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REPORT

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TOWN OF
Thomaston
CONNECTICUT

2019 Stormwater Annual Report

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



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I. INTRODUCTION / OVERVIEW

I.1 INTRODUCTION

This 2019 Stormwater Annual Report was developed by Weston & Sampson on behalf of the Town of Thomaston (Town). The Annual Report describes the status of compliance with the 2017 CTDEEP General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4s). The Town has the Permit Number GSM 000039. The report includes an assessment of the identified best management practices (BMPs) in the Stormwater Management Plan (SWMP), and the progress towards achieving the implementation dates and measurable goals for each of the Minimum Control Measures. The report also includes stormwater monitoring data results for samples collected in 2018.

The six minimum control measures include:

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

This report documents the Town's efforts to comply with the 2017 General Permit to the maximum extent practicable (MEP) for the period between January 1, 2019 to December 31, 2019 with updates on tasks to be completed in fiscal year 2019 ending in June 2020.

I.2 TOWN INFORMATION

The Town of Thomaston covers an area of approximately 12.2 square miles and is home to approximately 7,887 residents according to the 2010 Census. Approximately 9.1 square miles of the Town is classified as Urbanized Area (UA) according to the 2010 Census. Approximately 0.2 square miles of the Town is comprised of waterbodies and watercourses. An outfall map that includes urbanized area is included in Appendix A.

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

The Town of Thomaston has a Selectman-Town Meeting form of government, which is led by the First Selectman. The Highway Department is responsible for all public property including buildings, roads, parking lots, roadsides and parks. Several commissions within the Town have jurisdiction over development and include the following:

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

I.3 STORMWATER MONITORING

The 2017 General Permit requires towns to conduct wet weather screening of outfalls that discharge to impaired waters, beginning July 1, 2018. At least fifty percent (50%) of these outfalls shall be screened by July 1, 2020, and one hundred percent (100%) of the outfalls shall be screened by July 1, 2022. Outfalls will require follow-up investigation if the results are greater than the parameters listed in the General Permit. The six outfalls with the highest contribution of any of the pollutants of concern will be determined by July 1, 2021. These six priority outfalls will be monitored annually.

I.4 ANNUAL REPORT DEVELOPMENT TEAM

As part of the development of the SWMP, a project team was established with representatives of the Town and the Town's consultant for this assignment, Weston & Sampson. The same team developed this 2019 Annual Report (third year after the revised permit). A list of the project team is provided below.

Table 1.1 SWMP DEVELOPMENT TEAM

| Name | Organization & Title |
|-----------------------|---|
| Edmond V. Mone | Town of Thomaston First Selectmen |
| Glenn Clark | Town of Thomaston Superintendent of Highways |
| Stacey Sefcik | Town of Thomaston Land Use Administrator |
| Raju Vasamsetti, P.E. | Weston & Sampson Project Manager |
| Lauren Coles, P.E. | Weston & Sampson Project Engineer |

1 PUBLIC EDUCATION AND OUTREACH

Under the General Permit Section 6(a)(1), the Town is required to “implement a public education program to distribute educational materials to the permittee’s community or conduct equivalent outreach activities about the sources and impacts of stormwater discharges on waterbodies and the steps that the public can take to reduce pollutants in stormwater runoff.” The following BMPs were selected by the Town to address the Public Education and Outreach minimum control measure of the General Permit (Section 6(a)(1)/page19):

1.1 BMP Summary

| Table 1.1 Public Education and Outreach BMP Measurable Goals and Implementation Dates & Status | | | | | | | |
|---|----------|---|--|---|----------------------------|---|--------------------|
| BMP | Status | Activities in current reporting period | Measurable Goal | Responsible Department or Person | Due | Date completed or projected completion date | Additional Details |
| 1-1 Implement public education and outreach | Complete | <ul style="list-style-type: none"> Continue to display in Town Hall and at Inland Wetland and Watercourses Commission Meetings. The SWMP and links to stormwater websites are posted on the Town website. | Brochure/ Fact Sheets and Town Website. | Superintendent of Highways, Land Use Administrator, Webmaster | Ongoing Beginning 7/1/2017 | Ongoing | |
| 1-2 Address education/ outreach for pollutants of concern. | Complete | Continue to maintain information in the Library of Education Materials located at the Town Hall. | Public has access to Library of Educational Materials that contains specifics about pollutants of concern. | Superintendent of Highways, Land Use Administrator | Ongoing Beginning 7/1/2017 | Ongoing | |

1.2 Public Education and Outreach Activities

Describe any Public Education and Outreach activities planned for the next year, if applicable.

The Town will continue to display brochures/fact sheets at the Town Hall and at Inland Wetland and Watercourses Commission meetings.
 The Town will begin to display/distribute fact sheets at Planning and Zoning meetings.
 The links to stormwater information online will be updated as new material becomes available.
 The information in the printed and online fact sheets will be updated when new information becomes available.

1.3 Activities Implemented to Educate the Community on Stormwater

Table 1.2 Details of Activities Implemented to Educate The Community on Stormwater

| Program Element/Activity | Audience (and number of people reached) | Topic(s) covered | Pollutant of Concern addressed (if applicable) | Responsible dept. or partner org. |
|--|---|--|--|--|
| Brochures/ Fact sheets at Town Hall and Inland Wetland Meetings | Developers, home owners (approx.. 100) | Sources of Stormwater pollutants (car oil, fertilizer, pet waste), LID- Rain Gardens | Bacteria | Superintendent of Highways, Land Use Administrator |
| Stormwater Information on Website http://www.thomastonct.org/content/161/220/1826/default.aspx | Information is available to anyone who views the town website including Developers and Town residents | Sources of Stormwater pollutants (car oil, fertilizer, pet waste), LID- Rain Gardens | Bacteria | Superintendent of Highways, Land Use Administrator |

2 PUBLIC INVOLVEMENT / PARTICIPATION

Under the General Permit Section 6(a)(2), the Town is required to “provide opportunities to engage their community to participate in the review and implementation of the permittee’s Plan.” Public participation benefits the program by increasing public support, including additional expertise and involving community groups/ organizations. The following BMPs were selected by the Town to address the Public Involvement / Participation minimum control measure of the General Permit (Section 6(a)(2)/page 21):

2.1 BMP Summary

| Table 2.1 Public Involvement/Participation BMP Measurable Goals and Implementation Dates & Status | | | | | | | |
|--|----------------------|--|--|--|---------------|---|--------------------|
| BMP | Status | Activities in current reporting period | Measurable Goal | Responsible Department or Person | Due | Date completed or projected completion date | Additional Details |
| 2-1 Continue availability of Final Stormwater Management Plan to the public. | Ongoing | Posted Stormwater Management Report online. | Post Stormwater Management Report online. | First Selectman, Superintendent of Highways, Webmaster | Ongoing | Ongoing | |
| 2-2 Comply with public notice requirements for Annual Reports | Ongoing/ In Progress | Post Annual Report online. This will be completed by 2/15/2020. | Post Annual Report online. | First Selectman, Superintendent of Highways, Webmaster | 2/15/2020 | Projected 2/15/2020 | |
| 2-3 Brochures/ factsheets at Town Hall and Inland Wetland and Watercourses Commission Meetings | Complete | Updated brochures/ fact sheets. Continue to display in Town Hall and at Inland Wetland and Watercourses Commission Meetings. | Place Brochure/ Fact Sheets at Town Hall and display at Inland Wetland and Watercourses Commission Meetings. | Land Use Administrator, Webmaster | Ongoing | Ongoing | |
| 2-4 Storm drain plaques | Ongoing/ In progress | Installed between 50 and 75 storm drain plaques. | Mark catch basins annually. | Superintendent of Highways | Not specified | Ongoing | |

2.2 Public Involvement/ Participation Activities

Describe any Public Involvement/Participation activities planned for the next year, if applicable.

Brochures/ Factsheets will remain posted at the Town Hall.

Next year's annual report will be posted online.

Storm drain marking/stenciling is ongoing.

2.3 Public Involvement/ Participation

Table 2.2 Public Involvement/ Participation Reporting Metrics

| Metrics | Implemented | Date | Posted |
|--|-------------|---------------------|---|
| Availability of the Stormwater Management Plan announced to public | Yes | 7/1/2017 | http://www.thomastonct.org/content/163/238/default.aspx |
| Availability of Annual Report announced to public | On Schedule | Projected 2/15/2020 | http://www.thomastonct.org/news/?FeedID=2194 |

3 ILLICIT DISCHARGE DETECTION AND ELIMINATION

Under the General Permit Section 6(a)(3), the Town is required to develop a written Illicit Discharge Detection and Elimination (IDDE) program. The IDDE program is designed to “provide the legal authority to prohibit and eliminate illicit discharges to the MS4; find the source of any illicit discharges; eliminate those illicit discharges; and ensure ongoing screening and tracking to prevent and/ or eliminate future illicit discharges.” The following BMPs were selected by the Town to address the Illicit Discharge Detection and Elimination minimum control measure of the General Permit (Section 6(a)(3) and Appendix B/page 22):

3.1 BMP Summary

| Table 3.1 Illicit Discharge Detection and Elimination BMP Measurable Goals and Implementation Dates & Status | | | | | | | |
|---|-------------------------|--|--|---|----------|---|--|
| BMP | Status | Activities in current reporting period | Measurable Goal | Responsible Department or Person | Due | Date completed or projected completion date | Additional Details |
| 3-1 Develop written IDDE program | Completed | The Town completed its written IDDE program based on the IDDE program template developed by UCONN's CT NEMO Program. | Develop written plan of IDDE program | Superintendent of Highways | 7/1/2018 | Completed Feb. 2019 | |
| 3-2 Develop list and maps of all MS4 stormwater outfalls in priority areas | Ongoing/ In progress | Perform field survey with GPS to survey outfalls. Update database and map (GIS). | GIS maps with updated outfalls in priority areas | Superintendent of Highways, Webmaster Consultant | 7/1/2019 | Completed Fall 2018 | The Town has previously located all the outfalls, and they are available in GIS through NVCOG and also included in Appendix A. The outfalls in the priority areas were reviewed in the field during the summer of 2018 during dry weather screening. |

Table 3.1 Illicit Discharge Detection and Elimination BMP- Continued

| BMP | Status | Activities in current reporting period | Measurable Goal | Responsible Department or Person | Due | Date completed or projected completion date | Additional Details |
|--|----------------------|--|--|--|---------------|---|--|
| 3-3 Implement citizen reporting program | Ongoing | The Town website has a Contact Us Form. The Citizen Reporting Program is described in Section 3 of the IDDE Report | Post point of contact phone number and Contact Us Form listed on the Town website. | Superintendent of Highways | 7/1/2017 | Completed 7/1/2017 | Contact Us Form at: http://www.thomastonct.org/content/80/621.aspx Main phone number is listed on the website 860-283-4421 |
| 3-4 Establish legal authority to prohibit illicit discharges | Completed | The Town wrote and implemented a Town Ordinance regarding non-stormwater discharges based on the template produced by UCONN's CT NEMO Program. | Write and implement a Town Ordinance | Land Use Administrator, Superintendent of Highways | 7/1/2018 | Completed 10/10/2018 | The ordinance is based on the CT NEMO template. |
| 3-5 Develop record keeping system for IDDE tracking | Ongoing/ In progress | The previous IDDE plan is still in effect, and the record keeping system was updated in the IDDE report. | Document IDDE findings in Annual Reports | WPCA, Superintendent of Highways | 7/1/2017 | Completed 7/1/2017 | |
| 3-6 Address IDDE in areas with pollutants of concern | Ongoing/ In progress | IDDE program prioritizes areas with pollutants of concern | IDDE program will address priority areas with high levels of Bacteria. | Superintendent of Highways | Not specified | Projected 7/1/2020 | The outfalls in the priority areas were reviewed in the field during the summer of 2018 during dry weather screening.. |

3.2 IDDE Activities

Describe any IDDE activities planned for the next year, if applicable.

Next year's Annual Report will contain updates made to the written IDDE program as needed throughout the permit term. MS4 system mapping will be continued by locating system components in the field. Dry weather screening was conducted in August 2018. All the outfalls were observed to be in good condition with no observed illicit discharge except for one outfall, which needs to be investigated further.

3.3 Citizen Reports

Citizen reports of suspected illicit discharges received during this reporting period.

Table 3.2 Suspected Illicit Discharge Reports

| Date of Report | Location / suspected source | Response taken |
|---|-----------------------------|----------------|
| No reports received during reporting period | | |
| | | |
| | | |

3.4 Illicit Discharges

Record of illicit discharges occurring during the reporting period and SSOs occurring July 2012 through end of reporting period.

Table 3.3 SSO Reports

| Location (Lat long/ street crossing /address and receiving water) | Date and duration of occurrence | Discharge to MS4 or surface water | Estimated volume discharged | Known or suspected cause / Responsible party | Corrective measures planned and completed (include dates) | Sampling data (if applicable) |
|--|---------------------------------|-----------------------------------|-----------------------------|--|---|-------------------------------|
| No records received during reporting period | | | | | | |
| | | | | | | |

3.5 Method Used to Track Illicit Discharge Reports

Briefly describe the method used to track illicit discharge reports, responses to those reports, and who was responsible for tracking this information.

The Superintendent of Highways is responsible for tracking and responding to illicit discharge reports. The Torrington Area Health District is responsible for tracking septic records for the Town. The Town WPCA is responsible for tracking sanitary sewer records.

3.6 Actions Taken to Address Septic Failures

Provide a summary of actions taken to address septic failures using the table below.

| Table 3.4 Septic Failures | | |
|--|--|---|
| Location and nature of structure with failing septic systems | Actions taken to respond to and address the failures | Impacted waterbody or watershed, if known |
| 77 Blakeman Road | Repair or replacement | Unknown |
| 246 Jackson Street | Repair or replacement | Unknown |
| 91 Trestle Lane | Repair or replacement | Unknown |
| 74 West Hill | Repair or replacement | Unknown |

3.7 IDDE Reporting Metrics

| Table 3.5 IDDE Reporting Metrics | |
|--|---------|
| Metrics | |
| Estimated or actual number of MS4 outfalls | 250* |
| Estimated or actual number of interconnections | Unknown |
| Outfall mapping complete | 100% |
| Interconnection mapping complete | 0% |
| System-wide mapping complete (detailed MS4 infrastructure) | 25% |
| Outfall assessment and priority ranking | 90% |
| Dry weather screening of all High and Low priority outfalls complete | 0 |
| Catchment investigations complete | 0 |
| Estimated percentage of MS4 catchment area investigated | 50% |

*See Map of Outfalls in Appendix A.

3.8 IDDE Training for Employees

Briefly describe the IDDE training for employees involved in carrying out IDDE tasks including what type of training is provided and how often is it given (minimum once per year).

Employees including DPW staff received annual IDDE Training through a presentation given by Weston & Sampson on June 19, 2019. The training contained information on the 2017 MS4 Permit Requirements including illicit discharge identification and reporting and best management practices. Another training session will be provided in the spring of 2020 with more detailed information about IDDE and best management practices.

4 CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

The Town shall “implement and enforce a program to control stormwater discharges (to its MS4) associated with land disturbance or development (including re-development) activities from sites with one acre or more of soil disturbance, whether considered individually or collectively as part of a larger plan.” The program will be consistent with “the 2002 Guidelines for Soil Erosion and Sedimentation Control, as amended, the Connecticut Stormwater Quality Manual, and stormwater discharge permits issued by DEEP within the municipal or institutional boundary pursuant to CGS 22a-430 and 22a-430b.” The permittee will conduct site plan reviews, site inspections, and include procedures for public involvement. The Town has local regulations (shown in Table 4.1) that require construction runoff control measures.

Table 4.1 Stormwater Regulations

| Regulations | Date | Erosion & Sediment Controls | Site Plan Review | Site Inspection and Enforcement |
|---|------|---|---|---|
| Zoning Regulations | 2016 | Article 2.47 Soil Erosion and Sediment Control Plan Article 10.3.d Sediment and Erosion Control Plan | Article 17, Site Plan Review | Article 14, Administration and Enforcement Article 19, Sedimentation and Erosion Control Bond Article 21, 21.1, Site Inspection |
| Subdivision Regulations | 2014 | Article 8 Erosion and Sedimentation Control Plan | Article 3 Application Requirements and Procedures | Article 3, 3.5, Inspection by the Town Engineer Article 14, Administrative Procedures |
| Inland Wetlands and Watercourse Regulations | 2008 | Section 7.6.b | Section 10.2, Criteria for Decision | Section 14.2 and 14.5, Enforcement |

The following BMPs were selected by the Town to address the Construction Site Stormwater Runoff Control minimum control measure of the General Permit (Section 6(a)(4)/page 25):

4.1 BMP Summary

**Table 4.2 Construction Site Stormwater Runoff Control BMP
Measurable Goals and Implementation Dates & Status**

| BMP | Status | Activities in current reporting period | Measurable Goal | Responsible Department or Person | Due | Date completed or projected completion date | Additional Details |
|--|----------------------|--|--|--|----------|---|--|
| 4-1 Implement, upgrade, and enforce land use regulations or other legal authority to meet requirements of MS4 general permit | Ongoing/ In progress | Review and revise current town land use regulations to include reference to specific documents for design of sedimentation and erosion control BMPs | Upgrade and enforce land use regulations. | Superintendent of Highways, Planning & Zoning Commission, Inland Wetlands Commission | 7/1/2019 | Projected 7/1/2020 | Zoning Regulations, Subdivision Regulations, and Inland Wetland and Watercourses Regulations will be updated. |
| 4-2 Develop/Implement plan for interdepartmental coordination in site plan review and approval | Complete | Site plans shall be submitted to the Zoning Commission. The Town Engineer will conduct a detailed engineering review of the site plan. The Land Use Inspector circulates the Site Plan submission to all applicable boards, commissions, and departments for review and comment. | Zoning Commission and Town Engineer review site plans in accordance with the various town regulations. | Planning & Zoning Commission, Land Use Administrator | 7/1/2017 | Completed 7/1/2017 | See regulations listed in Table 4.1. |
| 4-3 Review site plans for stormwater quality concerns | Complete | Zoning Regulations require Sediment and Erosion Control Plans. Zoning Commission, and Town Engineer follow Site Plan Review Procedures. | Zoning Commission and Town Engineer review plans for stormwater quality concerns in accordance with regulations. | Planning & Zoning Commission, Inland Wetlands, and Watercourse Commission | 7/1/2017 | Completed 7/1/2017 | See regulations listed in Table 4.1. Also, require Site Stormwater Management Checklist from 2004 Connecticut Stormwater Quality Manual. |

Table 4.2 Construction Site Stormwater Runoff Control BMP (Continued)

| BMP | Status | Activities in current reporting period | Measurable Goal | Responsible Department or Person | Due | Date completed or projected completion date | Additional Details |
|--|----------|--|---|---|----------|---|--------------------------------------|
| 4-4 Conduct site inspections | Complete | The Enforcement Officer (Land Use Administrator or consultant) inspects sedimentation and erosion control measures to ensure that they are in compliance with approved plans, properly installed, functioning and maintained by the applicant. | The Enforcement Officer conducts site inspections | Land Use Administrator Enforcement Officer | 7/1/2017 | Completed 7/1/2017 | See regulations listed in Table 4.1. |
| 4-5 Implement procedure to allow public comment to site development | Complete | The Town utilizes their government structure for processing information submitted by the public for receipt and consideration. Information submitted by the public is forwarded to the appropriate Department within the Town's government structure for consideration. | Public comments are forwarded to the appropriate Department. | First Selectman, Land Use Administrator | 7/1/2017 | Completed 7/1/2017 | |
| 4-6 Implement procedure to notify developers about DEEP construction stormwater permit | Complete | Continue notifying construction site developers and operators of requirements for registration. | Communicate to developers about DEEP construction stormwater permit through permitting process. | Land Use Administrator | 7/1/2017 | Completed 7/1/2017 | |

4.2 Construction Site Runoff Control Activities

Describe any Construction Site Runoff Control activities planned for the next year, if applicable.

The Zoning Commission and Town Engineer will continue to review site plans in accordance with the various town regulations.

The Zoning Enforcement Officer (Land Use Administrator or consultant) will continue to conduct site inspections.

The Town Departments will continue to communicate to developers about DEEP construction stormwater permit through permitting process.

5 POST-CONSTRUCTION STORMWATER MANAGEMENT

The Town shall require developers to “consider the use of low impact development (LID) and runoff reduction site planning and development practices prior to the consideration of other practices in the permittee’s land use regulations, guidance or construction project requirements to meet or exceed those LID and runoff reduction practices identified in the Stormwater Quality Manual.”

The Town currently has the following procedures for the enforcement of the stormwater regulations:

Zoning Regulations

July 1, 2016

Article 14, Administration and Enforcement

Subdivision Regulations

October 3, 2014

Article 14, Administrative Procedures

Inland Wetland and Watercourse Regulations

June 25, 2014

Section 6, Regulated Activities to be Licensed

Section 14, Enforcement

The following BMPs were selected by the town to address the Post-Construction Stormwater Management minimum control measure of the General Permit (Section 6(a)(5)/page 27):

5.1 BMP Summary

**Table 5.1 Post-Construction Stormwater Management BMP
Measurable Goals and Implementation Dates & Status**

| BMP | Status | Activities in current reporting period | Measurable Goal | Responsible Department or Person | Due | Date completed or projected completion date | Additional Details |
|--|-------------------------|--|---|----------------------------------|----------------------------|---|---|
| 5-1 Establish and/or update legal authority and guidelines regarding LID and runoff reduction in site development planning | Ongoing/ In Progress | Continue procedures for addressing post-construction BMPs including projects with 1 to 5 acres in disturbance. Formally, revise regulations by 7/1/2021. | Update regulations. | Land Use Administrator | 7/1/2021 | Projected 7/1/2021 | Update Subdivision Regulations, Zoning Regulations, and Inland Wetlands and Watercourse Regulations to include LID. |
| 5-2 Enforce LID/runoff reduction requirements for development and redevelopment projects | Ongoing/ In Progress | Enforce LID/ runoff reduction regulations through site plan review. | Development and redevelopment projects will include LID/ runoff reduction measures. | Superintendent of Highways | Ongoing beginning 7/1/2019 | Projected 7/1/2020 | |
| 5-3 Identify retention and detention ponds in priority areas | Ongoing/ In Progress | Identify retention and detention ponds in priority areas has not started. | Identify retention and detention ponds in priority areas | Superintendent of Highways | 7/1/2019 | 2/1/2020 | |
| 5-4 Implement long-term maintenance plan for stormwater basins and treatment structures | Ongoing/ In Progress | Implementing long-term maintenance of stormwater basins and treatment structures through scheduled maintenance based on template from UCONN's CT NEMO Program. | Inspect and maintain basins and structures in accordance with long-term plan. | Superintendent of Highways | Ongoing beginning 7/1/2019 | Projected 7/1/2019 | Inspect basins and structures every five years and clean when filled with sediment. |

Table 5.1 Post-Construction Stormwater Management BMP (Continued)

| BMP | Status | Activities in current reporting period | Measurable Goal | Responsible Department or Person | Due | Date completed or projected completion date | Additional Details |
|--|----------------------|--|----------------------------|----------------------------------|---------------|---|--------------------|
| 5-5 DCIA mapping | Ongoing/ In Progress | A Baseline DCIA map was developed. The map will be used to develop the Retrofit Program. | Update DCIA mapping. | Asst. DPW Director Consultant | 7/1/2020 | Completed 7/1/2019 | |
| 5-6 Address post-construction issues in areas with pollutants of concern | Not started | Inspect construction areas in areas with pollutants of concern, | Enforce construction BMPs. | Superintendent of Highways | Not Specified | Projected 7/1/2020 | |

5.2 Post-Construction Stormwater Management Activities

Describe any Post-Construction Stormwater Management activities planned for the next year, if applicable.

Development and redevelopment projects will include LID/ runoff reduction measures.

Town committees will continue procedures for addressing post-construction BMPs including projects with 1 to 5 acres in disturbance.

A Maintenance Plan for stormwater ponds and treatment structures was drafted, and it will be finalized by July 1, 2020.

5.3 Post-Construction Stormwater Management Reporting Metrics

Table 5.2 Post-Construction Stormwater Management Metrics

| | |
|---|--------------|
| Baseline (2012) Directly Connected Impervious Area (DCIA) | 249.70 acres |
| DCIA disconnected (redevelopment plus retrofits) | In progress |
| Retrofits completed | None |
| DCIA disconnected | In progress |
| Estimated cost of retrofits | N/A |
| Detention or retention ponds identified | 6 |

5.4 Method to Determine DCIA

Briefly describe the method to be used to determine baseline DCIA.

The Town used Method 2 developed by CT NEMO to determine baseline DCIA. Method 2 involves using the equations on UConn NEMO's website to estimate DCIA based on the development density in each basin.

6 POLLUTION PREVENTION / GOOD HOUSEKEEPING

Under the General Permit Section 6(a)(6), the Town shall “implement an operations and maintenance program for permittee-owned or – operated MS4s that has a goal of preventing or reducing pollutant runoff and protecting water quality from all permittee-owned or – operated MS4s.” The following BMPs were selected by the town to address the Pollution Prevention/ Good Housekeeping minimum control measure of the General Permit (Section 6(a)(6)/ page 31):

6.1 BMP Summary

| Table 6.1 Pollution Prevention/ Good Housekeeping BMP Measurable Goals and Implementation Dates & Status | | | | | | | |
|---|-------------|---|--|----------------------------------|----------------------------|---|--|
| BMP | Status | Activities in current reporting period | Measurable Goal | Responsible Department or Person | Due | Date completed or projected completion date | Additional Details |
| 6-1 Develop/Implement formal employee training program | Complete | Training was conducted | Implement annual training meetings. | Superintendent of Highways | Ongoing Beginning 7/1/2017 | Completed 6/19/2018 | The annual training was completed during the spring of 2019 by Weston & Sampson. |
| 6-2 Implement MS4 property and operations maintenance | In progress | Review current operation and maintenance procedures. Town parks have pet waste programs and scheduled trash collection. DPW has procedures for vehicle maintenance. | Update and implement MS4 operation and maintenance procedures. | Superintendent of Highways | Ongoing Beginning 7/1/2018 | Ongoing | |
| 6-3 Implement coordination with interconnected MS4s | Not started | Meet with operators of interconnected MS4s. Coordinate operations and maintenance procedures. This has not been started. | Coordinate with interconnected MS4s. | Superintendent of Highways | Not specified | Not specified | In the future, the Town and DOT will coordinate operations and maintenance procedures. |

Table 6.1 Pollution Prevention/ Good Housekeeping BMP (Continued)

| BMP | Status | Activities in current reporting period | Measurable Goal | Responsible Department or Person | Due | Date completed or projected completion date | Additional Details |
|---|-------------|---|---|--|----------------------------|---|--------------------|
| 6-4 Develop/Implement program to control other sources of pollutants to the MS4 | Not started | Develop program to control other sources of pollutants. This has not been started yet. | Develop and implement program to control other sources of pollutants. | Superintendent of Highways | Not specified | Projected 7/1/2020 | |
| 6-5 Evaluate additional measures for discharges to impaired waters | Not started | Conduct preventative maintenance and fund retrofits to reduce pollutants to impaired water bodies. This has not been started yet. | Evaluate additional measures for discharges to impaired waters | Superintendent of Highways | Not specified | Projected 7/1/2020 | |
| 6-6 Track projects that disconnect DCIA | Ongoing | Track projects that disconnect DCIA. | Report projects that disconnect DCIA in annual reports. | Land Use Administrator, Superintendent of Highways | 7/1/2017 | Projected 7/1/2020 | |
| 6-7 Implement infrastructure repair/ rehab program | Not Started | Repair and rehabilitate the MS4 infrastructure in a timely manner has not been started. | Implement infrastructure repair/ rehab program | Superintendent of Highways | 7/1/2021 | Projected 7/1/2021 | |
| 6-8 Develop/Implement plan to identify/prioritize retrofit projects | Not Started | Develop plan to identify/prioritize retrofit projects has not been started. | Database of identified/prioritized retrofit projects | Superintendent of Highways | 7/1/2020 | Projected 7/1/2020 | |
| 6-9 Implement retrofit projects to disconnect 2% of DCIA | Not Started | Track projects that disconnect DCIA, and include in annual report has not been started. | Implement retrofit projects. | Superintendent of Highways | 7/1/2022 | Projected 7/1/2022 | |
| 6-10 Develop/implement street sweeping program | Complete | All streets were swept after the first snowmelt. | Street sweeps are conducted annually. | Superintendent of Highways | Ongoing Beginning 7/1/2017 | Ongoing | |

Table 6.1 Pollution Prevention/ Good Housekeeping BMP (Continued)

| BMP | Status | Activities in current reporting period | Measurable Goal | Responsible Department or Person | Due | Date completed or projected completion date | Additional Details |
|---|----------------------|--|--|----------------------------------|----------------------------|---|--|
| 6-11 Develop/implement catch basin cleaning program | Complete | Continue Catch Basin Maintenance Program. | Catch basins are cleaned in accordance with Program. | Superintendent of Highways | Ongoing Beginning 7/1/2020 | Ongoing | Typically, all catch basins are cleaned between the spring and fall. In 2017, the Town started keeping records of the catch basins that were cleaned. |
| 6-12 Develop/implement snow management practices | Ongoing/ In Progress | Develop and implement standard operating practices for snow management | Implement standard snow management practices. | Superintendent of Highways | Ongoing Beginning 7/1/2018 | Ongoing | The magic salt is stored at the Transfer Station. The handling of the salt is described under the Industrial Permit. |

6.2 Pollution Prevention/ Good Housekeeping Activities

Describe any Pollution Prevention/Good Housekeeping activities planned for the next year, if applicable.

Continue to conduct Street Sweeping Program, Catch Basin Cleaning Program and standard operating practices for snow management.

Develop list of projects to eliminate DCIA.

Continue following operation and maintenance procedures.

6.3 Pollution Prevention/ Good Housekeeping Reporting Metrics

| Table 6.2 Metrics | |
|--|----------------------------|
| Employee training provided for key staff | Yes |
| Street sweeping | |
| Curb miles swept | 42 miles |
| Volume (or mass) of material collected | 170 Yards |
| Catch basin cleaning | |
| Total catch basins in priority areas | Unknown |
| Total catch basins in MS4 | 850 |
| Catch basins inspected | 180 |
| Catch basins cleaned | 180 |
| Volume (or mass) of material removed from all catch basins | Unknown |
| Volume removed from catch basins to impaired waters (if known) | Unknown |
| Snow management | |
| Type(s) of deicing material used | Magic salt |
| Total amount of each deicing material applied | 1000 tons |
| Type(s) of deicing equipment used | Dump Truck – 4 season body |
| Lane-miles treated | 84 miles |
| Snow disposal location | Transfer Station |
| Staff training provided on application methods & equipment | No |
| Municipal turf management program actions (for permittee properties in basins with N/P impairments) | |
| Reduction in application of fertilizers (since start of permit) | Unknown |
| Reduction in turf area (since start of permit) | Unknown |
| Lands with high potential to contribute bacteria (dog parks, parks with open water, & sites with failing septic systems) | Undetermined |
| Cost of mitigation actions/retrofits | N/A |

6.4 Catch Basin Cleaning Program

Briefly describe the method used to optimize your catch basin inspection and cleaning schedule.

The Town's catch basin maintenance program consists of inspecting and cleaning catch basins on a regularly scheduled basis. The Town uses the following criteria for inspecting and cleaning their catch basins:

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

The Town will evaluate roads in the immediate vicinity of watercourses and waterbodies, and the Town will implement additional catch basin cleanings as needed.

6.5 Retrofit Program

Briefly describe the Retrofit Program identification and prioritization process, the projects selected for implementation, the rationale for the selection of those projects and the total DCIA to be disconnected upon completion of each project.

The retrofit program will be completed by 7/1/2020. The draft plan focuses on low impact development projects that can be implemented in different types of areas: low to medium density residential, high density industrial, commercial and residential, and roadways. Potential projects on Town owned land will be prioritized over commercial and residential projects because the Town has the authority to make changes to their own property. The total DCIA to be disconnected upon completion of each project will be included in the report.

Describe plans for continuing the Retrofit program and how to achieve a goal of 1% DCIA disconnection in future years.

The Retrofit Plan is in a draft state. The program will describe how to achieve a goal of 1% DCIA disconnection in future years.

Describe plans for continuing the Retrofit program beyond this permit term with the goal to disconnect 1% DCIA annually over the next 5 years.

The Retrofit Plan is in a draft state. The program will describe how to achieve a goal of 1% DCIA disconnection annually over the next 5 years.

7 MONITORING RESULTS

MS4s that discharge to impaired streams shall be monitored. Screening of outfalls that discharge to impaired waters shall begin within one year of the effective date of the General Permit. For this monitoring period, outfalls were not screened. Ten outfalls will be screened in the spring of 2020.

According to the 2018 Integrated Water Quality Report, there are three EPA Category 5 impaired waterbody segments in the Town shown below. Category 5 designates a water that is impaired or threatened by a pollutant or pollutants for one or more designated uses and requires a total maximum daily load (TMDL).

- Naugatuck River (6900-00_05)
- Naugatuck River (6900-00_06)
- Branch Brook (6910-00_01)
- Branch Brook (6910-00_02)

The Naugatuck River is an impaired water with a TMDL for bacteria. The "Total Maximum Daily Load Analysis for Recreational uses of the Naugatuck River Regional Basin" report was approved by the EPA on June 6, 2008. These segment of Branch Brook do not have an established TMDL, but these segments of the river are not supporting aquatic life due to some pollutant or pollutants.

7.1 Impaired Waters Investigation and Monitoring Program

Indicate which stormwater pollutant(s) of concern occur(s) in your municipality or institution. This data is available on the MS4 map viewer: <http://s.uconn.edu/ctms4map>.

Nitrogen/ Phosphorus ☐ Bacteria ☒ Mercury ☐ Other Pollutant of Concern ☒

The plan to screen all the outfalls that discharge to impaired waters is shown below. See Figure 2 in Appendix A for a map of the outfall locations. The Integrated Water Quality Report is published every two years. The monitoring schedule will be updated if impaired waters change.

| Table 7.1 Stormwater Outfall Monitoring Dates | |
|---|---|
| Target Date | Measurable Goal/ Activity |
| Completed 12/21/2018 | Screening Outfalls: 84, 85, 138, 139 & 140 |
| July 1, 2020 | Screening Outfalls 21, 22, 23, 24, 250, 4,5,8, 20 & 48. Follow up Investigation on outfalls with high pollutant concentrations. |
| July 1, 2021 July 1, 2022 | Annually monitor the six priority outfalls |

7.2 Screening Data for Outfalls to Impaired Waterbodies

Complete the table below for any outfalls screened during the reporting period. Each Annual Report will add on to the previous year's screening data showing a cumulative list of outfall screening data.

Table 7.2 Stormwater Outfall Monitoring Data

| Outfall ID | Sample date | Parameter (Nitrogen, Phosphorus, Bacteria, or Other pollutant of concern) | E.coli (MPN/100 mls) Limit 410* | Enterococci Bacteria (MPN/100 mls) Limit 500* | T. Coliform (MPN/100 mls) Limit 500* | Name of Laboratory (if used) | Follow-up required? |
|------------|-------------|---|------------------------------------|--|---|------------------------------|---------------------|
| 84 | 12/21/18 | Bacteria | 86 | 985 | 7700 | Phoenix | Yes |
| 85 | 12/21/18 | Bacteria | 20 | 121 | 1670 | Phoenix | Yes |
| 138 | 12/21/18 | Bacteria | 754 | 2280 | 8160 | Phoenix | Yes |
| 139 | 12/21/18 | Bacteria | 512 | 985 | 13000 | Phoenix | Yes |
| 140 | 12/21/18 | Bacteria | 110 | 1500 | 11200 | Phoenix | Yes |

*The 2017 General Permit states the maximum allowed levels of pollutants of concern and requires follow-up investigations when parameters are over the maximum allowed.

Table 7.3 Stormwater Monitoring Requirements

| Pollutant of concern | Pollutant Threshold |
|-----------------------------|--|
| Nitrogen | Total N > 2.5 mg/l |
| Phosphorus | Total P > 0.3 mg/l |
| Bacteria (fresh waterbody) | E. coli > 235 col/100ml for swimming areas or 410 col/100ml for all others Total Coliform > 500 col/100ml |
| Bacteria (salt waterbody) | <ul style="list-style-type: none"> Fecal Coliform > 31 col/100ml for Class SA and > 260 col/100ml for Class SB Enterococci > 104 col/100ml for swimming areas or 500 col/100 for all others |
| Other pollutants of concern | Sample turbidity is 5 NTU > in-stream sample |

The five outfalls sampled in 2018 had concentrations of Total Coliform greater than the allowable limits stated in the 2007 General Permit and shown in Table 7.3. Outfalls 138 and 139 had concentrations of E.coli greater than the allowable. Follow-up investigations will be conducted on the watersheds contributing to these outfalls.

8 ADDITIONAL IDDE PROGRAM DATA

8.1 Assessment and Priority Ranking of Catchments Data

Provide a list of all catchments with ranking results (DEEP basins may be used instead of manual catchment delineations).

| Table 8.1 Catchment Rankings | | |
|---------------------------------|-------------|---------|
| 1. Catchment ID (DEEP Basin ID) | 2. Category | 3. Rank |
| | | |
| | | |
| | | |

8.2 Outfall and Interconnection Screening and Sampling Data

Provide sample data for outfalls where flow is observed. Only include Pollutant of concern data for outfalls that discharge into stormwater impaired waterbodies.

Table 8.2 Dry Weather Screening and Sampling Data from Outfalls and Interconnections

| Outfall / Interconnection ID | Screening / sample date | Ammonia | Chlorine | Conductivity | Salinity | E. coli or enterococcus | Surfactants | Water Temp | Pollutant of concern | If required, follow-up actions taken |
|------------------------------------|-------------------------------|---------|----------|--------------|----------|----------------------------|-------------|---------------|----------------------------|--|
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |

Provide sample data for outfalls and key junction manholes of any catchment area with at least one System Vulnerability Factor.

Table 8.3 Wet Weather Sample and Inspection Data

| Outfall / Interconnection ID | Sample date | Ammonia | Chlorine | Conductivity | Salinity | E. coli or Enterococcus | Surfactants | Water Temp | Pollutant of concern |
|------------------------------------|----------------|---------|----------|--------------|----------|----------------------------|-------------|------------|----------------------|
| | | | | | | | | | |
| | | | | | | | | | |

8.3 Catchment Investigation Data

For those catchments being investigated for illicit discharges (i.e. categorized as high priority, low priority, or problem) document the presence or absence of System Vulnerability Factors (SVF). If present, report which SVF's were identified. An example is provided below.

Table 8.4 System Vulnerability Factor Summary

| Outfall ID | Receiving Water | System Vulnerability Factors |
|------------|-----------------|------------------------------|
| | | |
| | | |
| | | |

Where SVFs are:

1. History of SSOs, including, but not limited to, those resulting from wet weather, high water table, or fat/oil/grease blockages.
2. Sewer pump/lift stations, siphons, or known sanitary sewer restrictions where power/equipment failures or blockages could readily result in SSOs.
3. Inadequate sanitary sewer level of service (LOS) resulting in regular surcharging, customer back-ups, or frequent customer complaints.
4. Common or twin-invert manholes serving storm and sanitary sewer alignments.
5. Common trench construction serving both storm and sanitary sewer alignments.
6. Crossings of storm and sanitary sewer alignments.
7. Sanitary sewer alignments known or suspected to have been constructed with an underdrain system;
8. Sanitary sewer infrastructure defects such as leaking service laterals, cracked, broken, or offset sanitary infrastructure, directly piped connections between storm drain and sanitary sewer infrastructure, or other vulnerability factors identified through Inflow/Infiltration Analyses, Sanitary Sewer Evaluation Surveys, or other infrastructure investigations.
9. Areas formerly served by combined sewer systems.
10. Any sanitary sewer and storm drain infrastructure greater than 40 years old in medium and densely developed areas.
11. Widespread code-required septic system upgrades required at property transfers (indicative of inadequate soils, water table separation, or other physical constraints of the area rather than poor owner maintenance).
12. History of multiple local health department or sanitarian actions addressing widespread septic system failures (indicative of inadequate soils, water table separation, or other physical constraints of the area rather than poor owner maintenance).

Table 8.5 Key Junction Manhole Dry Weather Screening and Sampling Data

| Key Junction Manhole ID | Screening / Sample date | Visual/ olfactory evidence of illicit discharge | Ammonia | Chlorine | Surfactants |
|-------------------------|-------------------------|---|---------|----------|-------------|
| | | | | | |
| | | | | | |

Table 8.6 Wet Weather Investigation Outfall Sampling Data

| Outfall ID | Sample date | Ammonia | Chlorine | Surfactants |
|------------|-------------|---------|----------|-------------|
| | | | | |
| | | | | |

Table 8.7 Data for Each Illicit Discharge Source Confirmed Through the Catchment Investigation Procedure

| Discharge location | Source location | Discharge description | Method of discovery | Date of discovery | Date of elimination | Mitigation or enforcement action | Estimated volume of flow removed |
|--------------------|-----------------|-----------------------|---------------------|-------------------|---------------------|----------------------------------|----------------------------------|
| | | | | | | | |
| | | | | | | | |

9 CERTIFICATION AND SIGNATURE

9.1 CERTIFICATION REQUIREMENTS

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

9.2 PLAN CERTIFICATION AND SIGNATURE

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

Chief Elected Official or Principal Executive Officer

Edmond V. Mone
First Selectman
Town of Thomaston, Connecticut

Signature and Date

Document Prepared by

Raju Vasamsetti, P.E.
Project Manager
Weston & Sampson Engineers, Inc.

Signature and Date

APPENDIX A
OUTFALL MAPS

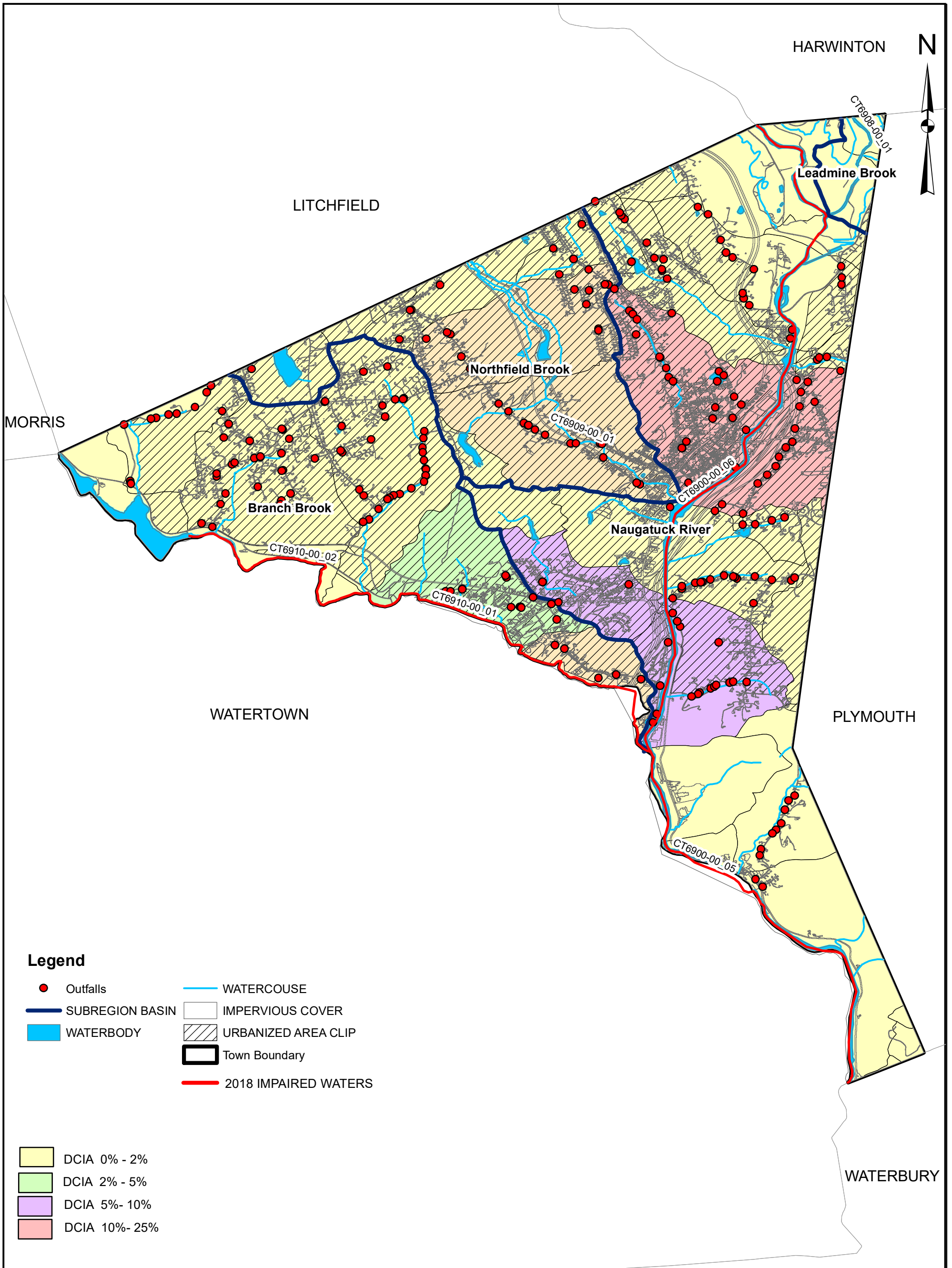


FIGURE 1
 OUTFALLS AND IMPAIRED WATERS

ANNUAL REPORT 2019
 TOWN OF THOMASTON



0 0.25 0.5 1 1.5 2 Miles

SOURCE: CTDEEP GIS DATA 2014

Weston & SampsonSM

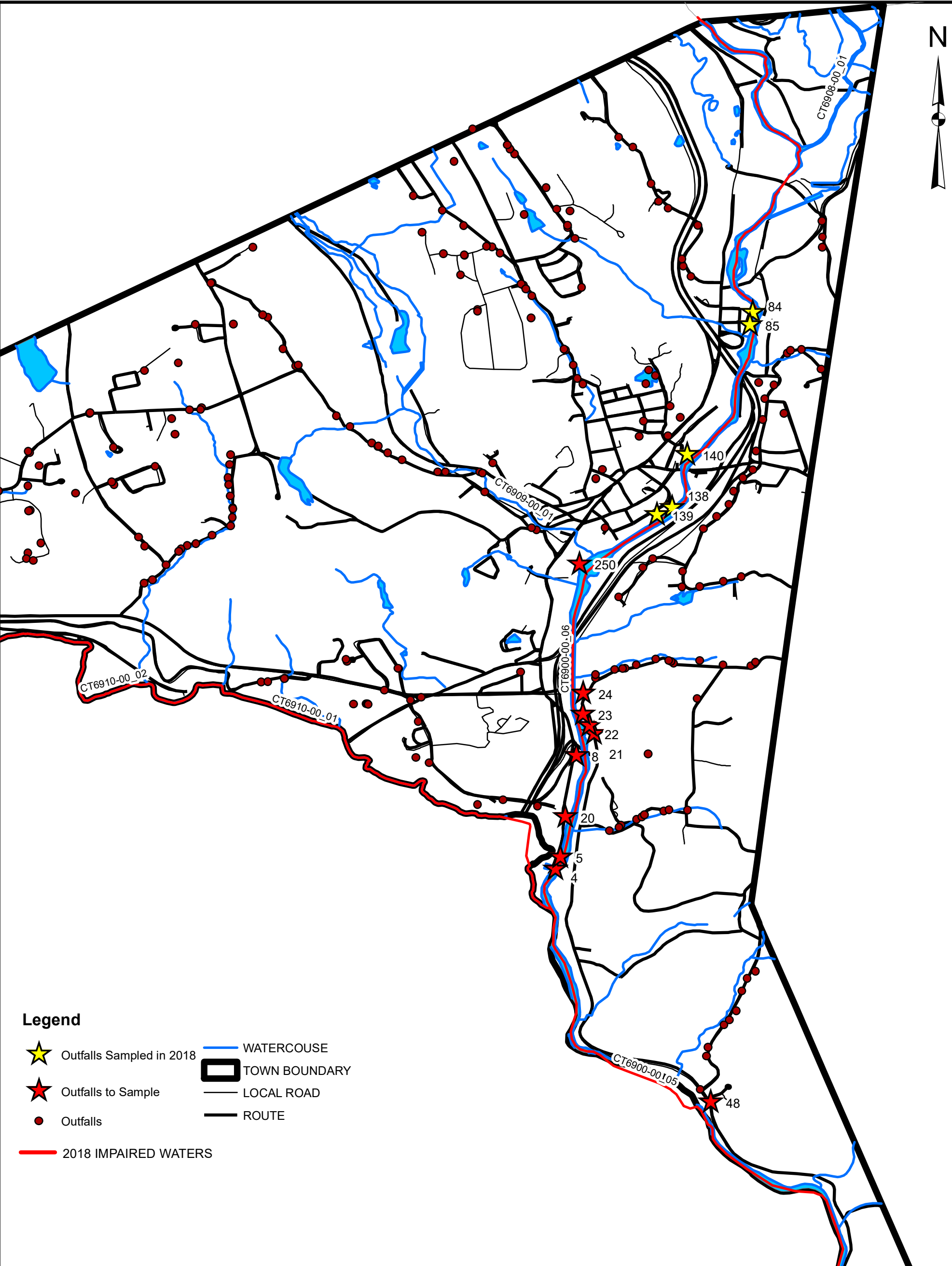


FIGURE 2
OUTFALLS TO SAMPLE

STORMWATER
ANNUAL REPORT
2019

TOWN OF THOMASTON



0 0.125 0.25 0.5 0.75 1
Miles

SOURCE: CTDEEP GIS DATA 2014