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# Section A

**Date Prepared: 03/21/2005**

For questions regarding this report contact:  
Kurt A. Weiss, P.E.  
909 Foxon Road P.O. Box 287  
North Branford, CT 06471

### Stormwater Program Permit Information

<b>1. Permitting Authority:</b> Connecticut Department of Environmental Protection	
<b>2. Permit Number:</b> 1	<b>3. Permit Type:</b> Not Applicable
<b>4. Permit Name:</b> Town of North Branford	
<b>5. Date Issue:</b> 06/03/2004	<b>6. Date Expire:</b> 06/04/2004

### General Information for MS4 Operator

<b>1. Operator Name:</b>	Karl F. Kilduff		
<b>2. Operator Title:</b>	Town Manager		
<b>3. Represented Entity:</b>	Town of North Branford		
<b>4. Mailing Address:</b>	909 Foxon Road P.O. Box 287		
<b>5. Mail City, State, Zip:</b>	North Branford, CT 06471		
<b>6. Phone Number:</b>	(203) 484-6000		
<b>7. E-Mail Address:</b>	townmanager@townofnorthbranfordct.com		
<b>8. Co-Permitting With:</b>			
<b>9. Population:</b> 14,000	<b>Households:</b> 4,000	<b>Area (sq mi):</b> 27	
<b>10. Official Website:</b>	www.townofnorthbranfordct.com		

### General Information for Primary Contact Person

<b>1. Name:</b>	Kurt A. Weiss, P.E.
<b>2. Title:</b>	Town Engineer
<b>3. Phone Number</b>	(203) 484-6009
<b>4. E-Mail Address:</b>	townengineer@townofnorthbranfordct.com

### General Information for Secondary Contact Person

<b>1. Name:</b>	Fran Merola
<b>2. Title:</b>	Director of Public Works
<b>3. Phone Number</b>	(203) 484-6060
<b>4. E-Mail Address:</b>	

## General Information for Receiving Waters

**Receiving Water Lists:** Listed below are all the identified receiving waterbodies to which identified outfalls discharge.

Receiving Streams (creek, stream, river, etc.)	Receiving Waterbodies (lake, wetland, ocean, etc.)	Receiving Watersheds
		Coginchaug River- Drainage Basin #4607 West River-Draainage basin #5110 Branford River -Drainage basin #5111 Farm River -Drainage Basin #5112 Muddy River -Drainage Basin #5208

## **Section B**

# Plan Contents Summary

The Stormwater Management Plan consists of the following Minimum Control Measures and BMPs:

<b>Minimum Control Measures and BMPs</b>		
<b>Public Participation/Involvement</b>		
Community Clean-ups		
	10/01/2004	07/07/2006
Establish a Citizen panel		
	01/03/2005	07/07/2006
Finalize Citizen Panel Recommendations		
	01/02/2006	01/05/2007
Public Meetings - Print Media		
	08/02/2004	10/06/2006
<b>Public Education and Outreach</b>		
Develop educational resources		
	09/05/2004	09/05/2007
Expand educational resources		
	01/02/2006	12/30/2007
HazWaste Central		
	01/01/2004	12/30/2004
Storm Drain Stenciling		
	09/05/2004	01/01/2007
<b>Illicit Discharge Detection and Elimination</b>		
Continuation of Detection and Elimination Efforts		
	01/01/2008	06/05/2004
Detection and Elimination		
	10/02/2006	10/05/2007
Initial Identification of Illicit Discharge Sources		
	10/04/2004	06/05/2004
Sewer System Map		
	07/01/2004	01/02/2009
Stormwater Ordinance		
	06/04/2007	06/05/2008
Train Employees		
	07/01/2005	07/01/2006
<b>Pollution Prevention/Good Housekeeping</b>		
Develop Pollution Prevention Plan		
	06/04/2004	07/02/2006
Employee Training Materials		
	07/01/2004	07/01/2005
Incorporation of BMPs in Master Plan		
	07/01/2005	07/02/2007

Information Management System		
	07/01/2004	07/03/2006
Maintenance Program Effectiveness		
	07/02/2007	01/01/2009
Maintenance Schedule		
	07/01/2005	07/02/2007
Train Employees		
	07/01/2005	07/02/2007
<b>Construction Site Runoff Control</b>		
Begin Inspection Program		
	01/02/2006	07/02/2007
Information Management System in Place		
	07/01/2005	07/02/2007
Maximum Compliance		
	01/02/2006	01/01/2009
Ordinance / Regulatory Mechanism		
	07/01/2004	01/02/2006
Staff Training		
	07/01/2005	07/02/2007
<b>Post-Construction Runoff Control</b>		
Identification of BMPs		
	07/01/2004	07/03/2006
Publication of BMPs		
	07/01/2005	07/03/2007

## **Section C**

# Public Participation/Involvement

## Descriptive Text:

To satisfy this minimum control measure, the Town will:

1. Comply with applicable State and local public notice requirements and Freedom of Information requirements; and
2. Determine the appropriate best management practices (BMPs) and measurable goals for this minimum control measure.

EPA believes that the public can provide valuable input and assistance to a regulated small MS4's municipal storm water management program and, therefore, suggests that the public be given opportunities to play an active role in both the development and implementation of the program. An active and involved community is crucial to the success of a storm water management program because it allows for:

1. Broader public support since citizens who participate in the development and decision making process are partially responsible for the program and, therefore, may be less likely to raise legal challenges to the program and more likely to take an active role in its implementation;
2. Shorter implementation schedules due to fewer obstacles in the form of public and legal challenges and increased sources in the form of citizen volunteers;
3. A broader base of expertise and economic benefits since the community can be a valuable, and free, intellectual resource; and
4. A conduit to other programs as citizens involved in the storm water program development process provide important cross-connections and relationships with other community and government programs. This benefit is particularly valuable when trying to implement a storm water program on a watershed basis, as encouraged by EPA.

## Number of BMPs associated with control measure:

4

## Important Dates:

Earliest Start Date: 08/02/2004

End Date: 01/05/2007

**Details of BMPs and Work Performed for Them**

**Community Clean-ups**

Responsible Party: Karl Kilduff, Town Manager				
Start Date: 10/01/2004		End Date: 07/07/2006		
Permits Years during which activities are scheduled:				
Year 1	Year 2 <b>X</b>	Year 3	Year 4	Year 5
Name of Separate Implementing Entity: Not Applicable				
BMP Description: Using volunteers for water quality monitoring will give citizens first-hand knowledge of the quality of local water bodies and provide a cost-effective means of collecting water quality data.  Involve a certain percentage of the community through this organization to help in community clean-ups.				
Has Goal Been Accomplished: NO				

**Work Performed**

Date: 01/01/2004	Responsible Party: Karl Kilduff, Town Manager
Recycling Days During the year, 206 residents participated in the recycling program which produced the following quantities:  Waste oil 2582 gals  Metals 32.7 tons  Leaves 97.5 tons  Electronics recycling-26 residents participated in a regional collection day.  In 2004, the Town participated in Americal Recycling Day and Connecticut Recycling Day.	
Date: 11/01/2004	Responsible Party: Al Perry, Civil Engineering Technician
Regional Teaming-RWA Discussed the potential for Town residents participating in the RWA's annual stream clean-up project. Agreed to continue discussion with RWA and select potential clean-up locations.	

**Establish a Citizen panel**

Responsible Party: Karl Kilduff, Town Manager				
Start Date: 01/03/2005		End Date: 07/07/2006		
Permits Years during which activities are scheduled:				
Year 1 <b>X</b>	Year 2 <b>X</b>	Year 3	Year 4	Year 5
Name of Separate Implementing Entity: Not Applicable				
BMP Description: Use this panel for citizen discussion of various viewpoints and provide input concerning appropriate storm water management policies and BMPs.  Create a citizen panel that will be used to discuss and come up with plans for different storm water				

issues.	
Has Goal Been Accomplished: NO	
<b>Work Performed</b>	
Date: 11/17/2004	Responsible Party: Kurt Weiss, Town Engineer
Recycling and HazWaste Committee Evaluated the use the Town's existing committee as a vehicle to promote community involvement in the MS4 program. The committee currently acts as liaison with the RWA's HazWaste program and is responsible forTown recycling efforts.	
<b>Finalize Citizen Panel Recommendations</b>	
Responsible Party: Karl Kilduff, Town Manager	
Start Date: 01/02/2006	End Date: 01/05/2007
Permits Years during which activities are scheduled:	
Year 1	Year 2 <b>X</b>
Year 3 <b>X</b>	Year 4
Year 5	
Name of Separate Implementing Entity: Not Applicable	
BMP Description: Use this panel for citizen discussion of various viewpoints and provide input concerning appropriate storm water management policies and BMPs.  Finalize recommendations from citizen panel and publish the results.	
Has Goal Been Accomplished: NO	
<b>Work Performed</b>	

<b>Public Meetings - Print Media</b>	
Responsible Party: Karl Kilduff, Town Manager	
Start Date: 08/02/2004	End Date: 10/06/2006
Permits Years during which activities are scheduled:	
Year 1 <b>X</b>	Year 2 <b>X</b>
Year 3	Year 4
Year 5	
Name of Separate Implementing Entity: Not Applicable	
BMP Description: Notify citizens of public meetings in several different print media.	
Has Goal Been Accomplished: NO	
<b>Work Performed</b>	
Date: 10/04/2004	Responsible Party: Kurt Weiss, Town Engineer
Preliminary Meeting Meeting held in October 2004 with Town department heads from Engineering, Public Works and Planning/Inland Wetlands and the leader of the local Boy Scout Troop to discuss permit requirements and potential projects.  A Town-wide meeting will be scheduled in early-mid 2005 with notifications posted on the Town web site, regional (NH Register) and local (Totoket Times) newspaper.	

## Public Education and Outreach

## Descriptive Text:

To satisfy this minimum control measure, the Town will:

1. Implement a public education program to distribute educational materials to the community, or conduct equivalent outreach activities about the impacts of storm water discharges on local waterbodies and the steps that can be taken to reduce storm water pollution; and
2. Determine the appropriate best management practices (BMPs) and measurable goals for this minimum control measure.

An informed and knowledgeable community is crucial to the success of a storm water management program since it helps to ensure the following:

1. Greater support for the program as the public gains a greater understanding of the reasons why it is necessary and important. Public support is particularly beneficial when operators of small MS4s attempt to institute new funding initiatives for the program or seek volunteers to help implement the program; and
2. Greater compliance with the program as the public becomes aware of the personal responsibilities expected of them and others in the community, including the individual actions they can take to protect or improve the quality of area waters.

## Number of BMPs associated with control measure:

4

## Important Dates:

Earliest Start Date: 01/01/2004

End Date: 12/30/2007

**Details of BMPs and Work Performed for Them**

**Develop educational resources**

Responsible Party: Kurt Weiss, Town Engineer

Start Date: 09/05/2004

End Date: 09/05/2007

Permits Years during which activities are scheduled:

Year 1 **X**      Year 2 **X**      Year 3 **X**      Year 4      Year 5

Name of Separate Implementing Entity:

Not Applicable

BMP Description:

Develop an infra-structure resource to support the public education and outreach program.

Develop brochures to support the Public Meetings - Print Media Goal in the Public Participation and Involvement Minimum Control Measure.

Create a storm water hotline for information and for citizen reports on polluters.

Identify and train volunteer educators to be used for a Public Education Task Force.

Has Goal Been Accomplished: NO

**Work Performed**

Date: 10/11/2004

Responsible Party: Al Perry, Civil Engineering Technician

Brochures

Collected a variety of brochures, fact sheets and pamphlet resources (EPA, DEP, RWA, HazWaste, etc.) and placed in Town Hall and other municipal buildings.

DEP Construction Site poster placed in Building Dept.

6000 recycling flyers delivered with local newspaper.

5 HazWaste ads placed in regional newspaper.

6 recycling ads placed in local newspaper.

25 East Shore Health District brochures distributed in Town Hall.

Erosion control fact sheet developed in 2004 and will be distributed with all building permit applications in 2005.

50 HazWaste brochures distributed.

200 HazWaste pencils distributed.

200 HasWaste magnets distributed.

Date: 12/01/2004

Responsible Party: Al Perry, Civil Engineering Technician

Videos

Evaluated educational videos from the EPA and other environmental agencies. To be made available to the Town's school system and run on the Town's public access television system.

Date: 01/28/2004

Responsible Party: Karl Kilduff, Town Manager

Whitney Water Center-RWA

On an annual basis approximately 300 elementary and junior high school students participate in the

RWA's Whitney Water Center's educational program. Programs attended included the following subject matter:

The Water Cycle  
 Watersheds  
 Habitats of LI Sound  
 Food Chains and Webs of LI Sound  
 Troubled Waters  
 The Problem with Pollution  
 From the Ground Up

**Expand educational resources**

Responsible Party: Kurt Weiss, Town Engineer

Start Date: 01/02/2006      End Date: 12/30/2007

Permits Years during which activities are scheduled:

Year 1	Year 2	Year 3 X	Year 4 X	Year 5
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Name of Separate Implementing Entity:  
 Not Applicable

BMP Description:  
 This goal is for developing infra-structure resource to support your public education and outreach program.

Create an informational web site that describes your city, storm water issues, etc.

Develop a school curricula that can be used to educate students about storm water issues.

Has Goal Been Accomplished: NO

**Work Performed**

Date: 09/01/2004      Responsible Party: Kurt Weiss, Town Engineer

School System  
 Utilize current science programs at the high school, intermediate and elementary school levels to incorporate stormwater management practices in order to increase awareness and knowledge to school aged students. Current programs included the following class work in 2004:

High School: Ecosystems, Water Pollution & Toxic Waste-40 students

Intermediate School: Ecosystems & Environmental Changes-218 students

Elementary School, Grade 4: Ecosystems-200 students  
 Grade 4: Earth Science-200 students

Date: 10/06/2004      Responsible Party: Karl Kilduff, Town Manager

Web Site  
 Posted notice on the Town's web site describing the MS4 permit and the Town's responsibilities for compliance.

Created links to the EPA ,CT DEP and NEMO web sites.

Added link to RWA's HazWaste Central web-page on Town web site.

Future additions to the web site will include the Town of North Branford's Stormwater Management Plan, Zoning Regulations which include updated erosion control requirements, fact sheets, brochures and stormwater ordinances.

**HazWaste Central**

Responsible Party: Carol Zebb, Town Planner

Start Date: 01/01/2004

End Date: 12/30/2004

Permits Years during which activities are scheduled:

Year 1 **X**

Year 2

Year 3

Year 4

Year 5

Name of Separate Implementing Entity:

HazWaste Central

BMP Description:

Encourage Town residents to use of the RWA's HazWaste Central waste collection program.

In 2004, 23 collection dates for Town residents were held.

A total of 241 residents participated.

Has Goal Been Accomplished: YES

**Work Performed****Storm Drain Stenciling**

Responsible Party: Karl Kilduff, Town Manager

Start Date: 09/05/2004

End Date: 01/01/2007

Permits Years during which activities are scheduled:

Year 1 **X**Year 2 **X**Year 3 **X**

Year 4

Year 5

Name of Separate Implementing Entity:

Not Applicable

BMP Description:

Stencil storm drains with messages like "Do Not Dump - Drains to Waterways and Long Island Sound", etc.

Has Goal Been Accomplished: NO

**Work Performed**

Date: 05/10/2004

Responsible Party: Fran Merola, Director of Public Works

Pilot Program

The Public Works Department began a pilot stenciling program with our local boy scout troupe in 2004. 156 out of a total of approximately 3,000 catch basins were stenciled in 2004.

## Illicit Discharge Detection and Elimination

### Descriptive Text:

Recognizing the adverse effects illicit discharges can have on receiving waters, the final rule requires the Town to develop, implement and enforce an illicit discharge detection and elimination program. This program will include the following:

1. A storm sewer system map, showing the location of all outfalls and the names and location of all waters of the Town that receive discharges from those outfalls;
2. Through an ordinance, or other regulatory mechanism, a prohibition (to the extent allowable under

State or local law) on non-storm water discharges into the MS4, and appropriate enforcement procedures and actions;

3. A plan to detect and address non-storm water discharges, including illegal dumping, into the MS4;

4. The education of public employees, businesses, and the general public about the hazards associated with illegal discharges and improper disposal of waste; and

5. The determination of appropriate best management practices (BMPs) and measurable goals for this minimum control measure.

Discharges from MS4s often include wastes and wastewater from non-storm water sources. A study conducted in 1987 in Sacramento, California, found that almost one-half of the water discharged from a local MS4 was not directly attributable to precipitation runoff. A significant portion of these dry weather flows were from illicit and/or inappropriate discharges and connections to the MS4. Illicit discharges enter the system through either direct connections (e.g., wastewater piping either mistakenly or deliberately connected to the storm drains) or indirect connections (e.g., infiltration into the MS4 from cracked sanitary systems, spills collected by drain outlets, or paint or used oil dumped directly into a drain). The result is untreated discharges that contribute high levels of pollutants, including heavy metals, toxics, oil and grease, solvents, nutrients, viruses, and bacteria to receiving waterbodies. Pollutant levels from these illicit discharges have been shown in EPA studies to be high enough to significantly degrade receiving water quality and threaten aquatic, wildlife, and human health.

**Number of BMPs associated with control measure:**

6

**Important Dates:**

Earliest Start Date: 07/01/2004

End Date: 01/02/2009

**Details of BMPs and Work Performed for Them**

**Continuation of Detection and Elimination Efforts**

Responsible Party: Kurt Weiss, Town Engineer				
Start Date: 01/01/2008			End Date: 06/05/2004	
Permits Years during which activities are scheduled:				
Year 1	Year 2	Year 3	Year 4 <b>X</b>	Year 5
Name of Separate Implementing Entity: Not Applicable				
BMP Description: Building on the work begun in the year 3 goal 'Detection and Elimination' efforts will continue so that by years end most illicit discharges will have been detected and eliminated.				
Has Goal Been Accomplished: NO				

**Work Performed**

Date: 01/01/2004	Responsible Party: Kurt Weiss, Town Engineer
RWA & ESHD Partnership Continued existing partnership with the RWA and East Shore Health District to inspect, identify and correct illicit discharges.	

**Detection and Elimination**

Responsible Party: Kurt Weiss, Town Engineer				
Start Date: 10/02/2006			End Date: 10/05/2007	
Permits Years during which activities are scheduled:				
Year 1	Year 2	Year 3 <b>X</b>	Year 4 <b>X</b>	Year 5 <b>X</b>
Name of Separate Implementing Entity: Not Applicable				
BMP Description: Building on work performed in the previous two years a certain percentage of illicit discharges will now be detected and eliminated. Detection and elimination efforts will be documented so that an end of year report will detail all illicit discharges that were found, which ones were eliminated and what remedial actions were taken.				
Has Goal Been Accomplished: NO				

**Work Performed**

**Initial Identification of Illicit Discharge Sources**

Responsible Party: Kurt Weiss, Town Engineer				
Start Date: 10/04/2004			End Date: 06/05/2004	
Permits Years during which activities are scheduled:				
Year 1 <b>X</b>	Year 2 <b>X</b>	Year 3	Year 4	Year 5
Name of Separate Implementing Entity: Not Applicable				
BMP Description: Begin process of identifying potential sources from where illicit discharges can emanate. Areas to look for are:				

1. Industrial parks or areas with large concentrations of industrial business (manufacturing, warehousing, trucking, etc.).

2. Areas where there are large concentrations of septic systems.

3. Areas with older sanitary sewer lines.

Has Goal Been Accomplished: NO

#### Work Performed

Date: 09/01/2004 Responsible Party: Kurt Weiss, Town Engineer

Dry Weather Inspections

Conduct dry weather inspections of outfall wet weather sample locations and record results.

Date: 01/01/2004 Responsible Party: Kurt Weiss, Town Engineer

East Shore Health District

The East Shore Health District is a regional health agency responsible for environmental health inspections in the greater New Haven area. Their responsibilities include the investigation of subsurface sewage disposal systems. In 2003/2004 fiscal year, the following work was performed:

Site investigations: 38

Sewage system repairs: 8

Date: 10/04/2004 Responsible Party: Kurt Weiss, Town Engineer

Identify High Risk Areas

Conducted field survey of high risk areas such as industrial parks, concentration of septic system problems and old sanitary sewers.

Worked with RWA and East Shore Health District to pin point at risk areas based on their respective inspections.

Utilized GIS to locate areas for future study.

Conducted a meeting with Town departments to draft a plan to detect and address non-stormwater discharges.

Convened a meeting to review appropriate methods for educating Town employees, businesses and the general public about illegal discharges and improper waste disposal.

Date: 10/01/2004 Responsible Party: Kurt Weiss, Town Engineer

Outfall Testing (Wet Weather)

Prepared RFP for laboratory testing services. Hired Connecticut Testing Laboratories, Inc., Meriden, CT.

Using information gathered during initial identification of high risk areas, ESHD and RWA information, selected 6 outfalls for monitoring.

Unable to conduct sampling and testing due to inability to meet collection parameter of 72 hours between storm events.

Date: 01/01/2004 Responsible Party: Kurt Weiss, Town Engineer

RWA Inspections

The RWA is responsible for the inspection of properties within their watershed. The Town of North Branford plays an integral part in their operation as approximately 60% of the water they supply to greater the New Haven area is supplied from Lake Gaillard. The following site and plan reviews were conducted by the RWA in 2004:

Watershed area (sites): 241

Watershed area inspections: 317

Land Use Plan reviews: 41

### **Sewer System Map**

Responsible Party: Kurt Weiss, Town Engineer

Start Date: 07/01/2004

End Date: 01/02/2009

Permits Years during which activities are scheduled:

Year 1 **X**

Year 2 **X**

Year 3 **X**

Year 4 **X**

Year 5 **X**

Name of Separate Implementing Entity:

Not Applicable

BMP Description:

The storm sewer system map is meant to demonstrate a basic awareness of the intake and discharge areas of the system. It is needed to help determine the extent of discharged dry weather flows, the possible sources of the dry weather flows, and the particular waterbodies these flows may be affecting. An existing map, such as a topographical map, on which the location of major pipes and outfalls can be clearly presented demonstrates such awareness.

EPA recommends collecting all existing information on outfall locations (e.g., review city records, drainage maps, storm drain maps), and then conducting field surveys to verify locations. It probably will be necessary to walk (i.e., wade through small receiving waters or use a boat for larger waters) the streambanks and shorelines for visual observation. More than one trip may be needed to locate all outfalls.

By the end of the second year of the permit, develop a map showing all stormwater discharges from pipes or conduits 15" or greater in diameter owned by the Town within the urbanized area.

By the end of the third year of the permit, develop a map showing all stormwater discharges from pipes or conduits 15" or greater in diameter owned by the Town anywhere within the Town

.By the end of the fourth year of the permit, develop a map showing all stormwater discharges from pipes or conduits 12" or greater in diameter owned by the Town within the urbanized area.

Has Goal Been Accomplished: NO

### **Work Performed**

Date: 08/02/2004

Responsible Party: Al Perry, Civil Engineering Technician

GIS

Implemented a Town-wide GIS in partnership with the RWA. Planimetric, topographic and parcel mapping were developed.

Developed procedures for the updating of GIS mapping relative to stormwater facilities.

Used GIS mapping to initiate the location and identification of each stormwater outfall. All 15" and larger outfalls will be identified and mapped in 2005.

### **Stormwater Ordinance**

Responsible Party: Kurt Weiss, Town Engineer

Start Date: 06/04/2007

End Date: 06/05/2008

Permits Years during which activities are scheduled:				
Year 1	Year 2	Year 3	Year 4 <b>X</b>	Year 5
Name of Separate Implementing Entity: Not Applicable				
BMP Description: Develop an ordinance or other regulatory mechanism that will prohibit (to the extent allowable under State, or local law) all non-storm water discharges into the MS4. This ordinance will include appropriate enforcement procedures and actions such as:				
1. Fines				
2. Civil penalties				
Has Goal Been Accomplished: NO				

**Work Performed**

Date: 11/18/2004	Responsible Party: Kurt Weiss, Town Engineer
Illicit Stormwater Discharge Ordinance Using samples provided by the State of CT DEP, developed draft Illicit Stormwater Discharge Ordinance. The ordinance includes a prohibition on non-stormwater discharges into the MS4, appropriate enforcement procedures and actions.	
Date: 10/20/2004	Responsible Party: Kurt Weiss, Town Engineer
Revised P & Z Regulations Drafted revisions to the Town's Planning and Zoning Regulations to include MS4 erosion control and non-stormwater discharge enforcement procedures and actions.	

**Train Employees**

Responsible Party: Fran Merola, Director of Public Works				
Start Date: 07/01/2005	End Date: 07/01/2006			
Permits Years during which activities are scheduled:				
Year 1	Year 2 <b>X</b>	Year 3	Year 4	Year 5
Name of Separate Implementing Entity: Not Applicable				
BMP Description: Design and administer a training program to employees that will help them to identify illicit discharges.				
Has Goal Been Accomplished: NO				

**Work Performed**

Date: 08/16/2004	Responsible Party: Al Perry, Civil Engineering Technician
Collect Training Material Collected available training materials form sources such as the EPA, DEP, RWA and other municipalities.	
Conducted initial meeting with Public Works and Engineering Department to evaluate training materials, potential partnering oppertunities and schedule tentitive training dates.	

## Pollution Prevention/Good Housekeeping

### Descriptive Text:

Recognizing the benefits of pollution prevention practices, the rule requires the Town to:

1. Develop and implement an operation and maintenance program with the ultimate goal of preventing or reducing pollutant runoff from municipal operations into the storm sewer system;
2. Include employee training on how to incorporate pollution prevention/good housekeeping techniques into municipal operations such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and storm water system maintenance. To minimize duplication of effort and conserve resources, the MS4 operator can use training materials that are available from EPA, their State or Tribe, or relevant organizations;

3. Determine the appropriate best management practices (BMPs) and measurable goals for this minimum control measure.

The Pollution Prevention/Good Housekeeping for municipal operations minimum control measure is a key element of the small MS4 storm water management program. This measure requires the small MS4 operator to examine and subsequently alter their own actions to help ensure a reduction in the amount and type of pollution that: (1) collects on streets, parking lots, open spaces, and storage and vehicle maintenance areas and is discharged into local waterways; and (2) results from actions such as environmentally damaging land development and flood management practices or poor maintenance of storm sewer systems. While this measure is meant primarily to improve or protect receiving water quality by altering municipal or facility operations, it also can result in a cost savings for the small MS4 operator, since proper and timely maintenance of storm sewer systems can help avoid repair costs from damage caused by age and neglect.

**Number of BMPs associated with control measure:**

7

**Important Dates:**

Earliest Start Date: 06/04/2004

End Date: 01/01/2009

**Details of BMPs and Work Performed for Them**

**Develop Pollution Prevention Plan**

Responsible Party: Kurt Weiss, Town Engineer

Start Date: 06/04/2004

End Date: 07/02/2006

Permits Years during which activities are scheduled:

Year 1 **X**      Year 2 **X**      Year 3      Year 4      Year 5

Name of Separate Implementing Entity:

Not Applicable

BMP Description:

Develop a comprehensive Pollution Prevention Plan that identifies items such as:

1. BMPs
2. Management Practices and Maintenance Schedules
3. Recycling Efforts
4. Waste Disposal Guidelines
5. Areas of Concern

Has Goal Been Accomplished: NO

**Work Performed**

Date: 12/05/2004

Responsible Party: Kurt Weiss, Town Engineer

PPP Meeting

Met with Public Works Director to formulate pollution prevention/good housekeeping techniques and initiate plan draft.

Reviewed training materials.

Reviewed the effectiveness of the current street cleaning program and identified areas of improvement.

Reviewed the effectiveness of the current catch basin cleaning program and identified areas of improvement.

Date: 03/30/2004

Responsible Party: Fran Merola, Director of Public Works

PW Facility Stormwater Pollution Prevention Plan

Performed annual Public Works facility site inspection and updated plan. Reviewed updated plan with Public Works employees.

Date: 01/01/2004

Responsible Party: Fran Merola, Director of Public Works

Wash Water Recycling

Conducted monthly inspections of the Public Works truck and car wash recycling station.

**Employee Training Materials**

Responsible Party: Kurt Weiss, Town Engineer

Start Date: 07/01/2004

End Date: 07/01/2005

Permits Years during which activities are scheduled:

Year 1 **X**      Year 2 **X**      Year 3      Year 4      Year 5

Name of Separate Implementing Entity:

Not Applicable

BMP Description:

Develop a collection of training materials that will be used to educate staff about pollution prevention

and good housekeeping. These resources will come from applicable external sources, such as the EPA, and may be supplemented with materials developed by our own organization.

Has Goal Been Accomplished: NO

**Work Performed**

Date: 09/05/2004 | Responsible Party: Fran Merola, Director of Public Works

Training Materials  
Organized collection of training materials form EPA, DEP and web sites.

**Incorporation of BMPs in Master Plan**

Responsible Party: Kurt Weiss, Town Engineer

Start Date: 07/01/2005 | End Date: 07/02/2007

Permits Years during which activities are scheduled:

Year 1      Year 2 **X**      Year 3      Year 4      Year 5

Name of Separate Implementing Entity:  
Not Applicable

BMP Description:  
Identify, from the list of BMPs outlined in the year one goal 'Develop Pollution Prevention Plan', the BMPs that have been incorporated into the local Master Plan.

Has Goal Been Accomplished: NO

**Work Performed**

Date: 12/05/2004 | Responsible Party: Kurt Weiss, Town Engineer

Draft Plan  
Initiate collection of BMP's from permit year 1 to incorporate in the Town's Master Plan.

**Information Management System**

Responsible Party: Fran Merola, Director of Public Works

Start Date: 07/01/2004 | End Date: 07/03/2006

Permits Years during which activities are scheduled:

Year 1 **X**      Year 2 **X**      Year 3      Year 4      Year 5

Name of Separate Implementing Entity:  
Not Applicable

BMP Description:  
An information management system will be put in place that can be used to track the inventory of stormwater facilities and outfalls. This system will be used by staff to schedule and perform inspections, maintenance activities and document any other actions taken on these inventory items.

Has Goal Been Accomplished: NO

**Work Performed**

Date: 04/05/2004 | Responsible Party: Kurt Weiss, Town Engineer

Asist Software  
Purchased Assist software for the preparation of the Town's MS4 plan and MS4 and CS Pro for the the inventory and tracking of stormwater facilities, outfalls and inspections.

**Maintenance Program Effectiveness**

Responsible Party: Kurt Weiss, Town Engineer

Start Date: 07/02/2007 | End Date: 01/01/2009

Permits Years during which activities are scheduled:				
Year 1	Year 2	Year 3	Year 4 <b>X</b>	Year 5 <b>X</b>
Name of Separate Implementing Entity: Not Applicable				
BMP Description: Identify the number of facilities and controls that have received maintenance as a result of the year three goal 'Maintenance Schedule'. Document the overall compliance with the schedule and explain any discrepancies.				
Has Goal Been Accomplished: NO				
<b>Work Performed</b>				
Date: 01/01/2004	Responsible Party: Fran Merola, Director of Public Works			
Catch Basin Cleaning During 2004, 233 out of approximately 3,000 catch basins were cleaned.				
Date: 07/01/2004	Responsible Party: Fran Merola, Director of Public Works			
Material Management Reviewed current materials management procedures for new materials facility.  Conducted monthly inspections of material storage areas.				
Date: 03/08/2004	Responsible Party: Fran Merola, Director of Public Works			
Outfall Cleaning In 2004, the Public Works Department cleaned 45 stormwater outfalls. Work included clearing brush and debris, channel clearing and slope stabilization.				
Date: 01/05/2004	Responsible Party: Karl Kilduff, Town Manager			
Spill Team The Town's Fire Services Spill team responded to 10 spill events which required action.				
Date: 04/01/2004	Responsible Party: Fran Merola, Director of Public Works			
Storm Sewer Construction In 2004, approximately 1,200 linear feet of storm sewer pipe was installed to improve storm water quality. Tasks included installation of catch basins with sumps to collect road sand and an 85 linear feet of riprapped discharge swale to collect and filter discharge pollutants.				
Date: 06/01/2004	Responsible Party: Fran Merola, Director of Public Works			
Storm Sewer System Flushing In 2004, 750 linear feet of storm sewer piping was flushed to clean interior pipe surfaces and improve system performance.				
Date: 01/01/2004	Responsible Party: Fran Merola, Director of Public Works			
Street Sweeping During 2004, approximately 76 miles (entire town) of local roads were swept.				
Date: 07/01/2004	Responsible Party: Fran Merola, Director of Public Works			
Waste Disposal Procedures Reviewed current road and catch basin waste disposal procedures with DPW staff.				
<b>Maintenance Schedule</b>				
Responsible Party: Fran Merola, Director of Public Works				
Start Date: 07/01/2005			End Date: 07/02/2007	

Permits Years during which activities are scheduled:				
Year 1	Year 2 <b>X</b>	Year 3 <b>X</b>	Year 4	Year 5
Name of Separate Implementing Entity: Not Applicable				
BMP Description: Finalize the maintenance plan and schedule that will be put in place for management of BMPs. Integrate this into the information management system identified in the year one goal 'Information Management System'.				
Has Goal Been Accomplished: NO				
<b>Work Performed</b>				
Date: 12/05/2004	Responsible Party: Fran Merola, Director of Public Works			
Draft Maintenance Plan Commenced review of existing Public Works maintenance plan and schedule and incorporation of BMP's identified in the pollution prevention plan.				
<b>Train Employees</b>				
Responsible Party: Fran Merola, Director of Public Works				
Start Date: 07/01/2005		End Date: 07/02/2007		
Permits Years during which activities are scheduled:				
Year 1	Year 2 <b>X</b>	Year 3 <b>X</b>	Year 4	Year 5
Name of Separate Implementing Entity: Not Applicable				
BMP Description: Train staff on pollution prevention and good housekeeping using the materials collected and developed in the year one goal 'Employee Training Materials'.				
Has Goal Been Accomplished: NO				
<b>Work Performed</b>				
Date: 02/16/2004	Responsible Party: Fran Merola, Director of Public Works			
Training Sessions Conducted 2 DPW staff training sessions. Subjects discussed included:  Vehicle maintenance and pollution prevention Hazardous materials storage Illegal Dumping control Street Sweeping Storm Drain cleaning				

## Construction Site Runoff Control

### Descriptive Text:

The Phase II Final Rule requires an operator of a regulated small MS4 to develop, implement, and enforce a program to reduce pollutants in storm water runoff to their MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. The small MS4 operator is required to:

1. Have an ordinance or other regulatory mechanism requiring the implementation of proper erosion and sediment controls, and controls for other wastes, on applicable construction sites;

2. Have procedures for site plan review of construction plans that consider potential water quality impacts;
3. Have procedures for site inspection and enforcement of control measures;
4. Have sanctions to ensure compliance (established in the ordinance or other regulatory mechanism);
5. Establish procedures for the receipt and consideration of information submitted by the public; and
6. Determine the appropriate best management practices (BMPs) and measurable goals for this minimum control measure.

Polluted storm water runoff from construction sites often flows to MS4s and ultimately is discharged into local rivers and streams. Of the pollutants listed in Table 1, sediment is usually the main pollutant of concern. Sediment runoff rates from construction sites are typically 10 to 20 times greater than those of agricultural lands, and 1,000 to 2,000 times greater than those of forest lands. During a short period of time, construction sites can contribute more sediment to streams than can be deposited naturally during several decades. The resulting siltation, and the contribution of other pollutants from construction sites, can cause physical, chemical, and biological harm to our nation's waters. For example, excess sediment can quickly fill rivers and lakes, requiring dredging and destroying aquatic habitats.

Table 1  
Pollutants Commonly Discharged From Construction Sites

Sediment  
Solid and sanitary wastes  
Phosphorous (fertilizer)  
Nitrogen (fertilizer)  
Pesticides  
Oil and grease  
Concrete truck washout

Number of BMPs associated with control measure:  
5

**Important Dates:**

Earliest Start Date: 07/01/2004

End Date: 01/01/2009

**Details of BMPs and Work Performed for Them**

**Begin Inspection Program**

Responsible Party: Carol Zebb, Town Planner				
Start Date: 01/02/2006		End Date: 07/02/2007		
Permits Years during which activities are scheduled:				
Year 1	Year 2 <b>X</b>	Year 3 <b>X</b>	Year 4	Year 5
Name of Separate Implementing Entity: Not Applicable				
BMP Description: Random inspections of construction sites will be performed to determine the overall compliance rate that is being achieved by construction operators.				
Has Goal Been Accomplished: NO				

**Work Performed**

Date: 03/30/2004	Responsible Party:
Begin Inspections 177 Inspections of construction sites were performed by Town staff.  7 letters for corrective action were sent to developers as a result of the site inspections.	

**Information Management System in Place**

Responsible Party: Kurt Weiss, Town Engineer				
Start Date: 07/01/2005		End Date: 07/02/2007		
Permits Years during which activities are scheduled:				
Year 1	Year 2 <b>X</b>	Year 3 <b>X</b>	Year 4	Year 5
Name of Separate Implementing Entity: Not Applicable				
BMP Description: An information management system designed to track information submitted by the public and record staff inspections of construction sites will be put in place.  Develop site inspection procedures that will be used by staff in the performance of construction site inspections.				
Has Goal Been Accomplished: NO				

**Work Performed**

Date: 09/05/2004	Responsible Party:
Asist Software Utilized Asist Construction Pro software program to track construction site monitoring and follow up actions of construction site activities performed at residential, commercial, and industrial construction sites. The engineering Department began to record staff inspections of construction sites utilizing the software	

**Maximum Compliance**

Responsible Party: Carol Zebb, Town Planner				
Start Date: 01/02/2006		End Date: 01/01/2009		
Permits Years during which activities are scheduled:				
Year 1	Year 2	Year 3 <b>X</b>	Year 4 <b>X</b>	Year 5 <b>X</b>

Name of Separate Implementing Entity: Not Applicable
BMP Description: Building on year 2 efforts the inspection program will continue until the maximum compliance possible is achieved. Compliance and non-compliance will be documented through the Information Management System.
Has Goal Been Accomplished: NO
<b>Work Performed</b>

**Ordinance / Regulatory Mechanism**

Responsible Party: Carol Zebb, Town Planner	
Start Date: 07/01/2004	End Date: 01/02/2006
Permits Years during which activities are scheduled:	
Year 1 <b>X</b>	Year 2 <b>X</b> Year 3      Year 4      Year 5
Name of Separate Implementing Entity: Not Applicable	
BMP Description: Under the extent allowable by law an ordinance or other regulatory mechanism will be put in place that will provide the ability to regulate polluted runoff that emanates from construction sites.	
Has Goal Been Accomplished: NO	

**Work Performed**

Date: 10/04/2004	Responsible Party:
Draft P & Z Regulations Completed draft of revised P & Z Regulations which included:	
<ol style="list-style-type: none"> <li>1. Updated current P &amp; Z regs. requiring the implementation of proper erosion and sediment controls, and controls for other wastes, on applicable construction sites;</li> <li>2. Updated current procedures for site plan review of construction plans that consider potential water quality impacts;</li> <li>3. Updated procedures for site inspection and enforcement of control measures;</li> <li>4. Included sanctions to ensure compliance (established in the P &amp; Z Regs.);</li> <li>5. Evaluated procedures for the receipt and consideration of information submitted by the public; and</li> <li>6. Considered the appropriate best management practices (BMPs) and measurable goals for this minimum control measure.</li> </ol>	

Date: 01/01/2004	Responsible Party: Carol Zebb, Town Planner
Site Plan Review Conducted 19 site plan reviews to insure that proper design plans were developed for erosion and sedimentation control and that the plans comply with the CTDEP's Guidelines for Soil Erosion and Sediment Control, 2002.	
19 plan reviews were also conducted in conjunction with the Town's Inland/Wetlands application	

process.				
<b>Staff Training</b>				
Responsible Party: Fran Merola, Director of Public Works				
Start Date: 07/01/2005			End Date: 07/02/2007	
Permits Years during which activities are scheduled:				
Year 1	Year 2 <b>X</b>	Year 3 <b>X</b>	Year 4	Year 5
Name of Separate Implementing Entity: Not Applicable				
BMP Description: Train staff in finalized inspection procedures developed in year - 1 goal, 'Information Management System'.				
Has Goal Been Accomplished: NO				
<b>Work Performed</b>				

## Post-Construction Runoff Control

### Descriptive Text:

The Phase II Final Rule requires an operator of a regulated small MS4 to develop, implement, and enforce a program to reduce pollutants in post-construction runoff to their MS4 from new development and redevelopment projects that result in the land disturbance of greater than or equal to 1 acre. The small MS4 operator is required to:

1. Develop and implement strategies which include a combination of structural and/or non-structural best management practices (BMPs);
2. Have an ordinance or other regulatory mechanism requiring the implementation of post-construction runoff controls to the extent allowable under State, Tribal or local law,
3. Ensure adequate long-term operation and maintenance of controls;
4. Determine the appropriate best management practices (BMPs) and measurable goals for this minimum control measure.

Post-construction storm water management in areas undergoing new development or redevelopment is necessary because runoff from these areas has been shown to significantly effect receiving waterbodies. Many studies indicate that prior planning and design for the minimization of pollutants in post-construction storm water discharges is the most cost-effective approach to storm water quality management.

There are generally two forms of substantial impacts of post-construction runoff. The first is caused by an increase in the type and quantity of pollutants in storm water runoff. As runoff flows over areas altered by development, it picks up harmful sediment and chemicals such as oil and grease, pesticides, heavy metals, and nutrients (e.g., nitrogen and phosphorus). These pollutants often become suspended in runoff and are carried to receiving waters, such as lakes, ponds, and streams. Once deposited, these pollutants can enter the food chain through small aquatic life, eventually entering the tissues of fish and humans. The second kind of post-construction runoff impact occurs by increasing the quantity of water delivered to the waterbody during storms. Increased impervious surfaces interrupt the natural cycle of gradual percolation of water through vegetation and soil. Instead, water is collected from surfaces such as asphalt and concrete and routed to drainage systems where large volumes of

runoff quickly flow to the nearest receiving water. The effects of this process include streambank scouring and downstream flooding, which often lead to a loss of aquatic life and damage to property.

**Number of BMPs associated with control measure:**

2

**Important Dates:**

Earliest Start Date: 07/01/2004

End Date: 07/03/2007

**Details of BMPs and Work Performed for Them**

**Identification of BMPs**

Responsible Party: <Not Assigned>, <Unknown>				
Start Date: 07/01/2004		End Date: 07/03/2006		
Permits Years during which activities are scheduled:				
Year 1	Year 2 <b>X</b>	Year 3	Year 4	Year 5
Name of Separate Implementing Entity: Not Applicable				
BMP Description: Identify and develop a mix of Structural and Non-Structural BMPs that are appropriate for this geographic area. This BMP list will include BMPs suited for both redevelopment and new development. These BMPs will also be used in the 'Construction Site Runoff Control' minimum measure.  Using the previous years construction permit records perform conduct an analysis of development projects that compares impervious and non-impervious surface development. Use this information to develop an average for the typical construction project that states what percentage of the project is converted into impervious area. This information should also be used to help determine your list of BMPs.				
Has Goal Been Accomplished: NO				

**Work Performed**

Date: 01/01/2004	Responsible Party: Carol Zebb, Town Planner
Conservation Easements Through Inland/Wetland and Water Conservation agencies, encourage creation of conservation easements adjacent to watercourses and wetlands areas.	
Date: 01/01/2004	Responsible Party: Kurt Weiss, Town Engineer
Grassed Swales Encouraged the use of grass swales in new subdivisions during review phase of subdivision applications.	
Date: 01/01/2004	Responsible Party: Kurt Weiss, Town Engineer
Infrastructure Planing Developments using stormwater BMP = 2	
Date: 04/01/2004	Responsible Party: Carol Zebb, Town Planner
Open Space Design Reviewed the Town's P & Z Regulations for potential revisions to current open space requirements for developments	

**Publication of BMPs**

Responsible Party: Kurt Weiss, Town Engineer				
Start Date: 07/01/2005		End Date: 07/03/2007		
Permits Years during which activities are scheduled:				
Year 1	Year 2 <b>X</b>	Year 3 <b>X</b>	Year 4	Year 5
Name of Separate Implementing Entity: Not Applicable				
BMP Description: Codify the BMPs identified in the year one goal 'Identification of BMPs' through regulatory or other appropriate mechanism. Publish the list of BMPs and make them available to developers, citizens and				

staff.

Has Goal Been Accomplished: NO

**Work Performed**

## **Section D**

<b>BMP Assignments by Responsible Party</b>		
<b>Public Participation/Involvement</b>		
<b>Karl Kilduff</b>		
Community Clean-ups		
	10/01/2004	07/07/2006
Establish a Citizen panel		
	01/03/2005	07/07/2006
Finalize Citizen Panel Recommendations		
	01/02/2006	01/05/2007
Public Meetings - Print Media		
	08/02/2004	10/06/2006
<b>Public Education and Outreach</b>		
<b>Kurt Weiss</b>		
Develop educational resources		
	09/05/2004	09/05/2007
Expand educational resources		
	01/02/2006	12/30/2007
<b>Carol Zebb</b>		
HazWaste Central		
	01/01/2004	12/30/2004
<b>Karl Kilduff</b>		
Storm Drain Stenciling		
	09/05/2004	01/01/2007
<b>Illicit Discharge Detection and Elimination</b>		
<b>Kurt Weiss</b>		
Continuation of Detection and Elimination Efforts		
	01/01/2008	06/05/2004
Detection and Elimination		
	10/02/2006	10/05/2007
Initial Identification of Illicit Discharge Sources		
	10/04/2004	06/05/2004
Sewer System Map		
	07/01/2004	01/02/2009
Stormwater Ordinance		
	06/04/2007	06/05/2008
<b>Fran Merola</b>		
Train Employees		
	07/01/2005	07/01/2006
<b>Pollution Prevention/Good Housekeeping</b>		
<b>Kurt Weiss</b>		
Develop Pollution Prevention Plan		
	06/04/2004	07/02/2006
Employee Training Materials		

	07/01/2004	07/01/2005
Incorporation of BMPs in Master Plan		
	07/01/2005	07/02/2007
<b>Fran Merola</b>		
Information Management System		
	07/01/2004	07/03/2006
<b>Kurt Weiss</b>		
Maintenance Program Effectiveness		
	07/02/2007	01/01/2009
<b>Fran Merola</b>		
Maintenance Schedule		
	07/01/2005	07/02/2007
Train Employees		
	07/01/2005	07/02/2007
<b>Construction Site Runoff Control</b>		
<b>Carol Zebb</b>		
Begin Inspection Program		
	01/02/2006	07/02/2007
<b>Kurt Weiss</b>		
Information Management System in Place		
	07/01/2005	07/02/2007
<b>Carol Zebb</b>		
Maximum Compliance		
	01/02/2006	01/01/2009
Ordinance / Regulatory Mechanism		
	07/01/2004	01/02/2006
<b>Fran Merola</b>		
Staff Training		
	07/01/2005	07/02/2007
<b>Post-Construction Runoff Control</b>		
<b>&lt;Not Assigned&gt;</b>		
Identification of BMPs		
	07/01/2004	07/03/2006
<b>Kurt Weiss</b>		
Publication of BMPs		
	07/01/2005	07/03/2007