lesson plan by combining it with field trips, or by inviting appropriate speakers such as from a state agency, from the municipality or from a local Stream Team. Teachers will encourage students to participate in the storm water poster contest.

Timeline: The lesson plan will be provided to the municipality in the spring of 2004. The lesson plan will be taught in the Fall of 2004.

Annual Evaluation: The SuAsCo WCC will prepare an annual summary on the education and outreach BMP for permit year #2, the storm water lesson plan. The municipality will revise this summary to reflect their community-specific experience with the storm water lesson plan.

Permit Year # 2: March 2004-March 2005

Control Measure # 2: Public Involvement and Participation

Best Management Practice: Hold a Storm Water Poster Contest for 5th Grade Students

BMP Description: The Storm Water Poster Contest will engage fifth grade students in understanding storm water and creatively depicting their knowledge through a poster medium. The general public will also be involved in the poster contest through parent interaction with the students, the creation of a panel of judges, and display of the posters in public locations.

Primary Audience: fifth grade school students and the general public

Measurable Goals:

- ✓ poster contest is held and entries are received, judged and displayed

Responsible Parties: SuAsCo Watershed Community Council (WCC), municipality

Implementation Strategies: The SuAsCo WCC will create the poster contest rules and will provide the rules in the fifth grade lesson plans. The contest rules also will be posted on the SuAsCo WCC website.

The municipality will comply with the state public notice requirements at MGL Chapter 39 Section 23B in implementing this BMP.

Municipalities are encouraged to offer prizes as an incentive for students to enter the poster contest.

Poster entries will be submitted to the municipality by the end of January. The municipality will nominate a panel of judges for the poster contest. Poster winners will be declared in February. The municipalities may display all poster entries in a variety of locations such as at the schools, public library, or municipal buildings. The first place winner for a municipality will be submitted to the SuAsCo WCC multi-watershed-wide contest.

In an open forum, the SuAsCo WCC will judge from among the municipal winners to determine watershed winners. Note that only entries from municipalities that have subscribed to the SuAsCo storm water program will be accepted into the contest. The watershed winners will be posted on the SuAsCo WCC website. The SuAsCo WCC also will display, and possibly award, the first place municipal winners and watershed winners at the River Visions 2005 Forum.

The SuAsCo WCC and the municipality may use the poster entries for future outreach and education materials and events.

Timeline: The SuAsCo WCC will provide poster contest rules to the municipality by the Fall of 2004. The deadline for receipt of poster entries will be by the end of January of 2005. Poster entries will be displayed and judged in February of 2005. The first place winner in each municipality may be displayed and recognized at the River Visions 2005 Forum.

Annual Evaluation: The SuAsCo WCC will prepare an annual summary on the involvement and participation BMP for permit year #2, the storm water poster contest. The municipality will revise this summary to reflect their community-specific experience with the storm water poster contest.

Permit Year # 3: March 2005-March 2006

Control Measure # 1: Public Education and Outreach

Best Management Practice: Send out Storm Water Flyer to Community Businesses

BMP Description: A storm water flyer will be sent to businesses in the community during permit year #3. The flyer will explain what storm water is and will frame storm water concerns from a watershed perspective. The flyer will discuss potential impacts by businesses on storm water quality and flow. The flyer is meant to be both an educational and motivational tool, increasing awareness of storm water in the business community and challenging businesses to take steps towards storm water quality improvements in their own business practices. The storm water flyer will include a self-test for businesses to grade their own storm water "compliance". Businesses that deem themselves "storm water aware and participatory", i.e. compliant with good storm water practices according to the self-test, will be given a decal sticker of the storm water logo to display in their establishment for the general public to see. Storm water "participatory measures" may include improved housekeeping in parking areas, litter management in loading docks, restaurant installation and maintenance of grease traps, stores carrying and promoting environmentally friendly products, employee training and other similar activities.

Primary audience: businesses and the general public

Measurable Goals:

- ✓ flyer distributed to a minimum of 50% of businesses in municipality such as auto shops and gas stations, commercial and retail operations with parking lots, lawn care companies, restaurants, construction and development companies
- ✓ storm water logo displayed by half of the businesses receiving the flyer

Responsible Parties: SuAsCo Watershed Community Council (WCC), municipality

Implementation Strategies: The SuAsCo WCC will create the text and layout of the flyer. The SuAsCo WCC will provide a master hard copy and an electronic copy of the flyer to the municipality. The SuAsCo WCC will provide a master hard copy and electronic copy of the storm water decal to the municipality for reproduction, or it may provide a set number of already produced decal stickers to the municipality.

The municipality will duplicate and distribute the flyer to pre-selected or to all businesses in the community, depending on the means of distribution chosen. Implementation strategies for distribution of the flyer include sending it as a water or utility bill insert, sending it with commercial property tax bills, or distributing it through the local Chamber of Commerce.

The municipality will duplicate as necessary and distribute the decal to businesses. The decal may be mailed directly with the flyer or it may be distributed in response to a business' completion and submission of the flyer self test.

The municipality may organize a junior achievement group, student honor society, scouts troop, or senior citizen organization to follow up with businesses to assess their storm water compliance and confirm that they are displaying their storm water decal.

Timeline: The flyer will be distributed in the Fall of 2005. The percentage of businesses displaying decals will be assessed by February of 2006.

Annual Evaluation: The SuAsCo WCC will prepare an annual summary on the education and outreach BMP for permit year #3, the storm water flyer for community businesses. The municipality will revise this summary to reflect their community-specific experience with the storm water flyer for businesses.

Permit Year # 3: March 2005-March 2006

Control Measure # 2: Public Involvement and Participation

Best Management Practice: Hold Storm Water Photo Contest for High School Students

BMP Description: The Storm Water Photo Contest will engage high school students in understanding storm water, its effect on water quality, and good storm water management strategies. The photo contest will challenge high school students to creatively depict their knowledge through a photographic medium. The general public will also be involved in the photo contest through parent interaction with the students, the creation of a panel of judges, and display of the photographs in a public location.

Primary audience: high school students and the general public

Measurable Goals:

- ✓ photo contest is held and entries are received, judged and displayed

Responsible Parties: SuAsCo Watershed Community Council (WCC), municipality

Implementation Strategies: The SuAsCo WCC will create the photography contest rules and will provide the rules to the municipality. The contest rules will also be posted on the SuAsCo WCC Website.

The municipality will comply with the state public notice requirements at MGL Chapter 39 Section 23B in implementing this BMP. The municipality will pass the photography contest rules along to the high school and when applicable, to the high school cable studio.

Municipalities are encouraged to offer prizes as an incentive for students to enter the photo contest.

Photo contest entries will be submitted to the municipality by the end of January. The municipality will nominate a panel of judges for the photo contest. It is recommended that judges be selected from the businesses displaying their storm water decal. Photo winners will be declared in February. The municipalities may display all photo entries in a variety of locations such as at the high school, public library, or municipal buildings. The first place winner for a municipality will be submitted to the SuAsCo WCC multi-watershed-wide contest.

In an open forum, the SuAsCo WCC will judge from among the municipal winners to determine watershed winners. Note that only entries from municipalities that have subscribed to the SuAsCo storm water program will be accepted into the contest. The watershed winners will be posted on the SuAsCo WCC website. The SuAsCo WCC will display, and possibly award, the first place municipal winners and watershed winners at the River Visions 2006 Forum.

The SuAsCo WCC and the municipality may use the photo entries for future outreach and education materials and events.

Timeline: The SuAsCo WCC will provide photography contest rules to the municipality by the Fall of 2005. The deadline for receipt of photo entries will be by the end of January of 2006. Photo entries will be displayed and judged in February of 2006. The first place winner in each municipality may be displayed and recognized at the River Visions 2006 Forum.

Annual Evaluation: The SuAsCo WCC will prepare an annual summary on the involvement and participation BMP for permit year #3, the storm water photo contest. The municipality will revise this summary to reflect their community-specific experience with the storm water photo contest.

Permit Year # 4: March 2006-March 2007

Control Measure # 1: Public Education and Outreach

Best Management Practice: Hold a Storm Water Media Campaign

BMP Description: The Storm Water Media Campaign will engage local news media (newspapers, radio stations, and cable stations) in raising public awareness about storm water. Media information packets and periodic press releases will be developed for use in the "campaign". The media information packet will explain general storm water issues and impacts, the NPDES Storm Water Phase II program, and the municipality's and the SuAsCo WCC's role in storm water management. The packet will also include examples of storm water program activities. The press releases will cover such topics as what is storm water, the municipality's 5-year storm water management program, the SuAsCo WCC's storm water education and involvement program, how the general public can help improve storm water quality and prevent polluted runoff, ongoing community and collaborative efforts to manage storm water, and the Storm Water Summit (see Permit Year #4, Control Measure #2).

Primary audience: general public

Measurable Goals:

- ✓ media information packet delivered to the local media
- ✓ 4 press releases generated and issued to local media and major media outlets

Responsible Parties: SuAsCo Watershed Community Council (WCC), municipality

Implementation Strategies: The SuAsCo WCC will develop media kits and periodic storm water press releases. The SuAsCo WCC will provide the media kit and press releases to the municipality in hard copy and electronic copy.

The storm water contact in the municipality may edit the media information packet and storm water press releases as appropriate to include community-specific information and to include community contact names and phone numbers. The municipal storm water contact will forward the media information packet and completed press releases to the local press, availing of potential opportunities for more in-depth interviews by reporters. The municipal storm water contact will invite local officials, legislators, local reporters, radio announcers, and community access cable station managers to attend the Storm Water Summit (see Permit Year # 4, Control Measure # 2).

The SuAsCo WCC will also issue the storm water press releases to major newspapers, and will post the storm water press releases on the SuAsCo WCC website. A calendar of events and other information about storm water management will also be posted on the SuAsCo WCC website and will be updated regularly.

Timeline: The media information packet will be provided to the municipality in the spring or summer of 2006. Storm water press releases will be generated and issued to the media on approximately a quarterly basis through March of 2007.

Annual Evaluation: The SuAsCo WCC will prepare an annual summary on the education and outreach BMP for permit year #4, the storm water media campaign. The municipality will revise this summary to reflect their community-specific experience with the storm water media campaign.

Permit Year # 4: March 2006-March 2007

Control Measure # 2: Public Involvement and Participation

Best Management Practice: Hold a Local Storm Water Summit

BMP Description: A "Storm Water Summit" will be held as a special event for the general public (residents and community businesses) to learn about and discuss storm water concerns. The Storm Water Summit will show case the municipality's storm water program and progress. The agenda will include guest speakers on topics such as the municipality's storm water program and good housekeeping practices that citizens and businesses can employ to reduce the pollutants in and volume of storm water. The summit may also be used as a forum to seek input on new or proposed bylaws that address pre- and post-construction site runoff. The summit will also provide citizens with an opportunity to raise concerns about storm water situations in their own neighborhoods.

The Storm Water Summit will run from two to three hours in duration as an early evening program, and may include refreshments, displays, videos, speakers, and demonstrations for the general public. The summit will actively involve residents and businesses in their municipal storm water program, giving them ideas that they can implement and soliciting their feedback on the municipal program. The poster contest and photo contest entries, as well as the traveling display, may be exhibited at the summit to help foster a sense of citizen ownership and community pride in the storm water program.

Primary Audience: general public

Measurable Goals:

- ✓ hold local or multi-community Storm Water Summit
- ✓ advertise to encourage Storm Water Summit community attendance

Responsible Parties: SuAsCo Watershed Community Council (WCC), municipality

Implementation Strategies: The SuAsCo WCC will provide guidelines to the municipality for organizing the Storm Water Summit. The guidelines will address a recommended agenda, venue and guest speakers for the summit. The SuAsCo WCC will provide a speaker for the event. The SuAsCo WCC will assist with advertising the event by posting the summit in the SuAsCo e-mail calendar and on the SuAsCo WCC website.

The municipality will comply with the state public notice requirements at MGL Chapter 39 Section 23B in implementing this BMP. The municipality will plan and coordinate the summit logistics, establishing a date and location for the event, and lining up guest speakers and facilitators. The municipality will advertise the summit by issuing a public announcement and a press release. The municipality will invite the media to attend the event in order to generate follow-up coverage for a broader audience. Municipal officials in charge of the storm water program will attend and facilitate the event.

Municipalities are encouraged to collaborate with one another on hosting a multi-community storm water summit where feasible. Neighboring communities that share the same tributary or river segment within the watershed may find it practical to pool their resources in hosting one event together. A multi-community summit also has the advantage of creating a forum where communities can learn from one another.

Timeline: The local or multi-community Storm Water Summit will be held between September of 2006 and February of 2007.

Annual Evaluation: The SuAsCo WCC will prepare an annual summary on the involvement and participation BMP for permit year #4, the local or multi-community storm water summit. The municipality will revise this summary to reflect their community-specific experience with the storm water summit.

Permit Year # 5: March 2007-March 2008

Control Measure # 1: Public Education and Outreach

Best Management Practice: Show a Storm Water Video on Local Cable Stations and at Local Meetings

BMP Description: A high-quality video about storm water will be shown to the general public at local meetings and through local cable stations. In a user-friendly and engaging manner, the video will explain what storm water is and will address how citizens can help improve storm water quality and flow.

Primary audience: general public

Measurable Goals:

- ✓ show storm water video at a minimum of one public meeting
- ✓ air storm water video at least once on local cable station

Responsible Parties: SuAsCo Watershed Community Council (WCC), municipality

Implementation Strategies: The SuAsCo WCC will either create a storm water video, perhaps in collaboration with other entities such as high schools or other organizations, or the SuAsCo WCC will obtain a video from another source that it may distribute freely. The SuAsCo WCC will provide one master copy of the video to the municipality and one master copy to the local cable stations.

The municipality will feature the storm water video at selected events and meetings as appropriate. The municipality may also elect to share the video with local civic groups such as Rotary Clubs, potentially sending a municipal staff person to accompany the video as a guest speaker. The municipality will contact the local cable station to offer interview opportunities and local information that the cable station may use to enhance their airing of the video as a public education piece.

Timeline: The SuAsCo WCC will provide the storm water video to the municipality and the local cable station in the Spring of 2007. The video will be aired as feasible throughout the permit year both at municipal public meetings and on the local cable station.

Annual Evaluation: The SuAsCo WCC will prepare an annual summary on the education and outreach BMP for permit year #5, the storm water video. The municipality will revise this summary to reflect their community-specific experience with the storm water video.

Permit Year # 5: March 2007-March 2008

Control Measure # 2: Public Involvement and Participation

Best Management Practice: Participate in the SuAsCo Storm Water Super Summit and Conduct an Evaluation and Assessment of Public Awareness of Storm Water

BMP Description: The SuAsCo “Watershed-Wide Super Summit” will be held as part of the River Visions 2007 Forum. It will include speakers from agencies, businesses, and municipalities, providing a unique opportunity for communities to share information and exchange experiences about their storm water programs.

The Evaluation and Assessment will provide municipal citizens with a storm water “self-test” through which they can “grade” their own storm water knowledge. The purpose of the self-test will be to see how widely received the storm water program activities have been over the past four years and to gauge the public’s familiarity with storm water concepts.

Primary audience: general public

Measurable Goals:

- ✓ municipal participation in the Storm Water Super Summit
- ✓ Storm Water Self Test distributed to a minimum of 75% of residents
- ✓ compiled and considered municipal and multi-watershed-wide “self test” results

Responsible Parties: SuAsCo Watershed Community Council (WCC), municipality

Implementation Strategies:

The SuAsCo WCC will coordinate and host a “Storm Water Super Summit” as part of the River Visions 2007 program. At the Super Summit, municipalities will share their communities’ successes, goals, lessons learned, and measurable results. The Super Summit provides a unique opportunity for communities to share information and exchange experiences about their storm water programs. Speakers from agencies and organizations will also provide updates on the Phase II storm water program and the outlook for the next 5-year permit period. The SuAsCo WCC will issue two press releases before and after the River Visions 2007 Forum that will highlight the Storm Water Super Summit.

The municipality will comply with the state public notice requirements at MGL Chapter 39 Section 23B in implementing this BMP. The municipality will advertise the Storm Water Super Summit by issuing public notices, posting flyers in public locations, or by some other means. The municipality will send public officials to the Super Summit.

The SuAsCo WCC will create the text of the “self test” which may also list helpful resources. The SuAsCo WCC will provide a master hard copy and electronic copy of the self-test to the municipality.

The municipality will duplicate and distribute the “self test”. Implementation strategies for distribution of the “self test” include sending it as a water or utility bill insert, sending it with property tax bills, sending it home via school children, posting it in strategic places around the community, giving out the self-test at public meetings such as an annual town meeting, posting it on the municipal website, airing it on local cable following the storm water video, or by some other means. Implementation strategies for collection of the “self test” include posting collection boxes in public places, combining it with a redeemable coupon to encourage return, returning it at hazardous waste collection days, or by some other means. Communities may want to offer an incentive or prize to encourage residents to return the “self test”.

Timeline: The Storm Water Super Summit will be held in the spring of 2007. "Self tests" will be available throughout the permit year. "Self test" results will be compiled by the end of February of 2008.

Annual Evaluation: The SuAsCo WCC will provide a master tabulation form to the municipality for compiling the results of returned "self tests". The municipality will compile the "self test" results on the tabulation form and provide the completed tabulation form to the SuAsCo WCC. The SuAsCo WCC will compile the "self test" results from all of the municipalities into a multi-watershed-wide assessment of program outreach success. The SuAsCo WCC will provide the multi-watershed-wide assessment to the municipality.

The municipality may compare the self test results against the year # 1 survey results to gauge the effectiveness of its storm water education and participation program. The municipal and multi-watershed-wide "self test" results will be an important tool in evaluating the success of the 5-year program and designing the next 5-year program plan.

The SuAsCo WCC will prepare an annual summary on the involvement and participation BMP for permit year #5, the storm water evaluation and assessment and the Super Summit. The municipality will revise this summary to reflect their community-specific experience with the storm water evaluation and assessment and the Super Summit.



Appendix E: Storm Sewer Progress Map