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REPORT

September 11, 2020

TOWN OF

Naugatuck
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 Borough of Naugatuck (Borough). 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 Borough has the Permit Number GSM 000047. 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 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 Borough'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 BOROUGH INFORMATION

The Borough of Naugatuck covers an area of approximately 16.4 square miles and is home to approximately 31,862 residents according to the 2010 Census. Approximately 12.3 square miles of the Borough is classified as Urbanized Area (UA) according to the 2010 Census. Approximately 0.1 square miles of the Borough 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, Long Meadow Pond-Brook, Fulling Mill Brook, Beacon Hill Brook, Hop Brook and Beaver Pond Brook. These are part of the Naugatuck River major drainage basin.

The Borough of Naugatuck has a Mayor-Burgesses form of government, which is led by the Mayor. The Department of Public Works is responsible for all public property including buildings, roads, parking lots, roadsides and parks. Several commissions within the Borough have jurisdiction over development and include the following:

- Conservation Commission
- Inland Wetlands Commission
- Planning Commission
- Zoning Commission

I.3 STORMWATER MONITORING

The 2017 General Permit requires Boroughs 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

This 2019 Annual Report is created by a project team including representatives of the Borough and the Borough's consultant for this assignment, Weston & Sampson. A list of the project team members is provided below.

Table 1.1 SWMP DEVELOPMENT TEAM

Name	Organization & Title
N. Warren "Pete" Hess III	Borough of Naugatuck Mayor
James Stewart, P.E.	Borough of Naugatuck Director of Public Works
Sandra Lucas-Ribeiro	Borough of Naugatuck Assistant to DPW Director
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 Borough 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 Borough 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 Land use/ Zoning Office. The SWMP and links to stormwater websites are posted on the Borough website. 	Brochure/ Fact Sheets and Borough Website.	Asst. to DPW Director, 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 and Land Use Office.	Public has access to Library of Educational Materials that contains specifics about pollutants of concern.	Asst. to DPW Director,	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 Borough will continue to display brochures/fact sheets at the Town Hall and at the Land Use/ Zoning Office.
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 Borough Hall and Land use/ Zoning Office.	Developers, home owners (approx.. 100)	Sources of Stormwater pollutants (car oil, fertilizer, pet waste), Fertilizer Use	Bacteria Phosphorus	Asst. to DPW Director,
Stormwater Information on Website	Information is available to anyone who views the Borough website including Developers and Borough residents	Sources of Stormwater pollutants (car oil, fertilizer, pet waste), Fertilizer Use	Bacteria Phosphorus	Asst. to DPW Director,

2 PUBLIC INVOLVEMENT / PARTICIPATION

Under the General Permit Section 6(a)(2), the Borough 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 Borough 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.	Mayor, Asst. to DPW Director Webmaster	Ongoing	Ongoing	
2-2 Comply with public notice requirements for Annual Reports	Ongoing/ In Progress	Post Annual Report online.	Post Annual Report online.	Mayor, Asst. to DPW Director Webmaster	2/15/2020	Ongoing	Naugatuck will comply with this requirement in 2021.
2-3 Brochures/ factsheets at Borough Hall and Land use/ Zoning Office	Complete	Updated brochures/ fact sheets. Continue to display in Town Hall and at Land use/ Zoning Office.	Place Brochure/ Fact Sheets at Town Hall and Land use/ Zoning Office..	Asst. to DPW Director, Webmaster	Ongoing	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 and Land use/ Zoning Office.

Next year's annual report will be posted online.

Install approximately 100 catch basins per year with a metal medallion that states "No Dumping Drains to Waterway".

Assistant to the DPW Director will reach out to the Middle School and High School to coordinate potential Stormwater Education.

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.naugatuck-ct.gov/content/77/19505/19521.aspx
Availability of Annual Report announced to public	On Schedule	Projected 9/4/2020	http://www.naugatuck-ct.gov/content/77/19505/19521.aspx

3 ILLICIT DISCHARGE DETECTION AND ELIMINATION

Under the General Permit Section 6(a)(3), the Borough 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 Borough 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	In progress	The Borough will develop its written IDDE program based on the IDDE program template developed by UCONN's CT NEMO Program.	Develop written plan of IDDE program	Consultant	7/1/2018	Projected 12/30/2020	
3-2 Develop list and maps of all MS4 stormwater outfalls in priority areas	Ongoing/ In progress	Developed map from as-built drawings, reviewed aerial photography, and performed field survey to locate outfalls. Updated database and map (GIS).	GIS maps with updated outfalls in priority areas	GIS Coordinator Consultant	7/1/2019	Completed	The Borough has mapped all the outfalls and field verified.

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 Borough website has a Contact Us Form. The Citizen Reporting Program will be described in the IDDE Report	Post point of contact phone number and Contact Us Form listed on the Borough website.	Asst. to DPW Director	7/1/2017	Completed 7/1/2017	Submit a Service Request t: http://www.naugatuck-ct.gov/311/request/add on the website 203-720-7000
3-4 Establish legal authority to prohibit illicit discharges	In progress	The Borough is developing an Ordinance regarding non-stormwater discharges based on the template produced by UCONN's CT NEMO Program.	Write and implement a Borough Ordinance	Land Use Department, Asst. to DPW Director	7/1/2018	Projected 1/30/2021	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 will be updated in the IDDE report.	Document IDDE findings in Annual Reports	Asst. to DPW Director	7/1/2017	Projected 12/30/2020	Use the Submit a Service Request to track IDDE.
3-6 Address IDDE in areas with pollutants of concern	Ongoing/ In progress	IDDE program will prioritize areas with pollutants of concern	IDDE program will address priority areas with high levels of Bacteria.	Asst. to DPW Director	Not specified	Projected 7/1/2021	

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.

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)
24 Cherry Street	1/28/2019 1 hour	Long Meadow Brook	Approx. 50 gallons	Bypass in basement caused by grease blocking pipe.	Extra jetting and investigation of source of grease	
238 Scott Street	2/11/2019 6 hours	N/A	Approx. 50 gallons	Bypass in basement caused by roots blocking pipe	Placed on chemical root treatment.	
36 Hill Street	2/28/2019 0.5 hours	N/A	Approx. 50 gallons	Bypass in basement caused by roots blocking pipe	Placed on chemical root treatment.	
10 Vincent Place	4/1/2019 2 hours	N/A	Approx. 50 gallons	Bypass in basement caused by roots blocking pipe	Placed on chemical root treatment.	
99 Cold Spring Circle	4/4/2019 2 hours	N/A	5 gallons	Bypass in basement caused by roots blocking pipe	Placed on chemical root treatment.	

Table 3.3 SSO Reports (Continued)

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)
General Dalton Easement	6/4/2019 3 hours	N/A	Approx. 100 gallons	Bypass in Abandoned Hall caused by gags blocking pipe	High velocity cleaning.	
628 New Haven Rd. (Small plaza, beginning of line)	12/10/2019 4.5 hours	N/A	Approx. 50 gallons	Bypass in manhole caused by grease blocking pipe.	High velocity cleaning.	
120 Cross Street	12/12/2019 2 hours	N/A	Approx. 50 gallons	Bypass in Manhole caused by construction debris blocking pipe.	High velocity cleaning.	
Intersection High St. and May St.	12/15/2019 2 hours	N/A	Approx. 50 gallons	Bypass in Manhole caused by asphalt debris in Manhole.	High velocity cleaning	

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.

Citizens can submit possible illicit discharges and sanitary sewer overflows through the online Submit a Service Request program.

The DPW Director and Assistant to the DPW Director are responsible for tracking and responding to illicit discharge reports.
The DPW Director and Veolia Water North America are responsible for tracking sanitary sewer records.

The Naugatuck Valley Health District tracks septic failures.

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

3.7 IDDE Reporting Metrics

Table 3.5 IDDE Reporting Metrics	
Metrics	
Estimated or actual number of MS4 outfalls	322
Estimated or actual number of interconnections	56
Outfall mapping complete	100%
Interconnection mapping complete	100%
System-wide mapping complete (detailed MS4 infrastructure)	75%
Outfall assessment and priority ranking	0%
Dry weather screening of all High and Low priority outfalls complete	0
Catchment investigations complete	0
Estimated percentage of MS4 catchment area investigated	0%

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).

Weston & Sampson will train the DPW staff in 2020. The training will contain information on the 2017 MS4 Permit Requirements including illicit discharge identification and reporting and best management practices.

4 CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

The Borough 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 Borough 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	2020	Section 36 - Soil Erosion and Sediment Control Plan	Section 32 - Site Plan Review	Section 57.8 - Inspection of Premises
Subdivision Regulations	2011	Section 4.6 - Sediment and Erosion Control Plan	Section 3.1 - Informal Application Review Section 3.2.5 - Other Approvals	Section 3.7 – Supervision and Inspection of Improvements Section 9.1 – Enforcement Section 9.2 - Inspection
Inland Wetlands and Watercourse Regulations	2009	Section 10.2.11	Section 7 –Application Requirements	Section 3 – Inventory of Regulated Areas

The following BMPs were selected by the Borough 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	Reviewed and revised current Borough land use regulations to include reference to specific documents for design of sedimentation and erosion control BMPs.	Upgrade and enforce land use regulations.	Land Use Department, Planning Commission, Inland Wetlands Commission	7/1/2019	Completed 7/1/2020	Zoning Regulations were updated in 2020.
4-2 Develop/Implement plan for interdepartmental coordination in site plan review and approval	Complete	The Land Use Department circulates the Site Plan submission to all applicable boards, commissions, and departments for review and comment.	Zoning Enforcement Officer, Town Planner, and Borough Engineer review site plans in accordance with the various Borough regulations.	Land Use Department, Planning Commission, Inland Wetlands Commission	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, Subdivision and Inland Wetlands Regulations require Soil Erosion and Sediment Control Plans. Zoning Commission, and Borough Engineer follow Site Plan Review Procedures.	Zoning Enforcement Officer, Town Planner, and Borough Engineer review plans for stormwater quality concerns in accordance with regulations.	Land Use Department, Planning Commission, Inland Wetlands Commission	7/1/2017	Completed 7/1/2017	See regulations listed in Table 4.1.

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 Wetlands Enforcement Officer or Borough Engineer 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	Borough Engineer, Wetlands 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 Borough hosts public involvement meetings The public may submit in written comments before or after meeting. The public may also make comments during the meeting. The Borough addresses the written and verbal comments.	Public comments are addressed.	DPW Director Borough Engineer	7/1/2017	Completed 7/1/2017	Public Hearing Process; Agendas are public
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 Department	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 Wetlands Enforcement Officer and Borough Engineer will continue to review site plans in accordance with the various Borough regulations.

The Wetlands Enforcement Officer and Borough Engineer will continue to conduct site inspections.

The Land Use Departments will continue to communicate to developers about DEEP construction stormwater permit through permitting process. Submitting DEEP permits is required for site plans to be approved by the Land Use Department.

5 POST-CONSTRUCTION STORMWATER MANAGEMENT

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

Zoning Regulations

June 8, 2020

Section 57.8 - Inspection of Premises

Section 59.9 Public Improvements

Subdivision Regulations

October 3, 2011

Article 14, Administrative Procedures

Inland Wetland and Watercourse Regulations

2009

Section 14 - Enforcement

The following BMPs were selected by the Borough 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 Department	7/1/2021	Completed 7/1/2020	Updated Zoning Regulations. See Section 59.9 Public Improvements.
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.	Land Use Department	Ongoing beginning 7/1/2019	Projected 7/1/2021	
5-3 Identify retention and detention ponds in priority areas	Ongoing/ In Progress	Identify retention and detention ponds in priority areas has not been started.	Identify retention and detention ponds in priority areas	DPW Director	7/1/2019	12/30/2020	
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.	DPW Director	Ongoing beginning 7/1/2019	Projected 12/30/2020	

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 will be developed. The map will be used to develop the Retrofit Program.	Update DCIA mapping.	Asst. to DPW Director Consultant	7/1/2020	Projected 12/30/2020	
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.	Asst. to DPW Director	Not Specified	Projected 7/1/2021	

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.

Borough 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 December 30, 2020.

5.3 Post-Construction Stormwater Management Reporting Metrics

Table 5.2 Post-Construction Stormwater Management Metrics

Baseline (2012) Directly Connected Impervious Area (DCIA)	Not Known Yet
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	Not Known Yet

5.4 Method to Determine DCIA

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

The Borough will use 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 Borough 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 Borough 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	In progress	Training will be conducted in 2020	Implement annual training meetings.	DPW Director Consultant	Ongoing Beginning 7/1/2017	Projected 1/30/2021	
6-2 Implement MS4 property and operations maintenance	In progress	Review current operation and maintenance procedures. Borough parks have pet waste programs and scheduled trash collection. DPW has procedures for vehicle maintenance.	Update and implement MS4 operation and maintenance procedures.	DPW Director Consultant	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.	Asst. to DPW Director	Not specified	Not specified	In the future, the Borough 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.	Asst. to DPW Director	Not specified	Projected 7/1/2021	
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	Asst. to DPW Director	Not specified	Projected 7/1/2021	
6-6 Track projects that disconnect DCIA	Ongoing	Track projects that disconnect DCIA.	Report projects that disconnect DCIA in annual reports.	Land Use Department, Asst. to DPW Director	7/1/2017	Projected 12/30/2020	
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	DPW Director Asst. to DPW Director	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	DPW Director Asst. to DPW Director	7/1/2021	Projected 12/30/2020	
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.	DPW Director Asst. to DPW Director	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.	DPW Director Asst. to DPW Director	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.	DPW Superintendent	Ongoing Beginning 7/1/2020	Ongoing	
6-12 Develop/implement snow management practices	Ongoing/ In Progress	Develop and implement standard operating practices for snow management	Implement standard snow management practices.	DPW Superintendent	Ongoing Beginning 7/1/2018	Ongoing	

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	No
Street sweeping	
Curb miles swept	205 miles
Volume (or mass) of material collected	200 C.Y.
Catch basin cleaning	
Total catch basins in priority areas	2500
Total catch basins in MS4	
Catch basins inspected	
Catch basins cleaned	
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	Salt
Total amount of each deicing material applied	2000 tons
Type(s) of deicing equipment used	Dump Truck – 4 season body Drop Spreaders
Lane-miles treated	230 miles
Snow disposal location	6 Rubber Avenue
Staff training provided on application methods & equipment	Yes
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 Borough's catch basin maintenance program consists of inspecting and cleaning catch basins on a regularly scheduled basis. The Borough uses the following criteria for inspecting and cleaning their catch basins:

- The Borough, at a minimum, will annually evaluate half of the catch basins and, if necessary, clean catch basins and other stormwater structures that accumulate sediment. Typically, 50% of the catch basins in Borough are cleaned each year. The other 50% are cleaned the following year.
- Priority areas will be established to maximize the effectiveness of the Borough's available resources for the routine inspections. These priority areas will be developed using the Borough'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 Borough will evaluate roads in the immediate vicinity of watercourses and waterbodies, and the Borough will implement additional catch basin cleanings as needed.

The Borough also replaces catch basin frames and grates in areas where road reconstruction projects are implemented.

6.5 Retrofit Program

Briefly describe the Retrofit Program identification and prioritization process, the projects selected for implementation, the rational 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 7/1/2021. 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 Borough owned land will be prioritized over commercial and residential projects because the Borough 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. Forty-one outfalls will be screened in 2020.

According to the 2018 Integrated Water Quality Report, there are three impaired waterbody segments classified as EPA Category 4A and Category 5 (listed below). Category 4A means that a state-developed TMDL was approved by EPA or TMDL has been established by EPA for any segment-pollutant combination. 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).

- Hop Brook (6916-00_01)
- Long Meadow Pond Brook (6917-00_01)
- Naugatuck River (6900-00_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. The Hop Brook and Long Meadow Pond Brook also have TMDLs for bacteria and are part of the regional Naugatuck River Basin.

The Naugatuck River segment 6900-00_02 also has stormwater pollutant of concern of Phosphorus and other pollutant of concern.

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 Integrated Water Quality Report is published every two years. The outfalls to be monitored will be revised according to the impaired water classifications in the Integrated Water Quality Report.

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?

*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

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

N. Warren "Pete" Hess III
Mayor
Borough of Naugatuck, Connecticut


Signature and Date

9/9/20

Document Prepared by

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Project Manager
Weston & Sampson Engineers, Inc.


Signature and Date

09/11/2020