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***STORMWATER MANAGEMENT PLAN  
THOMASTON, CONNECTICUT***

***JUNE 2005***

Prepared For:

Town of Thomaston,  
Connecticut

Prepared By:

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## **INTRODUCTION / OVERVIEW**

### **I.1 INTRODUCTION**

This Stormwater Management Plan (SWMP) was developed by the Town of Thomaston for the purpose of establishing, implementing and enforcing a stormwater management program to reduce the discharge of pollutants from the towns's highways, roadways, and facilities to the maximum extent practicable, to protect water quality, and to satisfy the appropriate requirements of the Clean Water Act.

The SWMP will cover all of the town's highways, roadways and facilities within Urbanized Areas (UA) as indicated by the 2000 Census. Individual facilities such as maintenance garages and other miscellaneous facilities are or will be covered under general permits (industrial) with the Connecticut Department of Environmental Protection (CTDEP).

The U.S. Environmental Protection Agency (EPA) published the regulation entitled "National Pollutant Discharge Elimination System - Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges on December 8, 1999 as required by Section 402(p) of the Clean Water Act (CWA). This is commonly referred to as the National Pollutant Discharge Elimination System (NPDES) Phase II program.

This SWMP also directly addresses the requirements of the NPDES Phase II program as implemented and administered by the CTDEP as the regulatory authority for the State of Connecticut. The NPDES Phase II program is implemented by the CTDEP through the use of the General Permit for the Discharge of Stormwater from Small Municipal Storm Sewer Systems.

The town currently has many practices and programs in place relating to stormwater management and pollution prevention. This plan will coordinate and incorporate these programs, policies, guidelines and practices into the SWMP document by reference.

The plan outlines a program of best management practices (BMPs) and measurable goals for the following six minimum control measures.

- Public education and outreach
- Public involvement / participation
- Illicit discharge detection and elimination
- Construction site stormwater runoff control
- Post-construction stormwater management
- Pollution prevention/good housekeeping

For each minimum control measure, the department will define appropriate BMP's, designate a person(s) and job title responsible for each BMP, define a time frame for implementation for each BMP, and define measurable goals for each BMP.

## **I.2 TOWN STRUCTURE AND INFORMATION**

The Town of Thomaston has a Selectman-Town Meeting form of government, which is the traditional governmental organization of New England towns. The legislative power of the Town is vested in a Board of Selectmen and the Town meeting. The present-day duties of the selectmen include responsibility for town road building and maintenance, administration of the town's social service program, and keeping the financial records for the Town.

Several commissions within the town have jurisdiction over development and include the following:

- Conservation Commission
- Inland Wetlands and Watercourse Commission
- Planning & Zoning Commission

### ***Highway Department***

The Highway Department is responsible for all the property that the taxpayers of the Town of Thomaston own. This includes, but is not limited to, all buildings, roads, parking lots, roadsides and parks.

The Town currently has 919 catch basins that are cleaned on the average of once a year. Sweeping programs start annually in the beginning of April.

The Town Garage facility operates and is registered under the General Permit for the Discharge of Stormwater Associated with Industrial Activities. The application permit number for this facility is 200402194.

## **I.3 SWMP DEVELOPMENT TEAM**

As part of the development of the SWMP, a project team was established with representatives of the town and the town's consultant for this assignment, Maguire Group Inc.

During the development of the plan, the project team met periodically to discuss relevant issues and provide input and guidance in the development of the plan. A list of the project team is provided below.

**Table I.1 SWMP DEVELOPMENT TEAM**

<b>Name</b>	<b>Organization &amp; Title</b>
Clifford C. Brammer, Jr.	Town of Thomaston First Selectmen
Paul Pronovost	Town of Thomaston Superintendent of Roads
Derek A. Kohl, P.E.	Maguire Group Inc. Principal Transportation Engineer
Jeffrey D. Lemay, E.I.T.	Maguire Group Inc. Senior Transportation Engineer

## **I.4 TOWN INFORMATION**

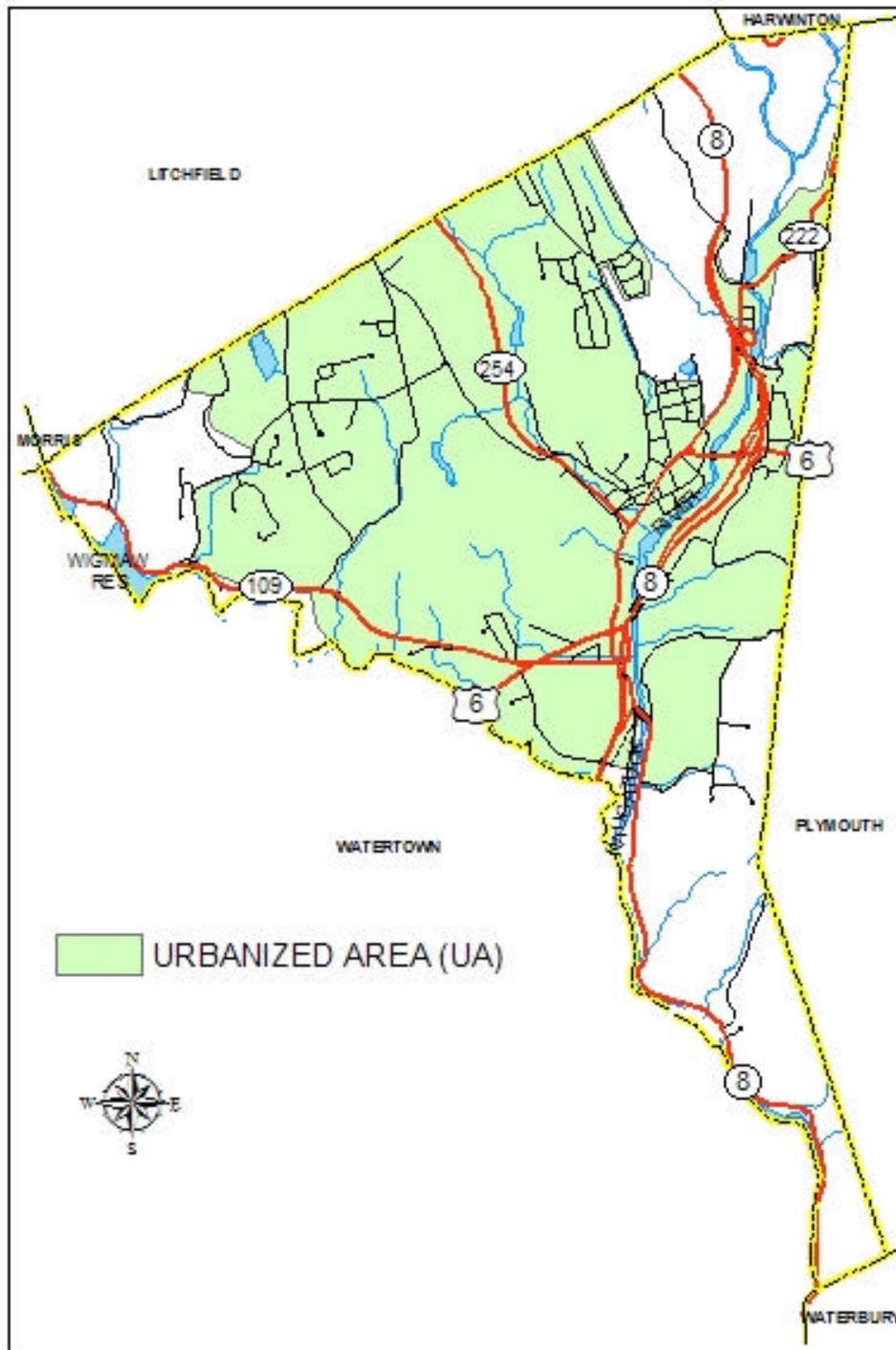
### **General Information**

The town covers an area of approximately 12.2 square miles and is home to approximately 7,503 residents according to the 2000 Census. Approximately 0.2 square miles of waterbodies and watercourses make up the total area of the town.

Sub regional drainage basins and major water courses include the Naugatuck River, Leadmine Brook, Northfield Brook and Branch Brook. These are part of the Naugatuck River major drainage basin. In addition, there are several significant lakes and ponds within the town including Wigshaw Reservoir, Nystrom Pond and Morton Pond.

Approximately 7.7 square miles of the town is considered to be Urbanized Area (UA) according to the 2000 Census.

Figure I.1 Town Map



## **EXECUTIVE SUMMARY**

### **ES.1 INTRODUCTION**

Six minimum control measures are required to be included in the SWMP, to satisfy the requirements of the NPDES Phase II program and CTDEP's General Permit for the Discharge of Stormwater from Small Municipal Storm Sewer Systems. Specific BMP's for each minimum control measure must be selected and incorporated into the plan, and eventually implemented as part of the department's stormwater management program.

This SWMP outlines a plan of BMP's and measurable goals for each of the six (6) minimum control measures including Public Education and Outreach, Public Involvement / Participation, Illicit Discharge Detection and Elimination, Construction Site Stormwater Runoff Control, Post Construction Stormwater Management and Pollution Prevention / Good Housekeeping. The plan requires that a combination of tasks be undertaken to carry out the BMP's selected for each measure. This includes documentation of ordinances, policies, procedures and training, development of specific programs and products, conducting public information meetings, development of a storm sewer system map, outfall testing, development of new training and additional maintenance requirements.

The BMP's selected for each minimum control measure are summarized and briefly described in this section. Specific details for each BMP including measurable goals, implementation dates and positions responsible are stated in each of the respective sections for each control measure in this plan. The First Selectment and Superintendent of Roads will be responsible for implementation and future enforcement of each of the BMP's for the six minimum control measures.

### **ES.2 PERMIT REQUIREMENTS AND IMPLEMENTATION DATES**

The Part A Registration for the General Permit for the Discharges of Stormwater from Small Municipal Storm Sewer Systems must be submitted to the CTDEP by April 9, 2004 while the Part B Registration and the SWMP associated with this general permit must be submitted by July 9, 2004. Complete implementation of the stormwater management program is required by the end of the first term of the general permit, five years after its issuance. Annual reports to the CTDEP are also required by the permit and must include information such as stormwater outfall testing, implementation and adequacy of selected BMP's and status of measurable goals.

### **ES.3 PUBLIC EDUCATION AND OUTREACH**

This minimum control measure will outline a program to educate department employees and the public of the impacts of stormwater discharges on waterbodies, and inform them of the steps that can be taken to reduce stormwater pollution.

The following BMP's have been selected to address the Public Education and Outreach minimum control measure:

- Brochures / Fact Sheets
- Town Web Site
- Library of Educational Materials
- Storm Drain Marking / Stenciling
- Tributary Signage

These BMP's will require the development and distribution of informational materials such as brochures / fact sheets and posting stormwater information on the town web site. This broad range of educational materials is expected to reach a diverse audience covering a large geographic area, as well as targeting specific groups, with the use of slogans, graphics, and catchy phrases. Additionally, the BMP's will require that educational materials be collected and / or developed and maintained in the town hall for employee and public use.

Storm drain marking and stenciling products will be obtained from the CTDEP and installed in a phased approach throughout town.

A tributary signage program will be developed and will continue to be used in the future as part of the stormwater management program.

#### **ES.4 PUBLIC INVOLVEMENT / PARTICIPATION**

This minimum control measure will outline a program to ensure public support as well as provide community knowledge of pollution problems, by taking a proactive approach and encouraging town employees and the public to get personally involved with monitoring and improving the quality of the environment.

The following BMP's have been selected to address the Public Participation / Involvement minimum control measure:

- Public Review and Comment
- Brochures at Town Hall and Public Meetings
- Storm Drain Marking/Stenciling

A public review and comment period will be utilized to solicit comments from the public and get them to participate in the development of the SWMP.

Through the display of educational brochures at town hall and at public meetings, the public will be educated on stormwater quality and be able to get involved and participate at public meetings held in the town.

The storm drain marking / stenciling program will allow the public and community groups to participate in the installation of these materials. There will also be an educational component

of this participation as those involved will become more knowledgeable in stormwater quality through their participation and involvement.

## **ES.5 ILLICIT DISCHARGE DETECTION AND ELIMINATION**

This minimum control measure will outline a program that will detect and eliminate potential point sources of contaminants, leaking or discharging into storm sewer systems and ultimately to receiving waterbodies.

The following BMP's have been selected to address the Illicit Discharge Detection and Elimination minimum control measure:

- Ordinance Regarding Non-Stormwater Discharges
- Storm Sewer System Map
- Illicit Discharge Detection and Elimination Program
- Future Illicit Discharge Detection and Elimination

The town does not allow non-stormwater discharges into its storm sewer systems. The town ordinances will be reviewed to determine if an existing ordinance is in place. If there is not an existing ordinance prohibiting non-stormwater discharge, a new ordinance will be developed and implemented. If an existing ordinance is in place, it will be reviewed and if necessary updated to conform to the requirements of the General Permit.

The development of a storm sewer system map will be required to identify and locate department outfalls greater than or equal to 12" in diameter within urbanized areas and 15" throughout the town. This will require the development of base mapping and additional survey through GPS techniques to locate outfalls. Further maintenance and development of the mapping will be accomplished through the use of Geographical Information System (GIS) computer software.

The BMP's will also require the development of an illicit discharge detection and elimination program. The program will include testing six (6) different outfalls each year. At least two (2) outfalls apiece shall be monitored from areas of primarily industrial development, commercial development and residential development, respectively, for a total of six (6) outfalls monitored. Each monitored outfall shall be selected based on an evaluation by the town that the drainage area of such outfall is representative of the overall nature of its respective land use type.

The town will continue to monitor its stormwater discharges in an effort to detect and address future non-stormwater discharges and will coordinate with other municipalities and state agencies in identifying illegal dumping.

## **ES.6 CONSTRUCTION SITE STORMWATER RUNOFF CONTROL**

This minimum control measure will outline a program that will reduce pollutants in any stormwater runoff to MS4's from construction activities that result in a land disturbance of greater than or equal to one acre.

The following BMP's have been selected to address the Construction Site Runoff Control minimum control measure:

- Ordinance Requiring Erosion and Sediment Controls
- Procedures for Notifying Construction Site Developers and Operators of Requirements for Registration
- Requirements for Construction Site Operators to Implement Appropriate Erosion and Sediment Control Best Management Practices
- Requirements for Construction Site Operators to Control Waste at the Site
- Procedures for Site Plan Review
- Procedures for Receipt and Consideration of Information Submitted by the Public
- Procedures for Site Inspection and Enforcement of Control Measures

The town requires erosion and sediment controls for all projects in accordance with all state and federal regulations. Several documents define the town regulations for requiring erosion and sediment controls associated with construction activities within the town. These regulations include the following:

- Zoning Regulations
- Subdivision Regulations
- Inland Wetland and Watercourse Regulations

To satisfy the requirements of the general permit for implementing appropriate best management practices, the town's regulations will be modified to be in accordance with the Connecticut Guidelines for Soil Erosion and Sediment Control, for the planning, design and construction of erosion and sediment controls and best management practices.

The town's Zoning Regulations, Subdivision Regulations and Inland Wetland and Watercourse Regulations will be modified to include procedures for notifying construction site developers and operators of the requirements for registration under the General Permit for the Discharge of Stormwater and Dewatering Wastewaters Associated with Construction Activities.

The town requires erosion and sediment controls for all projects as outlined in their Zoning Regulations, Subdivision Regulations and Inland Wetland and Watercourse Regulations. These regulations will be modified to be in accordance with the Connecticut Guidelines for Soil Erosion and Sediment Control, as described in section 4.2.1, for the planning, design and construction of appropriate erosion and sediment control BMP's.

The town's current Zoning Regulations and Subdivision Regulations will be modified to incorporate requirements for construction site operators to control waste at the site

Procedures for site plan review which incorporate consideration of potential water quality impacts are required by the town in their Zoning Regulations and Subdivision Regulations.

The town utilizes their government structure for processing information submitted by the public for receipt and consideration. Information submitted by the public is forwarded to the appropriate department within the town's government structure for consideration.

Site inspection and enforcement of control measures are required by the town in their Zoning Regulations, Subdivision Regulations and Inland Wetland and Watercourse Regulations.

### **ES.7 POST CONSTRUCTION STORMWATER MANAGEMENT**

This minimum control measure will outline a program that will address stormwater runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development, that discharge into small MS4's.

The following BMP's have been selected to address the Post Construction Site Runoff Control minimum control measure:

- Requirements for Structural and Non-Structural BMP's
- Procedures for Addressing Post Construction Runoff from Construction and Reconstruction Projects
- Ensuring Long Term Operation and Maintenance of Best Management Practices

The town will require structural and non-structural BMP's for projects disturbing greater than or equal to one (1) acre.

The town's current Subdivision Regulations, Zoning Regulations and Inland Wetland and Watercourse Regulations will be modified to be in accordance with several documents for the purposes of establishing guidelines and procedures for addressing post construction runoff in planning, design and construction for all construction and reconstruction projects within the town. The modification of the town's regulations will satisfy the requirements of the general permit. These documents include the following:

- CTDOT Drainage Manual, October 2000 and supplements thereto
- Connecticut Guidelines for Soil Erosion and Sediment Control, DEP Bulletin 34, 2002 and supplements thereto
- Connecticut Stormwater Quality Manual, 2004 and supplements thereto

Post construction runoff from construction and reconstruction projects will be regulated by the town's Subdivision Regulations, Zoning Regulations, and Inland Wetland and Watercourse Regulations as described in section 5.2.1 of this document.

The town will ensure its long-term operation and maintenance of post construction BMP's through regularly scheduled maintenance as required by the general permit. Long term operation and maintenance of best management practices shall be in accordance with Section 6 – Good Housekeeping / Pollution Prevention of this plan.

## **ES.8 POLLUTION PREVENTION / GOOD HOUSEKEEPING**

This minimum control measure will outline an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing stormwater pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and stormwater system maintenance.

The following BMP's have been selected to address the Pollution Prevention / Good Housekeeping minimum control measure:

- Operation and Maintenance Program
- Employee Training Program
- Street Sweeping Program
- Catch Basin Maintenance Program
- Preventative Maintenance Program

These BMP's will require the continuation of the town's operation and maintenance program. Operation and maintenance is an integral component of all storm water management programs. This measure is intended to improve the efficiency of the individual programs through appropriate maintenance practices, internal procedures and scheduling. The Town will include employee training, record keeping and internal reporting in the development and implementation of their program.

Training will continue to be provided for the proper operation and maintenance of the town's facilities and roadways. The town will modify their employee training program to include education and training to its employees regarding stormwater management, and how it relates to the Town's maintenance operations. The training will focus on pollution prevention, best management practices and good housekeeping.

The town's procedures for record keeping will incorporate the required documentation of information and data, resulting from the General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems procedures. Keeping records of spills, leaks, inspections, scheduled maintenance and other stormwater related issues, provides useful information for ensuring proper operation of facilities and equipment with the ultimate goal of improving best management practices and water quality.

The town's internal reporting procedures will incorporate the additional effort needed with this stormwater management program, and the position(s) responsible for each stormwater management task. In general, the position(s) responsible for each BMP are listed in a table at the end of each minimal control measure section of this stormwater management plan. If the issue requires special attention, the town will notify the CTDEP.

The town's maintenance plan for sweeping roadways, parking lots and facilities, and cleaning catch basins will meet the requirements of the General Permit.

The town will sweep all of its roadways, parking lots and facilities at least once every year. The sweeping will be performed as soon as possible after snowmelt. The following locations will receive multiple sweeps per year:

- Old Waterbury Road (Route 6 Bridge to Frost Bridge)
- Jackson Street
- West Hill Road
- Treadwell Avenue
- River Street

The town will continue their catch basin maintenance program and modify it to meet the requirements of the general permit. This will consist of inspecting and if necessary cleaning catch basins on a regularly scheduled basis. The town will use the following criteria for inspecting and cleaning their catch basins:

- The town, at a minimum, will annually evaluate and, if necessary, clean catch basins and other stormwater structures that accumulate sediment at least once a year. Typically, all catch basins in town are cleaned in the Spring and Fall each year to prevent having to clean subsurface stormsewer pipe segments between structures.
- Priority areas will be established to maximize the effectiveness of the town's available resources for the routine inspections. These priority areas will be developed using the town's knowledge of problem areas, where sediment/debris has been known to accumulate in higher quantities. Geographical location, climate, traffic patterns and vertical sag locations may also be factors in determining priority areas.

The following list of roads are established priority areas that multiple catch basin cleanouts will be performed per year. These roads are in the immediate vicinity of watercourses and waterbodies which are listed in parenthesis.

- Litchfield Street (Northfield Brook)
- Twinn Pond Road (Joe's Pond)
- Reynolds Bridge Road (Branch Brook)
- Hotchkiss Avenue (Crystal Lake)

Preventative maintenance will continue to be utilized by the town for eliminating potential problems associated with drainage systems, facilities and equipment. The measures generally utilized by the town are performed during the following activities:

- Catch basin inspection during routine maintenance
- Drainage system inspection for new construction / reconstruction projects.

Preventative maintenance is also required by public agencies and private developers disturbing or effecting Town storm sewer systems through new development or modifications to adjacent existing developments. These entities are required to conduct an “Existing Drainage Facility Conditions Survey” for the portion of the Town’s drainage system(s) that they will be tying into or affecting as a result of the modifications. The guidelines for this survey are summarized below, and are provided in greater detailed in the Connecticut Department of Transportation’s (CTDOT’s) “Drainage Manual”, Section 3.6.3 and appendices 4.A & B.

- Culvert inspection shall be conducted for existing town culverts to remain in use, as part of a project. Culvert inspection shall follow the guidelines as outlined in the CTDOT’s “Drainage Manual 2000”, appendix 4.A.
- Existing town drainage facilities including pipes, catch basins, manholes, junction chambers, sedimentation/gross particle separators, cross culverts and ditches/swales, which are scheduled to remain in use as part of a project, should be inspected to verify their general condition early in the design process. A condition survey must be conducted for drainage systems which have been in service for 10 years or more. Available previous condition reports should be reviewed prior to inspection to identify critical areas that may require special attention. The drainage facility inspection shall follow the guidelines as outlined in the CTDOT’s “Drainage Manual”, appendix 4.B.
- The designer should also consult with the town for past problems, site conditions and proposed future improvements.

## **ES.9 ADDITIONAL REQUIREMENTS**

The following topics are also required for compliance with the General Permit for the Discharge of Stormwater from Small Municipal Storm Sewer Systems. A detailed explanation of each of these requirements is located in Section 7 of this plan.

- Authorization Under this General Permit
- Proper Operation and Maintenance
- Availability of Information
- Keeping Plans Current
- Monitoring Requirements
- Reporting and Record Keeping

- General Discharge Requirements
- Total Maximum Daily Load (TMDL) Allocations
- Regulations of Connecticut State Agencies
- Duty to Correct and Report Violations
- Duty to Provide Information
- Correction of Inaccuracies
- Other Applicable Law

## **SECTION 1 – PUBLIC EDUCATION AND OUTREACH**

This minimum control measure is critical to the success of the stormwater management program as it helps to ensure greater support for the program and greater compliance. Support for the program by the public and department employees results in a better understanding of the reasons why the program is necessary and how the human environment affects water quality.

### **1.1 REQUIREMENTS**

Implementation of a public education program is required to distribute educational materials to the public or conduct equivalent outreach activities regarding the impacts of stormwater discharges on waterbodies and the steps that the public can take to reduce pollutants in stormwater runoff.

Appropriate BMP's and measurable goals for this minimum control measure must be determined. These must include the persons(s) or position(s) responsible and implementation dates for each BMP.

### **1.2 BEST MANAGEMENT PRACTICES**

The following BMP's will be utilized in the implementation of the program to address the minimum control measure for Public Education and Outreach.

#### **1.2.1 Brochures / Fact Sheets**

Brochures / fact sheets or electronic media will be developed and or collected from existing sources such as the United States Environmental Protection Agency (EPA) and Connecticut Department of Environmental Protection (CTDEP). The brochures and fact sheets will address the effects of stormwater quality on the environment and how to improve stormwater quality.

The brochures or fact sheets will be available to the public at Town Hall. In addition, the brochures and fact sheets will be made available at public information meetings and public hearings through the Conservation Commission, Inland Wetlands and Watercourses Commission and Planning and Zoning Commission. The brochure will be developed and or collected by the end of the first year of the program with distribution occurring during the following years on an incremental basis. This phased approach will allow for revisions to the brochure and distribution methods prior to full implementation.

The benefits associated with this BMP include reaching a diverse audience within the Town of Thomaston.

The measurable goals, target dates and responsible position associated with this BMP are detailed in the following table.

**Table 1.1 Brochure / Fact Sheet BMP  
Measurable Goals and Implementation Dates**

Target Date	Measurable Goal / Activity	Responsible Dept. or Person
Year 1	Develop and or collect brochure / fact sheet	Superintendent of Roads
Year 2	Display and distribute brochure/fact sheet at Town Hall	Superintendent of Roads
Year 3	Display and distribute brochure/fact sheet at 1 meeting each for Conservation Commission, Inland Wetlands and Watercourse Commission and Planning and Zoning Commission	Superintendent of Roads
Year 4	Display and distribute brochure/fact sheet at 3 public information meetings and hearings for Conservation Commission, Inland Wetlands and Watercourse Commission and Planning and Zoning Commission	Superintendent of Roads
Year 5	Display and distribute brochure/fact sheet at 6 public information meetings and hearings for Conservation Commission, Inland Wetlands and Watercourse Commission and Planning and Zoning Commission	Superintendent of Roads

### 1.2.2 Town Web Site

The town currently maintains a web site at <http://www.thomastonct.org/>. The SWMP, Links to additional web sites including CTDEP, EPA and other stormwater resources and other related information will be added to the town's web site. The information listed on the web site will address the effects of stormwater quality on the environment. The town's web site is available to the public by means of internet access. The SWMP, links and additional information will be posted on the website during the first year of the program.

The web site will include the following links at a minimum:

- <http://www.epa.gov/>
- <http://cfpub.epa.gov/npdes/>
- <http://dep.state.ct.us/>
- <http://www.cwp.org/>

The benefits associated with these BMP include creating awareness and making information available to a very large, diverse audience. A web site will take advantage of current technology reaching an audience using internet access.

The measurable goals, target dates and responsible position associated with this BMP are detailed in the following table.

**Table 1.2 Town Web Site BMP  
Measurable Goals and Implementation Dates**

Target Date	Measurable Goal / Activity	Responsible Dept. or Person
Year 1	Post SWMP, links and additional information of web site	Superintendent of Roads & Webmaster
Year 2 - 5	Update web site as required	Superintendent of Roads & Webmaster

### 1.2.3 Library of Educational Materials

A library of educational materials will be developed and maintained at Town Hall. The library will consist of data, information, fact sheets and guidelines pertaining to stormwater management. The library will be available to the town's employees and available to the public on request. Collection of materials and resources will occur during the first year, and the materials in the library being made available in the second year.

The benefits associated with this BMP include establishing a library within the town for data and information relating to stormwater management and quality, accessible to town employees and the public for reference.

The measurable goals, target dates and responsible position associated with this BMP are detailed in the following table.

**Table 1.3 Library of Educational Materials BMP  
Measurable Goals and Implementation Dates**

Target Date	Measurable Goal / Activity	Responsible Dept. or Person
Year 1	Collect data and information	Superintendent of Roads
Year 2	Establish library and make materials available to town employees and public	Superintendent of Roads
Year 3 - 5	Maintain library	Superintendent of Roads

### 1.2.4 Storm Drain Marking / Stenciling

Storm drain marking / stenciling involves labeling storm sewer inlets with painted messages or prefabricated plaques, warning citizens not to dump pollutants into the inlets. The messages are generally a simple phrase or picture to remind the public that inlets and storm sewers systems connect to local waterbodies and that illegal dumping pollutes those waters.

Storm drain marking / stenciling products will be obtained from the CTDEP and installed in a phased approach starting in those areas closest to water resources. Appropriate locations will be identified for installation. Given the limited supply of these materials through the CTDEP, the process of marking the inlets will take many years, beyond the 5 year program implementation. The markings / stencils will be collected from CTDEP in the first year of the program and appropriate locations for installation identified. In the second year of the program, installation will begin.

The benefits associated with this BMP include increased public awareness. It will educate and demonstrate to the public the direct link between the storm sewer system and the surface waters to which it drains. Additionally, stenciling projects can provide a lead-in to volunteer monitoring projects and increase community participation in a variety of other stormwater-related activities.

*Example of Storm  
Drain Marker*



The measurable goals, target dates and responsible position associated with this BMP are detailed in the following table.

**Table 1.4 Storm Drain Marking / Stenciling BMP  
Measurable Goals and Implementation Dates**

Target Date	Measurable Goal / Activity	Responsible Dept. or Person
Year 1	Collect materials from CTDEP and identify appropriate locations for installation	Superintendent of Roads
Year 2 - 5	Install storm drain markers / stencils	Superintendent of Roads

### 1.2.5 Tributary Signage

A tributary signage program will be developed by the town. The signs will include bridge and river information signs and public drinking water protection signs. A significant number of water resources have already been signed along the town's local roadways. Maintenance and placement of additional signs will occur during construction and maintenance projects throughout the town in the future. ConnDOT has an existing tributary signage program in place. The signage covers state owned and maintained highways and roads within the Town of Thomaston.

The benefits associated with this BMP include public awareness of local water resources. These include public water supplies areas, rivers, streams and tributaries along the department's roadways.

*Example of tributary signage*

LEADMINE  
BROOK

The measurable goals, target dates and responsible position associated with this BMP are detailed in the following table.

**Table 1.5 Tributary Signage BMP  
Measurable Goals and Implementation Dates**

Target Date	Measurable Goal / Activity	Responsible Dept. or Person
Year 1	Develop tributary signage program and identify locations for installation	Superintendent of Roads
Year 2	Install tributary signage at 1 locations	Superintendent of Roads
Year 3	Install tributary signage at 2 locations	Superintendent of Roads
Year 4	Install tributary signage at 4 locations	Superintendent of Roads
Year 5	Install tributary signage at 6 locations	Superintendent of Roads

## **SECTION 2 – PUBLIC INVOLVEMENT/ PARTICIPATION**

This minimum control measure is a key component to the stormwater management program as it helps to ensure broader public support, and shorter implementation schedules, as well as provide a broader base of knowledge. Persons who are personally involved with the decision making process are less likely to challenge the program and can provide a valuable resource of knowledge that will be beneficial to the development, implementation and enforcement of the program.

### **2.1 REQUIREMENTS**

Compliance with applicable State and local public notice and Freedom of Information regulations are required when implementing a public involvement/participation program. Where notice requirements are inconsistent, the notice provisions providing for the most notice and opportunity for public comment shall be followed.

The development of a public involvement/participation program that includes the public in developing, implementing, and reviewing the stormwater management program is required.

Appropriate BMP's and measurable goals for this minimum control measure must be determined. This must include the persons(s) or position(s) responsible and implementation dates for each BMP.

### **2.2 BEST MANAGEMENT PRACTICES**

The following BMP's will be utilized in the implementation of the program to address the minimum control measure for Public Participation and Involvement.

#### **2.2.1 Public Review and Comment – Stormwater Management Plan**

Prior to final submission of the SWMP and Part B registration of the General Permit, a draft copy of the SWMP and Part B registration will be made available to the public for review and comment. Copies of these documents will be made available at the Town Hall and Public Library for public inspection and copying consistent with the federal and state Freedom of Information Acts.

Reasonable efforts to inform the public of this document will be made by the town and may include Public Notice in local newspapers and posting of notices at public places.

#### **2.2.2 Brochures at Town Hall and Public Meetings**

Brochures addressing the effects of stormwater quality on the environment will be developed. The brochures will be available to the public at Town Hall and meetings, public hearings and public informational meetings through the Conservation Commission, Inland Wetlands and Watercourse Commission and Planning and

Zoning Commission. The brochure will be developed by the end of the first year of the program with distribution occurring at the public meetings during the second year.

The benefits associated with this BMP include reaching a diverse audience. Meetings, public hearings / information meetings are conducted by the town commissions on a continuous basis. This will allow the public the opportunity to comment and participate in the development of stormwater management plans for specific projects during the design development process.

The measurable goals, target dates and responsible position associated with this BMP are detailed in the following table.

**Table 2.1 Brochures at Town Hall and Public Meetings BMP Measurable Goals and Implementation Dates**

Target Date	Measurable Goal / Activity	Responsible Dept. or Person
Year 1	Develop and or collect brochure / fact sheet	Superintendent of Roads
Year 2	Display and distribute brochure/fact sheet at Town Hall	Superintendent of Roads
Year 3	Display and distribute brochure/fact sheet at 1 meeting each for Conservation Commission, Inland Wetlands and Watercourse Commission and Planning and Zoning Commission	Superintendent of Roads
Year 4	Display and distribute brochure/fact sheet at 3 public information meetings and hearings for Conservation Commission, Inland Wetlands and Watercourse Commission and Planning and Zoning Commission	Superintendent of Roads
Year 5	Display and distribute brochure/fact sheet at 6 public information meetings and hearings for Conservation Commission, Inland Wetlands and Watercourse Commission and Planning and Zoning Commission	Superintendent of Roads

**2.2.3 Storm Drain Marking/Stenciling**

The storm drain marking / stenciling program collected from CTDEP for Section 2 “Public Education and Outreach will be made available to community groups within the town for installation. The materials will be available to these parties on a limited first come, first served basis.

The benefits associated with this BMP include increased public participation in local stormwater management programs and increased awareness by the general public. It will educate and demonstrate to the public the direct link between the storm sewer system and the surface waters to which it drains.

*Example of storm drain marking/stenciling participation on a community level.*



The measurable goals, target dates and responsible position associated with this BMP are detailed in the following table.

**Table 2.2 Storm Drain Marking / Stenciling BMP  
Measurable Goals and Implementation Dates**

Target Date	Measurable Goal / Activity	Responsible Dept. or Person
Year 1	Collect materials from CTDEP and identify appropriate locations for installation	Superintendent of Roads
Year 2 - 5	Install storm drain markers / stencils	Superintendent of Roads

## **SECTION 3 – ILLICIT DISCHARGE DETECTION AND ELIMINATION**

This minimum control measure is critical to the success of the stormwater management program as it will identify and reduce untreated discharges that contribute high levels of pollutants, including heavy metals, toxic materials, oil and grease, solvents, nutrients, viruses and bacteria to receiving waterbodies. Pollutant levels from these illicit discharges have been shown to be high enough to significantly degrade receiving water quality and threaten aquatic, wildlife, and human health.

### **3.1 REQUIREMENTS**

#### **Throughout the Municipality**

- 3.1.1 Implementation of an ordinance or other regulatory mechanism to effectively prohibit non-stormwater discharges.
- 3.1.2 Inform public employees, businesses and the general public of hazards associated with illegal discharges and improper disposal of waste.
- 3.1.3 By the end of the third year of the General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems, expand the map detailed below in Section 3.1.4. to identify on such map all outfalls of 15" or greater where such outfalls are located anywhere within the municipality.

#### **Urbanized Areas**

- 3.1.4 By the end of the second year of the general permit, develop a map or series of maps at a minimum scale of 1"=2000' and maximum scale of 1"=100' showing all stormwater discharges from a pipe or conduit with a diameter of 15" or greater (or equivalent cross-sectional area) owned or operated by the department. For each discharge the following information shall be included:
  - a. Type, material, and size of conveyance, outfall or channelized flow (e.g. 24" concrete pipe).
  - b. The name and Surface Water Quality Classification of the immediate surface waterbody (if available) or wetland to which the stormwater runoff discharges within 500'.
  - c. If the outfall does not discharge directly to a named waterbody, the name of the nearest named waterbody to which the outfall eventually discharges.
  - d. The name of the watershed in which the discharge is located.

- 3.1.5 By the end of the fourth year of the general permit, extend the map detailed in Section 3.1.4. to identify on the map all outfalls 12” or greater that are located within an urbanized area.
- 3.1.6 Develop, implement and enforce a program to detect and eliminate existing illicit discharges, as defined in 40CFR 122.26(b)(2).
- 3.1.7 Develop and implement a plan to detect and address future non-stormwater discharges, including illegal dumping.

Appropriate BMP’s and measurable goals for this minimum control measure must be determined. This must include the persons(s) or position(s) responsible and implementation dates for each BMP.

## **3.2 BEST MANAGEMENT PRACTICES**

The following BMP’s will be utilized in the implementation of the program to address the minimum control measure for Illicit Discharge Detection and Elimination.

### **3.2.1 Town Ordinance Regarding Non-Stormwater Discharges**

The town does not allow non-stormwater discharges into storm sewer systems owned and maintained by the town. The town ordinances will be reviewed to determine if an existing ordinance is in place. If there is not an existing ordinance prohibiting non-stormwater discharge, a new ordinance will be developed and implemented. If an existing ordinance is in place, it will be reviewed and if necessary updated to conform to the requirements of the General Permit.

Upon identifying a non-stormwater discharge, the source of the discharge shall be determined and if found to be beyond or outside the town’s system, the owner will be notified by the Town Attorney of the violation. If the non-stormwater discharge is from a town facility, the source location shall be confirmed and corrective actions taken to eliminate the non-stormwater discharge. The town will continue to prohibit these discharges and will use all available resources for its enforcement.

Training will be provided to department personnel regarding the hazards associated with illegal discharges and improper disposal of wastes.

### **3.2.2 Storm Sewer System Map(s)**

A storm sewer system map(s) will be developed, showing the location of all outfalls greater than or equal to 15” in diameter and the names and locations of all waters of the town that receive discharges from those outfalls. The map will include, but not be limited to, town owned facilities including roadways and parking lots. The map(s) scale will be a minimum of 1”=2000’ and a maximum of 1”=100’ and will include the following information at a minimum:

- Type, material and size of conveyance
- Type of discharge (i.e. outfall or channelized)
- Name and Surface Water Quality Classification of immediate surface waterbody or wetland discharged into, or name of nearest named waterbody downstream
- Name of drainage basin discharge is located in, as per June 1982 Atlas of the Public Water Supply Source and Drainage Basins of Connecticut

The map(s) will be developed using base mapping, existing data records and field surveys. The base map will be established on to which the storm sewer information will be overlaid. The base map will consist of the following features:

- Major Roads
- Local Roads
- Water Features
- Wetlands
- Stormwater Outfalls

Field surveys will be performed by the town using Global Positioning Systems, to verify existing structure locations and locate missing structures. The map will be completed within three years.

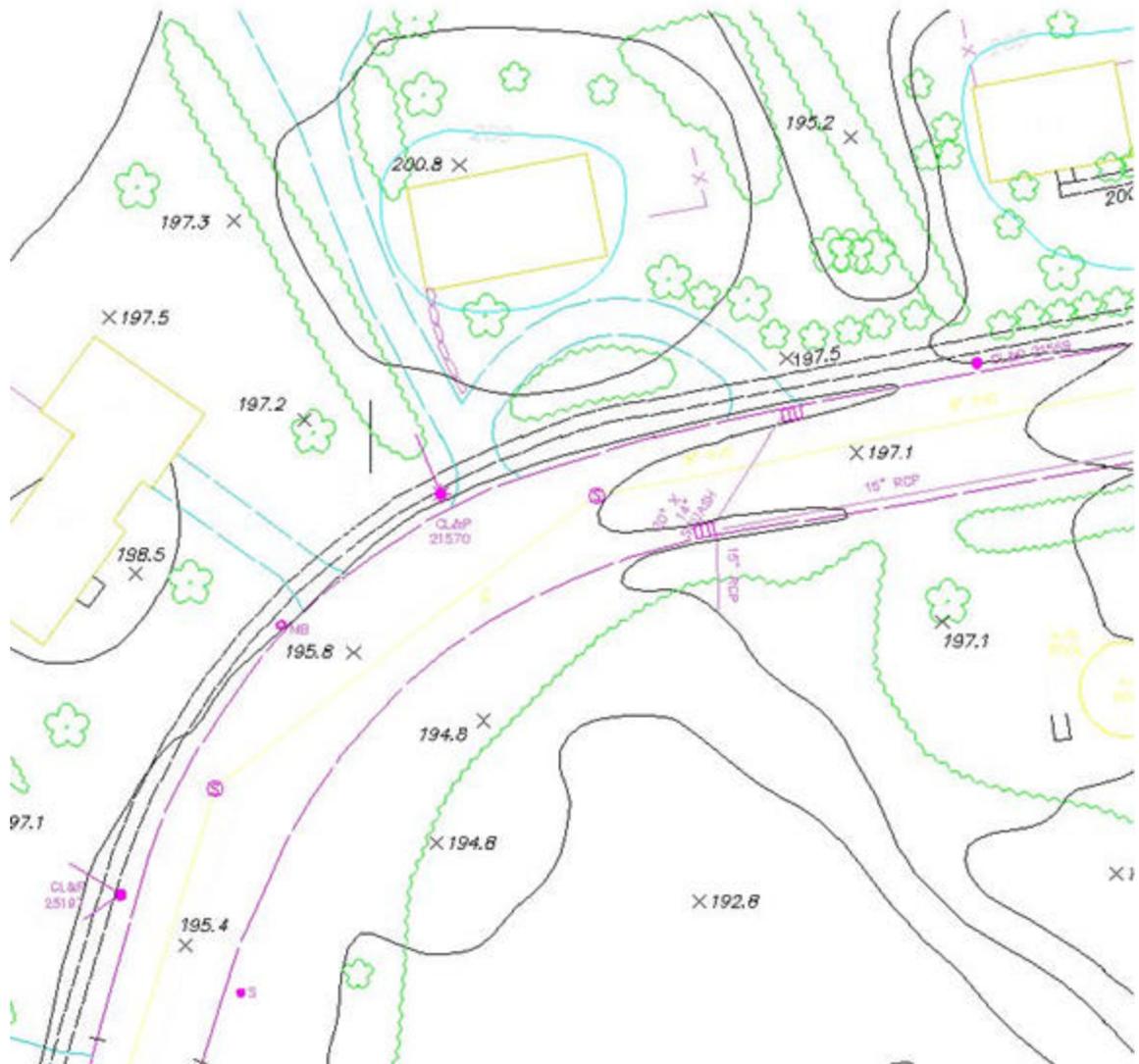
The town will establish a system (database) to manage all of the information associated with the map(s). The database will utilize a Geographical Information System (GIS) to build and query the information, which will be accessible to all offices of the department. The database will include but not limited to the following information associated with outfalls:

- |                             |                      |
|-----------------------------|----------------------|
| • Discharge Location        | • Odor Presence      |
| • Pipe Location             | • Erosion at Outfall |
| • Water Receiving Discharge | • Scour Protection   |
| • Pipe Diameter             | • Physical Condition |
| • System Type               | • Blockage           |
| • Flow                      | • Date               |
| • End Type                  | • Town               |
| • Pipe Flow                 | • ID Number          |
| • Flow Appearance           |                      |

The storm sewer map is a component of the program that will require continuous maintenance after its initial development. The town will periodically update the map with the latest storm sewer system configurations and information in the future.

The benefits associated with this BMP include providing awareness of the intake and discharge areas of the department's systems. This information will be helpful in determining the extent of dry weather flows, potential sources and the particular waterbodies that these flows may be affecting. The map will also be useful in identifying the responsible parties associated with specific illicit discharges.

*Example of Storm Sewer System Mapping. 1"=40' topographic mapping showing contours, storm sewer system and outfalls.*



The measurable goals, target dates and responsible position associated with this BMP are detailed in the following table.

**Table 3.1 Storm Sewer System Map BMP Measurable Goals and Implementation Dates**

Target Date	Measurable Goal / Activity	Responsible Dept. or Person
Year 1	Acquire base mapping from Council of Governments – Naugatuck Valley	Superintendent of Roads
Year 2 - 3	Perform field survey with GPS	Superintendent of Roads
Year 3	Develop GIS Map and Database	Superintendent of Roads
Year 4 - 5	Modify and maintain database and map (GIS)	Superintendent of Roads

**3.2.3 Illicit Discharge Detection and Elimination Program**

A program will be developed and implemented to detect, locate and eliminate illicit discharges (to the maximum extent practicable) into the department’s storm sewer systems. The plan will utilize sampling/monitoring techniques, personnel and equipment, along with the storm sewer map (section 3.2.2) for locating sources of illicit discharge.

Stormwater monitoring shall be conducted by the department annually starting in the second year of the program. Samples shall be collected from discharges resulting from a storm event that is greater than 0.1 inch in magnitude and that occurs at least 72 hours after any previous storm event of 0.1 inch or greater. Runoff events resulting from snow or ice melt cannot be used to meet the minimum annual monitoring requirements. Grab samples shall be used for all monitoring. Grab samples shall be collected during the first (6) hours of a storm event discharge. A field sample of ph, turbidity and conductivity will be taken at the site.

The following information shall be collected for the storm events monitored:

- Date
- Air Temperature
- Time of the start of the discharge
- Time of sampling
- Magnitude (in inches) of the storm event sampled
- Duration between the storm event sampled and the end of the previous measurable (greater than 0.1 inch rainfall) storm event

Unless otherwise specified, all pollutant parameters shall be tested according to methods prescribed in Title 40, CFR, Part 136 (1990). Testing of these parameters shall be performed at certified state laboratories. The parameters to be tested at each discharge point shall include:

- pH(SU) (Taken with field equipment)
- Hardness (mg/l)
- Conductivity (umhos) (Taken with field equipment)
- Oil and grease (mg/l)
- Chemical Oxygen Demand (mg/l)
- Turbidity (ntu) (Taken with field equipment)
- Total Suspended Solids (mg/l)
- Total Phosphorous (mg/l)
- Ammonia (mg/l)
- Total Kjeldahl Nitrogen (mg/l)
- Nitrate plus Nitrite Nitrogen (mg/l)
- E. coli (col/100ml)
- In addition to this list of parameters, uncontaminated rainfall pH shall be measured at the time the runoff sample is taken (Taken with field equipment).

The town will sample/monitor six (6) different outfalls annually. At least two (2) outfalls apiece shall be monitored from areas of primarily industrial development, commercial development and residential development, respectively, for a total of six (6) outfalls monitored. Each monitored outfall shall be selected based on an evaluation by the town that the drainage area of such outfall is representative of the overall nature of its respective land use type.



*Typical storm sewer system outfalls.*

In instances, where the stormsewer systems are interconnected between different owners, the town and the other entity would be co-permittees. This could include ConnDOT or adjacent towns. The town would be responsible for its system up to the tie in or connection point, while the other party would be responsible from the connection point upstream. If an illicit discharge is identified within a town-owned system, the town will be responsible for determining whether the sources origin is located within its system. If the illicit discharge is determined to be from a point beyond the town's system, the Town Attorney will be notified for further action.

The town's facilities that are currently covered under the General Permit for the Discharge of Stormwater Associated with Industrial Activity will remain under that permit, and therefore will not be subject to the requirements of this permit or covered under this stormwater management program. These facilities will be covered and operated under their respective Stormwater Pollution Prevention Plans. The following list contains the types of facilities and transportation structures covered under the general permit for the Discharge of Stormwater from Small Municipal Storm Sewer Systems.

**Facilities**

- Town Garage

Documentation, including annual reports, will be performed, and will include information such as: the number of outfalls tested, complaints received and addressed, and the number of illicit discharges and quantities of flow eliminated. Refer to Section 7 "Additional Requirements" for specific details regarding annual reports to CTDEP.

The benefits associated with these BMP's include the identification and elimination of point sources of pollutant discharges and establishing a working database of information that will be useful in locating problematic areas.

*Photograph of a typical illicit stormwater discharge.*



The measurable goals, target dates and responsible position associated with this BMP are detailed in the following table.

**Table 3.2 Illicit Discharge Detection and Elimination Program  
Measurable Goals and Implementation Dates**

Target Date	Measurable Goal / Activity	Responsible Dept. or Person
Year 1 - 5	Perform outfall monitoring 2 Residential, 2 Industrial & 2 Commercial Outfalls	Superintendent of Roads

**3.2.4 Future Illicit Discharge Detection and Elimination**

The town will continue to monitor its stormwater discharges in an effort to detect and address future non-stormwater discharges and will coordinate with other municipalities and state agencies in identifying illegal dumping.

## **SECTION 4 – CONSTRUCTION SITE STORMWATER RUNOFF CONTROL**

This minimum control measure is a critical component of the stormwater management program because polluted stormwater runoff from construction sites often flows to storm sewer systems and ultimately is discharged into local rivers and streams. Sediment is typically the main pollutant of concern but other pollutants include solid and sanitary wastes, phosphorous (fertilizer), pesticides, nitrogen (fertilizer), oil and grease, concrete truck washout, construction chemicals and construction debris.

Sediment runoff rates from construction sites are typically greater than those of agricultural lands, and significantly 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 the state's waters.

### **4.1 REQUIREMENTS**

The development, implementation and enforcement of a program, or modification of an existing program, is required to reduce pollutants in any stormwater runoff to the Municipal Separate Storm Sewer System (MS4) from construction activities that result in a land disturbance of greater than or equal to one (1) acre. Reduction of stormwater discharges from construction activity disturbing less than one acre shall be included in the program if that construction activity is part of a larger common plan of development that would disturb one acre or more. The program shall include but not be limited to the following requirements:

- 4.1.1 An ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions for non-compliance, to the extent allowable under State or local law.
- 4.1.2 Procedures for notifying construction site developers and operators of the requirements for registration under the General Permit for the Discharge of Stormwater and Dewatering Wastewaters Associated with Construction Activities.
- 4.1.3 Requirements for construction site operators to implement appropriate erosion and sediment control best management practices in accordance with the Connecticut Guidelines for Soil Erosion and Sediment Control.
- 4.1.4 Requirements for construction site operators to control waste at the site such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality.
- 4.1.5 Procedures for site plan review, which incorporate consideration of potential water quality impacts.
- 4.1.5 Procedures for receipt and consideration of information submitted by the public.
- 4.1.6 Procedures for site inspection and enforcement of control measures.

Appropriate BMP's and measure goals for this minimum control measure must be determined. This must include the persons(s) or position(s) responsible and implementation dates for each BMP.

## **4.2 BEST MANAGEMENT PRACTICES**

The following BMP's will be utilized in the implementation of the program to address the minimum control measure for Construction Site Runoff Control.

### **4.2.1 Ordinance Requiring Erosion and Sediment Controls**

The town requires erosion and sediment controls for all projects in accordance with all state and federal regulations. Several documents define the town regulations for requiring erosion and sediment controls associated with construction activities within the town. These regulations include the following:

- Zoning Regulations
- Subdivision Regulations
- Inland Wetland and Watercourse Regulations

#### **Zoning Regulations**

Article X, 10.3.d & 10.7.e - These regulations require the applicant to submit an erosion and sediment control plan with a narrative describing the project, schedule of construction, grading, conservation practices and maintenance programs. Requirements for plan preparation are also described in these requirements.

#### **Subdivision Regulations**

Article III, 3.3.i, Article VIII, 8 – These regulations require the applicant to submit an erosion and sediment control plan with a narrative describing the project, schedule of construction, grading, conservation practices and maintenance programs. Requirements for plan preparation are also described in these requirements.

#### **Inland Wetland and Watercourse Regulations**

Section 7.4.b – These regulations require the applicant to submit an erosion and sediment control plan.

To satisfy the requirements of the general permit for implementing appropriate best management practices, the town's regulations will be modified to be in accordance with the Connecticut Guidelines for Soil Erosion and Sediment Control, for the planning, design and construction of erosion and sediment controls and best management practices. In addition, the town regulations will incorporate the Connecticut Department of Transportation Drainage Manual 2000 for the design of

these controls, as they pertain to drainage design. These documents are listed more specifically as the following:

- CTDOT Drainage Manual, October 2000 and supplements thereto
- Connecticut Guidelines for Soil Erosion and Sediment Control, DEP Bulletin 34, 2002 and supplements thereto

**CTDOT Drainage Manual**

Erosion and sediment control is addressed in Chapter 8.5.4 of the CTDOT Drainage Manual. The design of outlet protection for all projects shall be in accordance with the Drainage Manual. Outlet protection is discussed and the procedures for designing outlet protection are contained in chapter 11.13 of the Drainage Manual. The methodology outlined in the Drainage Manual has been accepted by the CTDEP

**Connecticut Guidelines for Soil Erosion and Sediment Control**

This document is intended to provide information to government agencies, municipal planning and zoning commissions and the public on soil erosion and sediment control for projects that require erosion and sediment control planning, design and implementation. The guidelines contain information / procedures for the design of several BMP's for stabilization construction sites, structures, drainage ways and watercourses, detention structures and energy dissipaters.

Site specific BMP's to be utilized on projects may include the following:

**Runoff Control**

- Minimize Clearing
- Land Grading
- Permanent Diversions
- Preserving Natural Vegetation
- Construction Entrances
- Check Dams
- Filter Berms
- Grass Lined Channels \ Swales
- RipRap



*Photograph of Grass Lined Swale with Stone Check Dams*



*Photograph of Riprap Lined Channel for permanent soil stabilization*

**Erosion Control**

- Mulching
- Permanent Seeding
- Sodding
- Soil Roughening
- Geotextiles
- Gradient Terraces
- Soil Retention
- Temporary Slope Drain
- Temporary Stream Crossings
- Vegetated Buffer
- Construction Sequencing
- Dust Control



*Photograph of Erosion Control Matting used for Slope Protection*



*Photograph of Erosion Control Matting used for channel lining stabilization*

**Sediment Control**

- Temporary Diversion Dikes
- Brush Barriers
- Silt Fence
- Sediment Basins and Stone Check Dams
- Sediment Filters and Chambers
- Sediment Traps
- Storm Drain Inlet Protection



*Photograph of Sediment Trap*



*Photograph of Sedimentation Control System*

The measurable goals, target dates and responsible position associated with this BMP are detailed in the following table.

**Table 4.1 Ordinance Requiring Erosion and Sediment Controls BMP Measurable Goals and Implementation Dates**

Target Date	Measurable Goal / Activity	Responsible Dept. or Person
Year 1 - 2	Review and revise current town regulations to include reference to specific documents for design of Erosion and Sediment Control BMP's	Superintendent of Roads Inland Wetlands Stormwater Sub-Committee
Year 3 - 5	Continue Requirements and Guidelines for Erosion and Sediment Controls on all Projects	Superintendent of Roads Inland Wetlands Stormwater Sub-Committee

**4.2.2 Procedures for Notifying Construction Site Developers and Operators of Requirements for Registration**

All projects with land disturbance of greater than or equal to five (5) acres associated with construction activities shall be registered under the General Permit for the Discharge of Stormwater and Dewatering Wastewaters Associated with Construction Activities with the CTDEP. Registration shall be submitted a minimum of thirty (30) days before the initiation of construction activities as required by the general permit.

For construction projects with a total disturbed area (regardless of phasing) of between one and five acres, the permittee shall agree to adhere to the erosion and sediment control land use regulations of the town in which the construction activity is conducted. No registration pursuant to Section 4 of the General Permit for the Discharge of Stormwater and Dewatering Wastewaters Associated with Construction Activities shall be required for such construction activity as long as it receives town review and written approval of its erosion and sediment control measures and follows the Guidelines. If no review is conducted by the town, the permittee must register

and comply with Section 6 of the General Permit for the Discharge of Stormwater and Dewatering Wastewaters Associated with Construction Activities.

The town’s Zoning Regulations, Subdivision Regulations and Inland Wetland and Watercourse Regulations will be modified to include procedures for notifying construction site developers and operators of the requirements for registration under the General Permit for the Discharge of Stormwater and Dewatering Wastewaters Associated with Construction Activities. Construction activities as defined in the general permit include, but are not limited to, clearing, grubbing, grading, excavation, placement of fill and dewatering activities.

The measurable goals, target dates and responsible position associated with this BMP are detailed in the following table.

**Table 4.2 Procedures for Notifying Construction Site Developers and Operators of Requirements for Registration BMP, Measurable Goals and Implementation Dates**

Target Date	Measurable Goal / Activity	Responsible Dept. or Person
Year 1 - 2	Review and revise current town regulations to include procedures for notifying construction site developers and operators of the requirements for registration under the General Permit	Superintendent of Roads Inland Wetlands Stormwater Sub-Committee
Year 3 - 5	Continue Compliance with Registration Requirements	Superintendent of Roads Inland Wetlands Stormwater Sub-Committee

**4.2.3 Requirements for Construction Site Operators to Implement Appropriate Erosion and Sediment Control Best Management Practices in accordance with the Connecticut Guidelines for Soil Erosion and Sediment Control**

The town requires erosion and sediment controls for all projects as outlined in their Zoning Regulations, Subdivision Regulations and Inland Wetland and Watercourse Regulations. These regulations will be modified to be in accordance with the Connecticut Guidelines for Soil Erosion and Sediment Control, as described in section 4.2.1, for the planning, design and construction of appropriate erosion and sediment control BMP’s.

The contractor is required at all times to conduct his operations in conformity with all Federal and State permit requirements concerning water, air, noise pollution and the disposal of contaminated, or hazardous materials.

The measurable goals, target dates and responsible position associated with this BMP are detailed in the following table.

**Table 4.3 Requirements for Construction Site Operators to Implement Appropriate Erosion and Sediment Control Best Management Practices in accordance with the Connecticut Guidelines for Soil Erosion and Sediment Control BMP, Measurable Goals and Implementation Dates**

Target Date	Measurable Goal / Activity	Responsible Dept. or Person
Year 1 - 2	Review and revise current town regulations to be in accordance with the Connecticut Guidelines for Soil Erosion and Sediment Control	Superintendent of Roads Inland Wetlands Stormwater Sub-Committee
Year 3 - 5	Continue Requirements for Construction Site Operators to Implement Appropriate Erosion and Sediment Control Best Management Practices	Superintendent of Roads Inland Wetlands Stormwater Sub-Committee

**4.2.4 Requirements for Construction Site Operators to Control Waste at the Site**

Building materials and other construction site wastes must be properly managed and disposed of to reduce the risk of pollution from materials such as surplus or refuse building materials or hazardous wastes. Practices such as trash disposal, recycling, proper material handling, and spill prevention and cleanup measures can reduce the potential for stormwater runoff to mobilize construction site wastes and contaminate surface or ground water.

Construction site operators shall be required to control waste including discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site, that may cause adverse impacts to water quality.

The operators are required to control the above mentioned waste by contract specifications and all pertinent local, state and federal regulations. The town’s current Zoning Regulations and Subdivision Regulations will be modified to incorporate requirements for construction site operators to control waste at the site, as described in this section.

The proper management and disposal of wastes must be practiced at any construction site to reduce contamination of stormwater runoff. Waste management practices can be used to properly locate refuse piles, to cover materials that may be displaced by rainfall or stormwater runoff, and to prevent spills and leaks from hazardous materials that were improperly stored.

The following are examples of steps that should be taken to ensure proper storage and disposal of construction site wastes:

**Waste Collection**

Designate a waste collection area onsite that does not receive a substantial amount of runoff from upland areas and does not drain directly to a waterbody.

- Ensure that containers have lids so they can be covered before periods of rain, and keep containers in a covered area whenever possible.
- Schedule waste collection to prevent the containers from overflowing.
- Clean up spills immediately. For hazardous materials, follow cleanup instructions on the package. Use an absorbent material such as sawdust or kitty litter to contain the spill. Handling and disposal of all hazardous material shall be in accordance with all state and federal regulations.
- During the demolition phase of construction, provide extra containers and schedule more frequent pickups.
- Collect, remove, and dispose of all construction site wastes at authorized disposal areas. The CTDEP can be contacted to identify these disposal sites.

### **Contaminated / Hazardous Materials**

Materials will be disposed of by the department as solid waste in accordance with the Standard Specifications, contract specifications and all applicable federal, state, and local regulations. Contract specifications for the excavation, transporting, stock piling, securing, disposal of contaminated / hazardous materials and decontamination of equipment will include but not limited to the following:

- Environmental Health and Safety
- Contaminated / Hazardous Materials Excavation
- Securing, Construction and Dismantling of a Waste Stockpile and Treatment Area
- Disposal of Hazardous Waste
- Environmental Work – Solidification
- Disposal of Contaminated Railroad Ties
- Controlled Materials Handling
- Disposal of Contaminated Timber Piles
- Disposal of Controlled Materials
- Management of Reusable Controlled material
- Abandonment of Wells
- Handling and Disposal of Contaminated Concrete
- Handling Contaminated Groundwater

### **Pesticides**

The following practices should be used to reduce risks associated with pesticides or to reduce the amount of pesticides that come in contact with stormwater:

- Follow all federal, state, and local regulations that apply to the use, handling, or disposal of pesticides.
- Do not handle the materials any more than necessary.

- Store pesticides in a dry, covered area.
- Construct curbs or dikes to contain pesticides in case of spillage.
- Follow the recommended application rates and methods.
- Have equipment and absorbent materials available in areas where pesticides are stored and used in order to contain and clean up any spills that occur.

### **Petroleum**

The following management practices should be followed to reduce the contamination risk associated with petroleum products:

- Store petroleum products and fuel for vehicles in covered areas with dikes in place to contain any spills.
- Immediately contain and clean up any spills with absorbent materials.
- Have equipment available in fuel storage areas and in vehicles to contain and clean up any spills that occur.

### **Fertilizers**

Phosphorous- and nitrogen-containing fertilizers are used on construction sites to provide nutrients necessary for plant growth, and phosphorous- and nitrogen-containing detergents are found in wash water from vehicle cleaning areas. Excesses of these nutrients can be a major source of water pollution. Management practices to reduce risks of nutrient pollution may include the following:

- Apply fertilizers at the minimum rate and to the minimum area needed.
- Work the fertilizer deeply into the soil to reduce exposure of nutrients to stormwater runoff.
- Ensure that erosion and sediment controls are in place to prevent fertilizers and sediments from being transported off-site.
- Use detergents only as recommended, and limit their use onsite. Wash water containing detergents should not be dumped into the storm drain system—it should be directed to a sanitary sewer or be otherwise contained so that it can be treated at a wastewater treatment plant.

### **Maintenance Considerations**

Containers or equipment that may malfunction and cause leaks or spills should be identified through regular inspection of storage and use areas. Equipment and containers should be inspected regularly for leaks, corrosion, support or foundation failure, or any other signs of deterioration and should be tested for soundness. Any found to be defective should be repaired or replaced immediately.

The measurable goals, target dates and responsible position associated with this BMP are detailed in the following table.

**Table 4.4 Requirements for Construction Site Operators to Control Waste at the Site BMP, Measurable Goals and Implementation Dates**

Target Date	Activity	Responsible Dept. or Person
Year 1 - 2	Review and revise current town regulations to include Requirements for Construction Site Operators to Control Waste at the Site	Superintendent of Roads
Year 3 - 5	Continue Requirements for Construction Site Operators to Control Waste at the Site	Superintendent of Roads

**4.2.5 Procedures for Site Plan Review**

Procedures for site plan review which incorporate consideration of potential water quality impacts are required by the town in their Zoning Regulations and Subdivision Regulations. Construction plans and specifications are required as part of the application to be submitted to the town for review. Submitted applications are reviewed by the town for conformance to all of their regulations and requirements, and federal and state permit requirements relating to construction site runoff control. The requirements are more specifically defined in the following:

**Zoning Regulations**

Article XVII, Site Plan Review

**Subdivision Regulations**

Article III, Application Requirements and Procedures

Projects requiring registration under the General Permit for the Discharge of Stormwater Associated with Construction Activities shall include site plans along with the permit application and a site specific stormwater pollution control plan for review and registration by the CTDEP.

**Table 4.5 Procedures for Site Plan Review BMP Measurable Goals and Implementation Dates**

Target Date	Measurable Goal / Activity	Responsible Dept. or Person
Year 1 - 5	Continue Site Plan Review Procedures	Superintendent of Roads

**4.2.6 Procedures for Receipt and Consideration of Information Submitted by the Public**

The town utilizes their government structure for processing information submitted by the public for receipt and consideration. Information submitted by the public is

forwarded to the appropriate department within the town’s government structure for consideration.

**Table 4.6 Procedures for Receipt and Consideration of Information Submitted by the Public BMP, Measurable Goals and Implementation Dates**

Target Date	Measurable Goal / Activity	Responsible Dept. or Person
Year 1 - 5	Continue Procedures for Receipt and Consideration of Information Submitted by the Public	Superintendent of Roads

**4.2.7 Procedures for Site Inspection and Enforcement of Control Measures**

Site inspection and enforcement of control measures are required by the town in their Zoning Regulations, Subdivision Regulations and Inland Wetland and Watercourse Regulations.

**Zoning Regulations**

Article XIV, Administration and Enforcement  
 Article XVIII, 18.12, Site Inspection  
 Article XXII, Sedimentation and Erosion Control Bond

**Subdivision Regulations**

Article III, 3.5, Inspection by the Town Engineer  
 Article XIII, Administrative Procedures

Inspectors employed by the town are authorized to inspect all work performed and materials furnished for each project. The inspection may extend to all or any part of the work, and to the preparation or manufacture of the materials to be used including work and materials relating to construction site runoff control. Sediment and erosion control measures, as shown on the record plans, will be inspected to determine if the facilities are properly constructed, functioning and maintained.

The measurable goals, target dates and responsible position associated with this BMP are detailed in the following table.

**Table 4.7 Procedures for Site Inspection and Enforcement of Control Measures BMP, Measurable Goals and Implementation Dates**

Target Date	Measurable Goal / Activity	Responsible Dept. or Person
Year 1 - 5	Continue Site Inspection and Enforcement of Control Measures	Superintendent of Roads

## **SECTION 5 – POST CONSTRUCTION STORMWATER MANAGEMENT**

This minimum control measure is a critical component of the stormwater management program because stormwater runoff from developed sites often flows to storm sewer systems and ultimately is discharged into local rivers and streams. Runoff from these development and/or redevelopment areas has been shown to significantly affect receiving waterbodies. Many studies indicate that prior planning and design for the minimization of pollutants in post-construction stormwater discharges is the most cost-effective approach to stormwater quality management.

There are two significant water quality impacts generally associated with post-construction runoff. The first is caused by an increase in the type and quantity of pollutants in stormwater 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 significant water quality impact occurs due to the increased 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 waterbody. The effects of this process include stream bank scouring and downstream flooding, which often leads to a loss of aquatic life and damage to property.

An effective post construction site runoff control program will minimize water quality impacts and attempt to maintain pre-development runoff conditions.

### **5.1 REQUIREMENTS**

The development, implementation and enforcement of a program, or modification of an existing program is required to address stormwater runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development, that discharge into the town's storm sewer systems or directly to the waters of the State. The program shall ensure that controls are implemented to require appropriate infiltration practices, reduction of pervious surface, creation of or conversion to sheet flow, measures and/or structures to reduce sediment discharge and any other innovative measures that will prevent or minimize water quality impacts and include the following:

- 5.1.1 The development and implementation or modification of strategies which include a combination of structural and / or non-structural best management practices.

5.1.2 Use of an ordinance, regulatory mechanism or procedures to address post construction runoff from new development and redevelopment projects to the extent allowable under State or local law.

5.1.3 Ensure long term operation and maintenance of Best Management Practices.

Appropriate BMP's and measurable goals for this minimum control measure must be determined. These must include the persons(s) or position(s) responsible and implementation dates for each BMP.

## **5.2 BEST MANAGEMENT PRACTICES**

The following BMP's will be utilized in the implementation of the program to address the minimum control measure for Post Construction Stormwater Management.

### **5.2.1 Requirements for Structural and Non-Structural BMP's**

The town will require structural and non structural BMP's for projects disturbing greater than or equal to one (1) acre.

The criteria are intended to help evaluate stormwater discharges and the methods that may be used for the treatment of stormwater before it reaches an outlet.

The town's current Subdivision Regulations, Zoning Regulations and Inland Wetland and Watercourse Regulations will be modified to be in accordance with several documents for the purposes of establishing guidelines and procedures for addressing post construction runoff in planning, design and construction for all construction and reconstruction projects within the town. The modification of the town's regulations will satisfy the requirements of the general permit. These documents include the following:

- CTDOT Drainage Manual, October 2000 and supplements thereto
- Connecticut Guidelines for Soil Erosion and Sediment Control, DEP Bulletin 34, 2002 and supplements thereto
- Connecticut Stormwater Quality Manual, 2004 and supplements thereto

#### **CTDOT Drainage Manual**

This document contains guidelines and procedures for the design of several structural BMP's including roadside channels, outlet protection, bank protection, rock riprap design and storage facilities as well as detention and retention ponds.

The design of outlet protection for all projects shall be in accordance with the Drainage Manual rather than the Connecticut Guidelines for Soil Erosion and Sediment Control. Outlet protection is discussed and the procedures for designing

outlet protection are contained in chapter 11.13 of the Drainage Manual. The methodology outlined in the Drainage Manual has been accepted by the CTDEP for use by the department.

**Connecticut Guidelines for Soil Erosion and Sediment Control**

This document is intended to provide information to government agencies, municipal planning and zoning commissions and the public on soil erosion and sediment control for projects that require erosion and sediment control planning, design and implementation. The guidelines contain information / procedures for the design of several BMP's for stabilization construction sites, structures, drainage ways and watercourses, detention structures and energy dissipaters.

**Connecticut Stormwater Quality Manual**

The CTDEP intends this manual for use as a planning tool and design guidance document by the regulated and regulatory communities involved in stormwater quality management in the State of Connecticut. The manual provides uniform guidance for developers and engineers on the selection, design, and proper application of stormwater BMP's. This manual will also assist local and state government officials(i.e., town engineers, planners, Planning and Zoning Commissions, Conservation Commissions, Inland Wetlands Commissions, and Connecticut State agencies) design and review projects in a technically sound and consistent manner.

The following is a list of the potential BMP's which may be utilized in accordance with the above mentioned documents\manuals:

**Structural BMP's**

**Ponds**

- Dry Extended Detention Ponds
- Sedimentation Basin
- Wet Ponds

**Infiltration Practices**

- Infiltration Basin
- Infiltration Trench

**Filtration Practices**

- Bioretention



*Photograph of Wet Pond*

**Vegetative Practices**

- Stormwater Wetland
- Grassed Swales
- Grassed Filter Strip



*Photograph of Grassed Swale*

**Runoff Pretreatment Practices**

- Manufactured Products (Swirl separators, or hydrodynamic structures)

*Photograph of Hydrodynamic Separator*



Detention and retention structures may be utilized to limit increases in peak flow rates and volumes when required by CTDEP Inland Water Resource permit requirements. These facilities will be designed and constructed in accordance with the CTDOT Drainage Manual and Connecticut Guidelines for Soil Erosion and Sediment Control.

**Non-Structural BMP's**

- Urban Foresty (Use of trees, plantings and landscaped areas around parking lots)
- Limiting Curbs and Gutters for roadways
- BMP Inspection and Maintenance

*Photograph of Catch Basin Requiring Cleaning*



The measurable goals, target dates and responsible position associated with this BMP are detailed in the following table.

**Table 5.1 Requirements for Structural and Non Structural BMP's, Measurable Goals and Implementation Dates**

Target Date	Measurable Goal / Activity	Responsible Dept. or Person
Year 1 - 2	Review and modify current town regulations to be in accordance with guidelines and procedures for Structural and Non Structural BMP's	Superintendent of Roads
Year 3 - 5	Implementation of BMP's including projects with greater than or equal to 1 acre in disturbance area	Superintendent of Roads

**5.2.2 Procedures for Addressing Post Construction Runoff from Construction and Reconstruction Projects**

Post construction runoff from construction and reconstruction projects will be regulated by the town's Subdivision Regulations, Zoning Regulations, and Inland Wetland and Watercourse Regulations as described in section 5.2.1 of this document. The town currently has procedures in place for the enforcement of these regulations as listed in the following:

**Zoning Regulations**

Article XIV, Administration and Enforcement

**Subdivision Regulations**

Article XIII, Administrative Procedures

**Inland Wetland and Watercourse Regulations**

Section 6, Regulated Activities Requiring a Permit  
 Section 13, Enforcement Powers and Authority

The measurable goals, target dates and responsible position associated with this BMP are detailed in the following table.

**Table 5.2 Procedures for Addressing Post Construction BMP's, Measurable Goals and Implementation Dates**

Target Date	Measurable Goal / Activity	Responsible Dept. or Person
Year 1 - 5	Continue procedures for addressing post construction BMP's including projects with greater than or equal to 1 acre in disturbance area	Superintendent of Roads

**5.2.3 Ensuring Long Term Operation and Maintenance of Best Management Practices**

The town will ensure its long-term operation and maintenance of post construction BMP's through regularly scheduled maintenance as required by the general permit. Long term operation and maintenance of best management practices shall be in accordance with Section 6 – Good Housekeeping / Pollution Prevention of this plan.

The measurable goals, target dates and responsible position associated with this BMP are detailed in the following table.

**Table 5.3 Ensuring Long Term Operation and Maintenance of Best Management Practices, Measurable Goals and Implementation Dates**

Target Date	Measurable Goal / Activity	Responsible Dept. or Person
Year 1 - 5	Continue operation and maintenance of BMP's	Superintendent of Roads

## **SECTION 6 – POLLUTION PREVENTION / GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS**

This minimum control measure is critical to the success of the stormwater management program as it helps to improve or protect receiving water quality by evaluating, altering and maintaining Town facility operations.

This measure requires the town to examine and subsequently alter its own actions to help ensure a reduction in the amount and type of pollution that collects on roadways, parking lots, open spaces, storage and vehicle maintenance areas, and all town maintained facilities, which ultimately discharge into local waterways. This measure will also address pollution that results from actions such as environmentally damaging land development and flood management practices or poor maintenance of storm sewer systems.

### **6.1 REQUIREMENTS**

#### **Town Wide**

- 6.1.1 The development and implementation of an operation and maintenance program that includes a training component for town employees and contractors and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations.
- 6.1.2 Utilize training materials that are available from the EPA, the State or other organizations. This program shall include employee training 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 stormwater system maintenance.
- 6.1.3 The development and implementation of a program to sweep all streets at least once a year as soon as possible after snowmelt.
- 6.1.4 The development and implementation of a program to evaluate and, if necessary, clean catch basins and other stormwater structures that accumulate sediment at least once a year including a provision to identify and prioritize those structures that may require cleaning more than once a year.
- 6.1.5 The development and implementation of a program to evaluate and, if necessary, prioritize for repairing, retrofitting or upgrading the conveyances, structures and outfalls of the MS4.

## Urbanized Areas

- 6.1.6 The development and implementation of a program to evaluate and prioritize those streets that may require sweeping more than once a year.

Appropriate BMP's and measurable goals for this minimum control measure must be determined. These must include the persons(s) or position(s) responsible and implementation dates for each BMP.

## **6.2 BEST MANAGEMENT PRACTICES**

The following BMP's will be utilized in the implementation of the program to address the minimum control measure for Pollution Prevention / Good Housekeeping for Municipal Operations.

### **6.2.1 Operation and Maintenance Program**

Operation and maintenance is an integral component of all storm water management programs. This measure is intended to improve the efficiency of the individual programs through appropriate maintenance practices, internal procedures and scheduling. Proper development and implementation of these programs reduces the risk of water quality problems. There are several elements that are essential for the success of an operation and maintenance program including, training, record keeping, internal reporting, maintenance and preventative maintenance. The Town will include the following elements in the development and implementation of their program.

#### Employee Training

The town will modify their employee training program to include education and training to its employees regarding stormwater management, and how it relates to the Town's maintenance operations. The training will focus on pollution prevention, best management practices and good housekeeping. Training may also include topics such as illicit discharge detection, water quality monitoring, inspection, record keeping, internal reporting, general maintenance, preventative maintenance and other topics relating to proper stormwater management and the requirements of the General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems. Employee training is detailed further in Section 6.2.2.

#### Record Keeping

The town's procedures for record keeping will incorporate the required documentation of information and data, resulting from the General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems procedures. Keeping records of spills, leaks, inspections, scheduled maintenance and other stormwater related issues, provides useful information for ensuring proper

operation of facilities and equipment with the ultimate goal of improving best management practices and water quality. The following list of topics are essential for a successful records keeping program, some of which are required for the General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems annual reports to CTDEP:

- Public Education
- Public Participation
- Illicit Discharges (including corrective measures)
- Water Quality Monitoring
- Employee Training
- Drainage Facility Inspections
- Street Sweeping
- Catch Basin Cleaning

The key to a successful records keeping program is to maintain records through regularly scheduled updates. The town may utilize the following techniques to document and report their data and results:

- Field notebooks
- Timed and dated photographs
- Drawings and maps
- Computer spreadsheets and database programs

Record keeping will be coordinated with the town's internal reporting procedures and other BMP's as it is integrated into the development of the town's stormwater pollution prevention plan.

The town will submit annual reports containing records required by the General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems, to the CTDEP. These annual reports will include information as described in the Section 7 "Additional Requirements" of this plan, and meet the requirements of the General Permit.

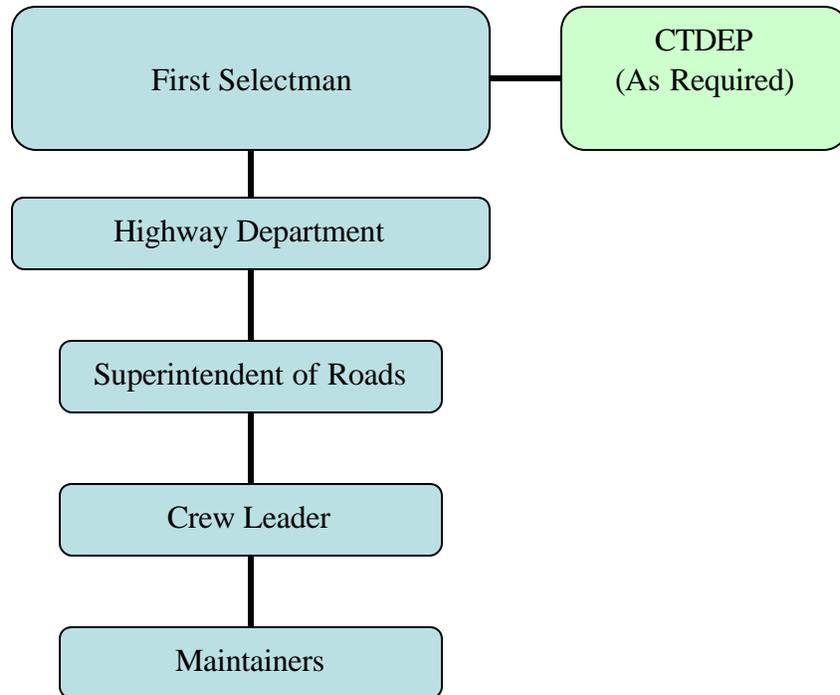
### Internal Reporting

Internal reporting provides a framework for "chain-of-command" reporting of stormwater management issues, and is an essential part of any good records keeping program. When properly employed, internal reporting procedures can clearly define individual's roles and responsibilities for implementing and maintaining the stormwater pollution prevention program, thereby making it easier to prevent and contain potential stormwater contamination.

The town's internal reporting procedures will incorporate the additional effort needed with this stormwater management program, and the position(s) responsible for each stormwater management task. In general, the position(s) responsible for each BMP

are listed in a table at the end of each minimal control measure section of this stormwater management plan. If the issue requires special attention, the town will notify the CTDEP. The following figure depicts the typical reporting hierarchy or “chain of command” that may be followed for issues relating to stormwater management.

**Figure 6.1 Typical Internal Reporting Flow Chart**



Maintenance Program

Maintenance involves pollution prevention techniques that reduce or eliminate pollutant loadings from existing town owned and maintained roadways, parking lots and facilities as part of the operation and maintenance program. Significant amounts of pollutants are generated during daily roadway and facility use, and these pollutant loadings can threaten local water quality by contributing heavy metals, hydrocarbons, sediment, and debris to stormwater runoff. Good maintenance practices including street sweeping and catch basin cleaning can help limit impacts to water resources. These practices are especially important after the winter months, since large quantities of sand and salt are applied to the roadways to make travel possible during inclement weather.

The town's maintenance plan for sweeping roadways, parking lots and facilities, and cleaning catch basins will meet the requirements of the General Permit.

Street sweeping and catch basin cleaning detailed further in Sections 6.2.3 & 6.2.4 respectively.

Preventative Maintenance Program

Preventative maintenance measures are intended to reduce the frequency and quantity of pollutants that are discharged to waterbodies as a result of the failure and deterioration of ageing systems. Preventative maintenance will continue to be utilized by the town for eliminating potential problems associated with drainage systems, facilities and equipment. The measures generally utilized by the town are performed during the following activities:

- Catch basin inspection during routine maintenance
- Drainage system inspection for new construction / reconstruction projects.

Preventative maintenance is detailed further in Section 6.2.5.

The measurable goals, target dates and responsible position associated with this BMP are detailed in the following table.

**Table 6.1 Operation and Maintenance Program BMP Measurable Goals and Implementation Dates**

<b>Target Date</b>	<b>Measurable Goal / Activity</b>	<b>Responsible Dept. or Person</b>
Year 1	Review current Operation and Maintenance procedures and revise to meet the requirements of the General Permit.	Superintendent of Roads
Years 2	Implement Operation and Maintenance requirements.	Superintendent of Roads
Years 3-5	Continue Operation and Maintenance requirements.	Superintendent of Roads

**6.2.2 Employee Training Program**

The Highway Department currently holds annual training for its employees to discuss topics relating to spill prevention and spill containment procedures. The existing training program will add a stormwater management component to discuss potential sources of contaminants, and best management practices. This program will provide personnel with an understanding of the town's stormwater management plan,

including BMP's, processes and materials with which they are working, safety hazards, practices for preventing spills, and procedures for responding quickly and properly to toxic and hazardous material incidents. The program will include topics on sedimentation and erosion control, permanent BMP's, and permit requirements. They will also be informed of the proper procedures for reporting and documenting any potential pollutants discovered. The following scheduled training will be scheduled to meet the requirements of the general permit:

**Annually**

The Highway Department will continue to conduct their annual "tailgate" meetings to discuss spill prevention and containment issues. These meetings will incorporate stormwater management topics as they relate to the General Permit requirements. Training will continue in the first year of the program and proceed annually throughout the program. Subsequent meetings will be conducted as refresher courses. The training sessions will continue in the first year of the program and proceed annually throughout the program.

The employee training program is intended to train new employees and remind current employees of proper operations and procedures.

The measurable goals, target dates and responsible position associated with this BMP are detailed in the following table.

**Table 6.2 Employee Training Program BMP Measurable Goals and Implementation Dates**

Target Date	Measurable Goal / Activity	Responsible Dept. or Person
Year 1	Modify Existing Employee Training "Tailgate Meetings" to incorporate the requirements of the General Permit	Superintendent of Roads
Years 2	Implement Employee Training requirements	Superintendent of Roads
Years 3-5	Continue Employee Training requirements	Superintendent of Roads

**6.2.3 Street Sweeping Program**

Street sweeping is practiced in most urban areas, to remove sediment buildup and large debris from curb gutters. Street sweeping is also used during the spring snowmelt to reduce pollutant loads from road salt and to reduce sand export to receiving waters.

The town will conduct street sweeping on a scheduled basis to minimize pollutant export to state and local waterbodies. These cleaning practices will remove sediment, large debris from curb gutters and other pollutants, from roadways, parking lots and facility surfaces, which are a potential source of pollution impacting state and local waterbodies. Street sweeping frequency will range from one time per year, to multiple times per year for areas with heavier concentrations of sediment and debris. The Town will utilize the following criteria for street sweeping frequency:

### **Town Wide**

The town will sweep all of its roadways, parking lots and facilities at least once every year. The sweeping will be performed as soon as possible after snowmelt.

### **Urbanized Areas**

The town will perform multiple sweeps per year for priority areas, where sediment/debris has been known to accumulate in higher quantities. These priority areas will be based upon the town's knowledge and experience of the degree of sediment accumulation during the year. Geographical location, climate, traffic patterns and surface geometry may also be factors in determining priority areas. The first sweep will be performed as soon as possible after snowmelt.

In addition, the CTDEP has published a Notice of Intent to adopt a TMDL Analysis for the Upper Naugatuck River, Thomaston, Connecticut on June 14, 2004. Based on monitoring, toxicity from point source discharges has been determined to be the most likely stressor and cause of impairment to the biological community.

Although the Draft TMDL Analysis has not identified non-point sources of pollution from stormwater runoff, the town will sweep the following roads multiple times to capture more sediment along these roads in the attempt to further reduce the pollutant loading from the stormwater runoff along these roads which are in close proximity to the Naugatuck River and within the TMDL Study Area.

The following locations will receive multiple sweeps per year:

- Old Waterbury Road (Route 6 Bridge to Frost Bridge)
- Jackson Street
- West Hill Road
- Treadwell Avenue
- River Street

*Photograph of Town street sweeping equipment.*



The measurable goals, target dates and responsible position associated with this BMP are detailed in the following table.

**Table 6.3 Street Sweeping Program BMP Measurable Goals and Implementation Dates**

Target Date	Measurable Goal / Activity	Responsible Dept. or Person
Year 1	Implement Street Sweeping requirements	Superintendent of Roads
Years 2-5	Continue Street Sweeping requirements	Superintendent of Roads

#### 6.2.4 Catch Basin Maintenance Program

Catch basins fitted with sumps are intended to retain coarse sediment by trapping this material in a chamber or low area below the invert of the outlet pipe. By trapping sediment, the catch basin prevents solids from clogging the storm sewer and being washed into receiving waters. Catch basins must be cleaned to maintain their ability to trap sediment, and consequently their ability to prevent flooding. The removal of sediment, decaying debris and highly polluted water from catch basins has both aesthetic and water quality benefits. These include reducing foul odors, reducing suspended solids, and reducing the load of oxygen-demanding substances that reach receiving waters.

The town will continue their catch basin maintenance program and modify it to meet the requirements of the general permit. This will consist of inspecting and if

necessary cleaning catch basins on a regularly scheduled basis. The town will use the following criteria for inspecting and cleaning their catch basins:

- The town, at a minimum, will annually evaluate and, if necessary, clean catch basins and other stormwater structures that accumulate sediment at least once a year. Typically, all catch basins in town are cleaned in the Spring and Fall each year to prevent having to clean subsurface stormsewer pipe segments between structures.
- Priority areas will be established to maximize the effectiveness of the town's available resources for the routine inspections. These priority areas will be developed using the town's knowledge of problem areas, where sediment/debris has been known to accumulate in higher quantities. Geographical location, climate, traffic patterns and vertical sag locations may also be factors in determining priority areas.

The following list of roads are established priority areas that multiple catch basin cleanouts will be performed per year. These roads are in the immediate vicinity of watercourses and waterbodies which are listed in parenthesis.

- Litchfield Street (Northfield Brook)
- Twinn Pond Road (Joe's Pond)
- Reynolds Bridge Road (Branch Brook)
- Hotchkiss Avenue (Crystal Lake)

*Photographs of typical catch basin cleaning equipment.*



The measurable goals, target dates and responsible position associated with this BMP are detailed in the following table.

**Table 6.4 Catch Basin Maintenance Program BMP  
Measurable Goals and Implementation Dates**

Target Date	Measurable Goal / Activity	Responsible Dept. or Person
Year 1	Implement Catch Basin Maintenance requirements Develop Priority Areas	Superintendent of Roads
Years 2-5	Continue Catch Basin Maintenance requirements	Superintendent of Roads

**6.2.5 Preventative Maintenance Program**

Preventative maintenance takes a proactive approach to stormwater management and seeks to prevent problems before they occur. This measure involves the inspection, evaluation and replacement or repair of equipment and operational systems. Inspection can identify cracks, leaks, and other conditions that could cause breakdowns or failures of stormwater structures and equipment, which in turn could result in discharges of pollutants to surface waters either by direct overland flow or through storm drainage systems.

In general, the preventative maintenance of drainage systems is accomplished through visual inspections conducted as a result of routine maintenance such as catch basin cleaning, or new construction projects.

Preventative maintenance is also required by public agencies and private developers disturbing or effecting Town storm sewer systems through new development or modifications to adjacent existing developments. These entities are required to conduct an “Existing Drainage Facility Conditions Survey” for the portion of the Town’s drainage system(s) that they will be tying into or affecting as a result of the modifications. The guidelines for this survey are summarized below, and are provided in greater detailed in the Connecticut Department of Transportation’s (CTDOT’s) “Drainage Manual”, Section 3.6.3 and appendices 4.A & B.

- Culvert inspection shall be conducted for existing town culverts to remain in use, as part of a project. Culvert inspection shall follow the guidelines as outlined in the CTDOT’s “Drainage Manual 2000”, appendix 4.A.
- Existing town drainage facilities including pipes, catch basins, manholes, junction chambers, sedimentation/gross particle separators, cross culverts and ditches/swales, which are scheduled to remain in use as part of a project, should be inspected to verify their general condition early in the design

process. A condition survey must be conducted for drainage systems which have been in service for 10 years or more. Available previous condition reports should be reviewed prior to inspection to identify critical areas that may require special attention. The drainage facility inspection shall follow the guidelines as outlined in the CTDOT's "Drainage Manual", appendix 4.B.

- The designer should also consult with the town for past problems, site conditions and proposed future improvements.

Preventative maintenance involving construction activities in NDDB areas, CTDEP shall be contacted and work coordinated with that agency and shall comply with all town, state and federal regulations.

The measurable goals, target dates and responsible position associated with this BMP are detailed in the following table.

**Table 6.6 Preventative Maintenance Program BMP  
Measurable Goals and Implementation Dates**

<b>Target Date</b>	<b>Measurable Goal / Activity</b>	<b>Responsible Dept. or Person</b>
Year 1	Implement Preventative Maintenance requirements	Superintendent of Roads
Year 2	Review and modify current town regulations	Superintendent of Roads
Years 2-5	Continue Preventative Maintenance requirements	Superintendent of Roads

## **SECTION 7 – ADDITIONAL REQUIREMENTS**

### **7.1 AUTHORIZATION UNDER THIS GENERAL PERMIT**

#### **7.1.1 Eligible Activities**

The discharge of stormwater from or associated with a Regulated Small MS4 is authorized by this general permit, provided the requirements of Section 7.13.2 are satisfied and the activity is conducted in accordance with the conditions of this storm water management plan.

This permit authorizes the following non-stormwater discharges provided they do not contribute to a violation of water quality standards:

- Landscape irrigation
- Uncontaminated ground water discharges such as pumped ground water, foundation drains, water from crawl space pumps and footing drains
- Irrigation water
- Lawn watering runoff
- Residual street wash water
- Discharges or flows from fire fighting activities (except training)
- Naturally occurring discharges such as rising ground waters, uncontaminated ground water infiltration (as defined at 40 CFR35.2005(20)), springs, diverted stream flows and flows from riparian habitats and wetlands

#### **7.1.2 Requirements for Authorization**

This general permit authorizes the activity listed in Section 7.13.1 provided:

##### Coastal Management Act

Such activity is consistent with all applicable goals and policies in Section 22a-92 of the Connecticut General Statutes, and shall not cause adverse impacts to coastal resources as defined in Section 22a-93(15) of the Connecticut General Statutes.

##### Endangered and Threatened Species

Such activity shall not threaten the continued existence of any species listed as endangered or threatened pursuant to Section 26-306 of the Connecticut General Statutes and shall not result in the destruction or adverse modification of habitat designated as essential to such species.

### National Historic Preservation Act

Stormwater discharges or implementation of the registrant's stormwater management program shall not adversely affect properties listed or eligible for listing in the National Register of Historic Places, unless the registrant is in compliance with requirements of the National Historic Preservation Act and has coordinated with the appropriate State Historic Preservation Officer to avoid or minimize impacts from any necessary activities.

## **7.2 PROPER OPERATION AND MAINTENANCE**

The town will properly operate and maintain all facilities and systems of treatment and control, including related appurtenances, which are installed or used by the department to achieve compliance with the conditions of the general permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems. Proper operation and maintenance includes adequate laboratory controls and appropriate quality assurance procedures. Proper operation and maintenance requires the operation of backup or auxiliary facilities or similar systems, installed by the department when necessary to achieve compliance with this permit. Section 6 of this document contains detailed information for specific operation and maintenance measures.

## **7.3 AVAILABILITY OF INFORMATION**

The town will make a copy of the Stormwater Management Plan available to the following immediately upon request:

- The Commissioner of CTDEP
- In the case of an MS4 adjacent to or interconnected with the town's storm sewer system, to the operator of that MS4
- In the case of a town stormwater discharge to a water supply watershed, to the public water supply company

## **7.4 KEEPING PLANS CURRENT**

The town will amend the Stormwater Management Plan whenever; (1) there is a change which has the potential to cause pollution of the waters of the state; or (2) the actions required by the SWMP fail to ensure or adequately protect against pollution of the waters of the state; or (3) the Commissioner of CTDEP requests modification of the SWMP. The amended Plan will be completed and all actions required by such SWMP will be completed within a time period determined by the Commissioner of CTDEP.

The Commissioner of CTDEP may notify the department at any time that the SWMP does not meet one or more of the requirements of this general permit. Within 30 days of such notification, unless otherwise specified by the Commissioner of CTDEP in writing, the department will respond to the Commissioner of CTDEP indicating how they plan to modify the SWMP to address these requirements. Within 90 days of this response or within 120

days of the original notification, whichever is less, unless otherwise specified by the Commissioner of CTDEP in writing, the department will then revise the SWMP, perform all actions required by the revised SWMP, and shall certify to the Commissioner of CTDEP that the requested changes have been made and implemented. The department will provide such information, as the Commissioner of CTDEP requires to evaluate the SWMP and its implementation.

## **7.5 MONITORING REQUIREMENTS**

The town will perform monitoring in accordance with the requirements of Section 3.2.3 of this Stormwater Management Plan.

## **7.6 REPORTING AND RECORD KEEPING**

Records required by the general permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems will be kept for at least 5 years following its expiration or longer if requested by the Commissioner of CTDEP in writing. Such records, including the Storm Water Management Plan, will be available to the public at reasonable times during regular business hours.

The town will submit an Annual Report to CTDEP by January 1, of each year beginning in 2005. The reports will be submitted to:

STORMWATER PERMIT COORDINATOR  
BUREAU OF WATER MANAGEMENT  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
79 ELM STREET  
HARTFORD, CT 06106-5127

The annual reports will include the following:

- The status of compliance with the general permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems, an assessment of appropriateness of the identified best management practices and progress towards achieving the implementation dates and measurable goals for each of the Minimum Control Measures.
- All monitoring data collected and analyzed pursuant of Section 3, Illicit Discharge Detection and Elimination, of this Storm Water Management Plan.
- All other information collected and analyzed, including data collected under Section 3 of this Storm Water Management Plan.
- A summary of the stormwater activities the department plans to undertake during the next reporting cycle.
- A change in any identified measurable goals or implementation dates that apply to the program elements.

## 7.7 GENERAL DISCHARGE REQUIREMENTS

- There will be no distinctly visible floating scum, oil or other matter contained in the stormwater discharge. Excluded from this are naturally occurring substances such as leaves and twigs provided no person has placed such substances in or near the discharge.
- The stormwater discharge will not result in pollution due to acute or chronic toxicity to aquatic and marine life, impair the biological integrity of aquatic or marine ecosystems, or result in an unacceptable risk to human health.

## 7.8 TOTAL MAXIMUM DAILY LOAD (TMDL) ALLOCATIONS

If a TMDL is approved for any waterbody into which the town discharges, the town will review its Stormwater Management Plan if the TMDL includes requirements for control of stormwater discharges. If the stormwater discharge(s) do not meet the TMDL allocations, the town will modify its Stormwater management Plan to implement the TMDL within four months of the TMDL's approval and notify the Commissioner of CTDEP of this modification.

The CTDEP has published a Notice of Intent to adopt a TMDL Analysis for the Upper Naugatuck River, Thomaston, Connecticut on June 14, 2004. Based on monitoring, toxicity from point source discharges has been determined to be the most likely stressor and cause of impairment to the biological community.

The TMDL Study Area is a 5 mile stretch of the Naugatuck River in the vicinity of Thomaston from the Route 6 Bridge downstream to the Frost Road Bridge.

Although the Draft TMDL Analysis has not identified non-point sources of pollution from stormwater runoff, the town will sweep the following roads multiple times to capture more sediment along these roads in the attempt to further reduce the pollutant loading from the stormwater runoff along these roads which in close proximity to the Naugatuck River and within the TMDL Study Area. The roads include:

- Old Waterbury Road
- Jackson Street
- West Hill Road
- Treadwell Avenue
- River Street

The sweeping of these roads is detailed in Section 6.2.3 of the SWMP.

## **7.9 REGULATIONS OF CONNECTICUT STATE AGENCIES INCORPORATED INTO THE DISCHARGE OF STORMWATER FROM SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS**

The town will comply with all laws applicable to the subject discharges, including but not limited to, the following Regulations of Connecticut State Agencies which are hereby incorporated into this general permit, as if fully set forth herein:

### **Section 22a-430-3:**

- Subsection (b) General – subparagraph (1)(D) and subdivisions (2), (3), (4) and (5)
- Subsection (c) Inspection and Entry
- Subsection (d) Effect of a Permit – subdivisions (1) and (4)
- Subsections (e) Duty to Comply
- Subsections (f) Proper Operation and Maintenance
- Subsection (g) Sludge Disposal
- Subsection (h) Duty to Mitigate
- Subsection (i) Facility Modifications, Notification – subdivisions (1) and (4)
- Subsection (j) Monitoring, Records and Report Requirements – subdivisions (1), (6), (7), (8), (9) and (11) (except subparagraphs (9) (A) (2) and (9) (c))
- Subsection (k) Bypass
- Subsection (m) Effluent Limitations Violations
- Subsection (n) Enforcement
- Subsection (p) Spill Prevention and Control
- Subsection (q) Instrumentation, Alarms, Flow Recorders
- Subsection (r) Equalization

### **Section 22a-430-4**

- Subsection (t) Prohibitions
- Subsection (p) Revocation, Denial, Modification
- Appendices

## **7.10 DUTY TO CORRECT AND REPORT VIOLATIONS**

Upon learning of a violation of a condition of the general permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems, the town will immediately take all reasonable action to determine the cause of such violation, correct and mitigate the results of such violation and prevent further such violation. The town will report in writing such violation and such corrective action to the Commissioner of CTDEP within five (5) days of the department's learning of such violation. Such information will be filed in accordance with the certification requirements of this general permit.

## **7.11 DUTY TO PROVIDE INFORMATION**

If the Commissioner of CTDEP requests any information pertinent to the authorized activity or to compliance with the general permit for the Discharge of Stormwater from Small

Municipal Separate Storm Sewer Systems or with the department's authorization under this general permit, the department will provide such information within thirty (30) days of such request. Such information shall be filed in accordance with the certification requirements of this general permit.

#### **7.12 CORRECTION OF INACCURACIES**

Within fifteen days after the date the town becomes aware of a change in any information in any material submitted pursuant to this general permit, or becomes aware that any such information is inaccurate or misleading or that any relevant information has been omitted, the department will correct the inaccurate or misleading information or supply the omitted information in writing to the Commissioner of CTDEP. Such information will be filed in accordance with the certification requirements of this general permit.

#### **7.13 OTHER APPLICABLE LAW**

Nothing in the general permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems will relieve the town of the obligation to comply with any other applicable federal, state and local law, including but not limited to the obligation to obtain any other authorizations required by such law.

## **SECTION 8 - CERTIFICATION AND SIGNATURE**

### **8.1 CERTIFICATION REQUIREMENTS**

This plan and any document, including but not limited to any notice, information or report, which is submitted to the commissioner of the CTDEP under the general permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems shall be signed by the chief elected official or principal executive officer, and by the individual or individuals responsible for preparing such document as defined in Section 22a-430-3(b) (2) of the Regulations of Connecticut State Agencies.

### **8.2 PLAN CERTIFICATION AND SIGNATURE**

“I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that a false statement made in this document or its attachments may be punishable as a criminal offense, in accordance with Section 22a-6 of the Connecticut General Statutes, pursuant to Section 53a-157b of the Connecticut General Statutes, and in accordance with any other applicable statute.”

**Preparer's Signature**

Clifford C. Brammer, Jr.  
First Selectment  
Town of Thomaston, Connecticut

---

Signature and Date

**Preparer's Signature**

Paul Pronovost  
Superintendent of Roads  
Town of Thomaston, Connecticut

---

Signature and Date

**Preparer's Signature**

Derek A. Kohl, P.E.  
Principal Transportation Engineer  
Maguire Group Inc.

---

Signature and Date

**APPENDIX A**

**ABBREVIATIONS AND DEFINITIONS**

## **ABBREVIATIONS AND DEFINITIONS**

The definitions of terms used in this general permit shall be the same as the definitions contained in Sections 22a-423 and 22a-207 of the Connecticut General Statutes and Section 22a-430-3(a) of the Regulations of Connecticut State Agencies. As used in this general permit, the following additional definitions shall apply:

“*ADT*” means average daily traffic

“*Attorney General*” means the chief law officer and legal counsel of the State of Connecticut.

“*Authorized activity*” means any activity authorized under the General Permit for the Discharge of Storm Water from Small Municipal Separate Storm Sewer Systems.

“*Best Management Practices (BMP)*” means those practices, which reduce pollution and which have been determined by the Commissioner of the Connecticut Department of Environmental Protection, to be acceptable based on, but not limited to, technical, economic, and institutional feasibility.

“*Catch Basin*” means any structure designed and constructed to collect storm water runoff and convey the flows through a storm sewer system.

“*Coastal area*” means coastal area as defined in Section 22a-94 of the Connecticut General Statutes.

“*Coastal waters*” means coastal waters as defined in Section 22a-29 of the Connecticut General Statutes.

“*ConnDOT*” means the Connecticut Department of Transportation.

“*Co-permittee*” means any adjacent or adjoining (to the department) municipality, state agency/institution or private entity required to register under the General Permit.

“*CTDEP*” means the Connecticut Department of Environmental Protection.

“*CTDOT*” means the Connecticut Department of Transportation.

“*CWA*” means Clean Water Act.

“*Department*” means any department within the Town of Wethersfield government.

“*Drainage System*” means any structure(s) or facility, including inlets, catch basins, storm drains, underdrains, ditches, channels, culverts, designed and constructed for the

removal of storm water from streets, highway sections, parking areas, and other drainage areas.

“*Dry Weather Flows*” means flows that exist within storm sewer systems during dry weather periods experiencing little or no precipitation.

“*EPA*” means the United States Environmental Protection Agency.

“*Facility*” may be defined by the following, but not be limited to buildings, parking lots, highways, roadways and railways.

“*First Flush*” Pollutants deposited on to exposed areas can be dislodged and entrained by the rainfall-runoff process. Usually the stormwater that initially runs off an area will be more polluted than the stormwater that runs off later, after the rainfall has “cleansed” the catchment. The stormwater containing this high initial pollutant load is called the “first flush”.

“*Fresh-tidal wetland*” means a tidal wetland with an annual average salinity of less than 0.5 parts per thousand.

“*Hazardous Substance*” means any substance, other than oil, which, when discharged in any quantities into waters of the U.S., presents an imminent and substantial danger to the public health or welfare, including but not limited to fish, shellfish, wildlife, shorelines and beaches (Section 311 of the CWA); identified by EPA as the pollutants listed under 40 CFR Part 116.

“*High tide line*” means high tide line as defined in Section 22a-359(c) of the Connecticut General Statutes.

“*Illicit Discharge*” means any unpermitted discharge to waters of the state that does not consist entirely of stormwater or uncontaminated groundwater except those discharges identified in Section 3.1.6 of the CTDOT General Permit for the Discharge of Storm Water from Small Municipal Separate Storm Sewer Systems.

“*Individual permit*” means a permit issued to a named permittee under Section 22a-430 subsection (a) of the Connecticut General Statutes.

“*Inland wetland*” means wetlands as that term is defined in Section 22a-38 of the Connecticut General Statutes.

“*Minimum Control Measure*” means the measures as described by EPA, when implemented in concert, are expected to result in significant reductions of pollutants discharged into receiving waterbodies.

“*Municipal separate storm sewer system (MS4)*” means conveyances for stormwater, including, but not limited to, roads with drainage systems, municipal streets, catch

basins, curbs, gutters, ditches, man-made channels or storm drains owned or operated by any municipality, State agency or Federal agency and discharging directly to surface waters of the state.

“*NBIS*” means the National Bridge Inspection Standards

“*NDDB*” means the Natural Diversity Data Base. This is the central repository for information on the biology, population status and threats to the elements of natural diversity in the state of Connecticut (Refers to CTDEP)

“*NPDES*” means the National Pollution Discharge Elimination System.

“*Outfall*” means the mechanism or structure by which a storm sewer, storm drain, stream or water course discharges to a receiving water body.

“*Permittee*” means any municipality, State agency or Federal agency which initiates, creates, originates or maintains a discharge authorized by this general permit.

“*Point Source*” means any discernible, confined and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged.

“*Pollutants*” means dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials (except those regulated under the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011 et seq.)), heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water.

“*PSA*” means Public Service Announcement.

“*Public Water Supply Areas*” means any area that may have the potential to drain and deliver stormwater to any reservoir or storage area which is used for supplying public drinking water.

“*Registrant*” means a municipality, State agency or Federal agency, which files a registration pursuant to Section 4 of the NPDES Phase II MS4 general permit.

“*Registration*” means a registration form filed with the Commissioner pursuant to Section 4 of the NPDES Phase II MS4 general permit.

“*Regulated Small MS4*” means any Small MS4 (as defined below) authorized by this general permit including all those located partially or entirely within an Urbanized Area and those additional Small MS4s located outside an Urbanized Area which, as of the issuance of this general permit, have been designated by the Commissioner as

Regulated Small MS4s. A list of these MS4s is included in Appendix A of the NPDES Phase II MS4 general permit.

“*Retain or retention*” means to permanently hold stormwater runoff on-site with no subsequent point source release.

“*Small MS4*” means any MS4 that is not already authorized by the Phase I MS4 stormwater program including State and Federally-owned systems, such as colleges, universities, prisons, and military bases. State and Federally-owned MS4’s are authorized under separate general permits.

“*State Operated Separate Storm Sewer System (SOS4)*” means conveyances for stormwater (including roads with drainage systems, public streets, catch basins, curbs, gutters, ditches, man-made channels or storm drains) owned or operated by the State and discharging directly to surface waters of the state.

“*State*” means the State of Connecticut

“*Storm Drain*” means inlet, including catch basins, which capture stormwater runoff for conveyance through a storm sewer system.

“*Storm Sewer System*” means any structure(s) or facility, including inlets, catch basins, storm drains, underdrains, ditches, channels, culverts, designed and constructed for the removal of water from streets, highway sections, parking areas, and other drainage areas.

“*Stormwater*” means waters consisting of precipitation runoff.

“*Stormwater Management Plan (SWMP)*” means a stormwater management program required under the general permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems, designed to reduce the discharge of pollutants from the Small MS4 to the maximum extent practicable (MEP), to protect water quality, and to satisfy the appropriate water quality requirements of the Clean Water Act.

“*SWPPP*” means a Stormwater Pollution Prevention Plan, usually associated with an individual permit for the discharge of storm water.

“*Tidal wetland*” means a wetland as that term is defined in Section 22a-29(2) of the Connecticut General Statutes.

“*Urbanized Area (UA)*” means the urbanized areas of the Town of Wethersfield, Connecticut so defined by the U.S. Census Bureau for the 2000 Census.

“*Total Maximum Daily Load (TMDL)*” means the maximum capacity of a surface water to assimilate a pollutant as established by the Commissioner of the Connecticut

Department of Environmental Protection including pollutants contributed by point and non-point sources and a margin of safety.

“*Town*” means the Town of Thomaston, Connecticut

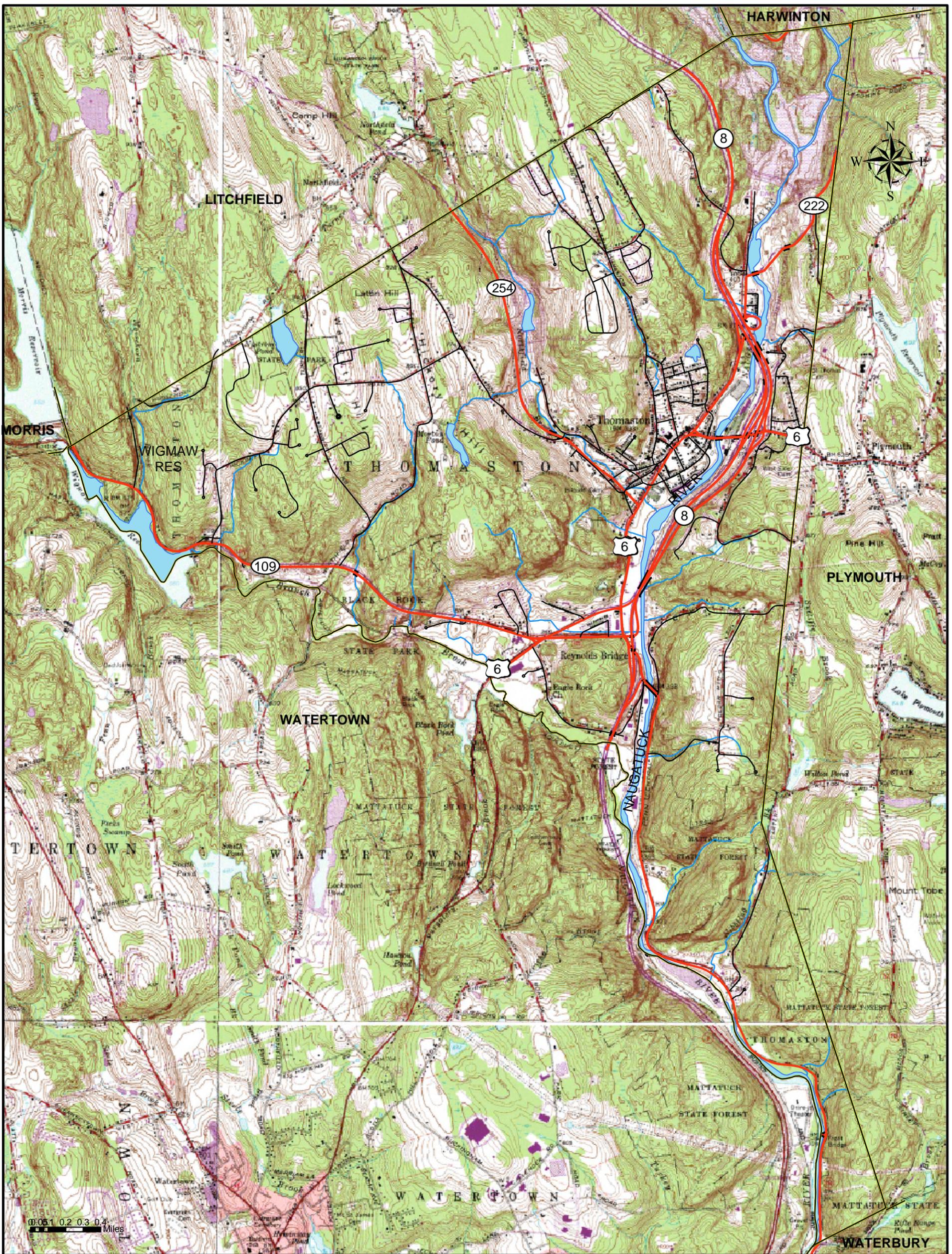
“*Water Bodies*” means any natural or artificial inland body of water or expanded part of a water course, including lakes, ponds and reservoirs.

“*Water Courses*” means any natural or artificial channel including, rivers, creeks, streams, wash, arroyo, channels or other topographic feature on or over which waters flow at least periodically.

“*WQF*” means Water Quality Flow as described in chapter 11, appendix C, of the CTDOT Drainage Manual 2000.

“*Waterways*” means any navigable body of water, such as a river, channel, or canal.

**APPENDIX B**  
**TOWN MAPS**



**LEGEND**

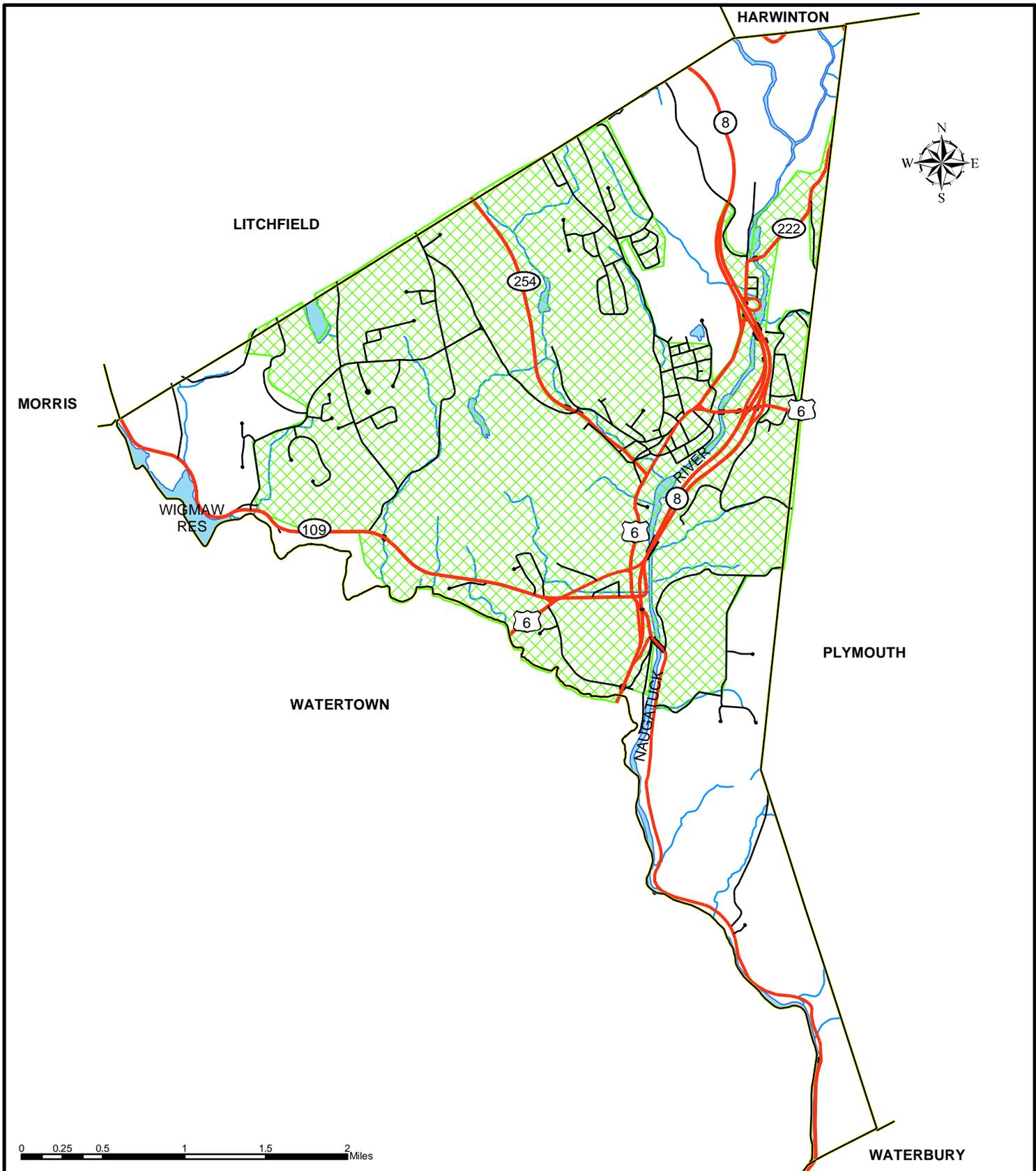
-  TOWN BOUNDARY
-  STATE ROAD
-  LOCAL ROAD
-  WATERCOURSE
-  WATERBODY

**STORMWATER MANAGEMENT PLAN  
TOPOGRAPHY**

TOWN OF THOMASTON



6/05 FOR PLANNING PURPOSES ONLY  
Source: CT DEP GIS Data CD 2003 Edition



**LEGEND**

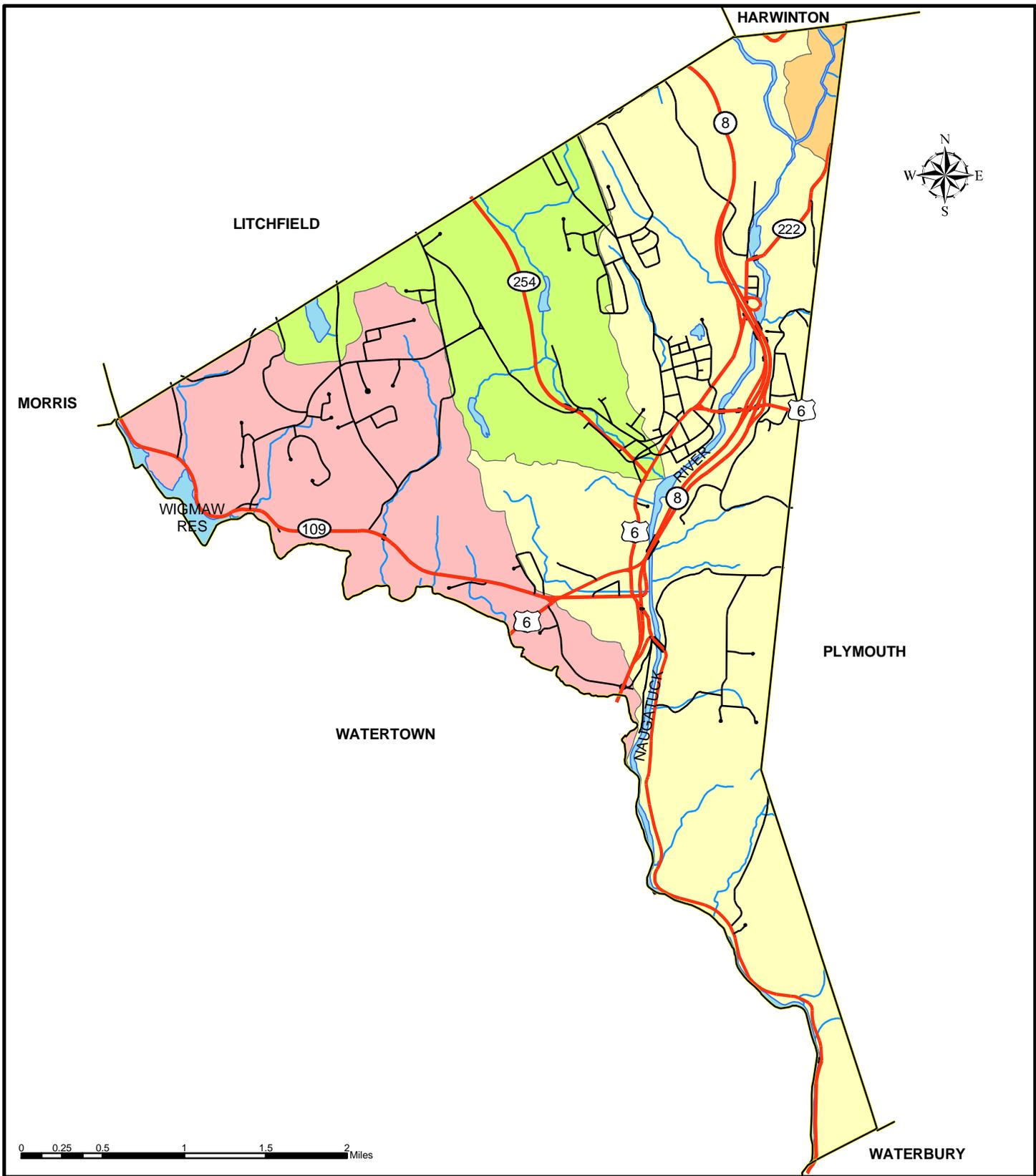
-  URBANIZED AREA
-  TOWN BOUNDARY
-  STATE ROAD
-  LOCAL ROAD
-  WATERCOURSE
-  WATERBODY

TOWN OF THOMASTON



**STORMWATER MANAGEMENT PLAN  
URBANIZED AREA**

6/05 FOR PLANNING PURPOSES ONLY  
Source: CT DEP GIS Data CD 2003 Edition



**LEGEND**

**SUBREGIONAL DRAINAGE BASINS**

- Branch Brook (6910)
- Leadmine Brook (6908)
- Naugatuck River (6900)
- Northfield Brook (6909)

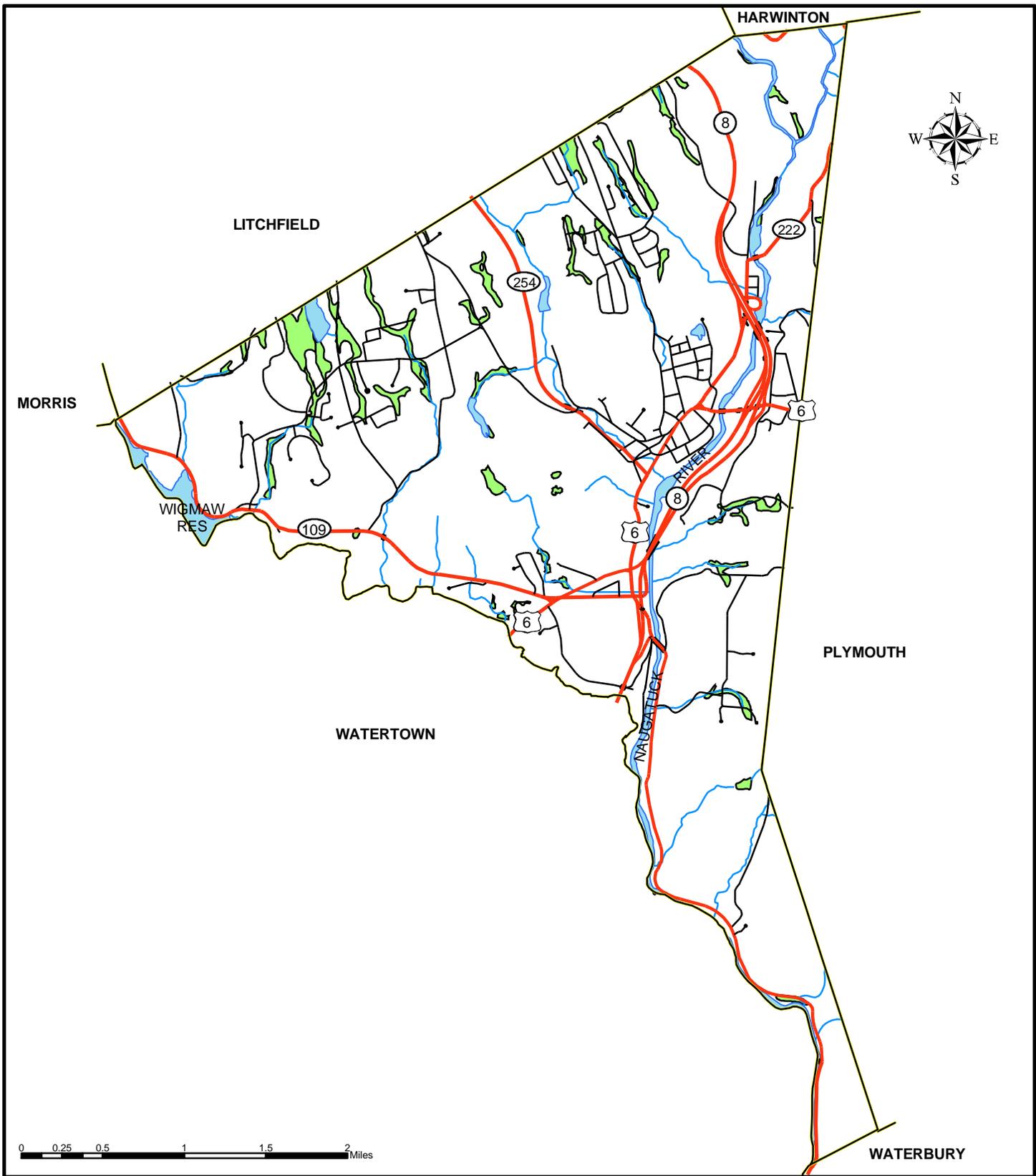
- STATE ROAD
- LOCAL ROAD
- WATERCOURSE
- WATERBODY

**STORMWATER MANAGEMENT PLAN  
DRAINAGE BASINS**

TOWN OF THOMASTON



6/05 FOR PLANNING PURPOSES ONLY  
Source: CT DEP GIS Data CD 2003 Edition



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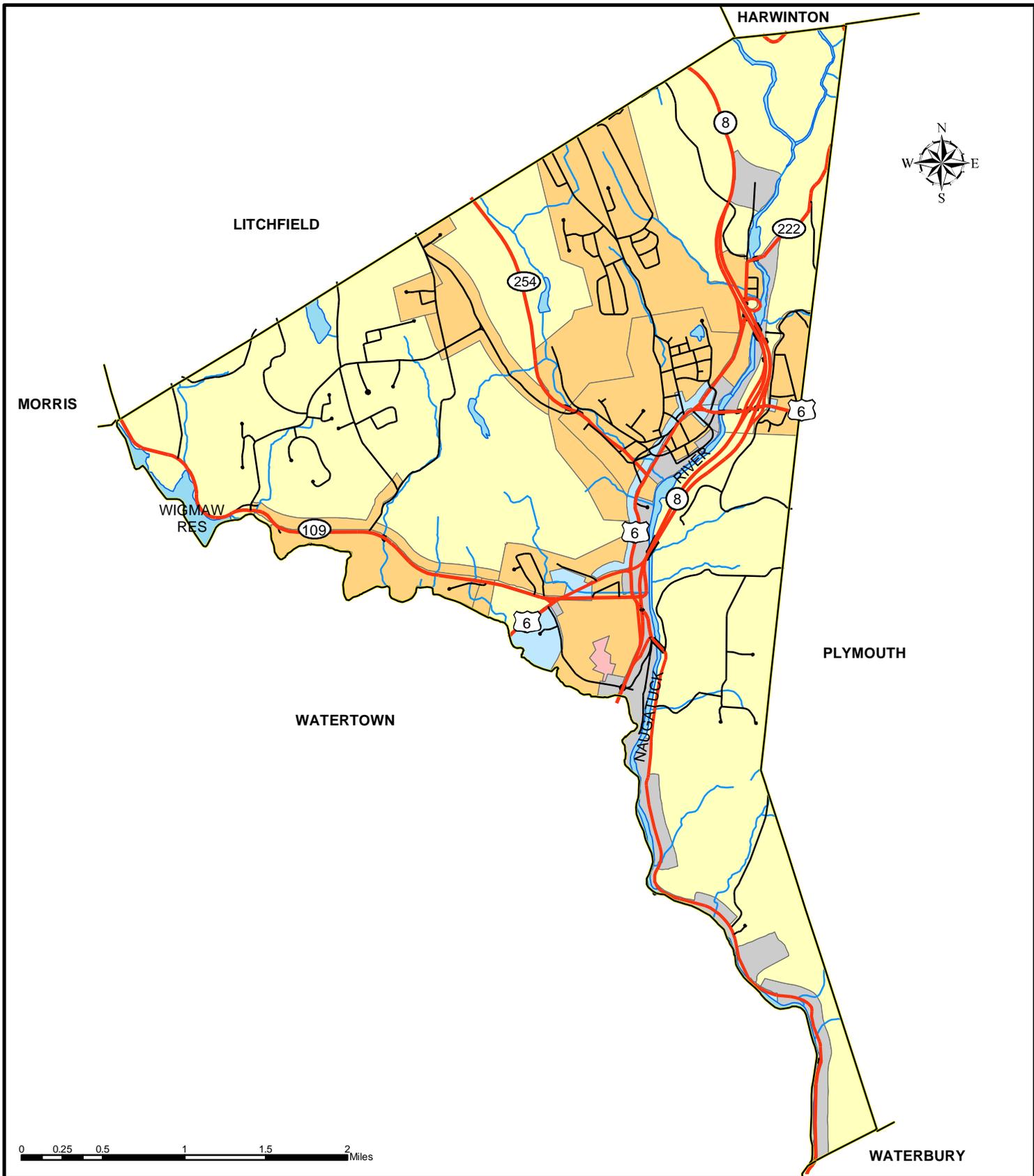
- HYDRIC SOILS
- WATERCOURSE
- WATERBODY
- STATE ROAD
- LOCAL ROAD
- TOWN BOUNDARY

**STORMWATER MANAGEMENT PLAN  
HYDRIC SOILS**

**TOWN OF THOMASTON**




6/05 FOR PLANNING PURPOSES ONLY  
Source: CT DEP GIS Data CD 2003 Edition



**LEGEND**

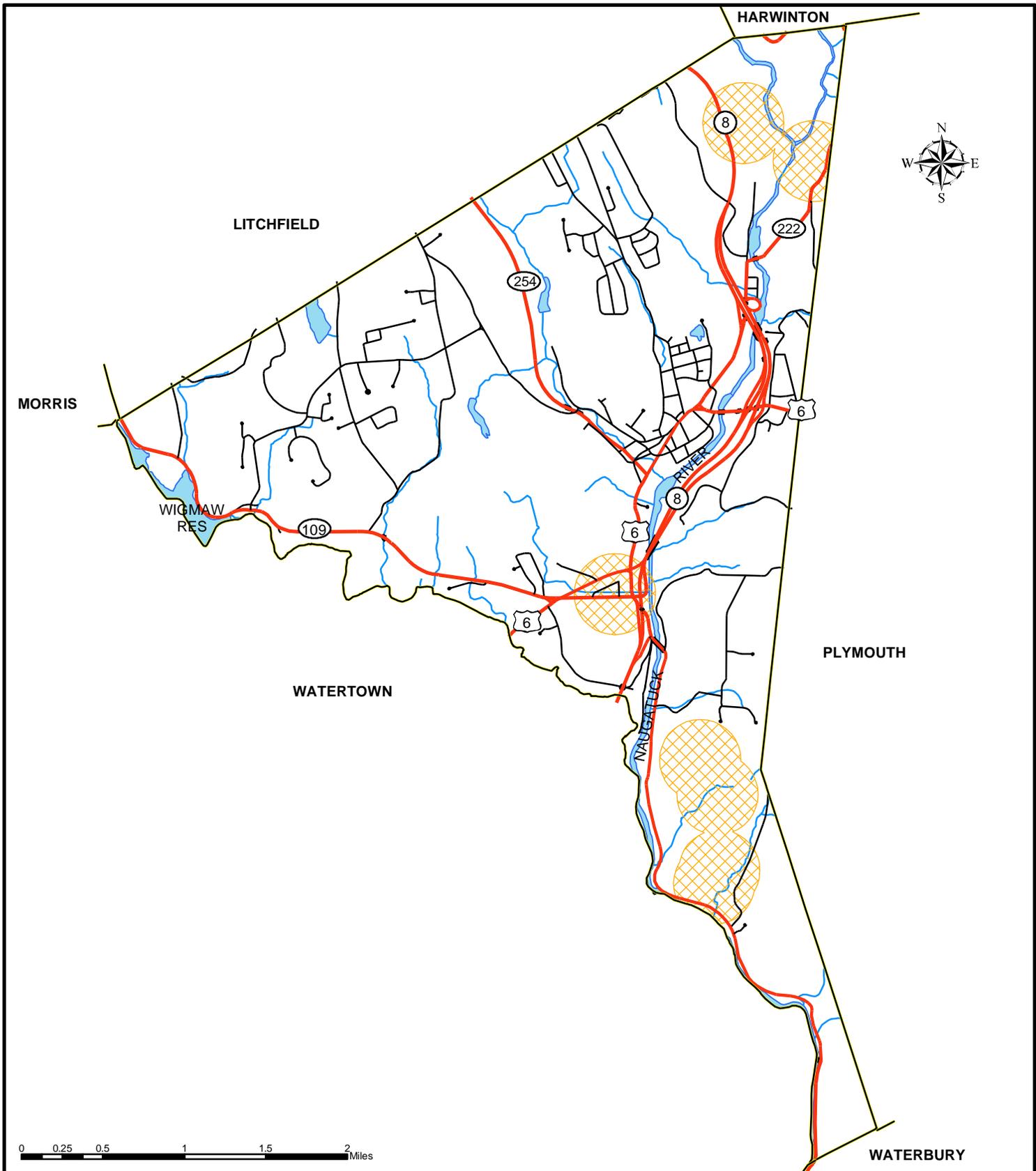
- |                                |            |             |               |
|--------------------------------|------------|-------------|---------------|
| Commercial                     | STATE ROAD | WATERCOURSE | TOWN BOUNDARY |
| Industrial                     | LOCAL ROAD | WATERBODY   |               |
| Low Density Residential        |            |             |               |
| Medium Density Residential     |            |             |               |
| Planned Industrial Development |            |             |               |

**STORMWATER MANAGEMENT PLAN  
ZONING**

TOWN OF THOMASTON



6/05 FOR PLANNING PURPOSES ONLY  
Source: CT DEP GIS Data CD 2003 Edition



- LEGEND**
-  NDDB Area
  -  STATE ROAD
  -  LOCAL ROAD
  -  WATERCOURSE
  -  WATERBODY

 TOWN BOUNDARY

**STORMWATER MANAGEMENT PLAN  
NATURAL DIVERSITY DATABASE AREAS**

TOWN OF THOMASTON



6/05 FOR PLANNING PURPOSES ONLY  
Source: CT DEP GIS Data CD 2003 Edition