

ENVIRONMENTAL
SERVICES



ENGINEERING
SERVICES

STORMWATER MANAGEMENT PLAN

TOWN OF AVON
60 WEST MAIN STREET
AVON, CONNECTICUT

MARCH 2017



PREPARED FOR:

TOWN OF AVON
60 WEST MAIN STREET
AVON, CONNECTICUT 06001

PREPARED BY:

CMG ENVIRONMENTAL, INC.
CMG ID 2016-046

67 HALL ROAD
STURBRIDGE, MA 01566
PHONE (774) 241-0901
FAX (774) 241-0906

560 SOUTH MAIN STREET
NEW BRITAIN, CT 06051
PHONE (866) 304-7625
FAX (860) 223-5454

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

3-30-17
Date

Reviewed by:



Mark Smith, P.E.

3/30/17
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 _____ | 6 |
| 2.1 IMPLEMENT PUBLIC EDUCATION PROGRAM..... | 6 |
| 2.2 ADDRESS EDUCATION AND OUTREACH FOR POLLUTANTS OF CONCERN | 6 |
| 2.3 PUBLIC OUTREACH AND EDUCATION SCHEDULE | 7 |
| 3.0 PUBLIC INVOLVEMENT AND PARTICIPATION _____ | 8 |
| 3.1 COMPLY WITH PUBLIC NOTICE REQUIREMENTS FOR THE STORMWATER MANAGEMENT PLAN AND ANNUAL REPORT | 8 |
| 3.2 PUBLIC INVOLVEMENT/PARTICIPATION PROGRAM..... | 8 |
| 3.3 PUBLIC INVOLVEMENT AND PARTICIPATION SCHEDULE | 8 |
| 4.0 ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE) _____ | 9 |
| 4.1 ESTABLISH LEGAL AUTHORITY TO PROHIBIT ILLICIT DISCHARGES | 9 |
| 4.2 DEVELOP WRITTEN IDDE PLAN..... | 9 |
| 4.3 DEVELOP CITIZEN REPORTING PROGRAM..... | 9 |
| 4.4 DEVELOP RECORDKEEPING SYSTEM FOR IDDE TRACKING..... | 10 |
| 4.5 DETAILED MS4 INFRASTRUCTURE MAPPING IN PRIORITY AREAS | 10 |
| 4.6 DEVELOP LIST AND MAP OF ALL MS4 OUTFALLS AND INTERCONNECTIONS | 10 |
| IN PRIORITY AREAS | |
| 4.7 ADDRESS IDDE IN AREAS WITH POLLUTANTS OF CONCERN | 11 |
| 4.8 HOUSEHOLD HAZARDOUS WASTE COLLECTION AND RECYCLING | 11 |
| 4.9 ILLICIT DISCHARGE DETECTION AND ELIMINATION SCHEDULE | 12 |
| 5.0 CONSTRUCTION SITE STORMWATER RUNOFF CONTROL _____ | 13 |
| 5.1 IMPLEMENT, UPGRADE AND ENFORCE LAND USE REGULATIONS TO MEET | 13 |
| REQUIREMENTS OF MS4 GENERAL PERMIT | |
| 5.2 DEVELOP AND IMPLEMENT PLAN FOR INTERDEPARTMENTAL COORDINATION | 13 |
| OF SITE PLAN REVIEW AND APPROVAL | |
| 5.3 REVIEW SITE PLANS FOR STORMWATER QUALITY CONCERNS..... | 13 |
| 5.4 CONDUCT SITE INSPECTIONS | 14 |
| 5.5 IMPLEMENT PROCEDURE TO ALLOW PUBLIC COMMENT ON SITE DEVELOPMENT | 14 |
| 5.6 IMPLEMENT PROCEDURE TO NOTIFY DEVELOPERS ABOUT CT DEEP STORMWATER | 14 |
| CONSTRUCTION GENERAL PERMIT | |

TABLE OF CONTENTS (CONTINUED)

| Section | Page |
|--|------|
| 5.7 CONSTRUCTION SITE STORMWATER MANAGEMENT SCHEDULE | 15 |
| 6.0 POST-CONSTRUCTION STORMWATER MANAGEMENT IN NEW DEVELOPMENT _____ OR REDEVELOPMENT | 16 |
| 6.1 UPDATE LEGAL AUTHORITY AND GUIDELINES REGARDING LID AND RUNOFF REDUCTION IN SITE DEVELOPMENT PLANNING | 16 |
| 6.2 IMPLEMENT LONG-TERM MAINTENANCE PLAN FOR STORMWATER BASINS AND TREATMENT STRUCTURES | 17 |
| 6.3 DIRECTLY CONNECTED IMPERVIOUS AREA (DCIA) MAPPING | 17 |
| 6.4 ADDRESS POST-CONSTRUCTION ISSUES IN AREAS WITH POLLUTANTS OF CONCERN | 17 |
| 6.5 POST-CONSTRUCTION STORMWATER MANAGEMENT SCHEDULE | 18 |
| 7.0 POLLUTION PREVENTION / GOOD HOUSEKEEPING | 19 |
| 7.1 DEVELOP AND IMPLEMENT A FORMAL EMPLOYEE TRAINING PROGRAM | 19 |
| 7.2 IMPLEMENT MS4 PROPERTY AND OPERATIONS MAINTENANCE | 19 |
| 7.2.1 PARKS AND OPEN SPACE | 19 |
| 7.2.2 PET WASTE MANAGEMENT | 20 |
| 7.2.3 WATERFOWL MANAGEMENT | 20 |
| 7.2.4 TOWN BUILDINGS AND FACILITIES | 20 |
| 7.2.5 VEHICLES AND EQUIPMENT | 20 |
| 7.2.6 LEAF MANAGEMENT | 21 |
| 7.3 DEVELOP AND IMPLEMENT STREET SWEEPING PROGRAM | 21 |
| 7.4 DEVELOP AND IMPLEMENT CATCH BASIN CLEANING PROGRAM | 21 |
| 7.5 DEVELOP AND IMPLEMENT SNOW MANAGEMENT PRACTICES | 22 |
| 7.5.1 DE-ICING MATERIAL MANAGEMENT | 22 |
| 7.5.2 SNOW AND ICE CONTROL PRACTICES | 22 |
| 7.6 IMPLEMENT COORDINATION WITH INTERCONNECTED MS4s | 22 |
| 7.7 DEVELOP AND IMPLEMENT A PROGRAM TO CONTROL OTHER SOURCES OF POLLUTANTS TO THE MS4 | 22 |
| 7.8 EVALUATE ADDITIONAL MEASURES FOR DISCHARGES TO IMPAIRED WATERS | 22 |
| 7.8.1 FOR WATERS FOR WHICH NITROGEN OR PHOSPHORUS IS A STORMWATER POLLUTANT OF CONCERN | 22 |
| 7.8.2 FOR WATERS FOR WHICH BACTERIA IS A STORMWATER POLLUTANT OF CONCERN | 23 |
| 7.9 DEVELOP AND IMPLEMENT AN INFRASTRUCTURE REPAIR, REHABILITATION AND RETROFIT PROGRAM | 23 |
| 7.9.1 DEVELOP AND IMPLEMENT PLAN TO IDENTIFY AND PRIORITIZE RETROFIT PROJECTS | 23 |
| 7.9.2 TRACK PROJECTS THAT DISCONNECT DCIA | 23 |
| 7.10 POLLUTION PREVENTION/GOOD HOUSEKEEPING SCHEDULE | 24 |

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 Avon 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 Avon 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 Engineering Department and the Planning & Community Development 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 Avon. The Town of Avon is a public entity located in Hartford county. The Town of Avon covers an area of approximately 22.6 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 10/202, 44, 167 and 177, located in the Town of Avon. 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 Avon 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 two 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 Segment Description | Waterbody Segment Length (miles) | Impaired? | Pollutant | Impaired Use |
|------------------|----------------------|------------------------|--|----------------------------------|-----------|-----------|--------------|
| Farmington River | CT4300-00_04 | Farmington River-04 | From lower Collinsville dam (Collins Company Lower Dam near Route 179), Burlington, upstream to confluence with Still River, Barkhamsted | 15.01 | No | | |
| Farmington River | CT4300-00_05 | Farmington River-05 | From confluence with Still River, Barkhamsted, upstream to West Branch Reservoir outlet (Hogback Dam, just upstream of Durst Road crossing), Hartland. | 2.41 | No | | |
| Farmington River | CT4300-19_01 | Hawley Brook (Avon)-01 | Mouth at confluence with Farmington River downstream to New Road crossing (near Pequot Road intersection), upstream to headwaters between Huckleberry Hill Road on west and Northington Drive on east and north about to Saddle Ridge Drive, Avon. | 2 | No | | |
| Farmington River | CT4300-29_01 | Farmington River | Unnamed brook at mouth above Farmington River | | No | | |
| Farmington River | CT4300-30_01 | Farmington River | Ely Pond at outlet on unnamed brook, Lake Erie at outlet on unnamed brook, unnamed brook above unnamed brook | | No | | |
| Farmington River | CT4300-30_02 | Farmington River | Unnamed brook at mouth above Farmington River | | No | | |

TABLE 1 (continued)

| Watershed Name | Waterbody Segment ID | Waterbody Name | Waterbody Segment Description | Waterbody Segment Length (miles) | Impaired? | Pollutant | Impaired Use |
|------------------|----------------------|--------------------------|---|----------------------------------|-----------|-----------|--------------|
| Farmington River | CT4300-31_01 | Farmington River | Unnamed brook at mouth above unnamed brook | | No | | |
| Roaring Brook | CT4312-00_02 | Roaring Brook | Bond Pond at outlet on unnamed brook into Secret Lake at outlet on Roaring Brook; Roaring Brook above unnamed brook | | No | | |
| Roaring Brook | CT4312-02_01 | Roaring Brook | Unnamed brook at mouth above Roaring Brook | | No | | |
| Thompson Brook | CT4316-00_02 | Thompson Brook (Avon)-02 | From inlet to Beaverdam Pond (downstream of old Railroad crossing which is now a bike path), upstream to HW at confluence of Big Brook and Chidsey Brook (just upstream of Thompson Road crossing), Avon. | 1.24 | Yes | E. coli | Recreation |
| Thompson Brook | CT4316-01_01 | Chidsey Brook (Avon)-01 | From mouth at confluence with Big Brook, forming headwaters of Thompson Brook (downstream of Scoville Road crossing), upstream to Lamonica Pond outlet (just upstream of West Avon Road crossing), Avon | 1.34 | No | | |
| Thompson Brook | CT4316-02_01 | Thompson Brook | Big brook at mouth at confluence of Chidsey Brook above Thompson Brook | | No | | |

TABLE 1 (continued)

| Watershed Name | Waterbody Segment ID | Waterbody Name | Waterbody Segment Description | Waterbody Segment Length (miles) | Impaired? | Pollutant | Impaired Use |
|--|----------------------|------------------------------|--|----------------------------------|-----------|-----------|--------------|
| Nod Brook | CT4317-00_01 | Nod Brook (Avon/Simsbury)-01 | Mouth at Farmington River (includes dredge holes, Twin Lakes North and South and outlet to Farmington River in wildlife management area), Avon, upstream to headwaters (just upstream of Rocklyn Road crossing), Simsbury. | 6.95 | Yes | E. coli | Recreation |
| Nod Brook | CT4317-00_02 | Nod Brook | Stub Pond at outlet on Nod Brook, Nod Brook at mouth above Farmington River | | No | | |
| Nod Brook | CT4317-01_01 | Nod Brook | Wiggin Brook at mouth above Nod Brook | | No | | |
| Trout Brook | CT4403-02_01 | Trout Brook | Reservoir No. 3 at outlet on unnamed brook, unnamed brook at mouth above unnamed brook into Reservoir No. 1 | | No | | |
| Trout Brook | CT4403-03_01 | Trout Brook | Reservoir No. 2 at outlet at unnamed brook, Reservoir No. 5 at outlet at unnamed brook, unnamed brook at mouth above unnamed brook into Reservoir No. 2 | | No | | |
| North Branch Park River | CT4404-04_01 | North Branch Park River | Hoe Pond at outlet on unnamed brook into Hartford reservoir No. 6 at outlet on Tumble Brook, Tumble Brook above unnamed 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 Avon.

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

Avon 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 Avon 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.avonct.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 the public library.

The Farmington River Watershed Association (FRWA) has been trying to get the Lower Farmington River/Salmon Brook designated as a National Wild and Scenic River. There is a link on the Town website with information regarding this designation.

2.2 ADDRESS EDUCATION AND OUTREACH FOR POLLUTANTS OF CONCERN

Avon will distribute information on common sources of phosphorus, nitrogen, bacteria and mercury pollution and how to prevent or reduce the amount of these pollutants of concern from reaching the MS4 and discharging into waterways. Two waterways in town, Thompson Brook and Nod Brook, are designated as impaired due to the presence of bacteria. As such, Avon 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 | Fertilizer use | Sanitary cross connections | 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

| BMP | Lead Department | Mandated Date of Implementation | Measurable Goal |
|--|------------------------|--|--|
| Implement public education program | Public Works | July 1, 2017 | Information will be posted to website and maintained current |
| Address education/outreach for pollutants of concern | Public Works | July 1, 2017 | Information will be posted to website and maintained current |

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 Avon will publish a public notice by January 31 on its website (<http://www.avonct.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.avonct.gov/>), Avon 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/PARTICIPATION PROGRAM

Avon welcomes the assistance of local organizations to promote stormwater management efforts. Examples of this assistance include, but are not limited to, the following activities.

- The Secret Lake community conducts annual harvesting of weeds from the lake. The weeds are taken by Town personnel to the Town Landfill for re-use as an amendment to topsoil.
- The Farmington Valley Academy Montessori removes invasive plants along the Farmington River.
- Avon has an Adopt-A-Road program that encourages local groups to sponsor cleanups of roadways.

3.3 PUBLIC INVOLVEMENT AND PARTICIPATION SCHEDULE

TABLE 4

IMPLEMENTATION SCHEDULE

| BMP | 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 Avon, 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

Avon has established the necessary and enforceable legal authority by ordinance to eliminate illicit discharges. The authority:

- a. Prohibits illicit discharges to the storm sewer system and require removal of such discharges consistent with the deadlines outlined in the MS4 General Permit;
- b. Authorizes 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. Controls 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. Authorizes appropriate enforcement procedures and actions; and
- e. Authorizes 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

Avon 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 DPW utilizes its maintenance management system, called FacilityDude, to manage its system for tracking citizen reporting of suspected illicit discharges into the stormwater system. When a citizen contacts DPW to report suspected illicit discharges, the call is logged into FacilityDude and a work request is made to investigate the concern. Drainage complaints are handled by the Engineering Department, which tracks the calls using its service request system. The Fire Marshal and Fire Inspector also conduct illicit discharge inspections. The Town investigates and eliminates

any illicit discharges logged. The alleged illicit discharge is promptly inspected and the Town proceeds according to the requirements of the written IDDE program.

4.4 DEVELOP RECORDKEEPING SYSTEM FOR IDDE TRACKING

As mentioned previously, each department has a system for tracking IDDE complaints. 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

Approximately 90% of town-owned infrastructure is already mapped. Avon will continue to map the town and, as new information becomes available, will revise 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 will complete 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 will include:

- 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

Avon 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 Farmington Valley Health District for corrective action.

4.8 HOUSEHOLD HAZARDOUS WASTE COLLECTION AND RECYCLING

Avon partners with the towns of Canton, Farmington, Granby and Simsbury to collect household hazardous waste for recycling and proper disposal. Typically, there are three collections throughout the year.

4.9 ILLICIT DISCHARGE DETECTION AND ELIMINATION SCHEDULE

TABLE 5

IMPLEMENTATION SCHEDULE

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

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 Avon, this is determined on a site-by-site basis or collectively as part of a larger plan, as warranted by the nature of the project.

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

Avon will continue to enforce its land use regulations in an effort 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;
- Avon 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 Avon 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
- Avon 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 INTERDEPARTMENTAL COORDINATION OF SITE PLAN REVIEW AND APPROVAL

The Engineering, Planning and Wetlands/Zoning Departments are involved in the review, permitting and approval of land disturbance projects as necessary.

5.3 REVIEW SITE PLANS FOR STORMWATER QUALITY CONCERNS

Avon 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 takes enforcement action when necessary.

5.4 CONDUCT SITE INSPECTIONS

Avon 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.

5.5 IMPLEMENT PROCEDURE TO ALLOW PUBLIC COMMENT ON SITE DEVELOPMENT

In order to ensure public involvement in proposed and ongoing development and land disturbance activities, Avon holds hearings and/or public hearings with local land use commissions. Information is disseminated to Town staff as necessary.

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

Currently, the Wetlands Department notifies 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 Avon MS4. The Town also requires a copy of the Stormwater Pollution Control Plan be made available to the Town upon request. Going forward, the Planning and Zoning Department will also notify developers and contractors of these obligations.

5.7 CONSTRUCTION SITE STORMWATER MANAGEMENT SCHEDULE

TABLE 6

IMPLEMENTATION SCHEDULE

| BMP | Lead Department | Mandated Date of Implementation | Measurable Goal |
|---|--|--|---|
| Implement, upgrade and enforce land use regulations to meet MS4 General Permit requirements | Planning & Community Development/ Engineering | July 1, 2019 | Ordinance has been completed and implemented; Continued enforcement of regulation <i>Task Ongoing</i> |
| Develop/implement plan for interdepartmental coordination in site plan review and approval | Planning & Community Development/ Engineering | July 1, 2017 | Continued interdepartmental site plan review and approval <i>Task Ongoing</i> |
| Review site plans for stormwater quality concerns | Planning & Community Development/ Engineering | July 1, 2017 | Continued site plan review <i>Task Ongoing</i> |
| Conduct site inspections | Planning & Community Development/ Engineering | July 1, 2017 | Continued site inspections <i>Task Ongoing</i> |
| Implement procedure to allow public comment on site development | Planning & Community Development | July 1, 2017 | Continued public comment on site development <i>Task Ongoing</i> |
| Implement procedure to notify developers about Stormwater Construction General Permit | Planning & Community Development | July 1, 2017 | Continued notification of developers about Stormwater Construction General Permit <i>Task Ongoing</i> |

6.0 POST-CONSTRUCTION STORMWATER MANAGEMENT IN NEW DEVELOPMENT OR REDEVELOPMENT

This minimum control measure outlines the program for the Town of Avon 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 OR UPDATE LEGAL AUTHORITY AND GUIDELINES REGARDING LID AND RUNOFF REDUCTION IN SITE DEVELOPMENT PLANNING

Avon has established the legal authority by ordinance 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 be amended 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, Avon has considered 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 evapo-transpirative 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, Avon will continue to 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

Avon 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

Avon 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, Avon 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

| BMP | Lead Department | Mandated Date of Implementation | Measurable Goal |
|--|---|--|--|
| Establish or update legal authority and guidelines regarding LID and runoff reduction in site development planning | Planning & Community Development | July 1, 2021 | Continued implementation and upgrade of regulations <i>Task Ongoing</i> |
| Enforce LID/runoff reduction requirements for development and redevelopment projects | Planning & Community Development / Engineering | July 1, 2019 | Continued enforcement of regulations <i>Task Ongoing</i> |
| Implement long-term maintenance plan for stormwater basins and treatment structures | Public Works | July 1, 2019 | Maintenance plan will be developed |
| Complete DCIA mapping | Engineering | July 1, 2020 | Perform calculations and complete mapping |
| Address post-construction issues in areas with pollutants of concern | Planning & Community Development / Engineering / Public Works | ASAP | Post-construction issues will be addressed as necessary |

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.

Avon 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

Avon will establish its 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 Avon are 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

Avon 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:

- Reduction of fertilizer usage by adhering to the manufacturers' instructions;
- Proper storage and application practices (i.e., avoiding 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 elimination of trash containers at parks.

Avon has established practices for the proper disposal of grass clippings and leaves at Town-owned 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

Avon 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, Avon will install educational signage regarding proper pet waste management and post such information to the Town website.

7.2.3 WATERFOWL MANAGEMENT

Avon has identified lands where waterfowl congregate and feeding by the public occurs. To raise awareness regarding the water quality impacts, the Town will install 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 will also implement 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. Such information will be posted to the Town website.

7.2.4 TOWN BUILDINGS AND FACILITIES (SCHOOLS UNDER THE JURISDICTION OF AVON, TOWN OFFICES, POLICE AND FIRE STATIONS, POOLS, PARKING GARAGES AND OTHER TOWN-OWNED OR OPERATED BUILDINGS OR UTILITIES)

Avon 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

Avon 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

Avon 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. Avon does not conduct residential leaf pick-up.

7.3 DEVELOP AND IMPLEMENT STREET SWEEPING PROGRAM

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

Avon 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, swept and/or cleaned (as necessary) 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. Avon will identify such potential pollutant sources based upon surface inspections, catch basin cleaning or inspection results, land use, winter road de-icing 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, Avon meets the minimum frequencies above, or will develop and implement an inspection, documentation and targeted sweeping and/or cleaning plan for those areas 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.

Avon 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

Avon conducts routine cleaning of all catch basins and tracks catch basin inspection observations. 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

Avon has developed and implemented standard operating practices for the use, handling, storage, application and disposal of its de-icing product, e.g., treated rock salt, to minimize exposure to stormwater. This material is stored in a covered structure at the DPW.

7.5.2 SNOW AND ICE CONTROL PRACTICES

Avon does not utilize sand or liquid anti-icing or de-icing chemicals; it only uses treated rock salt. The Town will ensure the proper training for the application of treated rock salt for municipal employees, institutional staff or private contractors on lands and easements for which it is responsible for maintenance.

Avon 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

Avon 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

Avon 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, Avon will implement turf management practices and procedures which include, but are not limited to, procedures for 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), Avon 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

Avon will continue its 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.

7.9.1 DEVELOP AND IMPLEMENT PLAN TO IDENTIFY AND PRIORITIZE RETROFIT PROJECTS

Avon 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

Avon 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. Avon 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

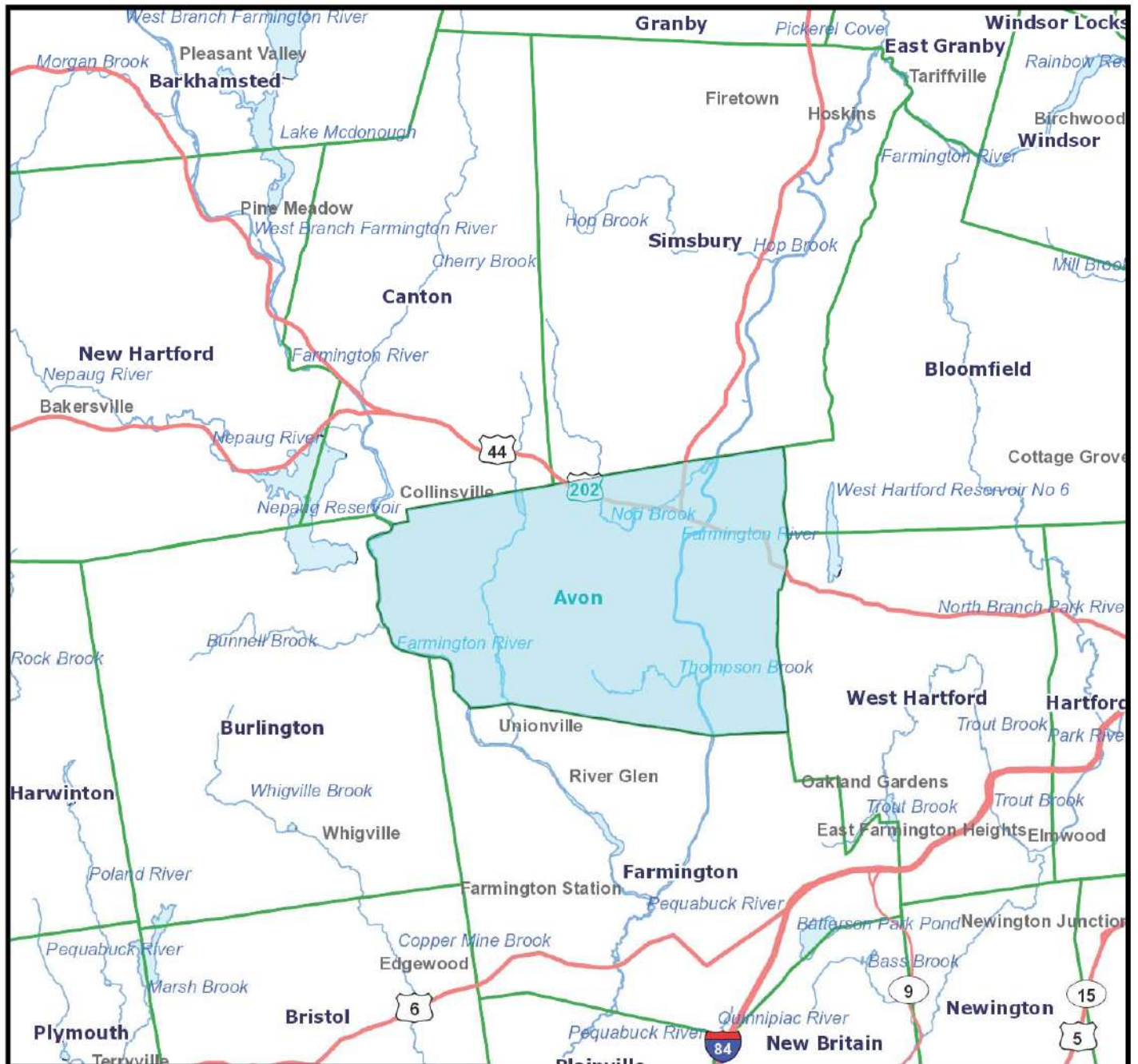
TABLE 8

IMPLEMENTATION SCHEDULE

| BMP | Lead Department | Mandated Date of Implementation | Measurable Goal |
|---|------------------------|--|--|
| Develop/implement formal employee training program | Public Works | July 1, 2017 | Training program has been established and will be implemented |
| 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 <i>Task Complete</i> |
| Develop/implement catch basin cleaning program | Public Works | July 1, 2017 | Catch basin cleaning program has been implemented <i>Task Complete</i> |
| Develop/implement snow management practices | Public Works | July 1, 2017 | Snow management practices have been implemented <i>Task Complete</i> |
| Implement coordination with interconnected MS4s | Public Works | July 1, 2017 | Avon 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 <i>Task Complete</i> |
| 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



TOWN LOCATION – AVON, CT

FIGURE 1 – SITE LOCATION

TOWN OF AVON

60 WEST MAIN STREET

AVON, CONNECTICUT

CMG ID 2016-046

MAPPING INFORMATION TAKEN FROM UCONN MAP &
GEOGRAPHIC INFORMATION CENTER – SCALE UNDETERMINED

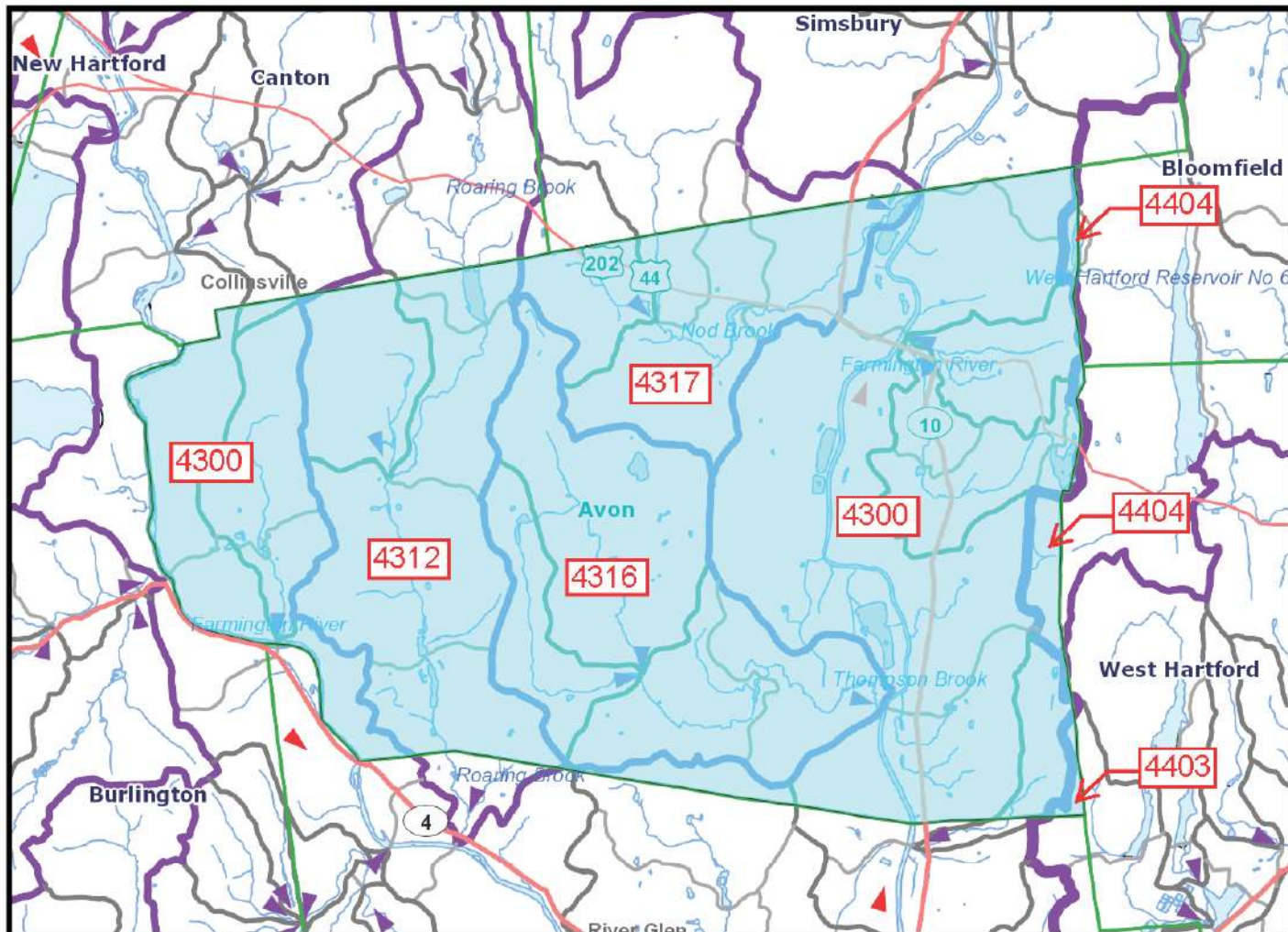


ENVIRONMENTAL
SERVICES



ENGINEERING
SERVICES

67 HALL ROAD, STURBRIDGE MA 01566



DRAINAGE BASINS OF THE TOWN OF AVON, CONNECTICUT
MAJOR BASIN: CONNECTICUT RIVER (4)
REGIONAL BASINS: FARMINGTON RIVER (43) & PARK RIVER (44)

FARMINGTON RIVER SUBREGIONAL BASINS:

4300-FARMINGTON RIVER (MAIN CHANNEL)
4312-ROARING BROOK
4316-THOMPSON BROOK
4317-NOD BROOK

PARK RIVER SUBREGIONAL BASINS:

4403-TROUT BROOK
4404-NORTH BRANCH PARK RIVER



TOWN LOCATION – AVON, CT

FIGURE 2 – DRAINAGE BASINS
TOWN OF AVON

60 WEST MAIN STREET
 AVON, CONNECTICUT
 CMG ID 2016-046

MAPPING INFORMATION TAKEN FROM UCONN MAP &
 GEOGRAPHIC INFORMATION CENTER – SCALE UNDETERMINED



ENVIRONMENTAL
 SERVICES



ENGINEERING
 SERVICES

67 HALL ROAD, STURBRIDGE MA 01566

APPENDICES

| | |
|------------|---------------------------------|
| APPENDIX A | CERTIFICATIONS |
| APPENDIX B | MS4 GENERAL PERMIT REGISTRATION |
| APPENDIX C | ANNUAL REPORTS |

APPENDIX A

CERTIFICATIONS

STORMWATER MANAGEMENT PLAN

**TOWN OF AVON
60 WEST MAIN STREET
AVON, 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

Brandon Robertson

Name

Town Manager

Title

Date

3/30/17

STORMWATER MANAGEMENT PLAN

**TOWN OF AVON
60 WEST MAIN STREET
AVON, 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 Avon for an activity located at or within the Town of Avon 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.



Signature

Mark Smith, P.E.

Name

Professional Engineer

Title

CMG Environmental, Inc.

Company

18811

Professional Engineer License Number



CT
State

3/30/17
Date

APPENDIX B

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 | |
|-----------------------------|--|
| App #: | |
| Doc #: | |
| 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): <input type="checkbox"/> New general permit registration <input checked="" type="checkbox"/> Renewal of an existing registration <input type="checkbox"/> A modification of an existing registration | For renewals or modifications: Existing permit number: GSM <u>000044</u> |
| 2. Registrant Type (check one): | Fees |
| <input type="checkbox"/> state institution/agency | \$625.00 [513] |
| <input type="checkbox"/> federal institution/agency | \$625.00 [513] |
| <input checked="" type="checkbox"/> municipality | \$312.50 [513] |
| 3. Municipality name or Municipality where institution is located: <u>Avon</u> | |
| The registration will not be processed without the fee. The fee shall be non-refundable and shall be paid by check or money order to the Department of Energy and Environmental Protection 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 Avon | |
| Mailing Address: 60 West Main Street | |
| City/Town: Avon | State: CT Zip Code: 06001 |
| Business Phone: 860-409-4300 | ext.: |
| Contact Person: Brandon Robertson, Town Manager | Phone: 860-409-4300 ext. |
| *E-mail: brobertson@avonct.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: **Department of Public Works**

Mailing Address: 11 Arch Road

City/Town: Avon

State: CT

Zip Code: 06001

Business Phone: 860-673-6151

ext.:

Contact Person: Laurie Rotondo

Phone: 860-673-6151

ext.

*E-mail: lrotondo@avonct.gov

3. Primary contact for departmental correspondence and inquiries, if different than the registrant.

Name: **Department of Public Works**

Mailing Address: 11 Arch Road

City/Town: Avon

State: CT

Zip Code: 06001

Business Phone: 860-673-6151

ext.:

Contact Person: Bruce Williams, Director of Public Works

Phone: 860-673-6151

ext.

*E-mail: bwilliams@avonct.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 assist in preparing the registration or in designing or constructing the activity. ☐ Check here if additional sheets are necessary, and label and attach them to this sheet.

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@cmgenvironmental.com

Service Provided: **Preparation of General Permit Registration and Stormwater Management Plan**

8. ☒ Check here if there are adjacent towns or other entities with which implementation of the Stormwater Management Plan is coordinated for a portion of the subject MS4. If so, provide the names of such towns or entities: CT DOT

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/ | | | | |
|---|--|---|---|--|
| a) To what receiving stream, watershed or waterbody does your MS4 discharge? | b) What is your watershed ID (freshwater) or 305b ID (estuary)? | c.1) Is the receiving water identified as an impaired water? | c.2) Has any Total Maximum Daily Load (TMDL) been approved for your receiving waterbody? For more information, go to www.ct.gov/deep/tmdl | If you answered yes to question c.1, then answer the question below. If TMDL, identify the impairment |
| Farmington River | 4300-00_04 | <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO | <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| Farmington River | 4300-00_05 | <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO | <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| Farmington River | 4300-19_01 | <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO | <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| Farmington River | 4300-29_01 | <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO | <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| Farmington River | 4300-30_01 | <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO | <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| Farmington River | 4300-30_02 | <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO | <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| Farmington River | 4300-31_01 | <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO | <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| Roaring Brook | 4312-00_02 | <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO | <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| Roaring Brook | 4312-02_01 | <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO | <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| Thompson Brook | 4316-00_02 | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | E. coli |
| Thompson Brook | 4316-01_01 | <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO | <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| Thompson Brook | 4316-02_01 | <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO | <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| Nod Brook | 4317-00_01 | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | E. coli |
| Nod Brook | 4317-00_02 | <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO | <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| Nod Brook | 4317-01_01 | <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO | <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| <input checked="" type="checkbox"/> 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

| 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/ | | | | |
|---|--|---|---|--|
| a) To what receiving stream, watershed or waterbody does your MS4 discharge? | b) What is your watershed ID (freshwater) or 305b ID (estuary)? | c.1) Is the receiving water identified as an impaired water? | c.2) Has any Total Maximum Daily Load (TMDL) been approved for your receiving waterbody? For more information, go to www.ct.gov/deep/tmdl | If you answered yes to question c.1, then answer the question below. If TMDL, identify the impairment |
| Trout Brook | 4403-02_01 | <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO | <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| Trout Brook | 4403-03_01 | <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO | <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| North Branch Park River | 4404-04_01 | <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO | <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| | | <input type="checkbox"/> YES <input type="checkbox"/> NO | <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| | | <input type="checkbox"/> YES <input type="checkbox"/> NO | <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| | | <input type="checkbox"/> YES <input type="checkbox"/> NO | <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| | | <input type="checkbox"/> YES <input type="checkbox"/> NO | <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| | | <input type="checkbox"/> YES <input type="checkbox"/> NO | <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| | | <input type="checkbox"/> YES <input type="checkbox"/> NO | <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| | | <input type="checkbox"/> YES <input type="checkbox"/> NO | <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| | | <input type="checkbox"/> YES <input type="checkbox"/> NO | <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| | | <input type="checkbox"/> YES <input type="checkbox"/> NO | <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| | | <input type="checkbox"/> YES <input type="checkbox"/> NO | <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| | | <input type="checkbox"/> YES <input type="checkbox"/> NO | <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| | | <input type="checkbox"/> YES <input type="checkbox"/> NO | <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| | | <input type="checkbox"/> YES <input type="checkbox"/> NO | <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| | | <input type="checkbox"/> YES <input type="checkbox"/> NO | <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| | | <input type="checkbox"/> YES <input type="checkbox"/> NO | <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| <input type="checkbox"/> Check here if there are more receiving watersheds and attach an additional sheet listing them with the required information requested above. | | | | |

Part IV: MS4 Information

1. Name of Municipality or State or Federal Institution/Agency : **Town of Avon**

Primary Address or Location Description: **60 West Main Street**

City/Town: **Avon**

State: **CT**

Zip Code: **06001**

2. **INDIAN LANDS:** Is there any activity included in, or proposed to be implemented by, your Stormwater Management Plan that will be located on federally recognized Indian lands? ☐ Yes ☒ No
3. **COASTAL BOUNDARY:** Is there any *new* activity included in, or proposed to be implemented by, your Stormwater Management Plan that will be located within the coastal boundary as delineated on DEEP approved coastal boundary maps? ☐ Yes ☒ No

If yes, and this registration is for a new authorization or a modification of an existing authorization where the physical footprint of the subject activity is modified, your Stormwater Management Plan must contain provisions to assure compliance with [Connecticut's Coastal Management Act \(CCMA\)](#), sections 22a-90 through 22a-112 of the Connecticut General Statutes (CGS), as amended.

Information on the coastal boundary is available at www.cteco.uconn.edu/map_catalog.asp (Select the town and then select coastal boundary. If the town is not within the coastal boundary you will not be able to select the coastal boundary map.) or the local town hall or on the "Coastal Boundary Map" available at DEEP Maps and Publications (860-424-3555).

4. **ENDANGERED OR THREATENED SPECIES:** According to the most current "State and Federal Listed Species and Natural Communities Map", is there any *new* activity included in, or proposed to be implemented by, your Stormwater Management Plan, that will be located within an area identified as a habitat for endangered, threatened or special concern species? ☐ Yes ☒ No Date of Map: **CT ECO**

If yes, your Stormwater Management Plan must contain provisions to assure compliance with the [State Endangered Species Act CGS section 26-310\(a\)](#).

For more information visit the DEEP website at www.ct.gov/deep/nddbrequest or call the NDDB at 860-424-3011.

5. **AQUIFER PROTECTION AREAS:** Is the MS4 or any portion of the MS4 located within a mapped Level A or Level B [Aquifer Protection Area](#), as defined in CGS section 22a-354a through 22a-354bb? ☒ Yes ☐ No

If yes, your Stormwater Management Plan must contain provisions to assure compliance with the Aquifer Protection Regulations (section 22a-354i(1)-(10) of the Regulations of Connecticut State Agencies).

For more information on the Aquifer Protection Area Program visit the DEEP website at www.ct.gov/deep/aquiferprotection or contact the program at 860-424-3020.

6. **CONSERVATION OR PRESERVATION RESTRICTION:** Is there any *new* activity included in, or proposed to be implemented by, your Stormwater Management Plan that will be located within a conservation or preservation restriction area? ☐ Yes ☒ No

If Yes, your Stormwater Management Plan must contain provisions to assure compliance with CGS section 47-42d where proof of written notice of this registration to the holder of such restriction or a letter from the holder of such restriction verifying that this registration is in compliance with the terms of the restriction, must be-kept on site.

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 **new or increased** discharge from the MS4 to waters listed as impaired in the most recent [Connecticut Integrated Water Quality Report](#) 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 **new or increased** stormwater discharge to high quality waters shall be discharged in accordance with the Connecticut Anti-Degradation Implementation Policy in the [Water Quality Standards](#).

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.avonct.gov/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 with a registration under the General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4), submitted to the commissioner by Brandon Robertson for an activity located at or within the Town of Avon, and that all terms and conditions of the general permit are being met for all discharges which have been initiated 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 the registration filed pursuant to this general permit is on complete and accurate forms as prescribed by the commissioner without alteration of their text. 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. 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."


Signature of Registrant/Authorized Representative

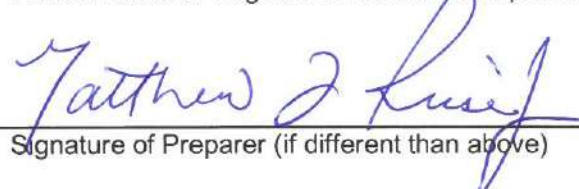
3/30/17
Date

Brandon Robertson

Printed Name of Registrant/Authorized Representative

Town Manager

Title (if applicable)


Signature of Preparer (if different than above)

3-30-17
Date

Matthew Reiser

Printed Name of Preparer

Compliance Specialist

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.

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 Brandon Robertson for an activity located at or within the Town of Avon. 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

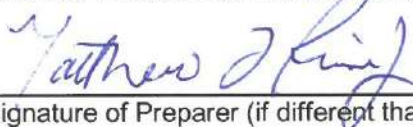
Mark Smith, P.E.

Printed Name of Qualified Professional

Professional Engineer
Title (if applicable)

18811

Qualified Professional License Number



Signature of Preparer (if different than above)



Date

Matthew Reiser

Printed Name of Preparer

Compliance Specialist
Title (if applicable)

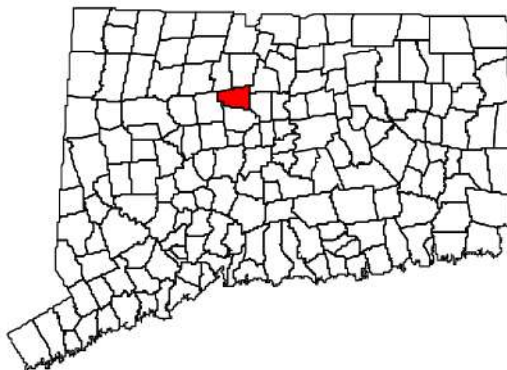
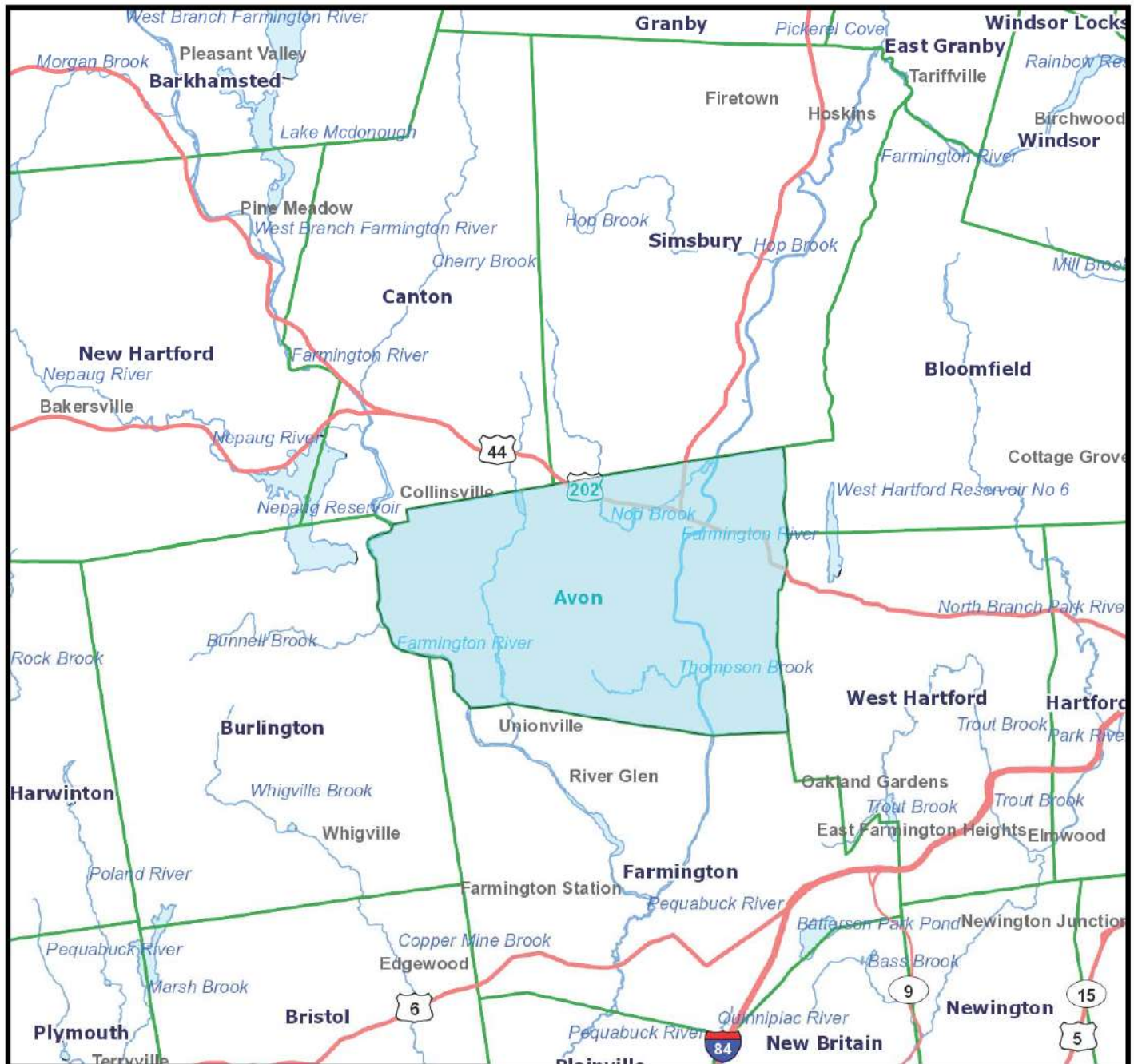


Check here if additional signatures are required. If so, please reproduce this sheet and attach signed copies to this sheet. Signatures of any person preparing any report or parts thereof required in this registration (i.e., professional engineers, surveyors, soil scientists, consultants, etc.) must 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



TOWN LOCATION – AVON, CT

FIGURE 1 – SITE LOCATION

TOWN OF AVON

60 WEST MAIN STREET

AVON, CONNECTICUT

CMG ID 2016-046

MAPPING INFORMATION TAKEN FROM UCONN MAP &
GEOGRAPHIC INFORMATION CENTER – SCALE UNDETERMINED



ENVIRONMENTAL
SERVICES



ENGINEERING
SERVICES

67 HALL ROAD, STURBRIDGE MA 01566

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: **Avon**

Name of Institution (if applicable):

Address: **60 West Main Street**

Existing permit number (if applicable): **GSM 0000044**

| | 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 | July 2017 |
| 1-2 | Address education/outreach for pollutants of concern | Public Works | Information posted to website and maintained current | July 2017 |
| 1-3 | | | | |
| 1-4 | | | | |
| 1-5 | | | | |
| 1-5 | | | | |
| 1-7 | | | | |
| 1-8 | | | | |
| 1-9 | | | | |
| 1-10 | | | | |
| | 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)

| | MCM(3) Illicit Discharge Detection & Elimination | Responsible Department/Parties | Measurable Goal | Month/Year of Implementation |
|------|---|---|---|------------------------------|
| 3-1 | Develop written IDDE program | Public Works | Program to be completed and implemented | July 2018 |
| 3-2 | Develop list and maps of all MS4 stormwater outfalls in urbanized and priority areas | Engineering | List and maps will be developed | July 2019 |
| 3-3 | Develop citizen reporting program | Public Works; Engineering | Program completed and implemented | July 2018 |
| 3-4 | Establish legal authority to prohibit illicit discharges | Planning & Community Development | Ordinance completed and implemented | July 2018 |
| 3-5 | Develop record keeping system for IDDE tracking | Public Works; Engineering | Program completed and implemented | July 2017 |
| 3-6 | Address IDDE in areas with pollutants of concern | Public Works; Engineering | IDDE complaints investigated, logged and tracked | July 2017 |
| 3-7 | Household hazardous waste collection | Public Works | Participation in Household Hazardous Waste Collection Day | 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 & Community Development; Engineering | Ordinance completed and implemented; continued enforcement of regulation | July 2019 |
| 4-2 | Develop/implement plan for interdepartmental coordination in site plan review and approval | Planning & Community Development; Engineering | Continued interdepartmental site plan review and approval | July 2017 |
| 4-3 | Review site plans for stormwater quality concerns | Planning & Community Development; Engineering | Continued site plan review | July 2017 |
| 4-4 | Conduct site inspections | Planning & Community Development; Engineering | Continued site inspections | July 2017 |
| 4-5 | Implement procedure to allow public comment on site development | Planning & Community Development | Continued public comment on site development | July 2017 |
| 4-6 | Implement procedure to notify developers about DEEP construction stormwater permit | Planning & Community Development | Continued notification of developers about Stormwater Construction General Permit | July 2017 |
| 4-7 | | | | |
| 4-8 | | | | |
| 4-9 | | | | |
| 4-10 | | | | |

BMPs (continued)

| | 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 & Community Development | Continued implementation and upgrade of regulations | July 2021 |
| 5-2 | Enforce LID/runoff reduction requirements for development and redevelopment projects | Planning & Community Development; Engineering | Continued enforcement of regulations | July 2019 |
| 5-3 | Implement long-term maintenance plan for stormwater basins and treatment structures | Public Works | Maintenance plan will be developed | July 2019 |
| 5-4 | DCIA mapping | Engineering | Perform calculations and complete mapping | July 2020 |
| 5-5 | Address post-construction issues in areas with pollutants of concern | Planning & Community Development; Engineering; Public Works | 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 | Training program has been established and will be implemented | 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 | Engineering | 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 has been implemented | July 2017 |
| 6-11 | Develop/implement snow management practices | Public Works | Practices have been implemented | July 2017 |

APPENDIX C

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.