

Engineering Services

STORMWATER MANAGEMENT PLAN

TOWN OF ELLINGTON 55 MAIN STREET ELLINGTON, CONNECTICUT

MARCH 2017



PREPARED FOR:

TOWN OF ELLINGTON
55 MAIN STREET
ELLINGTON, CONNECTICUT 06029

PREPARED BY:

CMG Environmental, Inc. CMG ID 2010-008

SIGNATURE OF REPORT AUTHORS

This plan has been prepared by CMG Environmental, Inc. This plan documents conditions as of the date indicated, and is based, in part, on information obtained from town personnel. Questions or comments on the contents of this report should be directed to the individuals listed below.

Prepared by:	
Matthew Reiser, CHMM Compliance Specialist	3/20/17 Date
Reviewed by:	
M 1	3/20/17
Mark Smith P.F.	Date

TABLE OF CONTENTS

SECTION	PAGE
1.0 Introduction	1
1.1 SWMP STRUCTURE	1
1.2 Area Subject to the Plan	1
1.3 SWMP DEVELOPMENT	1
1.4 ANNUAL REPORTING	1
1.5 DESCRIPTION OF MUNICIPALITY	2
1.6 Town Waters	2
2.0 Public Education and Outreach	7
2.1 IMPLEMENT PUBLIC EDUCATION PROGRAM	
2.2 ADDRESS EDUCATION AND OUTREACH FOR POLLUTANTS OF CONCERN	7
2.3 PUBLIC OUTREACH AND EDUCATION SCHEDULE	8
3.0 Public Involvement and Participation	9
3.1 COMPLY WITH PUBLIC NOTICE REQUIREMENTS FOR THE STORMWATER	9
3.2 PUBLIC INVOLVEMENT AND PARTICIPATION PROGRAM	9
3.3 PUBLIC INVOLVEMENT AND PARTICIPATION SCHEDULE	9
4.0 ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE)	10
4.1 ESTABLISH LEGAL AUTHORITY TO PROHIBIT ILLICIT DISCHARGES	10
4.2 DEVELOP WRITTEN IDDE PLAN	10
4.3 DEVELOP CITIZEN REPORTING PROGRAM	10
4.4 DEVELOP RECORDKEEPING SYSTEM FOR IDDE TRACKING	11
4.5 DETAILED MS4 INFRASTRUCTURE MAPPING IN PRIORITY AREAS	11
4.6 DEVELOP LIST AND MAP OF ALL MS4 OUTFALLS AND INTERCONNECTIONS	11
4.7 ADDRESS IDDE IN AREAS WITH POLLUTANTS OF CONCERN	12
4.8 HOUSEHOLD HAZARDOUS WASTE COLLECTION AND RECYCLING	12
4.9 ILLICIT DISCHARGE DETECTION AND ELIMINATION SCHEDULE	13
5.0 Construction Site Stormwater Runoff Control	14
5.1 IMPLEMENT, UPGRADE AND ENFORCE LAND USE REGULATIONS TO MEET	14
5.2 DEVELOP AND IMPLEMENT PLAN FOR INTERDEPARTMENTAL COORDINATION	14
5.3 REVIEW SITE PLANS FOR STORMWATER QUALITY CONCERNS	15
5.4 CONDUCT SITE INSPECTIONS	15
5.5 IMPLEMENT PROCEDURE TO ALLOW PUBLIC COMMENT ON SITE DEVELOPMENT	15
5.6 IMPLEMENT PROCEDURE TO NOTIFY DEVELOPERS ABOUT CT DEEP STORMWATER CONSTRUCTION GENERAL PERMIT	15

TABLE OF CONTENTS (CONTINUED)

Section	Page
5.7 CONSTRUCTION SITE STORMWATER MANAGEMENT SCHEDULE	16
6.0 Post-construction Stormwater Management in New Development OR REDEVELOPMENT	17
6.1 ESTABLISH LEGAL AUTHORITY AND GUIDELINES REGARDING LID AND	17
6.2 IMPLEMENT LONG-TERM MAINTENANCE PLAN FOR STORMWATER BASINS AND	18
6.3 DIRECTLY CONNECTED IMPERVIOUS AREA (DCIA) MAPPING	18
6.4 ADDRESS POST-CONSTRUCTION ISSUES IN AREAS WITH POLLUTANTS OF CONCERN	18
6.5 POST-CONSTRUCTION STORMWATER MANAGEMENT SCHEDULE	19
7.0 POLLUTION PREVENTION / GOOD HOUSEKEEPING	20
7.1 DEVELOP AND IMPLEMENT A FORMAL EMPLOYEE TRAINING PROGRAM	
7.2 IMPLEMENT MS4 PROPERTY AND OPERATIONS MAINTENANCE	20
7.2.1 Parks and Open Space	20
7.2.2 PET WASTE MANAGEMENT	
7.2.3 WATERFOWL MANAGEMENT	
7.2.5 VEHICLES AND EQUIPMENT	
7.2.6 LEAF MANAGEMENT	
7.3 DEVELOP AND IMPLEMENT STREET SWEEPING PROGRAM	22
7.4 DEVELOP AND IMPLEMENT CATCH BASIN CLEANING PROGRAM	23
7.5 DEVELOP AND IMPLEMENT SNOW MANAGEMENT PRACTICES	23
7.5.1 DE-ICING MATERIAL MANAGEMENT	23
7.5.2 SNOW AND ICE CONTROL PRACTICES	23
7.6 IMPLEMENT COORDINATION WITH INTERCONNECTED MS4s	
7.7 DEVELOP AND IMPLEMENT A PROGRAM TO CONTROL OTHER SOURCES OF	24
7.8 EVALUATE ADDITIONAL MEASURES FOR DISCHARGES TO IMPAIRED WATERS	24
7.8.1 FOR WATERS FOR WHICH NITROGEN OR PHOSPHORUS IS A STORMWATER POLLUTANT OF CONCERN	
7.8.2 FOR WATERS FOR WHICH BACTERIA IS A STORMWATER POLLUTANT OF CONCERN	24
7.9 DEVELOP AND IMPLEMENT AN INFRASTRUCTURE REPAIR, REHABILITATION AND	24
7.9.1 DEVELOP AND IMPLEMENT PLAN TO IDENTIFY AND PRIORITIZE RETROFIT PROJECTS	
7.10 POLLUTION PREVENTION/GOOD HOUSEKEEPING SCHEDULE	26

FIGURES

FIGURE 1 SITE LOCATION MAP

FIGURE 2 DRAINAGE BASINS IN TOWN

APPENDICES

APPENDIX A CERTIFICATIONS

APPENDIX B MS4 GENERAL PERMIT REGISTRATION

APPENDIX C ANNUAL REPORTS

1.0 INTRODUCTION

This Stormwater Management Plan (SWMP) has been prepared for the Town of Ellington to protect its water quality and reduce the discharge of pollutants from the Town storm sewer system to the maximum extent practicable. This SWMP addresses the requirements established by the Connecticut Department of Energy & Environmental Protection (CT DEEP) General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4) (MS4 General Permit), effective July 1, 2017. This regulation may be found at the following link: http://www.ct.gov/deep/lib/deep/permits and licenses/water discharge general permits/ms4 renewal gp.pdf.

1.1 SWMP STRUCTURE

The plan outlines a program of best management practices (BMPs), measurable goals, responsible individuals or departments, and implementation schedules for the following six minimum control measures, as defined by the MS4 General Permit:

- (1) Public education and outreach;
- (2) Public involvement and participation;
- (3) Illicit discharge detection and elimination;
- (4) Construction site stormwater runoff control;
- (5) Post-construction stormwater management in new development and redevelopment; and
- (6) Pollution prevention/good housekeeping.

SWMP certifications are included in Appendix A. The MS4 General Permit registration for the town is provided as Appendix B.

1.2 AREA SUBJECT TO THE PLAN

The measures identified in this SWMP will be applied throughout the boundaries of the Town of Ellington except as otherwise noted and will be consistent with the MS4 General Permit requirements. Stormwater discharge from municipally-owned maintenance garages, salt sheds and other facilities subject to the CT DEEP General Permit for the Discharge of Stormwater Associated with Industrial Activity (Stormwater Industrial General Permit) will continue to be regulated under the conditions of that regulation.

1.3 SWMP DEVELOPMENT

The Department of Public Works (DPW) is responsible for the development and implementation of the SWMP. The DPW relies upon assistance from the Planning Department.

1.4 ANNUAL REPORTING

SWMP implementation will be tracked and documented in Annual Reports summarizing stormwater management activities carried out by the Town and its partners. Progress on SWMP tasks will be documented in each Annual Report until their respective completion. Beginning in 2018, these reports will be submitted to CT DEEP on an annual basis no later than April 1. Following completion and submittal of the Annual Reports, they will be inserted into the SWMP as appendices. An outline of information to be included in each Annual Report is provided in Appendix C.

1.5 DESCRIPTION OF MUNICIPALITY

The operator of the MS4 is the Town of Ellington. The Town of Ellington is a public entity located in Tolland county. The Town of Ellington covers an area of approximately 34.6 square miles, located in north central Connecticut as shown in Figure 1. Figure 2 shows each of the drainage basins in town.

The Connecticut Department of Transportation (CT DOT) operates an MS4 on state highways, including Routes 30 and 140, located in the Town of Ellington. This system is regulated under the CT DOT MS4 permit. Implementation of the BMPs identified in this plan will be coordinated between the Town of Ellington and CT DOT.

1.6 TOWN WATERS

In preparing this SWMP, CT DEEP resources were reviewed in order to determine which waterbodies are present in town, and whether they have been assessed for impairment. As shown in Table 1, there are four waterbodies in town that are listed in the 2014 State of Connecticut Integrated Water Quality Report as not meeting water quality standards and designated as "impaired". As such, these waterbodies should take the highest priority in the Town's efforts to address stormwater impacts. This was taken into consideration as the BMPs were developed.

TABLE 1
WATERBODIES IN TOWN

Watershed Name	Waterbody Segment ID	Waterbody Name	Waterbody Waterbody Segment Description Length (miles)		Impaired?	Pollutant	Impaired Use
Willimantic River	CT3100-03_01	Bonemill Brook-01	From mouth at confluence with Willimantic River, upstream to Sweetheart Lake outlet dam, Tolland	0.19	No		
Willimantic River	CT3100-04_01	Willimantic River			No		
Edson Brook	CT3101-01_01	Edson Brook			No		
Edson Brook	CT3101-02_01	Edson Brook			No		
Edson Brook	CT3101-03_01	Crystal Lake Brook (Stafford)-01	From mouth at confluence with Ellis Brook, head waters of Edson Brook (downstream of West Stafford Road (Route 190) crossing), upstream to Crystal Lake outlet dam (just upstream of Conklin Road crossing), Stafford	2.18	No		
Abbey Brook	CT4204-00_01	Abbey Brook (Somers)-01	Mouth at inlet to Somersville Pond 1 mile downstream of Billings Road crossing, near Harness Road, upstream to confluence with unnamed tributary 0.5 miles upstream of Billings Road crossing, Somers	1.63	Yes	E. coli	Recreation
Abbey Brook	CT4204-02_01	Abbey Brook	<u> </u>		No		
Abbey Brook	CT4205-02_01	Abbey Brook			No		

TABLE 1 (continued)

Watershed Name	Waterbody Segment ID	Waterbody Name	Waterbook Waterbook Segment Description Length (miles)		Impaired?	Pollutant	Impaired Use
Broad Brook	CT4206-00_01	Broad Brook (East Windsor)-01	From mouth at Scantic River, upstream to Broad Brook Mill Pond, East Windsor, just upstream of Main Street (Route 191) crossing	1.01	Yes	Cause Unknown	Habitat for fish, other aquatic life and wildlife
Broad Brook	CT4206-00_02	Broad Brook (East Windsor- Ellington)-02	From Broad Brook Mill Pond inlet, East Windsor, upstream to headwaters, Ellington, just upstream of Snipsic Forest Road crossing 9.01		Yes	Cause Unknown	Habitat for fish, other aquatic life and wildlife
Broad Brook	CT4206-00_03	Broad Brook			No		
Broad Brook	CT4206-01_01	Hydes Brook (Ellington)- 01	Mouth at confluence Broad Brook just downstream of Bridge Street crossing, upstream to head waters at unnamed pond at Porter Road crossing, (downstream side of Porter Road stream flows through Shenipsit State Forest), Ellington	1.9	No		
Broad Brook	CT4206-02_01	Broad Brook			No		
Broad Brook	CT4206-03_01	Broad Brook			No		
Broad Brook	CT4206-04_01	Broad Brook			No		
Broad Brook	CT4206-05_01	Muddy Brook (Ellington)- 01	Mouth at confluence with Broad Brook downstream of Muddy Brook Road crossing, upstream to head waters (parallel to west of Jobs Hill Road and north as far as Wysocki Field Airport), Ellington	2.3	No		
Broad Brook	CT4206-06_01	Broad Brook			No		
Broad Brook	CT4206-07_01	Broad Brook			No		

TABLE 1 (continued)

Watershed Name	Waterbody Segment ID	Waterbody Name	Waterbody Segment Description	Waterbody Segment Length (miles)	Impaired?	Pollutant	Impaired Use
Broad Brook	CT4206-08_01	Creamery Brook (Ellington)- 01	Mouth at confluence Broad Brook downstream Route 140 crossing, upstream to head waters near Reeves Road and west of Greene Road among farm fields (heavy agriculture watershed), Ellington	2.1	No		
Broad Brook	CT4206-10_01	Broad Brook			No		
Ketch Brook	CT4207-00_01	Ketch Brook (East Windsor)-01	Mouth at confluence with Scantic River 0.5 miles downstream of Rye Street crossing, upstream to outlet of Windsorville Pond at Wapping Road crossing, near intersection with Windsorville Road, East Windsor	2.93	No		
Ketch Brook	CT4207-01_01	Ketch Brook			No		
Hockanum River	CT4500-00_01	Hockanum River-01	From mouth at Connecticut River, East Hartford, upstream to Cellu Company Dam, the first dam at Scotland Impoundment (two dams just downstream of this dam), includes impounded water behind East Hartford town hall	4.26	Yes	Cause Unknown	Habitat for fish, other aquatic life and wildlife
Hockanum River	CT4500-03_01	Hockanum River			No		
Charters Brook	CT4501-00_01	Charters Brook-01	From mouth at Shenipsit Lake, Tolland upstream to headwaters near Webster Road, Ellington	6.22	Yes	E. coli	Recreation

TABLE 1 (continued)

Watershed Name	Waterbody Segment ID	Waterbody Name	Waterbody Segment Description	Waterbody Segment Length (miles)	Impaired?	Pollutant	Impaired Use
Charters Brook	CT4501-00_02	Charters Brook			No		
Charters Brook	CT4501-01_01	Charters Brook			No		
Charters Brook	CT4501-02_01	Charters Brook			No		
Charters Brook	CT4501-04_01	Charters Brook			No		
Charters Brook	CT4502-00_01	Charters Brook			No		
Charters Brook	CT4502-00_02	Charters Brook			No		
Charters Brook	CT4502-00_03	Charters Brook			No		
Charters Brook	CT4502-01_01	Charters Brook			No		
Charters Brook	CT4502-02_01	Charters Brook			No		
Charters Brook	CT4502-03_01	Charters Brook			No		
Charters Brook	CT4502-04_01	Charters Brook			No		
Charters Brook	CT4502-05_02	Charters Brook			No		
Charters Brook	CT4502-06_01	Charters Brook			No		

Note:

1. Information obtained from Connecticut Environmental Conditions Online (CT ECO) and 2014 Connecticut Integrated Water Quality Report (IWQR).

2.0 Public Education and Outreach

This minimum control measure outlines a program to communicate common sources of stormwater pollution and the impacts of polluted stormwater to the public. This will be done through distributing educational materials to the community and conducting outreach activities. The following BMPs and implementation schedule serve as the MS4 Public Education Program for the Town of Ellington.

Goals:

- Raise public awareness of polluted stormwater runoff being the most significant source of water quality problems;
- Motivate residents to use Best Management Practices (BMPs) that reduce polluted stormwater runoff; and
- Reduce polluted stormwater runoff in Town as a result of increased awareness and utilization of BMPs.

2.1 IMPLEMENT PUBLIC EDUCATION PROGRAM

Ellington will collect and distribute stormwater educational materials that, at a minimum, address the impacts of the following on water quality: pet waste, impervious cover, application of fertilizers, pesticides and herbicides, and illicit discharges and improper disposal of wastes into the MS4.

The Town of Ellington will utilize the University of Connecticut (UConn) Nonpoint Education for Municipal Officials (NEMO) program comprehensive online library of stormwater educational material (http://nemo.uconn.edu/ms4/index.htm) as a resource. The Town website (http://www.ellington-ct.gov/) will contain a link to this web-based library and promote the availability of these materials under its Stormwater Management section. The Town will also provide materials in a printed format to be on display in public locations within the town hall and Hall Memorial Library.

The Town publishes a quarterly newsletter. It is distributed to every household in town via U.S. mail and electronic mail. The newsletter typically contains an article regarding stormwater management. Hard copies of the newsletter are maintained at the Planning Department and Hall Memorial Library.

2.2 Address Education and Outreach for Pollutants of Concern

Ellington will distribute information on common sources of phosphorus, nitrogen, bacteria and mercury pollution and how to prevent or reduce the amount of these pollutants from reaching the MS4 and discharging into waterways. Several waterways in town, including Abbey Brook, Broad Brook, Hockanum River and Charters Brook, are designated as impaired. Abbey Brook and Charters Brook are impaired due to the presence of bacteria, whereas for Broad Brook and Hockanum River, the impairment is unknown. As there are waterways in town that are impaired due to the presence of bacteria, Ellington will put more focus on the reduction of this pollutant of concern.

TABLE 2
IMPAIRMENT TOPICS

Phosphorus	Nitrogen	Bacteria	Mercury
Septic systems	Septic systems	Septic systems	Thermometers
Fertilizer use	er use Fertilizer use Sanitary connect		Thermostats
Grass clippings and leaves management	Grass clippings and leaves management	Waterfowl	Fluorescent lights
Discharge of sediment (to which phosphorus binds) from construction sites	Discharge of sediment (to which nitrogen binds) from construction sites	Pet waste	Button cell batteries
Detergent use	Other erosive surfaces	Manure piles associated with livestock and horses	

2.3 Public Outreach and Education Schedule TABLE 3

IMPLEMENTATION SCHEDULE

ВМР	Lead Department	Mandated Date of Implementation	Measurable Goal
Implement public education program	Public Works	July 1, 2017	Information has been posted to website and maintained current; one stormwater article per quarterly newsletter Task Complete
Address education/outreach for pollutants of concern	Public Works	July 1, 2017	Information has been posted to website and maintained current; one stormwater article per quarterly newsletter Task Complete

3.0 Public Involvement and Participation

This minimum control measure identifies the process for public involvement and participation in the stormwater management efforts of the Town.

Goals:

- Involve the community in planning and implementing the stormwater management activities for the Town.
- Provide a minimum 30-day notice to the public for this SWMP and Annual Reports.

3.1 COMPLY WITH PUBLIC NOTICE REQUIREMENTS FOR THE STORMWATER MANAGEMENT PLAN AND ANNUAL REPORTS

Beginning in 2018, the Town of Ellington will publish a public notice by January 31 on its website (http://www.ellington-ct.gov/) regarding the availability of the SWMP and Annual Reports for review and public comment. The notice will provide a contact name, phone number, physical address and email address to whom the public can send comments. Additionally, this SWMP and the Annual Reports will be publicly accessible on the Town website (http://www.ellington-ct.gov/), Ellington town hall and the public library. The public notice will allow for a 30-day comment period on these documents, at a minimum.

3.2 Public Involvement and Participation Program

Ellington welcomes the assistance of local organizations to promote stormwater management efforts. For instance, historically, the local chapter of the Boy Scouts have conducted annual trash and debris clean-up days with the assistance of DPW.

3.3 Public Involvement and Participation Schedule

TABLE 4

IMPLEMENTATION SCHEDULE

ВМР	Lead Department	Mandated Date of Implementation	Measurable Goal
Comply with public notice requirements for SWMP and Annual Reports	Public Works	January 31, 2018	SWMP/Annual Report will be posted annually by January 31
Promote community stormwater management efforts	Public Works	Annually	Annual clean-ups will continue to be conducted <i>Task Ongoing</i>

4.0 Illicit Discharge Detection and Elimination (IDDE)

This minimum control measure outlines a program to detect and eliminate current illicit discharges to the MS4 and prevent further illicit discharges in the future. All activities for this measure will be completed in the priority areas of Ellington, including urbanized area, catchment areas with directly connected impervious area (DCIA) greater than 11%, and outfalls that discharge to impaired waters.

Goal:

Locate the source of any illicit discharges, eliminate those illicit discharges, and ensure
ongoing screening and tracking to prevent and eliminate future illicit discharges.

4.1 ESTABLISH LEGAL AUTHORITY TO PROHIBIT ILLICIT DISCHARGES

Ellington will establish the necessary and enforceable legal authority by ordinance to eliminate illicit discharges. The authority will:

- a. Prohibit illicit discharges to the storm sewer system and require removal of such discharges consistent with the deadlines outlined in the MS4 General Permit;
- b. Authorize the investigation of suspected illicit discharges and elimination of illicit discharges, including from properties not owned or controlled by the MS4 that discharge to the MS4;
- c. Control the discharge of spills and prohibit the dumping or disposal of materials including, but not limited to, residential, industrial and commercial wastes, trash, used motor vehicle fluids, pesticides, fertilizers, food preparation waste, leaf litter, grass clippings and animal wastes into the MS4:
- d. Authorize appropriate enforcement procedures and actions; and
- e. Authorize fines or penalties and/or recoup costs incurred by the permittee from anyone creating an illicit discharge or spilling or dumping.

4.2 DEVELOP WRITTEN IDDE PLAN

Ellington will develop a written IDDE plan to detect, locate and eliminate illicit discharges (to the maximum extent practicable) from the MS4 within its priority areas. The IDDE plan will provide enforceable legal authority to eliminate illicit discharges, assign responsibilities and develop a citizen reporting program. The plan will also outline the outfall screening and IDDE protocols consistent with Appendix B of the MS4 General Permit to identify, prioritize and investigate MS4 catchments for suspected illicit discharge of pollutants. Additionally, the IDDE plan will outline follow-up screening and illicit discharge prevention procedures.

4.3 DEVELOP CITIZEN REPORTING PROGRAM

The Town has a system to allow for citizen reporting of suspected illicit discharges into the stormwater system. Town residents can call or email the DPW any time to report stormwater management issues or suspected illicit discharges. The Town investigates and eliminates any illicit discharge for which a time and location of the discharge are provided. The Town investigates and eliminates any illicit discharges logged into the system. The reported outfall or manhole is promptly inspected and the Town proceeds according to the requirements of the written IDDE program.

4.4 DEVELOP RECORDKEEPING SYSTEM FOR IDDE TRACKING

Ellington maintains a phone log to record citizen calls regarding stormwater management issues or suspected illicit discharges. Corrective actions taken are logged into the DPW work management program. Information to be maintained includes location (latitude/longitude or address), description, date(s) of inspection, sampling data (if applicable), action(s) taken, date of removal or repair, and responsible party.

In addition, the Town will develop and maintain an inventory of sanitary sewer overflows (SSO) that records the location, date and time of occurrence, estimated volume of discharge, a description of known or suspected cause, and details about mitigating measures including dates of implementation. This inventory will also:

- Include all known SSOs to the MS4 in the past 5 years (July 1, 2012 June 30, 2017); and
- Continue to be updated to track future SSOs.

4.5 Detailed MS4 Infrastructure Mapping in Priority Areas

Ellington has nearly completed the revision of existing maps of the MS4 to include the following:

- Components of the MS4 within priority areas;
- Outfalls and receiving waters;
- Pipes, open channel conveyances, catch basins and manholes;
- Interconnections with other MS4s and other storm sewer systems;
- Municipally-owned stormwater treatment structures (e.g., detention and retention ponds, infiltration systems, bioretention areas, water quality swales, gross particle separators, oil/water separators or other systems);
- Catchment delineations for each outfall;
- Impaired waterbodies identified by name and use impairment as defined by the most recent integrated water quality report;
- Municipal sanitary sewer system (if available); and
- Municipal combined sewer system (if applicable).

4.6 DEVELOP LIST AND MAP OF ALL MS4 OUTFALLS AND INTERCONNECTIONS IN PRIORITY AREAS

The Town has completed its database of all stormwater discharges from a pipe or conduit located within and owned or operated by the municipality and all interconnections with other MS4s. Each entry includes:

- a. Type, material, size, shape and location (identified with a latitude and longitude) of conveyance, outfall or channelized flow (e.g. 24" concrete pipe);
- b. Name, waterbody ID and Surface Water Quality Classification of the immediate surface waterbody or wetland to which the stormwater runoff discharges;
- c. If the outfall does not discharge directly to a named waterbody, the name and waterbody ID of the nearest named waterbody to which the outfall eventually discharges;
- d. Name of the watershed, including the subregional drainage basin number (available from CT ECO at www.cteco.uconn.edu) in which the discharge is located; and
- e. Date of most recent inspection of the outfall, the condition and any indicators of potential non-stormwater discharges as of most recent inspection.

4.7 ADDRESS IDDE IN AREAS WITH POLLUTANTS OF CONCERN

Ellington will identify which areas in town are most likely to contribute nitrogen, phosphorus and bacteria to the MS4. This assessment will consider historic onsite sanitary system failures, proximity to bacterial impaired waters, low infiltrative soils and shallow groundwater. Any areas determined to have a high potential for septic system failure will be reported to the North Central Health Department for corrective action.

4.8 HOUSEHOLD HAZARDOUS WASTE COLLECTION AND RECYCLING

Ellington residents may drop off household hazardous waste at the Mid-NEROC Household Chemical Waste Drop-off Facility in Willington, which is open the first and third Saturday of each month from April to November.

4.9 ILLICIT DISCHARGE DETECTION AND ELIMINATION SCHEDULE TABLE 5

IMPLEMENTATION SCHEDULE

ВМР	Lead Department	Mandated Date of Implementation	Measurable Goal
Establish legal authority to prohibit illicit discharges	Planning	July 1, 2018	Ordinance has been completed and implemented <i>Task Complete</i>
Develop written IDDE program	Public Works	July 1, 2018	Program has been completed and implemented Task Complete
Develop citizen reporting program	Public Works	July 1, 2018	Program has been completed and implemented Task Complete
Develop recordkeeping system for IDDE tracking	Public Works	July 1, 2017	Program has been completed and implemented Task Complete
Detailed MS4 infrastructure mapping	Public Works	July 1, 2020	Infrastructure in priority areas mapped (Task currently 90% complete)
Develop list and maps of all MS4 stormwater outfalls in priority areas	Public Works	July 1, 2019	List and maps of outfalls in priority areas have been developed Task Complete
Address IDDE in areas with pollutants of concern	Public Works	ASAP	Complaints will continue to be investigated, logged and tracked Task Ongoing
Household hazardous waste collection	Public Works	1 st and 3 rd Saturdays April - November	Continued participation in annual Household Hazardous Waste collection Task Ongoing

5.0 Construction Site Stormwater Runoff Control

This minimum control measure outlines procedures for minimizing polluted stormwater runoff from activities that disturb one or more acres of land. In Ellington, this is determined collectively as part of a larger plan.

Goal:

• Minimize polluted stormwater runoff from construction sites and prevent it from carrying sediment into waterways via the MS4 infrastructure.

5.1 IMPLEMENT, UPGRADE AND ENFORCE LAND USE REGULATIONS TO MEET REQUIREMENTS OF MS4 GENERAL PERMIT

Ellington will revise its land use regulations to establish the legal authority to control stormwater runoff from construction sites by requiring the following:

- Developers, construction site operators or contractors maintain consistency with the 2002 Guidelines for Soil Erosion and Sedimentation Control, as amended, the Connecticut Stormwater Quality Manual, and all stormwater discharge permits issued by the CT DEEP within the municipal or institutional boundary pursuant to CGS 22a-430 and 22a-430b;
- The implementation of additional measures to protect/improve water quality (in addition to the above requirements) as deemed necessary by the Town;
- Ellington is authorized to carry out all inspection, surveillance and monitoring procedures
 necessary to determine compliance with municipal regulations, ordinances or programs or
 institutional requirements related to the management of the MS4. Inspections shall be
 conducted, where allowed, to inventory the number of privately-owned retention ponds,
 detention ponds and other stormwater basins that discharge to or receive drainage from the
 permittee's MS4;
- The owner of a site seeking development approval from Ellington shall provide and comply with a long-term maintenance plan and schedule to ensure the performance and pollutant removal efficiency of privately-owned retention ponds, detention ponds and other stormwater basins that discharge to or receive discharge from the MS4 including short-term and long-term inspection and maintenance measures to be implemented by the private owner; and
- Ellington will control, through interagency or inter-jurisdictional agreements, the contribution of pollutants between the permittee's MS4 and MS4s owned or operated by others.

5.2 DEVELOP AND IMPLEMENT PLAN FOR INTERDEPARTMENTAL COORDINATION OF SITE PLAN REVIEW AND APPROVAL

Currently, the DPW, Planning Department, Building Department, Health Department, Town Engineer, Fire Marshal and traffic authority receive complete site development plans for review of any land disturbance project. Weekly coordination meetings are held will all applicable departments.

5.3 Review Site Plans for Stormwater Quality Concerns

Ellington conducts site plan reviews that incorporate consideration of stormwater controls or management practices to prevent or minimize impacts to water quality on sites with soil disturbance of one acre or more. The Town also conducts site inspections to assess the adequacy of the installation, maintenance, operation and repair of construction and post-construction control measures and take enforcement action when necessary.

5.4 CONDUCT SITE INSPECTIONS

Ellington performs construction site inspections and takes enforcement actions as necessary to ensure the adequacy of the installation, maintenance, operation and repair of all construction and post-construction runoff control measures. This is typically done through the permit process by the DPW, Planning Department and Town Engineer.

5.5 IMPLEMENT PROCEDURE TO ALLOW PUBLIC COMMENT ON SITE DEVELOPMENT

Ellington allows public involvement in proposed and ongoing development and land disturbance activities by holding public hearings and meetings that are open to the public on these activities.

5.6 IMPLEMENT PROCEDURE TO NOTIFY DEVELOPERS ABOUT CT DEEP STORMWATER CONSTRUCTION GENERAL PERMIT

Ellington will notify developers and contractors of their potential obligation to obtain authorization under the CT DEEP General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities (Stormwater Construction General Permit) if their project disturbs one or more acres of land and results in a point source discharge to Connecticut surface waters directly or through the Ellington MS4. The Town will also require a copy of the Stormwater Pollution Control Plan be made available to the Town upon request. The Town will include this notification/requirement on all site development applications and approval letters issued.

5.7 Construction site stormwater management schedule TABLE 6

IMPLEMENTATION SCHEDULE

ВМР	Lead Department	Mandated Date of Implementation	Measurable Goal
Implement and enforce land use ordinance to meet MS4 General Permit requirements	Planning	July 1, 2019	Ordinance will be developed and implemented
Develop/implement plan for interdepartmental coordination in site plan review and approval	Planning	July 1, 2017	Continued weekly coordination meetings will all applicable departments Task Ongoing
Review site plans for stormwater quality concerns	Planning	July 1, 2017	Currently conducted during plan review Task Ongoing
Conduct site inspections	Planning	July 1, 2017	As needed per application Task Ongoing
Implement procedure to allow public comment on site development	Planning	July 1, 2017	As necessary per application Task Ongoing
Implement procedure to notify developers about Stormwater Construction General Permit	Planning	July 1, 2017	To be added to applications and approval letters

6.0 Post-construction Stormwater Management in New Development or Redevelopment

This minimum control measure outlines the program for the Town of Ellington to address stormwater runoff from new or redevelopment projects that disturb one or more acres of land.

Goal:

• Mitigate the long-term impacts of new and redevelopment projects on water quality through proper use of low-impact development and runoff reduction practices.

6.1 ESTABLISH LEGAL AUTHORITY AND GUIDELINES REGARDING LID AND RUNOFF REDUCTION IN SITE DEVELOPMENT PLANNING

Ellington will establish the legal authority by ordinance and regulation to require, to the maximum extent practicable, developers and contractors seeking the Town's approval to consider the use of low impact development (LID) and runoff reduction site planning and development practices that meet or exceed those LID and runoff reduction practices in the *Connecticut Stormwater Quality Manual* prior to other stormwater management practices allowed in the land use regulations, guidance or construction project requirements.

This legal authority will include the following standards:

- For redevelopment of sites that are currently developed with Directly Connected Impervious Area (DCIA) of 40% or more, the project must retain on site half the water quality volume for the site, or
- For new development and redevelopment of sites with less than 40% DCIA, retain the water quality volume for the site, or
- If those retention standards cannot be met, the developer will be required to provide a report indicating why the standard could not be met and a mitigation project on another property or pay a fee to fund a DCIA retrofit.

In developing this legal authority, Ellington will consider the following watershed protection elements to manage the impacts of stormwater on receiving waters.

- Minimize the amount of impervious surfaces (roads, parking lots, roofs, etc.) within each municipality by minimizing the creation, extension and widening of parking lots, roads and associated development and encourage the use of LID or green infrastructure practices.
- Preserve, protect, create and restore ecologically sensitive areas that provide water quality benefits and serve critical watershed functions. These areas may include, but are not limited to, riparian corridors, headwaters, floodplains and wetlands.
- Implement stormwater management practices that prevent or reduce thermal impacts to streams, including requiring vegetated buffers along waterways, and disconnecting discharges to surface waters from impervious surfaces such as parking lots.
- Seek to avoid or prevent hydromodification of streams and other waterbodies caused by development, including roads, highways and bridges.
- Implement standards to protect trees and other vegetation with important evapotranspirative qualities.

- Implement policies to protect native soils, prevent topsoil stripping and prevent compaction of soils.
- Coordinate with state or local health officials to ensure no interference with performance of onsite septic systems.
- Limit turf areas.

In addition, Ellington will review its current regulations to identify and, where appropriate, reduce or eliminate existing regulatory barriers to implementation of LID and runoff reduction practices to the maximum extent practicable.

6.2 IMPLEMENT LONG-TERM MAINTENANCE PLAN FOR STORMWATER BASINS AND TREATMENT STRUCTURES

Ellington will develop a maintenance plan for retention/detention ponds and stormwater treatment structures that it owns or over which it holds an easement or other authority and that are located in the priority areas of the town to ensure their long-term effectiveness. This plan will require an annual inspection of those retention/detention ponds and stormwater treatment structures and removal of accumulated sediment and pollutants in excess of 50% design capacity.

6.3 DIRECTLY CONNECTED IMPERVIOUS AREA (DCIA) MAPPING

Ellington will follow guidance provided by CT DEEP and the UConn Center for Land Use Education and Research (CLEAR) to calculate the Directly Connected Impervious Area (DCIA) that contributes stormwater runoff to each of its MS4 outfalls.

6.4 ADDRESS POST-CONSTRUCTION ISSUES IN AREAS WITH POLLUTANTS OF CONCERN

For areas contributing to waters where Nitrogen, Phosphorus or Bacteria is a Stormwater Pollutant of Concern and erosion or sedimentation problems are found during the annual inspections conducted under the long-term maintenance plan described in Section 6.2, Ellington will prioritize those areas for the DCIA retrofit program under Section 7 - Pollution Prevention/Good Housekeeping.

6.5 Post-Construction Stormwater Management Schedule TABLE 7

IMPLEMENTATION SCHEDULE

ВМР	Lead Department	Mandated Date of Implementation	Measurable Goal
Establish legal authority and guidelines regarding LID and runoff reduction in site development planning	Planning	July 1, 2021	Ordinance will be established and enforced
Enforce LID/runoff reduction requirements for development and redevelopment projects	Planning, Public Works	July 1, 2019	Ordinance will be established and enforced
Implement long-term maintenance plan for stormwater basins and treatment structures	Planning	July 1, 2019	Plan will be developed and implemented
Complete DCIA mapping	Planning	July 1, 2020	Calculations will be performed and mapping will be completed
Address post- construction issues in areas with pollutants of concern	All Town departments	ASAP	Post-construction issues will be addressed

7.0 POLLUTION PREVENTION / GOOD HOUSEKEEPING

This minimum control measure outlines a program to mitigate the impact of town operations and maintenance on town-owned and/or operated properties and the MS4 itself to water quality.

Goal:

• Prevent or reduce pollutant runoff as a result of municipal operations.

Ellington has implemented an operations and maintenance program to prevent or reduce pollutant runoff from Town facilities and protect water quality.

7.1 DEVELOP AND IMPLEMENT A FORMAL EMPLOYEE TRAINING PROGRAM

Ellington has established a MS4 training program for town employees to increase awareness of water quality issues. Training will include the following topics:

- Standard operating procedures consistent with the MS4 General Permit;
- General goals and objectives of this Stormwater Management Plan;
- Identification and reporting of illicit discharges and improper disposal; and
- Spill response protocols and responsibilities.

These trainings may also include regional or statewide trainings coordinated by UConn CLEAR or others. The annual training program will be administered by the DPW.

7.2 IMPLEMENT MS4 PROPERTY AND OPERATIONS MAINTENANCE

Town-owned or -operated properties, parks and other facilities that are owned, operated or otherwise the legal responsibility of Ellington will be maintained so as to minimize the discharge of pollutants to its MS4. Such maintenance will include, but not be limited to:

7.2.1 PARKS AND OPEN SPACE

Ellington optimizes the application of fertilizers by municipal employees, institutional staff or private contractors on lands and easements for which it is responsible for maintenance. Optimization practices considered include:

- Conducting soil testing and analysis to determine soil phosphorus levels;
- Reduction or elimination of fertilizers:
- Reduction of fertilizer usage by adhering to the manufacturers' instructions;
- Use of alternative fertilizers forms (i.e., products with reduced, slow-releasing or insoluble phosphorus compositions);
- Proper storage and application practices (i.e. avoid impervious surfaces);
- Application schedule (i.e., appropriate season or month) and timing (i.e., coordinated with climatic conditions to minimize runoff potential);
- Standard operating practices for the handling, storage, application and disposal of pesticides and herbicides in compliance with applicable state and federal laws;
- Evaluating reduced mowing frequencies and use of alternative landscaping materials like drought resistant and native plantings; and

• Establish procedures for management of trash containers at parks (scheduled cleanings, sufficient number, etc.).

Ellington has established practices for the proper disposal of grass clippings and leaves at Townowned lands. Clippings are composted or otherwise appropriately disposed. Clippings do not enter the MS4 system or waters of the State.

7.2.2 PET WASTE MANAGEMENT

Ellington has identified locations where inappropriate pet waste management practices are immediately apparent and pose a threat to receiving water quality due to proximity and potential for direct conveyance of waste to its storm system and waters. In such areas, the Town has implemented targeted management efforts such as public education and enforcement (e.g., increased patrol for violators). In Town-owned recreational areas where dog walking is allowed, Ellington has installed educational signage and disposal receptacles.

There is only one location, Arbor Park, in town where dog walking is allowed; pets are excluded from all other locations. Residents utilizing Arbor Park for dog walking are required to clean up after their pets.

7.2.3 WATERFOWL MANAGEMENT

Ellington has identified lands where waterfowl congregate and feeding by the public occurs. To raise awareness regarding the water quality impacts, the Town will evaluate the need for signage or use other targeted techniques to educate the public about the detrimental impacts of feeding waterfowl (including the resulting feces deposition) and discourage such feeding practices. The Town has also implemented practices that discourage the undesirable congregation of waterfowl in these areas, or otherwise isolated the direct drainage from these areas away from its storm system and waters.

On a daily basis during the summer, the Town cleans waterfowl feces from local beaches.

7.2.4 Town Buildings and Facilities (schools under the jurisdiction of Ellington, town offices, police and fire stations, pools, parking garages and other town-owned or operated buildings or utilities)

Ellington has:

- Evaluated the use, storage and disposal of both petroleum and non-petroleum products and ensure, through employee training, that those responsible for handling these products know proper procedures;
- Ensured that Spill Prevention Plans are in place, if applicable, and coordinated with the fire department as necessary;
- Developed management procedures for dumpsters and other waste management equipment;
- Swept parking lots and kept areas surrounding the facilities clean to minimize runoff of pollutants; and
- Ensured that all interior building floor drains are not connected to the MS4 and are appropriately permitted.

7.2.5 VEHICLES AND EQUIPMENT

Ellington has:

- Established procedures for the storage of Town-owned or -operated vehicles;
- Required vehicles with fluid leaks to be stored indoors or in contained areas until repaired;
- Evaluated fueling areas owned by the Town and used by Town-owned or -operated vehicles and if possible, placed fueling areas under cover in order to minimize exposure;
- Established procedures to ensure that vehicle wash waters are not discharged to the municipal storm sewer system or to surface waters; and
- Ensured any interior floor drains are appropriately permitted.

7.2.6 LEAF MANAGEMENT

Ellington has established and implemented procedures to minimize or prevent the deposition of leaves in catch basins, streets, parking lots, driveways, sidewalks or other paved surfaces that discharge to the MS4. Ellington residents may bring leaves to a designated drop-off area for the stockpiling of leaves, brush, firewood and tree trunks. Periodically, this stockpiled material is sent to Harvest New England for recycling.

7.3 DEVELOP AND IMPLEMENT STREET SWEEPING PROGRAM

Ellington has implemented a program to provide for regular inspection and maintenance of Townowned or -operated streets, parking areas and other MS4 infrastructure.

Ellington has established and implemented procedures for sweeping Town-owned or -operated streets and parking lots. All streets and parking lots within the MS4 Priority Areas are inspected annually, swept and/or cleaned, if required, at least once per year in the spring following the cessation of winter maintenance activities (i.e., sanding, de-icing, etc.). The procedures include more frequent inspections, cleaning and/or sweeping of targeted areas determined by the Town to have increased pollutant potential based on the presence of active construction activity or other potential pollutant sources. Ellington will identify such potential pollutant sources based upon surface inspections, catch basin cleaning or inspection results, land use, winter road deicing and/or sand application, impaired or TMDL waters or other relevant factors. If wet dust suppression is conducted, the use of water will be minimized such that a discharge of excess water to surface waters and/or the storm sewer system does not occur.

For streets and parking lots outside the MS4 Priority Areas, including any rural uncurbed streets and parking lots with no catch basins, Ellington meets the minimum frequencies above by June 30, 2018. For new and redeveloped municipal parking lots, the Town will evaluate options for reducing stormwater runoff to surface waters and/or the storm sewer system by the installing pervious pavements and/or other measures to promote sheet flow of stormwater.

Ellington ensures the proper disposal of street sweepings in accordance with DEEP policies, guidance and regulations. Sweepings are not discharged back into the storm drain system and/or surface waters.

7.4 Develop and Implement Catch Basin Cleaning Program

Ellington conducts routine cleaning of all catch basins and tracks catch basin inspection observations. The town will develop a formal inspection program. Utilizing information compiled through its inventory of catch basins, operational staff and public complaints, the Town will optimize routine cleaning frequencies for particular structures or catchment areas as follows to maintain acceptable sediment removal efficiencies:

- Inspect all Town-owned catch basins within MS4 Priority Areas at least once by June 30, 2020. Catch basins outside the MS4 Priority Areas shall be inspected by June 30, 2022.
- Prioritize inspection and maintenance for Town-owned catch basins located near impaired
 waters and construction activities (roadway construction, residential, commercial or
 industrial development or redevelopment). The Town will clean catch basins in such areas
 more frequently if inspection and maintenance activities indicate excessive sediment or
 debris loadings.
- Establish a schedule such that the frequency of routine cleaning will ensure that no catch basin at any time will be more than 50% full. A catch basin sump is more than 50% full if the contents within the sump exceed one half the distance between the bottom interior of the catch basin to the invert of the deepest outlet of the catch basin.
- If a catch basin sump is more than 50% full during two consecutive routine inspections/cleaning events, the Town will document that finding, investigate the contributing drainage area for sources of excessive sediment loading, and to the maximum extent practicable, abate contributing sources.
- The Town will keep a log of catch basins cleaned or inspected.

7.5 Develop and Implement Snow Management Practices

7.5.1 DE-ICING MATERIAL MANAGEMENT

Ellington will develop and implement standard operating practices for the use, handling, storage, application and disposal of de-icing products such as salt and sand to minimize exposure to stormwater; consider means to minimize the use and optimize the application of chloride-based or other salts or de-icing product (while maintaining public safety) and consider opportunities for use of alternative materials; and for any exterior containers of liquid deicing materials installed after July 1, 2017, the Town will provide secondary containment of at least 110% of the largest container or 10% of the total volume of all containers, whichever is larger, without overflow from the containment area.

7.5.2 SNOW AND ICE CONTROL PRACTICES

Ellington will implement and refine its standard operating practices regarding its snow and ice control to minimize the discharge of sand, anti-icing or de-icing chemicals and other pollutants (while maintaining public safety). The Town will establish goals for the optimization of sand and/or chemical application rates through the use, where practicable, of automated application equipment (e.g., zero-velocity spreaders), anti-icing and pre-wetting techniques, implementation of pavement management systems and alternate chemicals. The Town will maintain records of the application of sand, anti-icing and/or de-icing chemicals to document the reduction of chemicals to meet established goals. The Town will ensure the proper training for de-icing applications for municipal employees, institutional staff or private contractors on lands and easements for which it is responsible for maintenance.

Generally, sand and salt are only used on unimproved roads.

Ellington manages and disposes of snow accumulations in accordance with CT DEEP Best Management Practices for Disposal of Snow Accumulations from Roadways and Parking Lots, revised February 4, 2011 and as amended (see link at: www.ct.gov/deep/stormwater).

7.6 IMPLEMENT COORDINATION WITH INTERCONNECTED MS4s

Ellington will coordinate with operators of interconnected MS4s (such as neighboring municipalities, institutions and DOT) regarding the contribution of potential pollutants from the storm sewer systems, contributing land use areas and stormwater control measures in the respective MS4s. This same coordination shall be conducted regarding operation and maintenance procedures utilized in the respective systems.

7.7 DEVELOP AND IMPLEMENT A PROGRAM TO CONTROL OTHER SOURCES OF POLLUTANTS TO THE MS4

Ellington will develop and implement a program to control the contribution of pollutants to its MS4 from commercial, industrial, municipal, institutional or other facilities, not otherwise authorized by a CT DEEP stormwater permit.

7.8 EVALUATE ADDITIONAL MEASURES FOR DISCHARGES TO IMPAIRED WATERS

7.8.1 FOR WATERS FOR WHICH NITROGEN OR PHOSPHORUS IS A STORMWATER POLLUTANT OF CONCERN

On Town-owned or -operated lands, Ellington will implement turf management practices and procedures policy which include, but is not limited to, procedures for proper fertilizer application and the planting of native plant materials to lessen the amount of turf area requiring mowing and the application of chemicals.

7.8.2 FOR WATERS FOR WHICH BACTERIA IS A STORMWATER POLLUTANT OF CONCERN

On Town-owned or -operated lands with a high potential to contribute bacteria (such as dog parks, parks with open water, sites with failing septic systems), Ellington will develop, fund, implement and prioritize a retrofit or source management program to correct the problem(s) within a specific timeframe. On Town-owned or -operated lands, prohibit the feeding of geese or waterfowl and implement a program to manage geese and waterfowl populations.

7.9 DEVELOP AND IMPLEMENT AN INFRASTRUCTURE REPAIR, REHABILITATION AND RETROFIT PROGRAM

Ellington will continue a program to identify MS4 structures to repair, rehabilitate or upgrade to reduce or eliminate the discharge of pollutants into waterbodies. This program will be responsive to new information on outfalls discharging pollutants, impaired waters, inspections or observations made during outfall mapping under the IDDE section of this plan. Currently, when roads are repaired or replaced, catch basins are inspected and repaired/replaced as necessary. The DPW tracks this information in its work management program.

7.9.1 DEVELOP AND IMPLEMENT PLAN TO IDENTIFY AND PRIORITIZE RETROFIT PROJECTS Ellington will develop a Retrofit Project Plan to identify and prioritize potential projects involving disconnection of Directly Connected Impervious Area (DCIA). Prioritization will be based on several factors, including whether the project lies within one of the MS4 priority areas (urbanized area, DCIA >11%, discharge to impaired waters).

7.9.2 TRACK PROJECTS THAT DISCONNECT DCIA

Ellington will annually track the total acreage of DCIA that is disconnected from the MS4 as a result of redevelopment or retrofit projects within the town. For each retrofit/redevelopment project, the Town will document the amount of existing DCIA that is disconnected. Starting on July 1, 2021, the goal will be to reduce 1% of its total DCIA acreage per year to the maximum extent possible. Ellington will also incorporate all DCIA disconnections which occurred in the town since July 1, 2012 towards meeting this goal.

7.10 POLLUTION PREVENTION/GOOD HOUSEKEEPING SCHEDULE TABLE $8\,$

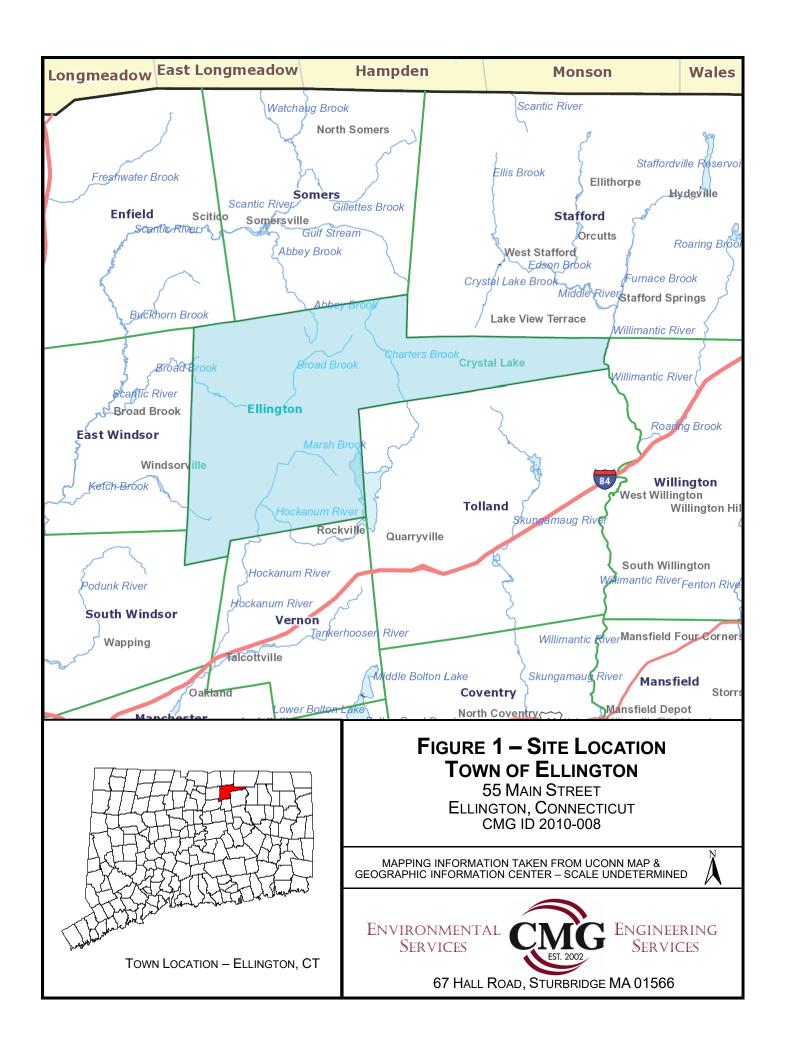
IMPLEMENTATION SCHEDULE

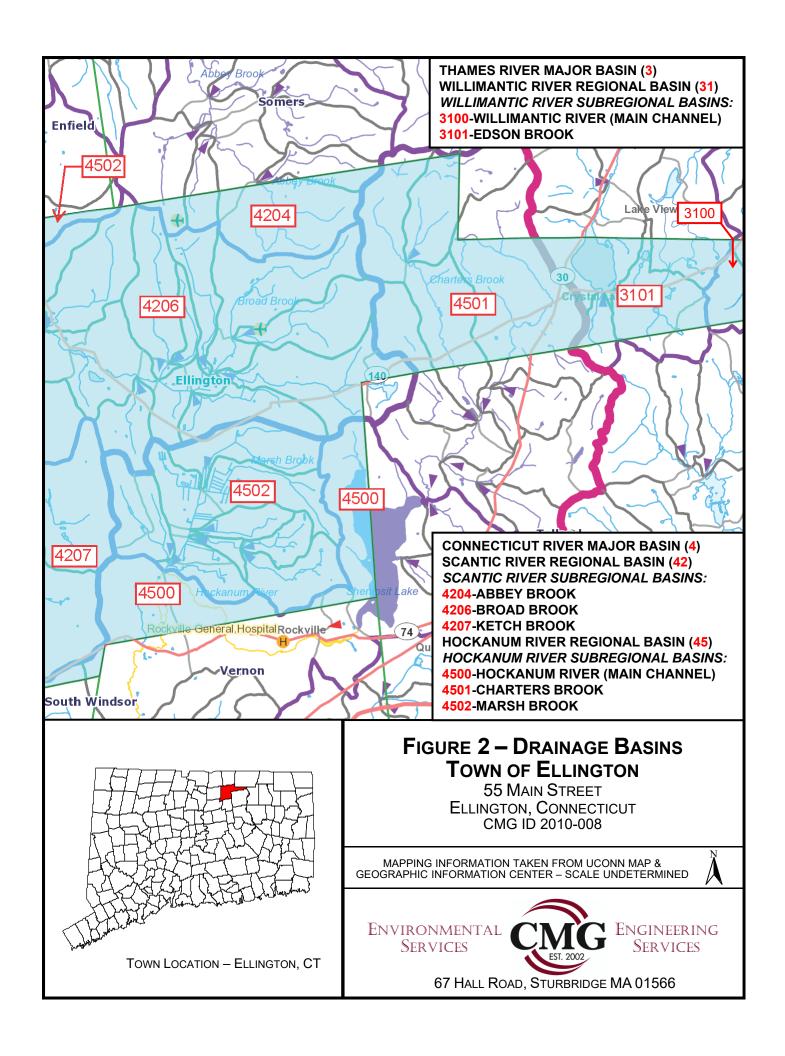
ВМР	Lead Department	Mandated Date of Implementation	Measurable Goal
Develop/implement formal employee training program	Public Works	July 1, 2017	Annual training of DPW and affected Town employees Task Ongoing
Implement MS4 property and operations maintenance	Public Works	July 1, 2017	MS4 property and operations maintenance program has been implemented <i>Task Complete</i>
Develop/implement street sweeping program	Public Works	July 1, 2017	Street sweeping program has been implemented Task Complete
Develop/implement catch basin cleaning program	Public Works	July 1, 2017	Program will be developed and implemented
Develop/implement snow management practices	Public Works	July 1, 2017	Snow management practices have been implemented Task Complete
Implement coordination with interconnected MS4s	Public Works	July 1, 2017	Ellington will coordinate with interconnected MS4s as necessary
Develop/implement program to control other sources of pollutants to MS4	Public Works	July 1, 2017	Program to control other sources of pollutants to MS4 will be developed and implemented as necessary
Evaluate additional measures for discharges to impaired waters	Public Works	July 1, 2017	Discharges to impaired waters will be evaluated as necessary
Develop/implement infrastructure repair/rehab program	Public Works	July 1, 2017	Infrastructure repair/rehab program has been implemented Task Complete
Develop/implement plan to identify/prioritize retrofit projects	Public Works	July 1, 2020	Retrofit projects will be identified/prioritized
Track projects that disconnect DCIA	Public Works	July 1, 2017	DCIA disconnection projects will be tracked

FIGURES

FIGURE 1 SITE LOCATION MAP

FIGURE 2 DRAINAGE BASINS IN TOWN





APPENDICES

APPENDIX A CERTIFICATIONS

APPENDIX B MS4 GENERAL PERMIT REGISTRATION

APPENDIX C ANNUAL REPORTS

CERTIFICATIONS

STORMWATER MANAGEMENT PLAN

TOWN OF ELLINGTON 55 MAIN STREET ELLINGTON, CONNECTICUT

MANAGEMENT APPROVAL

This Stormwater Management Plan has the full approval of Town management at a level of authority to commit the necessary resources to fully implement this Plan. The Town is committed to protecting its water quality and reducing the discharge of pollutants from the Town storm sewer system to the maximum extent practicable.

Authorized Town Representative:

Signature

Lori Spielman
Name

First Selectman
Title

3-22-17
Date

STORMWATER MANAGEMENT PLAN

TOWN OF ELLINGTON 55 MAIN STREET ELLINGTON, CONNECTICUT

PROFESSIONAL ENGINEER CERTIFICATION

I hereby certify that I am making this certification in connection with a registration under the General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems, submitted to the Commissioner by the Town of Ellington for an activity located at or within the Town of Ellington and that all terms and conditions of the General Permit are being met for all discharges which have been created, initiated or maintained and such activity is eligible for authorization under such permit. I further certify that a system is in place to ensure that all terms and conditions of this General Permit will continue to be met for all discharges authorized by this General Permit at the site. I certify that I have personally examined and am familiar with the information that provides the basis for this certification, including but not limited to all information described in Section 3(b)(8)(A) of such General Permit, and I certify, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining such information, that the information upon which this certification is based is true, accurate and complete to the best of my knowledge and belief. I certify that I have made an affirmative determination in accordance with Section 3(b)(8)(B) of this General Permit. I understand that the registration filed in connection with such General Permit is submitted in accordance with and shall comply with the requirements of Section 22a-430b of Connecticut General Statutes, as amended by Public Act 12-172. I also understand that knowingly making any false statement made in the submitted information and in this certification may be punishable as a criminal offense, including the possibility of fine and imprisonment, under section 53a-157b of the Connecticut General Statutes and any other applicable law.

Mr St		
Signature		
Mark Smith, P.E.	-0984888450	guananana.
Name	Hallang CEC	ONA CAR
Professional Engineer Title	Second Se	
CMG Environmental, Inc.		0011 13 EQ-2012 S
Company	September of the septem	T THE PROPERTY OF
18811	CT	3/20/17
Professional Engineer License Number	State	Date

MS4 GENERAL PERMIT REGISTRATION



Connecticut Department of Energy & Environmental Protection

Bureau of Materials Management & Compliance Assurance Water Permitting & Enforcement Division

General Permit Registration Form for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4)

CPPU USE ONLY
A #.
App #:
Doc #:
Chack #
Clieck #
Program: Stormwater Permits
Check #: Program: Stormwater Permits

Please complete this form in accordance with the general permit (DEEP-WPED-GP-021) in order to ensure the proper handling of

your registration. Please print or type unless otherwise noted. The Registration fee must be submitted with this registration.

Part I: Registration Type

1.	This registration is for a (check one): New general permit registration Renewal of an existing registration A modification of an existing registration	For renewals or modifications: Existing permit number: GSM 000059
2.	Registrant Type (check one):	Fees
	state institution/agency	\$625.00 [513]
	federal institution/agency	\$625.00 [513]
		\$312.50 [513]
3.	Municipality name or Municipality where institution is local	ated: Ellington
		shall be non-refundable and shall be paid by check or money on or by such other method as the commissioner may allow.

Part II: Registrant Information

1. Registrant (Name of Municipality or State or Federal Institution/Agency): Town of Ellington

Mailing Address: 55 Main Street

City/Town: Ellington State: CT Zip Code: 06029

Business Phone: 860-870-3100 ext.:

Contact Person: Lori Spielman Phone: 860-870-3100 ext.

*E-mail: Ispielman@ellington-ct.gov

*By providing this e-mail address you are agreeing to receive official correspondence from DEEP, at this electronic address, concerning the subject registration. Please remember to check your security settings to be sure you can receive e-mails from "ct.gov" addresses. Also, please notify DEEP if your e-mail address changes.

Part II: Registrant Information (continued)

2.	Billing contact, if different than the registrant.			
	Name: same			
	Mailing Address:			
	City/Town:	State:	Zip Code:	
	Business Phone:	ext.:		
	Contact Person: Phone:	ext.		
	*E-mail:			
3.	Primary contact for departmental correspondence and inquirie	es, if different tha	an the regis	trant.
	Name: Department of Public Works			
	Mailing Address: 31 Main Street			
	City/Town: Ellington	State: CT	Zip Code:	06029
	Business Phone: 860-870-3140	ext.:		
	Contact Person: Timothy Webb	Phone: 860-870)-3140	ext.
	*E-mail: twebb@ellington-ct.gov			
4.	Attorney or other representative, if applicable:			
	Firm Name: NA			
	Mailing Address:			
	City/Town:	State:	Zip Code:	
	Business Phone:	ext.:		
	Attorney:	Phone:		ext.
	*E-mail:			
5.	Facility Operator, if different than the registrant:			
	Name: NA			
	Mailing Address:			
	City/Town:	State:	Zip Code:	
	Business Phone:	ext.:		
	Contact Person: Phone:	ext.		
	*E-mail:			
7.	Engineer(s) or other consultant(s) employed or retained to assistant constructing the activity. Check here if additional sheets are			
	Name: CMG Environmental, Inc.			
	Mailing Address: 67 Hall Road			
	City/Town: Sturbridge	State: MA	Zip Code:	01566
	Business Phone: 774-241-0901	ext.:		
	Contact Person: Matthew Reiser	Phone: 774-241	-0901	ext.
	*E-mail: mreiser@cmgenv.com			
	Service Provided: Preparation of General Permit Registration a	nd Stormwater M	anagement	Plan
8.	 ☑ Check here if there are adjacent towns or other entities Management Plan is coordinated for a portion of the subtowns or entities: 			

Part III: Watershed Information

Provide the following information about the receiving water(s) that receive stormwater runoff from your MS4: The watershed ID and impaired waters status can be found on the CT ECO website: http://ctecoapp1.uconn.edu/advancedviewer/ If you answered yes to If you answered yes to question c.2, then answer question c.1, then answer the question below. the question below. c.2) **Has any Total Maximum** Daily Load (TMDL) been a) b) c.1) approved for your What is your To what receiving stream, receiving waterbody? Is the receiving watershed ID watershed or waterbody does your water identified as (freshwater) or 305b For more information, go to If TMDL, identify the an impaired water? MS4 discharge? ID (estuary)? www.ct.gov/deep/tmdl impairment \bowtie NO ☐ YES Willimantic River 3100-03 01 YES □ NO ☐ YES \bowtie NO ☐ YES Willimantic River 3100-04 01 □ NO Edson Brook 3101-01 01 ☐ YES \bowtie NO ☐ YES Edson Brook 3101-02 01 ☐ YES \bowtie NO ☐ YES □ NO ☐ YES \bowtie NO ☐ YES Edson Brook 3101-03 01 4204-00 01 **⊠** YES □ NO ☐ YES \bowtie NO Abbey Brook \boxtimes NO 4204-02 01 YES YES Abbey Brook NO Abbey Brook 4205-02 01 ☐ YES \bowtie NO ☐ YES NO **Broad Brook** 4206-00 01 ⊠ YES \bowtie YES NO Unknown **Broad Brook** 4206-00 02 **⊠** YES □ NO **⊠** YES NO Unknown \bowtie NO ☐ YES NO 4206-01 01 ☐ YES Broad Brook \bowtie NO YES YES NO **Broad Brook** 4206-02 01 ☐ YES \bowtie NO ☐ YES □ NO **Broad Brook** 4206-03 01 **Broad Brook** 4206-04 01 ☐ YES \square NO ☐ YES □ NO **Broad Brook** 4206-05 01 ☐ YES \bowtie NO ☐ YES NO Check here if there are more receiving watersheds and attach an additional sheet listing them with the required information requested above.

Part III: Watershed Information

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Part III: Watershed Information

Provide the following information about the receiving water(s) that receive stormwater runoff from your MS4:							
The watershed ID and impaired waters status can be found on the CT ECO website: http://ctecoapp1.uconn.edu/advancedviewer/							
				If you answ question c.1, the questi	then answer	If you answered yes to question c.2, then answer the question below.	
				c.2	2)		
a) To what receiving stream, watershed or waterbody does your	b) What is your watershed ID	c. Is the re	ceiving	Has any Tota Daily Load (* approved receiving w	TMDL) been for your raterbody?		
MS4 discharge?	(freshwater) or 305b ID (estuary)?	an impaire		For more information, go to www.ct.gov/deep/tmdl		If TMDL, identify the impairment	
Charters Brook	4502-00_03	☐ YES	⊠ NO	☐ YES	□ NO		
Charters Brook	4502-01_01	☐ YES	⊠ NO	☐ YES	□ NO		
Charters Brook	4502-02_01	☐ YES	⊠ NO	☐ YES	□ NO		
Charters Brook	4502-03_01	☐ YES	⊠ NO	☐ YES	□ NO		
Charters Brook	4502-04_01	☐ YES	⊠ NO	☐ YES	□ NO		
Charters Brook	4502-05_01	☐ YES	⊠ NO	☐ YES	□ NO		
Charters Brook	4502-06_01	☐ YES	⊠ NO	☐ YES	□ NO		
		☐ YES	□ NO	☐ YES	□ NO		
		☐ YES	□ NO	☐ YES	□ NO		
		☐ YES	□ NO	☐ YES	□ NO		
		☐ YES	□ NO	☐ YES	□ NO		
		☐ YES	□ NO	☐ YES	□ NO		
		☐ YES	□ NO	☐ YES	□ NO		
		☐ YES	□ NO	☐ YES	□ NO		
		☐ YES	□ NO	☐ YES	□ NO		
☐ Check here if there are more receiving water	rsheds and attach an addi	tional sheet li	sting them w	vith the required	information requ	uested above.	

Part IV: MS4 Information

1.	Name of Municipality or State or Federal Institution/Agency : Tow Primary Address or Location Description: 55 Main Street	n of Ellin	gton
	City/Town: Ellington State	e: CT	Zip Code: 06029
2.	 INDIAN LANDS: Is there any activity included in, or proposed to Management Plan that will be located on federally recognized Ind 		
3.	COASTAL BOUNDARY: Is there any new activity included in, or Stormwater Management Plan that will be located within the coas approved coastal boundary maps?		
	☐ Yes ⊠ No		
	If yes, and this registration is for a new authorization or a modifical physical footprint of the subject activity is modified, your Stormwar provisions to assure compliance with Connecticut's Coastal Mana through 22a-112 of the Connecticut General Statutes (CGS), as a	ter Manag gement A	ement Plan must contain
	Information on the coastal boundary is available at www.cted (Select the town and then select coastal boundary. If the town not be able to select the coastal boundary map.) or the local to available at DEEP Maps and Publications (860-424-3555).	is not wit	hin the coastal boundary you will
4.	ENDANGERED OR THREATENED SPECIES: According to the Species and Natural Communities Map", is there any <i>new</i> activity by, your Stormwater Management Plan, that will be located within endangered, threatened or special concern species?	included i	in, or proposed to be implemented
	☐ Yes ☐ No Date of Map: CT ECO		
	If yes, your Stormwater Management Plan must contain provision Endangered Species Act CGS section 26-310(a).	s to assure	e compliance with the State
	For more information visit the DEEP website at www.ct.gov/deep/3011 .	<u>nddbreque</u>	est or call the NDDB at 860-424-
5.	 AQUIFER PROTECTION AREAS: Is the MS4 or any portion of the Level B Aquifer Protection Area, as defined in CGS section 22a-3 	he MS4 lo 54a throu	cated within a mapped Level A or gh
	☐ Yes No		
	If yes, your Stormwater Management Plan must contain provision Protection Regulations (section 22a-354i(1)-(10) of the Regulation		
	For more information on the Aquifer Protection Area Program visit www.ct.gov/deep/aquiferprotection or contact the program at 860		
6.	CONSERVATION OR PRESERVATION RESTRICTION: Is there be implemented by, your Stormwater Management Plan that will be preservation restriction area?		
	☐ Yes ☐ No		
	If Yes, your Stormwater Management Plan must contain provision 42d where proof of written notice of this registration to the holder of such restriction verifying that this registration is in compliance von site.	of such res	striction or a letter from the holder

Part IV: MS4 Information (Continued)

7.	STATE AND FEDERAL HISTORIC PRESERVATION : Is there any activity included in, or proposed to be implemented by, your Stormwater Management Plan that may result in impacts or potential effects on historic properties? Yes No
	If Yes, your Stormwater Management Plan must contain provisions to assure consistency with the state Historic Preservation statutes , regulations, and policies including identification of any potential impacts on property listed or eligible for listing on the Connecticut Register of Historic Places. A review conducted for an Army Corps of Engineers Section 404 wetland permit would meet this qualification.
8.	DISCHARGE TO IMPAIRED WATERS: Is there any activity included in, or proposed to be implemented by, your Stormwater Management Plan that will result in a <i>new or increased</i> discharge from the MS4 to waters listed as impaired in the most recent <u>Connecticut Integrated Water Quality Report</u> pursuant to Clean Water Act section 303(d) and 305(b)?
	☐ Yes ⊠ No
	If Yes, your Stormwater Management Plan must demonstrate that there is no net increase in loading to the impaired water of the pollutant for which the waterbody is impaired.
9.	DISCHARGE TO HIGH QUALITY WATERS: Any <i>new or increased</i> stormwater discharge to high quality waters shall be discharged in accordance with the Connecticut Anti-Degradation Implementation Policy in the <u>Water Quality Standards</u> .

Part V: Supporting Documentation

Check the applicable box below for each attachment being submitted with this registration form. When submitting any supporting documents, please label the documents as indicated in this part (e.g., Attachment A, etc.) and be sure to include the registrant's name as indicated on this registration form.

Attachment A:	Stormwater Management Plan: (REQUIRED for ALL registrants) Provide URL: http://www.ellington-ct.gov/210/Public-Works or submit an electronic copy to the web address indicated at the end of this form.
Attachment B:	An 8 1/2" X 11" copy of the relevant portion or a full-sized original of a USGS Quadrangle Map indicating the exact location of the MS4/Institution/Agency. Indicate the quadrangle name on the map. (REQUIRED for ALL registrants)
Attachment C:	Best Management Practices Table (attached to this form) (REQUIRED for ALL registrants)

Part VI: Registrant Certification

The registrant *and* the individual(s) responsible for actually preparing the registration must sign this part. A registration will be considered insufficient unless *all* required signatures are provided *and are the proper signatory authority*. (If the registrant is the preparer, please mark N/A in the spaces provided for the preparer.)

"I hereby certify that I am making this certification in connection the Discharge of Stormwater from Small Municipal Separathe commissioner by Lori Spielman for an activity located at and conditions of the general permit are being met for all discactivity is eligible for authorization under such permit. I further all terms and conditions of this general permit will continue to general permit at the site. I certify that the registration filed produced forms as prescribed by the commissioner without a personally examined and am familiar with the information that including but not limited to all information described in Section based on reasonable investigation, including my inquiry of the information, that the information upon which this certification best of my knowledge and belief. I certify that I have made a Section 3(b)(8)(B) of this general permit. I understand that the general permit is submitted in accordance with and shall connecticut General Statutes. I also understand that knowing submitted information and in this certification may be punished possibility of fine and imprisonment, under section 53a-157b other applicable law."	ate Storm Sewer Systems (MS4), submitted to or within the Town of Ellington.and that all terms charges which have been initiated and such ar certify that a system is in place to ensure that to be met for all discharges authorized by this cursuant to this general permit is on complete and literation of their text. I certify that I have at provides the basis for this certification, on 3(b)(8)(A) of such general permit, and I certify, nose individuals responsible for obtaining such is based is true, accurate and complete to the n affirmative determination in accordance with the registration filed in connection with such apply with the requirements of section 22a-430b of gly making any false statement made in the able as a criminal offense, including the
Signature of Registrant Authorized Representative	Date
Lori Spielman	First Setectman
Printed Name of Registrant/Authorized Representative	Title (if applicable)
Tathen I Luis	3/20/17
Signature of Preparer (if different than above)	Date /
Matthew Reiser	Compliance Specialist
Printed Name of Preparer	Title (if applicable)
Check here if additional signatures are required. If so, copies to this sheet. Signatures of any person preparir registration (i.e., professional engineers, surveyors, so	ng any report or parts thereof required in this

Part VII: Qualified Professional Certification

The qualified professional, as defined in the subject general permit, must sign this part. A registration will be considered insufficient unless all required signatures are provided and are the proper signatory authority.

"I hereby certify that I am a qualified professional engineer, as defined in the General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems. I am making this certification in connection with a registration under such general permit, submitted to the Commissioner by Lori Spielman for an activity located at or within the Town of Ellington. I have personally examined and am familiar with the information that provides the basis for this certification, including but not limited to all information described in Section 3(b)(9)(A) of such general permit, and I certify, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining such information, that the information upon which this certification is based is true, accurate and complete to the best of my knowledge and belief. I certify, based on my review of all information described in Section 3(b)(9)(A) of such general permit and on the standard of care for such projects, that I have made an affirmative determination in accordance with Section 3(b)(9)(B) of this general permit. I understand that this certification is part of a registration submitted in accordance with section 22a-430b of Connecticut General Statutes and is subject to the requirements and responsibilities for a qualified professional in such statute. I also understand that knowingly making any false statement in this certification may be punishable as a criminal offense, including the possibility of fine and imprisonment, under section 53a-157b of the Connecticut General Statutes and any other applicable law." Nothing in this section shall be construed to authorize a professional engineer or a landscape architect to engage in any profession or occupation requiring a license under any other provision of the general statutes without such license. Signature of Qualified Professional Date Professional Engineer Mark Smith, P.E. Printed Name of Qualified Professional Title (if applicable) Qualified Professional License Number Signature of Preparer (if different than above) Date Matthew Reiser Compliance Specialist Printed Name of Preparer Title (if applicable) Check here if additional signatures are required. If so, please reproduce this sheet and attach signed copies to this sheet. Signatures of any person preparing any report or parts thereof required in this registration (i.e., professional engineers, surveyors, soil scientists, consultants, etc.) must be included.

All completed and supporting materials (along with the fee) are to be submitted to:

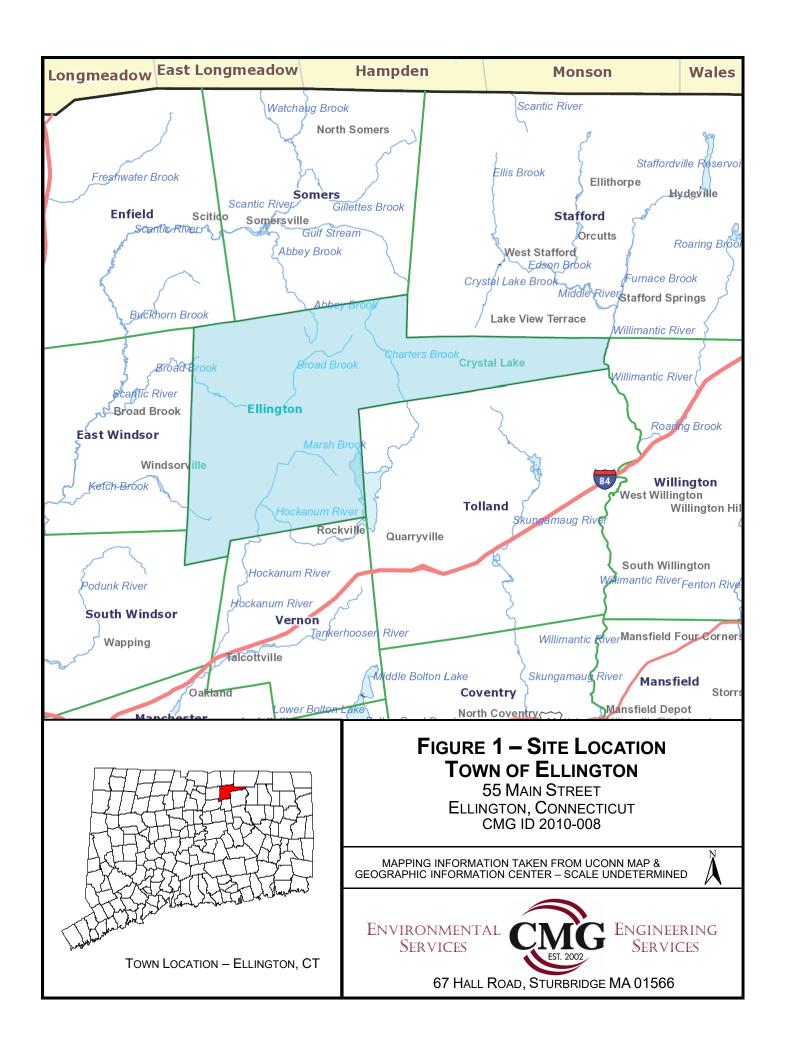
CENTRAL PERMIT PROCESSING UNIT

DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION

79 ELM STREET

HARTFORD, CT 06106-5127

An electronic copy must also be sent to DEEP.StormwaterStaff@ct.gov



Best Management Practices (BMPs)

For each Minimum Control Measure (MCM), list existing or proposed BMPs, the department/parties that will be responsible for implementing each BMP, the goals(s) you expect to achieve, and the month and year that the BMP will be implemented. Please note that certain mandatory minimum BMPs identified in the MS4 General Permit are already listed.

Name of City/Town: Ellington

Name of Institution (if applicable): Address: **55 Main Street**

Existing permit number (if applicable): GSM 000059

	MCM(1) Public Education and Outreach	Responsible Department/Parties	Measurable Goal	Month/Year of Implementation
1-1	Implement public education program	Public Works	Information posted to website and maintained current; one stormwater article per quarterly newsletter	July 2017
1-2	Address education/outreach for pollutants of concern	Public Works	Information posted to website and maintained current; one stormwater article per quarterly newsletter	July 2017
1-3				
1-4				
1-5				
1-5				
1-7				
1-8				
1-9				
1-10				Manual Diagram
	MCM(2) Public Involvement/Participation	Responsible Department/Parties	Measurable Goal	Month/Year of Implementation
2-1	Comply with public notice requirements for the Stormwater Management Plan and Annual Reports	Public Works	SWMP/Annual Report posted annually by January 31	January 2018
2-2	Promote community stormwater management efforts	Public Works	Annual clean-ups conducted	Annually
2-3				
2-4				
2-5				
2-6				
2-7				
2-8				
2-9				
2-10				

BMPs (continued)

	Divir 3 (continued)						
	MCM(3) Illicit Discharge Detection & Elimination	Responsible Department/Parties	Measurable Goal	Month/Year of Implementation			
3-1	Develop written IDDE program	Public Works	Program completed and implemented	July 2018			
3-2	Develop list and maps of all MS4 stormwater outfalls in urbanized and priority areas	Public Works	List and maps developed	July 2019			
3-3	Develop citizen reporting program	Public Works	Program completed and implemented	July 2018			
3-4	Establish legal authority to prohibit illicit discharges	Planning	Ordinance completed and implemented	July 2018			
3-5	Develop record keeping system for IDDE tracking	Public Works	Program completed and implemented	July 2017			
3-6	Address IDDE in areas with pollutants of concern	Public Works	IDDE complaints investigated, logged and tracked	July 2017			
3-7	Household hazardous waste collection	Public Works	Participation in Household Hazardous Waste Collection	Annually			
3-8							
3-9							
3-10							
	MCM(4) Construction Site Runoff Control	Responsible Department/Parties	Measurable Goal	Month/Year of Implementation			
4-1	Implement, upgrade (as necessary) and enforce land use regs or other legal authority to meet requirements of MS4 general permit	Planning	Develop and implement ordinance	July 2019			
4-2	Develop/implement plan for interdepartmental coordination in site plan review and approval	Planning	Weekly coordination meetings with all applicable departments as required	July 2017			
4.0			uepartificitis as required				
4-3	Review site plans for stormwater quality concerns	Planning	Conducted during plan review	July 2017			
4-3	Review site plans for stormwater quality concerns Conduct site inspections	Planning Planning	Conducted during plan	July 2017 July 2017			
	i i		Conducted during plan review	_			
4-4	Conduct site inspections	Planning	Conducted during plan review As needed per application As necessary per	July 2017			
4-4 4-5 4-6 4-7	Conduct site inspections Implement procedure to allow public comment on site development Implement procedure to notifiy developers about DEEP construction	Planning Planning	Conducted during plan review As needed per application As necessary per application To be added to applications	July 2017 July 2017			
4-4 4-5 4-6 4-7 4-8	Conduct site inspections Implement procedure to allow public comment on site development Implement procedure to notifiy developers about DEEP construction	Planning Planning	Conducted during plan review As needed per application As necessary per application To be added to applications	July 2017 July 2017			
4-4 4-5 4-6 4-7	Conduct site inspections Implement procedure to allow public comment on site development Implement procedure to notifiy developers about DEEP construction	Planning Planning	Conducted during plan review As needed per application As necessary per application To be added to applications	July 2017 July 2017			

BMPs (continued)

	Bill 3 (zontina c a)		
	MCM(5) Post-Construction Stormwater Management	Responsible Department/Parties	Measurable Goal	Month/Year of Implementation
5-1	Establish and/or update legal authority and guidelines regarding LID and runoff reduction in site development planning	Planning	Establish and enforce ordinance	July 2021
5-2	Enforce LID/runoff reduction requirements for development and redevelopment projects	Planning; Public Works	Establish and enforce ordinance	July 2019
5-3	Implement long-term maintenance plan for stormwater basins and treatment structures	Planning	Maintenance plan will be developed	July 2019
5-4	DCIA mapping	Planning	Perform calculations and complete mapping	July 2020
5-5	Address post-construction issues in areas with pollutants of concern	All Town Departments	Post-construction issues will be addressed	ASAP
5-6				
5-7				
5-8				
5-9				
5-10				
	MCM(6) Pollution Prevention/Good Housekeeping	Responsible Department/Parties	Measurable Goal	Month/Year of Implementation
6-1	Develop/implement formal employee training program	Public Works	Annual training of DPW and affected Town employees	July 2017
6-2	Implement MS4 property and operations maintenance	Public Works	Program has been implemented	July 2017
6-3	Implement coordination with interconnected MS4s	Public Works	Town will coordinate with interconnected MS4s as necessary	July 2017
6-4	Develop/implement program to control other sources of pollutants to the MS4	Public Works	Program will be developed and implemented as necessary	July 2017
6-5	Evaluate additional measures for discharges to impaired waters	Public Works	Discharges to impaired waters will be evaluated as necessary	July 2017
6-6	Track projects that disconnect DCIA	Public Works	Projects will be tracked	July 2017
6-7	Develop/implement infrastructure repair/rehab program	Public Works	Program has been implemented	July 2017
6-8	Develop/implement plan to identify/prioritize retrofit projects	Public Works	Projects will be identified and prioritized	July 2017
6-9	Develop/implement street sweeping program	Public Works	Program has been implemented	July 2017
6-10	Develop/implement catch basin cleaning program	Public Works	Program will be developed and implemented	July 2017
6-11	Develop/implement snow management practices	Public Works	Practices have been implemented	July 2017

	Monitoring Requirements	Responsible Department/Parties	Measurable Goal	Month/Year of Implementation
S-1	Outfall screening	Public Works	Outfalls will be screened	July 2018
S-2	Inventory and mapping of discharges to impaired waters	Public Works	Discharges will be mapped as necessary	July 2019
S-3	Follow-up investigations of drainage areas	Public Works	Investigations will be conducted as necessary	July 2019
S-4	Annual monitoring of priority outfalls	Public Works	Monitoring will be conducted	July 2021

ANNUAL REPORTS

ANNUAL REPORT OUTLINE

A written discussion of the status of compliance with the MS4 General Permit including, but not limited to the following topics.

- 1. A listing and brief description (including, where appropriate, the address or latitude and longitude) of all BMPs within each Minimum Control Measure.
- 2. Any reporting requirements enumerated in the controls measures sections 6(a) and its subsections of the MS4 General Permit.
- 3. An implementation schedule for each BMP and an indication of whether or not the BMP or any portion of the BMP was scheduled to be implemented during the year covered by the Annual Report.
- 4. The status of implementation for each BMP scheduled to be completely or partially implemented during the year covered by the Annual Report, including an assessment of the appropriateness of the BMP and progress towards achieving the implementation dates and measurable goals for that BMP.
- 5. For any portion of a BMP implementation scheduled for the year covered by the Annual Report that was *not* completed as scheduled, a discussion of the circumstances and reasons for non-implementation, a modified implementation schedule, and, if necessary, a modified or alternate BMP to replace the BMP not implemented including the rationale for such modification or alternate BMP.
- 6. The overall status of each of the six categories of the Minimum Control Measures and a discussion of the effectiveness of each category in achieving its goals.
- 7. A discussion of any changes to personnel responsible for the Plan or BMP implementation.
- 8. A description of any new BMPs added to the Plan during the year, including a description of the BMP, the reason or rationale for adding the BMP, the timeline for implementation, the party responsible for implementation and the measurable goal for the BMP and, where appropriate, the location for each BMP, including the address and latitude and longitude.
- 9. A discussion of the progress and status of the MS4's Illicit Discharge Detection and Elimination (IDDE) program (see Section 6(a)(3) of the MS4 General Permit) including outfall screening, mapping, drainage area evaluation and prioritization, illicit discharge tracking activities, IDDP field-monitoring results, number and type of illicit discharges detected, and number of illicit discharges eliminated.
- 10. A discussion of measures included in the Plan for the control of discharges to impaired waters (see Section 6(k) of the MS4 General Permit) including a list of BMPs in the Minimum Control Measures that are targeted for such discharges, progress in implementing these measures, any evaluation of the effectiveness of these measures in meeting the goals of the Plan's impaired waters program, and any new or modified BMPs to be added to the Plan to improve its effectiveness.

ANNUAL REPORT OUTLINE (continued)

- 11. A discussion of the MS4's stormwater monitoring program describing the status of monitoring for the year of the report, the overall status of the monitoring program, a summary of the findings, any significant observations regarding the results, any modifications to the Plan as a result of the monitoring results.
- 12. A discussion of any planned BMP implementation in the coming year, including a discussion of any new or modified BMPs planned for future implementation.
- 13. Public Education and Outreach efforts.
- 14. Public Involvement and Participation efforts, including public notice of the SWMP and Annual Report by January 31.
- 15. IDDE efforts, including:
 - a. citizen reports and responses;
 - b. record of illicit discharge abatement activities;
 - c. summary of IDDE program to address stormwater Pollutants of Concern;
 - d. progress towards MS4 mapping within Priority Areas;
 - e. database of all stormwater outfalls and interconnections within Priority Areas;
 - f. progress of outfall screening process (to be done in Annual Report for 2nd year of the MS4 General Permit);
 - g. discussion of employee training;
 - h. all other information collected and analyzed, including data collected under the Illicit Discharge Detection Protocol (Appendix B of the MS4 General Permit), during the reporting period; and
 - i. all monitoring data collected and analyzed pursuant to Section 6(i) of the MS4 General Permit.
- 16. Construction Site Stormwater Runoff Control efforts.
- 17. Post-Construction Stormwater Management efforts, including Directly Connected Impervious Area (DCIA) calculations.
- 18. Pollution Prevention / Good Housekeeping efforts, including:
 - a. total amount of DCIA disconnected in a given year;
 - b. retrofit planning process progress (to be done in Annual Report for 3rd year of the MS4 General Permit);
 - c. retrofit schedule (to be done in Annual Report for 5th year of the MS4 General Permit):
 - d. scope and extent of public education program regarding pet waste;
 - e. results of street sweeping program, including a summary of inspection results, curb miles swept, dates of cleaning, volume or mass of material collected, method(s) of reuse or disposal and documentation of any alternate sweeping plan for rural uncurbed streets and any runoff reduction measures implemented;
 - f. plan for sweeping of areas outside the urbanized area and outside the MS4 areas with DCIA>11% or that discharge to impaired waters;

ANNUAL REPORT OUTLINE (continued)

- g. results of catch basin cleaning program, including the total number of catch basins, number inspected, number cleaned, the total volume or mass of material removed from all catch basins and, if practicable, the volume or mass of material removed from each catch basin draining to water quality limited waters, actions taken to address catch basins that are consistently >50% full; and a plan for optimizing catch basin cleaning, inspection plans and a schedule for gathering information to develop the optimization plan, including metrics and other information used to reach the determination that the established plan for cleaning and maintenance is optimal for the MS4;
- h. results of snow removal program, including, at a minimum, the type of staff training conducted on application methods and equipment, type(s) of de-icing materials used, lane-miles treated, total amount of each de-icing material used, type(s) of de-icing equipment used, any changes in de-icing practices (and the reasons for the change), and snow disposal methods;
- i. actions taken to minimize stormwater pollutants of concern to impaired waters, including actions taken to implement this policy with an estimate of fertilizer and turf reduction, identification of problem areas for which a retrofit or source management program were developed, the location of the closest outfall monitored in accordance with Section 6(i) of the MS4 General Permit, the cost of such retrofit or program, the anticipated pollutant reduction, and actions taken to implement a program to manage geese and waterfowl populations.
- 19. Identification of 3rd party implementation of BMPs.