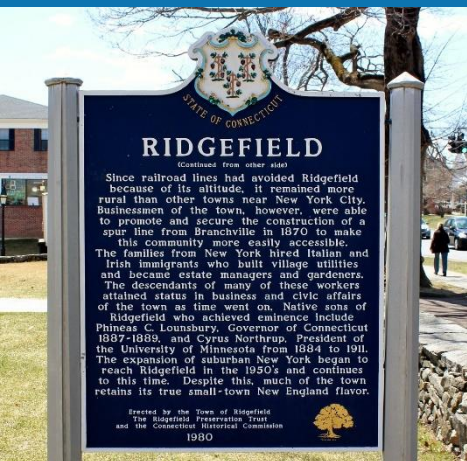




General Permit for the Discharge of Stormwater from
Small Municipal Separate Storm Sewer Systems

DRAFT 2021 MS4 ANNUAL REPORT

Town of Ridgefield

February 15, 2022

Tighe&Bond
Engineers | Environmental Specialists

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Abbreviations

BMP	Best Management Practice
CFU	colony forming units
CGS	Connecticut General Statutes
cm	centimeters
col	colonies
CTDEEP	Connecticut Department of Energy and Environmental Protection
CTDOT	Connecticut Department of Transportation
DCIA	Directly Connected Impervious Area
GIS	Geographic Information System
IDDE	Illicit Discharge Detection and Elimination
HRRA	Housatonic Resources Recovery Authority
L	liters
lbs	pounds
LID	Low Impact Design
mg	milligrams
MS4	Municipal Separate Storm Sewer System
NEMO	Nonpoint Education for Municipal Officials
N/P	nitrogen / phosphorus
NTU	Nephelometric Turbidity Units
PFAS	per- and polyfluoroalkyl substances
ppt	parts per trillion
SOP	Standard Operating Procedure
SSO	Sanitary Sewer Overflow
TBD	to be determined
WestCOG	Western Connecticut Council of Governments
WPCA	Water Pollution Control Authority
WPCF	Water Pollution Control Facility
µmhos	millimhos



MS4 General Permit Town of Ridgefield 2021 Annual Report

Existing MS4 Permittee
Permit Number GSM 000041
January 1, 2021 – December 31, 2021

Primary MS4 Contact: Jacob Muller, Director of Facilities and Purchasing, o: 203.431.2752 e: purchasing@ridgefieldct.org

This report documents Ridgefield's efforts to comply with the conditions of the MS4 General Permit to the maximum extent practicable (MEP) from January 1, 2021 to December 31, 2021.

Part I: Summary of Minimum Control Measure Activities

1. Public Education and Outreach

MS4 General Permit Section 6(a)(1) / page 19, requires the Town 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 step that the public can take to reduce pollutants in stormwater runoff.

1.1 BMP Summary

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
1-1 Implement public education and outreach	In progress	In November 2021, the Town held a kick-off meeting with a consultant to assist it in developing educational materials to meet the public education requirements of the permit. Consultant will be retained in February 2022. The Town has developed educational materials for distribution in the past, including a pet waste brochure and the WPCA sends out a brochure that includes	Develop and implement a public education process to reach out to the Ridgefield community. Including establishing a stormwater page on the Town website to share	Town Engineer Designee with Assistance from Consulting Engineer	Ongoing	Started 11/01/2021 Expected initial completion date on or about 06/30/2022	

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
		MS4 elements such as avoiding illegal connections that could cause SSOs, yearly to all customers on the sewer system.	educational materials.				
1-2 Address education/outreach for pollutants of concern	In progress	In November 2021, the Town held a kick-off meeting with a consultant to assist it in developing educational materials to meet the public education requirements of the permit. Consultant will be retained in February 2022.	Develop and implement a public education process to reach out to the Ridgefield community. Including establishing a stormwater page on the Town website to share educational materials.	Town Engineer Designee with Assistance from Consulting Engineer	Ongoing	Started 11/01/2021 Expected initial completion date on or about 06/30/2022	

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

The following activities are planned for 2022:

1. Develop and distribute brochures for specific pollutants:
 - a. Pet Waste
 - b. Mercury
 - c. Impervious Cover
 - d. Illicit Discharges
 - e. Nitrogen & Phosphorus
 - f. Leaf disposal
2. Create a dedicated stormwater page on the Town's website
 - a. Identify contact person from Town staff to serve as liaison to update website.
 - b. Post brochures created above to dedicated stormwater page
 - c. Post WPCA brochure.
 - d. Post links to MS4 Permit, MS4 Stormwater Management Plan and MS4 Annual Report
 - e. Links to Household Hazardous Waste Collection Day

- f. Include links to stormwater educational sites:
 - i. Housatonic Valley Association: <https://hvatoday.org/bolluted-stormwater-runoff/>
 - ii. WestCOG Environmental Planning: <https://westcog.org/environmental/>
 - iii. UCONN NEMO Program: <https://hemo.uconn.edu/ms4/>
- g. Include links to Planning and Zoning meetings, stormwater and sediment and erosion control regulations.
- h. Town IT Department to record number of views.

1.3 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.

2. Public Involvement/Participation

MS4 general permit Section 6(a)(2) / page 21, requires the Town to provide opportunities to engage their community to participate in the review and implementation of the permittee's Plan.

2.1 BMP Summary

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
2-1 Final Stormwater Management Plan publicly available	Complete	None	The 2017 Stormwater Management Plan is posted to the Town's website.	Town Engineer Designee with Assistance from Consulting Engineer	07/01/2017	Completed: 07/01/2017	https://www.ridgefieldct.org/sites/g/files/vyhlif4916/ff/uploads/smpfinal03282017.pdf
2-2 Comply with public notice requirements for Annual Reports	In Progress	None	Publish reasonable public notice about the MS4 Annual Report. Accept public comments for 30 days following the publication of reasonable public notice.	Town Engineer Designee with Assistance from Consulting Engineer	Annually, Due 02/15/2020	Projected: 02/15/2022 for 2021 Annual Report 06/30/2022 for 2018, 2019 and 2020 Annual Reports	
2-3 Conduct Household Hazardous Waste collection day	Ongoing, Complete for 2021	The Town of Ridgefield is a member of the Housatonic Resources Recovery Authority, which	Conduct one household hazardous waste collection day per year.	Town Engineer Designee with Assistance from Consulting Engineer	Annually, by 12/31/2021	Completed: 04/03/2021 (Danbury) 05/08/2021 (Newtown) 06/12/2021	https://hrra.org/household-hazardous-waste/ https://portal.ct.gov/DEEP/Waste-Management-and-Disposal/Household-Hazardous-Waste/HHW-Collection-Schedule#Ridgefield

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
		conducts household hazardous waste collection days in various member towns. Although no collections were held within Ridgefield itself, Town residents were eligible to participate at collection sites in any member community.				(Bethel) 09/11/2021 (Brookfield) 10/09/2021 (New Milford)	

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
2-4 Town recycling programs: household goods, food scraps, paint	Ongoing, Complete for 2021	The Town of Ridgefield Transfer Station accepts numerous items, providing a convenient alternative to residents to dispose of waste and to curb illegal dumping which could flow into storm drains and negatively impact the health of watercourses. A full list of items accepted in on the Town's transfer station website, but includes electronic waste, mattresses, and appliances. In 2021, the Town explored	Conduct recycling program throughout the year.	Department of Public Service	Annually, by 12/31/2021	Completed: 12/31/2021	Household goods: https://www.ridgefieldct.org/transfer-station/pages/recyclables Food scraps: https://hrra.org/wp-content/uploads/2019/10/RIDGEFIELD-Organics-updated-announcement-JAN-2019.pdf Paint: http://www.paintcare.org

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
		creating a new solar powered composting area and waste oil collection.					

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

The following activities are planned for 2022:

1. Publish notice and post 2021 Annual Report to Town Website.
2. Publish notice and post 2018, 2019, and 2020 Annual Reports to Town Website.
3. Conduct at least one Household Hazardous Waste Collection Day.
4. Continue recycling programs for household goods, paint, and food scraps.
5. Identify one or more volunteer organization for Town clean-up activities. Provide material/logistical support (i.e., gloves, bags, trash bag pickup) as needed and available.

2.3 Public Involvement/Participation reporting metrics

Metrics	Implemented	Date	Posted
Availability of the Stormwater Management Plan to public	Yes	07/01/2017	https://www.ridgefield.ct.org/sites/g/files/vyhlf4916f/uploads/smpfinal03282017.pdf
Availability of Annual Report announced to public	No		

3. Illicit Discharge Detection and Elimination

Reference: Section 6(a)(3) and MS4 General Permit, Appendix B / page 22

3.1 BMP Summary

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
3-1 Develop written IDDE program	In progress	In November 2021, the Town held a kick-off meeting with a consultant to assist in developing a written IDDE Plan. Consultant will be retained in February 2022.	Develop written plan of IDDE program	Town Engineer Designee with Assistance from Consulting Engineer	07/01/2018	Projected: 06/30/2022	
3-2 Develop list and maps of all MS4 stormwater outfalls in priority areas	In progress	The Town is in the process of mapping its stormwater outfalls in priority areas into a single, consolidated location. The Town has some outfalls mapped in its GIS system, while others are shown on subdivision mapping in Planning and Zoning records.	Develop and maintain a list of all stormwater outfalls from a pipe or conduit located within and owned/operated by the Town, and all interconnections with other MS4s.	Town Engineer Designee with Assistance from Consulting Engineer	07/01/2019	TBD	
3-3 Implement citizen reporting program	Complete	The Town has an online feature on its website under "Contact Us" where residents can report a concern to a specific Department, which generates an e-mail to a specific contact person within the Department for follow-up and, if necessary, action.	Develop and implement a procedure to track citizen complaints of illicit discharges.	Town Engineer Designee with Assistance from Consulting Engineer	Ongoing	Completed: 07/01/2017	Contact Us

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
3-4 Establish legal authority to prohibit illicit discharges	In progress	In November 2021, the Town held a kick-off meeting with a consultant to assist in developing recommendations for legal authority to prohibit illicit discharges to encompass all non-stormwater discharges. Consultant will be retained in February 2022. The proposed ordinance will need to be developed and follow the process outlined in the Town Charter. Town Ordinance 298-6-B prohibits unlawful discharges of sanitary sewage, industrial waste, or other polluted waters to storm drains.	Establish legal authority in the Town to eliminate illicit discharges. Implement and enforce the ordinance.	Town Engineer Designee with Assistance from Consulting Engineer	07/01/2018	Projected: 12/31/2022	Ordinance 298-6-B
3-5 Develop record keeping system for IDDE tracking	In progress	The Town records illicit discharge abatement activities on corresponding public complaint forms, and are recorded in the Town's files.	Develop and implement documentation procedures for illicit discharge abatement activities, and update Annual Report with required abatement activity information pursuant to the updated MS4 permit.	Town Engineer Designee with Assistance from Consulting Engineer	07/01/2017	07/10/2017	
3-6 Address IDDE in areas with pollutants of concern	In Progress	The Town has identified sediment and erosion control structures it previously installed at Mamasco Lake, and will be developing a standard operating procedure for maintenance.	Identify locations within the Town at risk of pollution by bacteria, phosphorus, and nitrogen and explicitly prioritize these areas within the written IDDE program. Update the Annual Report with information on the prioritized areas, actions taken by the Town to address these areas and the	Town Engineer Designee with Assistance from Consulting Engineer	Not specified	Projected date for written SOP: 06/30/2022	

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
			anticipated pollutant reduction.				

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

The following activities are planned for 2022:

1. Prepare written IDDE Plan
2. Consolidate Town storm sewer and outfall mapping into a single location.
3. Evaluate the effectiveness of the existing citizen reporting feature on the Town Website and make improvements if needed. Evaluate adding specific drop down menu for Stormwater concerns, and use the Public Services Department to review and refer the concern for action.
4. Review illicit discharge ordinances crafted by other communities, and develop the draft ordinance for the Town, following the procedure established in the Town Charter.
5. Prepare written SOP for Mamasco lake sediment structures.
6. Resume sampling and screening program that was started in 2018.

3.3 List of citizen reports of suspected illicit discharges received during this reporting period.

Illicit discharges are any unpermitted discharge to waters of the state that do not consist entirely of stormwater or uncontaminated groundwater except those discharges identified in Section 3(a)(2) of the MS4 general permit when such non-stormwater discharges are not significant contributors of pollution to a discharge from an identified MS4.

Date of Report	Location / suspected source	Response taken
TBD		

Date of Report	Location / suspected source	Response taken

3.4 Provide a record of illicit discharges occurring during the reporting period and SSOs occurring July 2012 through end of reporting period using the following table.

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)
Near 21 Ramapoo Road	11/04/2017	None	100 gallons	Roots and accumulation of grease in system on Gilbert Street	Roots and grease removed.	
WPCA to provide all since 2012.						

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

The Town tracks illicit discharge reports on paper, preparing memos to identify the location and track ultimate resolution of the reported discharge. Responsibility varies depending on the type of discharge. Oil spills are handled by the Fire Department, whereas records for sediment and erosion are handled by Planning and Zoning, and other issues are addressed by the Office of the Town Engineer Designee with Assistance from Consulting Engineer. WPCA tracks SSOs, and the Health Department tracks septic system repairs.

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

Location and nature of structure with failing septic systems	Actions taken to respond to and address the failures	Impacted waterbody or watershed, if known
To be provided by Health Department		

3.7 IDDE reporting metrics

Metrics	
Estimated or actual number of MS4 outfalls	500 (estimated)
Estimated or actual number of interconnections	25 (estimated)
Outfall mapping complete	50%
Interconnection mapping complete	50%
System-wide mapping complete (detailed MS4 infrastructure)	50%
Outfall assessment and priority ranking	0%
Dry weather screening of all High and Low priority outfalls complete	20
Catchment investigations complete	0
Estimated percentage of MS4 catchment area investigated	4%

3.8 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).

Due to the COVID-19 pandemic, no training was offered in 2021. Training on MS4 and IDDE will be given to the Highway Department in the first half of 2022, no later than 06/30/2022., COVID dependent.

4. Construction Site Runoff Control

Reference: (Section 6(a)(4) / page 25)

4.1 BMP Summary

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	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	The Town continues to require that developers, construction site operators, and contractors maintain consistency with the <i>2002 Guidelines for Soil Erosion and Sediment Control</i>, as amended. The requirements are outlined in Section 7.6 of the Ridgefield Zoning Regulations. The Town issued a clarification of its regulations in September 2018 that includes stricter standards than the <i>2002 Guidelines for Soil Erosion and Sediment Control</i>. Additionally, Section 7.15 of the Ridgefield Zoning Regulations requires consistency with the <i>2004 Connecticut Stormwater Quality Manual</i>.	Continue to require developers, construction site operators, or contractors maintain consistency with the <i>2002 Guidelines for Soil Erosion and Sediment Control</i>, as amended. Require consistency with the 2004 Connecticut Stormwater Quality Manual, an all stormwater discharge permits issued by CTDEEP within the municipal or institutional boundary pursuant to CGS 22a-430 and 22a-430b.	Planning & Zoning	07/01/2019	Completed: 07/01/2017	2018 Sediment and Erosion Control Policy : Planning & Zoning Regulations

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
4-2 Develop/Implement plan for interdepartmental coordination in site plan review and approval	Ongoing	The Town's site plan review process includes referrals to various other Town Departments, including Fire, Police, Engineering, and Health, in addition to Planning and Zoning. Projects with subject to inland wetlands review are also subject to Inland Wetlands Board and Conservation Commission review. A need was identified for the Board of Selectmen to formalize an interdepartmental coordination plan, which will occur in 2022.	Continue to follow the existing interdepartmental coordination process for the management of stormwater quality.	Town Engineer Designee with Assistance from Consulting Engineer	Ongoing	Completed: 07/01/2017	
4-3 Review site plans for stormwater quality concerns	Ongoing	The Town continues to implement its existing practices of engineering comments and site inspections and will update the site plan process as necessary to provide consistency with the MS4 requirements. The Town also holds site plan review meetings with applicants for preapplication purposes, and documents the issues discussed, including stormwater in detailed meeting summaries for each review meeting.	The Town will review and update, if needed, the site review and inspection process by July 1, 2017, and then continue the review and inspection process throughout the duration of the permit.	Town Engineer Designee with Assistance from Consulting Engineer	Ongoing	Completed: 07/01/2017	

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
		These policies have been followed since at least 1985.					
4-4 Conduct site inspections	Ongoing	The Town continues to implement its existing practice of engineering comments and site inspections and will update the site plan process as necessary to provide consistency with the MS4 requirements. Site plan reviews incorporate consideration of stormwater management practices to prevent or minimize impacts to stormwater quality. The Town conducts site inspections of all private and construction sites.	Evaluate and update draft standard condition of approval.	Planning & Zoning	Ongoing	Completed: 07/01/2017	Sample site plan inspection records are included in Appendix A.
4-5 Implement procedure to allow public comment on site development	Ongoing	In accordance with state law, the Town conducts public hearings on site plan applications. The Town has an online feature on it's website under "Contact Us" where residents can report a concern to a specific Department, which generates an e-mail to a specific contact person within the	Develop and implement a procedure to allow public comment on site development.	Town Engineer Designee with Assistance from Consulting Engineer	Ongoing	Completed: 07/01/2017	Contact Us

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
		Department for follow-up and, if necessary, action.					
4-6 Implement procedure to notify developers about DEEP construction stormwater permit	In Progress	Historically, the Town has included a generic condition that the applicant is responsible to obtain all other state and federal permits that may be required. Planning & Zoning also distributes a handout to developers advising them of their responsibilities, including the need to identify if any state or federal permits are required. The Town also will be adding the requirement to be prominently visible on the Town's online permitting system beginning in 2022.	The Town shall evaluate its procedure for notifying developers or contractors about the potential need to register under DEEP's Construction Stormwater General Permit/	Town Engineer Designee with Assistance from Consulting Engineer	Ongoing	Projected: 06/30/2022	Sample generic condition and Planning & Zoning Handout: Appendix A.
4-7 Regulatory Flexibility for Additional Controls	In Progress	The Town periodically reviews and revises policies and regulations to increase effectiveness and to respond to trends observed during inspections. For example in 2018, the Town clarified its Sediment and Erosion Control policy and in 2020 adopted new stormwater management regulations. No policy changes were	Assess existing regulations regarding construction site stormwater controls, and if goals are not being met, update as needed.	Town Engineer Designee with Assistance from Consulting Engineer	Ongoing	Ongoing	2018 Sediment and Erosion Control Policy : Planning & Zoning Regulations

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
		implemented in 2021, but review is continuous.					
4-8 Require Maintenance and Operation Plans	Ongoing	The Town already requires maintenance plans for stormwater systems and sediment and erosion controls. These plans are to be filed on the land records.	Require operations and maintenance plans for stormwater infrastructure.	Town Engineer Designee with Assistance from Consulting Engineer	07/01/2019	Completed: 07/01/2017	

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

The following activities are planned for 2022:

1. Continue to enforce existing regulations
2. Continue to track citizen reports and concerns.
3. Board of Selectmen to formalize existing practices into Interdepartmental coordination plan, including creation of internal stormwater subcommittee comprised of Town Departments with oversight of elements of MS4 Plan.
4. Continue site plan review process, including documentation of site plan review meetings.
5. Continue requirements for operations and maintenance plans.
6. Continue site inspection program.
7. Refine notification to applicants of their potential obligation to register for the CTDEEP Construction Stormwater General Permit.
8. Include standard language notification into Town's online permit system.

5. Post-construction Stormwater Management

Reference: (Section 6(a)(5) / page 27)

5.1 BMP Summary

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	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	Complete	The Town's existing stormwater management regulations require the use of low impact development practices and requires runoff reduction. The Town's stormwater management regulations reference the Low Impact Development Appendix to the <i>2004 Connecticut Stormwater Quality Manual</i>. The Town plans to engage a consultant in 2022 for the purposes of refining the LID regulations. The regulation revision process will require public hearings to give the public an opportunity to participate and comment.	Review and evaluate existing stormwater management requirements to confirm LID and runoff reduction practices are required.	Planning & Zoning	07/01/2021	Complete: 07/01/2017	Stormwater Management Regulations (Section 7.15)
5-2 Enforce LID/runoff reduction requirements for redevelopment projects	Complete	The Town's existing stormwater management regulations exceed the minimum requirements of the MS4 permit. The MS4 permit requires sites with greater than 40% DCIA to retain one half of the water quality volume, while sites with less than 40% DCIA are required to retain the full water quality volume. The MS4 Permit	Update or develop regulations and/or design guidelines that require developers and/or contractors to first consider implementation of LID and runoff reduction measures for redevelopment projects in the Town as specified by the MS4 permit.	Planning & Zoning	07/01/2021	Complete: 07/01/2017	Stormwater Management Regulations (Section 7.15)

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
		requirement for water quality is based on one inch of rainfall. The Ridgefield regulations are based on 1.5 inches.					
5-3 Identify retention and detention ponds in priority areas	Not started	No activity to report.	Identify retention and detention ponds in priority areas.	Town Engineer Designee with Assistance from Consulting Engineer	07/01/2019	Projected: 12/31/2022	
5-4 Implement long-term maintenance plan for stormwater basins and treatment structures	Ongoing	The Town requires all Planning and Zoning Commission applicants requiring stormwater management approval to execute a maintenance agreement that is recorded on the land records. The agreement gives the Town the authority to enter upon property to inspect structures, compels Owners to rectify deficiencies, and the agreement is binding upon successive owners, running with the land.	Prepare draft condition of approval for inspection access. Require operation and maintenance plans.	Town Engineer Designee with Assistance from Consulting Engineer	07/01/2019	Ongoing	Stormwater Management Drainage System Agreement
5-5 DCIA mapping	In Progress	In November 2021, the Town held a kick-off meeting with a consultant to assist in determining the Town's baseline DCIA using state impervious coverage mapping. Consultant will be retained in February 2022.	Calculate the DCIA that contributes stormwater runoff to each MS4 outfall by July 1, 2020, and update calculations as DCIA is added or removed within the Town.	Town Engineer Designee with Assistance from Consulting Engineer	07/01/2020	Projected: 06/30/2022	

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
5-6 Address post-construction issues in areas with pollutants of concern	Ongoing	Identify erosion and sediment problems in impaired waters. Develop and implement short and long term maintenance solutions to the problems as funding becomes available or use legal authority to hold property owners accountable. The Town responds to post construction issues in areas with pollutants of concern as they are made aware of a specific situation. The Town provides funding to Harbor Watch to perform monitoring at selected areas in Town. In 2021, Harbor Watch sampled five locations in Town in the Norwalk River Watershed: 787 Branchville Road, Stonehenge Road, Limestone Road, 68 Farmingville Road, and 22 South Street. The 2021 Harbor Watch Report is here: https://earthplace.org/data-and-publications/	As issues arise on publicly owned property, work is done in-house to correct the issue to the maximum extent practicable. Otherwise, corrective action is developed into a capital improvement project. On privately owned lands, typically a wetlands violation notice will be issued.	Town Engineer Designee with Assistance from Consulting Engineer	Not specified	Ongoing	
5-7 Turf reduction	Ongoing	Section 10.2.e of the Town's Inland Wetlands and Watercourse Regulations require applicants to preserve as much of the natural buffer around wetlands and watercourses to the	Reduce areas of turf to minimize pesticide and fertilizer inputs	Town Engineer Designee with Assistance from Consulting Engineer	07/01/2018	Ongoing	Inland Wetlands and Watercourses Regulations

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
		maximum extent practicable. Planning & Zoning and Wetlands monitors the buffer areas.					
5-8 Require consistency with the 2004 Connecticut Stormwater Quality Manual	Ongoing	Section 7.15 of the Ridgefield Zoning Regulations requires consistency with the 2004 <i>Connecticut Stormwater Quality Manual</i> .	Update regulations of policies for permit application to require consistency with the 2004 Stormwater Quality Manual.	Planning & Zoning	07/01/2018	Complete: 07/01/2017	Stormwater Management Regulations (Section 7.15)
5-9 Coordination with Local Health Department	Ongoing	The local Health Department is included on application reviews as warranted.	Continue actively coordinating with local Health Department on MS4 plan requirements	Planning & Zoning	07/01/2018	Ongoing	

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

The following activities are proposed for 2022:

1. Continue enforcement of stormwater management regulations.
2. Identify public and private retention/detention ponds in priority areas.
3. Address post-construction sediment and erosion control issues as they occur.
4. Continue to encourage preservation and enhancement of natural buffers.
5. Continue to require consistency with the 2004 Stormwater Quality Manual.
6. Continue to coordinate application reviews with the local Health Department.
7. Compute baseline DCIA coverage.
8. Develop a tracking system to track turf reductions.

5.3 Post-Construction Stormwater Management reporting metrics

For details on this requirement, visit www.nemo.uconn.edu/ms4/tasks/post-construction.htm. Scroll down to the DCIA section.

Metrics	
Baseline (2012) Directly Connected Impervious Area (DCIA)	TBD
DCIA disconnected (redevelopment plus retrofits) for 2021	TBD
DCIA disconnected since 2012	TBD
Retrofit projects completed	0
DCIA disconnected for 2021	TBD %
DCIA disconnected since 2012	TBD %
Estimated cost of retrofits	\$
Detention or retention ponds identified in 2021	0
Detention or retention ponds identified since 2012	0

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

Baseline DCIA will be determined by a consultant engaged by the Town during 2022.

6. Pollution Prevention/Good Housekeeping

Reference: (Section 6(a)(6) / page 31)

6.1 BMP Summary

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
6-1 Develop and implement formal employee training program	In progress	In November 2021, the Town held a kick-off meeting with a consultant to assist in developing an MS4 training program. Consultant will be retained in February 2022.	Update training program as needed, incorporate MS4 topics into the annual training program already done as part of the Industrial Stormwater Permit.	Highway Department	07/01/2019	Projected: 06/30/2022	
6-2 Implement MS4 property and operations maintenance	In progress	The Town maintains its properties and cleans sediment and detention basins, but has not yet developed written SOPs or fully documented maintenance programs. Written SOPs and maintenance record requirements will be formalized. The Town is also assessing the impact of deicing operations, and is undertaking a 2 to 3 year program pilot study on Farmingville Road that involves measuring runoff salinity and planting salt tolerant species that could reduce salt uptake. The total cost of the program to date has been approximately \$ 3,500. The Fire Department no longer uses foam containing PFAS for firefighting, continuing a policy developed years ago.	Ensure the petroleum and non-petroleum products at its facilities are properly handled via employee education and training. Develop and implement (i) Spill Prevention Plans at facilities as appropriate, (ii) management procedures for waste management equipment, and (iii) plans to sweep parking lots and keep facilities and their surrounding areas clean. Evaluate impacts of vehicle wash areas at public facilities, and develop best management practices to mitigate their impacts on water quality.	Highway Department	07/01/2018	Projected: 06/30/2022	

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
		The Town's salt storage facility continues to be used, and contains an impervious floor layer to prevent mobilization of salt into the ground. Property operations plans will be performed in conjunction with the Facilities Director. The Town's Fuel Depot has a facility specific spill prevention and countermeasure plan that was developed in 2017.					
6-3 Implement coordination with interconnected MS4s	Not started	No activity to report.	Coordinate municipal operations with adjoining MS4s.	Town Engineer Designee with Assistance from Consulting Engineer	Not specified	Projected: 12/31/2022	
6-4 Develop and implement program to control other sources of pollutants to the MS4	Not started	No activity to report.	Review stormwater general permit registrant list and identify potential contributing facilities not on the list. Compare locations of potential contributors to screening and monitoring results to determine if further investigation is warranted.	Town Engineer Designee with Assistance from Consulting Engineer	Not specified	Projected: 12/31/2022	
6-5 Evaluate additional measures for discharges to impaired waters*	Please refer to BMP 6-13, 6-14 and 6-15 for additional detail.						

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
6-6 Track projects that disconnect DCIA	In Progress	In November 2021, the Town held a kick-off meeting with a consultant to assist in developing a mechanism to track DCIA coverage on a rolling basis. Consultant will be retained in February 2022.	Track the disconnected DCIA acreage, identifying DCIA credit eligible sites constructed within the preceding 5 years.	Town Engineer Designee with Assistance from Consulting Engineer	07/01/2017	Projected: 06/30/2022	
6-7 Implement infrastructure repair/rehab program	Ongoing	The Town assesses capital improvement projects on a yearly basis.	Prepare draft internal policy on MS4 infrastructure repair, rehabilitation, and retrofits.	Town Engineer Designee with Assistance from Consulting Engineer	07/01/2021	Ongoing	
6-8 Develop and implement plan to identify/prioritize retrofit projects	In Progress	In November 2021, the Town held a kick-off meeting with a consultant to assist in developing a disconnection plan that would identify candidate disconnection projects on Town properties. Consultant will be retained in February 2022.	Identify required repairs based on data from previous permit and current permit, and prepare inventory. Prioritize proposed projects.	Town Engineer Designee with Assistance from Consulting Engineer	07/01/2020	Projected: 06/30/2022	

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
6-9 Implement retrofit projects to disconnect 2% of DCIA	In Progress	In November 2021, the Town held a kick-off meeting with a consultant to assist in developing a disconnection plan that would identify candidate disconnection projects on Town properties. Consultant will be retained in February 2022. In the interim, as Town projects go through the design process, they are subject to stormwater review, which includes exploring disconnection opportunities. The Schlumberger site demolition removed a significant amount of DCIA. The amount will be quantified in 2022.	Disconnect 2% of the Town's DCIA.	Town Engineer Designee with Assistance from Consulting Engineer	07/01/2022	Projected: 06/30/2022	
6-10 Develop and implement street sweeping program	Ongoing	The Town sweeps all of its streets yearly. Since the Town eliminated sand for winter roadway treatment, the volume of material collected has dropped significantly. The Town has an informal street sweeping program that concentrates on sensitive areas, such as roads that drain to wetlands, ponds, and streams. The specific roadways were identified in conjunction with Inland Wetlands staff, and are identified in a 2018 memorandum from the Public Services Department. Additionally, all roads scheduled for resurfacing are swept at least twice	Develop and implement a procedure for identifying targeted areas for additional street sweeping. Establish a schedule for street sweeping to ensure minimum frequency is met for areas inside and outside areas with DCIA greater than 11% and/or in the Urbanized Area. Document results of sweeping program.	Highway Department	Ongoing beginning 07/01/2017	Ongoing	Public Services Department Street Sweeping Memo, Appendix B.

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
6-11 Develop and implement catch basin cleaning program	Ongoing	The Town has a vector truck that the Highway Department uses to clean catch basins. The Town cycles through different areas of Town on a rotating basis, and has an unwritten policy of inspecting all catch basins when roads will be repaired, and as they are cleaned. This will be formalized as part of future training.	Continue conducting routine cleaning of all catch basins. Track catch basin inspection observations. Develop and implement a plan for catch basin inspection and maintenance. Update the Annual Report with documentation of the Town's catch basin cleaning and maintenance process.	Highway Department	Ongoing beginning 07/01/2020	Ongoing	
6-12 Develop and implement snow management practices	Ongoing	The Town currently has a Snow and Ice Management policy from 2012. The Town minimizes the use of sand on its roadways, and in 2021 used no sand. The Town uses magnesium chloride exclusively. The Town has adopted requirements from WestCOG's <i>Winter Maintenance Guide</i> .	Develop and implement a written snow and ice management plan, including protocols for staff training and record maintenance and updated standard operating practices. Provide appropriate secondary containment for any exterior containers of liquid deicing materials. Update the Annual Report with required information on the snow and ice program.	Highway Department	Ongoing beginning 07/01/2018	Ongoing	WestCOG Winter Maintenance Guide

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
6-13 Parks and Open Space Management	Ongoing	The Town optimizes fertilizer use on its parks properties. Grass clippings are left in place, and leaves are collected and composted. Pesticide use is limited to select application for grub control.	Continue implementing procedures for fertilizer application and disposal of grass clippings and leaves for lands that are the legal responsibility of the Town.	Parks and Recreation Department	07/01/18	Ongoing	
6-14 Pet waste management	Complete	Receptacles and collection bags are located in Town parks and in specific downtown areas. In 2018, the Town installed four freestanding units on Main Street, and six on existing trash receptacles on Main Street, and five freestanding unit on the Town's rail trail. These units are still in place and maintained.	Identify locations in Town where pet waste threatens receiving water quality.	Parks and Recreation Department	07/01/18	Ongoing	
6-15 Waterfowl management	Ongoing	Identify waterfowl congregation areas and determine measures to discourage waterfowl congregation.	Identify waterfowl congregation areas.	Parks and Recreation Department	07/01/18	Ongoing	
6-16 Mitigate Stormwater Quality Impacts of Town-Owned Vehicles and Equipment	Ongoing	There is a wash area at the garage that includes a permitted separator.	Review existing operations and maintenance procedures for Town facilities, and update if the vehicle fueling/washing provisions have not been included.	Highway Department	07/01/18	Ongoing	

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
6-17 Leaf management	Ongoing, Complete for 2021	The Ridgefield transfer station allows residents to drop off brush and leaves.	Continue to implement Town-wide leaf disposal program	Public Services Department	07/01/22	Ongoing	

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

The following activities are planned for 2022:

1. Develop and conduct employee training program, include catch basin maintenance procedures as part of the program.
2. Develop written SOP for maintenance of Town property.
3. Identify interconnections to and from other MS4s.
4. Identify properties that may be at greater risk of contributing pollutants to MS4.
5. Develop DCIA tracking system.
6. Compute the disconnection achieved by demolition at the former Schlumberger site.
7. Refine Town's priority list of capital improvement projects as part of its five year capital plan.
8. Implement stormwater retrofits as part of larger capital improvement projects if the opportunity arises.
9. Prioritize potential retrofit projects.
10. Continue catch basin cleaning. The Public Services Department will develop written guidance and develop a spreadsheet to track metrics.
11. Document existing street sweeping plan and develop spreadsheet to track metrics.
12. Document snow and ice management practices and develop spreadsheet to track metrics.
13. Document fertilizer and pesticide use practices for Town owned properties.
14. Continue maintenance of pet waste disposal stations.
15. Review waterfowl issues around Town and determine if mitigation is warranted.
16. Review vehicle maintenance practices.
17. Continue existing leaf management policy.

6.3 Pollution Prevention/ Good Housekeeping reporting metrics

Metrics		(y/n) / date(s)
Employee training provided for key staff		
Street sweeping		
Curb miles swept		miles
Volume (or mass) of material collected		lbs or tons
Catch basin cleaning		
Total catch basins in priority areas (value will be less than or equal to total catch basins town or institution-wide)		#
Total catch basins town- (or institution-) wide		#
Catch basins inspected		#
Catch basins cleaned		#
Volume (or mass) of material removed from all catch basins		lbs or tons
Volume removed from catch basins to impaired waters (if known)		lbs or tons
Snow management		
Type(s) of deicing material used		
Total amount of each deicing material applied		lbs or tons
Type(s) of deicing equipment used		
Lane-miles treated (A lane-mile is a mile of roadway in a single driving lane)		miles
Snow disposal location		
Staff training provided on application methods & equipment		(y/n) / dates(s)
Municipal turf management program actions (for permittee properties in basins with N/P impairments)		
Reduction in application of fertilizers (since start of permit)		lbs or %
Reduction in turf area (since start of permit)		acres
Lands with high potential to contribute bacteria (dog parks, parks with open water, & sites with failing septic systems)		
Cost of mitigation actions/retrofits		\$

6.4 Catch basin cleaning program

Provide any updates or modifications to your catch basin cleaning program

The Town has a vector truck that the Highway Department uses to clean catch basins. The Town cycles through different areas of Town on a rotating basis, and has an unwritten policy of inspecting all catch basins when roads will be repaired. The Public Services Department will develop written guidance and develop a spreadsheet to track metrics. Catch basin cleaning requirements and IDDE awareness specific to catch basins will be included in the training program.

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 Town will engage a consultant in 2022 to develop a retrofit program that will identify potential projects and prioritize the projects.

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

The Retrofit plan will be under development in 2022. In general, the Town's policy is to make improvements to stormwater within the context of performing a larger capital project, as it would require any other land use applicant.

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

In general, the Town's policy is to make improvements to stormwater within the context of performing a larger capital project, as it would require any other land use applicant. The Town will continue enforcement of its stormwater management regulations which will require most applicants to treat a water quality volume of 1.5 inches, which will require stormwater treatment practices that disconnect impervious cover.

Part II: Impaired waters investigation and monitoring

1. Impaired waters investigation and monitoring program

For details on this requirement, visit www.nemo.uconn.edu/ms4/tasks/monitoring.htm. Refer to the yellow column of the Monitoring comparison chart and the Impaired waters monitoring flowchart.

1.1 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 ☒

1.2 Describe program status.

Discuss 1) the status of monitoring work completed, 2) a summary of the results and any notable findings, and 3) any changes to the Stormwater Management Plan based on monitoring results.

Monitoring work was performed in 2018, and included 14 of 15 outfalls on Miry Brook, and 18 of 30 outfalls on the Titicus River. In general, bacteria exceedances were identified at nearly all of the outfalls sampled. Since these are known impaired waterbodies, the results were not unexpected, and the Town will continue with its Stormwater Management Plan.

Although not required by the Permit, the Town initiated inspections of all structures within the Downtown area to confirm that the pumps were not connected to the sanitary sewer. The goal was to reduce infiltration and inflow into the sewer system which can cause overflows..

The Town provides funding to Harbor Watch to perform monitoring at selected areas in Town. In 2021, Harbor Watch sampled five locations in Town in the Norwalk River Watershed: 787 Branchville Road, Stonehenge Road, Limestone Road, 68 Farmingville Road, and 22 South Street. The 2021 Harbor Watch Report is here: <https://earthplace.org/data-and-publications/>

The Town is in the process of a \$55 million upgrade to its District 1 WPCF that will reduce phosphorus and nitrogen loading to the Norwalk River. As part of the project, the Route 7 treatment plant will be decommissioned, and all waste will be directed to the District 1 WPCF for treatment. The potential for SSOs at the South Street Plant is also addressed by the project.

The Town also conducted sampling under the 2004 MS4 Permit.

2. Screening data for outfalls to impaired waterbodies

(Section 6(i)(1) / page 41)

2.1 Screening data

Complete the table below to report data for any wet weather sampling completed for MS4 outfalls that discharge directly to a stormwater impaired waterbody during the reporting period. For details on this requirement, visit www.nemo.uconn.edu/ms4/tasks/monitoring.htm. Refer to the

yellow column of the Monitoring comparison chart and the Impaired waters monitoring flowchart.

Each Annual Report will add on to the previous year's data showing a cumulative list of sampling data. You may also attach an excel spreadsheet with the same data rather than copying it into this table.

Entries in red exceed parameter thresholds and require follow-up.

Outfall ID	Sample date	Parameter (Nitrogen, Phosphorus, Bacteria, or Other pollutant of concern)	Results	Name of Laboratory (if used)	Follow-up required?
6601-1	06/28/18	Total Nitrogen	2.34 mg/L	Smith Environmental Lab	Yes
		Total Phosphorus	0.17 mg/L		
		E. coli	6000 CFU/100mL		
6601-2	06/28/18	Total Nitrogen	2.54 mg/L	Smith Environmental Lab	Yes
		Total Phosphorus	0.13 mg/L		
		E. coli	6000 CFU/100mL		
6601-3	06/28/18	Total Nitrogen	2.28 mg/L	Smith Environmental Lab	Yes
		Total Phosphorus	0.17 mg/L		
		E. coli	6000 CFU/100mL		
6601-4	06/28/18	Total Nitrogen	2.14 mg/L	Smith Environmental Lab	Yes
		Total Phosphorus	0.075 mg/L		
		E. coli	6000 CFU/100mL		
6601-6	06/28/18	Total Nitrogen	0.089 mg/L	Smith Environmental Lab	Yes
		Total Phosphorus	2.44 mg/L		
		E. coli	6000 CFU/100mL		
6601-7	06/28/18	Total Nitrogen	1.86 mg/L	Smith Environmental Lab	Yes
		Total Phosphorus	0.089 mg/L		
		E. coli	6000 CFU/100mL		
6601-8	06/28/18	Total Nitrogen	1.77 mg/L	Smith Environmental Lab	Yes
		Total Phosphorus	0.23 mg/L		
		E. coli	6000 CFU/100mL		
6601-9	06/28/18	Total Nitrogen	1.39 mg/L	Smith Environmental Lab	Yes
		Total Phosphorus	0.18 mg/L		
		E. coli	6000 CFU/100mL		
6601-10	06/28/18	Total Nitrogen	2.59 mg/L	Smith Environmental Lab	Yes
		Total Phosphorus	0.16 mg/L		
		E. coli	6000 CFU/100mL		
6601-11	06/28/18	Total Nitrogen	1.74 mg/L	Smith Environmental Lab	Yes
		Total Phosphorus	0.051 mg/L		
		E. coli	6000 CFU/100mL		
6601-12	06/28/18	Total Nitrogen	2.84 mg/L	Smith Environmental Lab	Yes
		Total Phosphorus	0.62 mg/L		
		E. coli	6000 CFU/100mL		

Outfall ID	Sample date	Parameter (Nitrogen, Phosphorus, Bacteria, or Other pollutant of concern)	Results	Name of Laboratory (if used)	Follow-up required?
6601-13	06/28/18	Total Nitrogen	20.3 mg/L	Smith Environmental Lab	Yes
		Total Phosphorus	0.18 mg/L		
		E. coli	6000 CFU/100mL		
6601-14	06/28/18	Total Nitrogen	3.91 mg/L	Smith Environmental Lab	Yes
		Total Phosphorus	0.41 mg/L		
		E. coli	6000 CFU/100mL		
6601-15	06/28/18	Total Nitrogen	2.33 mg/L	Smith Environmental Lab	Yes
		Total Phosphorus	0.2 mg/L		
		E. coli	6000 CFU/100mL		
7300-01-01	06/22/18	Total Nitrogen	0.66 mg/L	Smith Environmental Lab	Yes
		Total Phosphorus	0.056 mg/L		
		E. coli	600 CFU/100mL		
7300-01-02	06/22/18	Total Nitrogen	0.66 mg/L	Smith Environmental Lab	Yes
		Total Phosphorus	0.056 mg/L		
		E. coli	600 CFU/100mL		
7300-01-02	06/22/18	Total Nitrogen	3.53 mg/L	Smith Environmental Lab	Yes
		Total Phosphorus	0.049 mg/L		
		E. coli	600 CFU/100mL		
8104-01-01	06/25/18	Total Nitrogen	0.34 mg/L	Smith Environmental Lab	Yes
		Total Phosphorus	0.17 mg/L		
		E. coli	28000 CFU/100mL		
8104-01-02	06/22/18	Total Nitrogen	1.20 mg/L	Smith Environmental Lab	Yes
		Total Phosphorus	0.45 mg/L		
		E. coli	600 CFU/100mL		
8104-01-03	06/22/18	Total Nitrogen	1.63 mg/L	Smith Environmental Lab	Yes
		Total Phosphorus	0.091 mg/L		
		E. coli	600 CFU/100mL		
8104-01-06	06/22/18	Total Nitrogen	9.68 mg/L	Smith Environmental Lab	Yes
		Total Phosphorus	1.7 mg/L		
		E. coli	600 CFU/100mL		
8104-01-08	06/22/18	Total Nitrogen	2.49 mg/L	Smith Environmental Lab	Yes
		Total Phosphorus	0.059 mg/L		
		E. coli	600 CFU/100mL		
8104-01-09	06/22/18	Total Nitrogen	3.11 mg/L	Smith Environmental Lab	Yes
		Total Phosphorus	0.047 mg/L		
		E. coli	600 CFU/100mL		
8104-03-02	06/22/18	Total Nitrogen	1.63 mg/L	Smith Environmental Lab	Yes
		Total Phosphorus	0.13 mg/L		
		E. coli	600 CFU/100mL		

Outfall ID	Sample date	Parameter (Nitrogen, Phosphorus, Bacteria, or Other pollutant of concern)	Results	Name of Laboratory (if used)	Follow-up required?
8104-03-05	06/22/18	Total Nitrogen	3.74 mg/L	Smith Environmental Lab	Yes
		Total Phosphorus	0.11 mg/L		
		E. coli	<10 CFU/100mL		
8104-03-06	06/22/18	Total Nitrogen	6.95 mg/L	Smith Environmental Lab	Yes
		Total Phosphorus	1.6 mg/L		
		E. coli	600 CFU/100mL		
8104-03-07	06/25/18	Total Nitrogen	ND	Smith Environmental Lab	Yes
		Total Phosphorus	0.14 mg/L		
		E. coli	6000 CFU/100mL		
8104-03-08	06/25/18	Total Nitrogen	0.09 mg/L	Smith Environmental Lab	Yes
		Total Phosphorus	0.26 mg/L		
		E. coli	6000 CFU/100mL		
8104-03-10	06/25/18	Total Nitrogen	0.056 mg/L	Smith Environmental Lab	Yes
		Total Phosphorus	0.11 mg/L		
		E. coli	6000 CFU/100mL		
8104-03-11	06/25/18	Total Nitrogen	2.87 mg/L	Smith Environmental Lab	Yes
		Total Phosphorus	0.10 mg/L		
		E. coli	6000 CFU/100mL		
8104-04-12	06/25/18	Total Nitrogen	6.91 mg/L	Smith Environmental Lab	Yes
		Total Phosphorus	0.11 mg/L		
		E. coli	35000 CFU/100mL		
8104-04-14	06/25/18	Total Nitrogen	7.31 mg/L	Smith Environmental Lab	Yes
		Total Phosphorus	1.00 mg/L		
		E. coli	31000 CFU/100mL		
8104-04-16	06/25/18	Total Nitrogen	2.11 mg/L	Smith Environmental Lab	Yes
		Total Phosphorus	0.56 mg/L		
		E. coli	22000 CFU/100mL		

2.2 Credit for screening data collected under 2004 permit

If any outfalls to impaired waters were sampled under the 2004 MS4 permit, that data can count towards the monitoring requirements under the modified 2017 MS4 permit. Complete the table below to record sampling data for any outfalls to impaired waters under the 2004 MS4 permit.

Outfall ID	Sample date	Parameter (Nitrogen, Phosphorus, Bacteria, or Other pollutant of concern)	Results	Name of Laboratory (if used)	Follow-up required?	Outfall ID

*Follow-up investigation required (last column) if the following pollutant thresholds are exceeded:

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)	- 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

3. Follow-up investigations

(Section 6(i)(1)(D) / page 43)

Provide the following information for outfalls exceeding the pollutant threshold.

Outfall	Status of drainage area investigation	Control measure implementation to address impairment
6601-1		
6601-2		
6601-3		
6601-4		
6601-6		
6601-7		
6601-8		
6601-9		

Outfall	Status of drainage area investigation	Control measure implementation to address impairment
6601-10		
6601-11		
6601-12		
6601-13		
6601-14		
6601-15		
7300-01-01		
7300-01-02		
7300-01-02		
8104-01-01		
8104-01-02		
8104-01-03		
8104-01-06		
8104-01-08		
8104-01-09		
8104-03-02		
8104-03-05		
8104-03-06		
8104-03-07		
8104-03-08		
8104-03-10		
8104-03-11		
8104-04-12		
8104-04-14		
8104-04-16		

4. Prioritized outfall monitoring

(Section 6(i)(1)(D) / page 43)

Once outfall sampling has been completed for at least 50% of outfalls to impaired waters, identify 6 of the highest contributors of any pollutants of concern. Begin monitoring these outfalls on an annual basis by July 1, 2020.

Outfall	Sample Date	Parameter(s)	Results	Name of Laboratory (if used)

Part III: Additional IDDE Program Data

1. Assessment and Priority Ranking of Catchments data

(Appendix B (A)(7)(c) / page 5)

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

1. Catchment ID (DEEP Basin ID)	2. Category	3. Rank
7300-00-2-R3	High Priority	1
7300-00-2-R4	High Priority	2
7300-00-2-R5	High Priority	3
6601-00-2-R2	High Priority	4
6601-00-1	High Priority	5
6601-01-1	High Priority	6
8105-01-1-L3	High Priority	7
7300-02-1-L2	High Priority	8
7300-02-1-L2	High Priority	9
8104-00-2-L5	High Priority	10
8104-00-1-L2	High Priority	11
8100-00-1-L3	High Priority	12
8104-00-2-R1	High Priority	13
8104-02-2-R1	High Priority	14
8104-00-3-R1	High Priority	15
7300-00-2-L3	Low Priority	13

1. Catchment ID (DEEP Basin ID)	2. Category	3. Rank
8104-01-1-L1	High Priority	16
8104-00-2-L4	High Priority	17
8104-00-1	High Priority	18
7300-00-1-L1	Low Priority	1
7200-00-1-L2	Low Priority	2
8105-00-1-L1	Low Priority	3
7300-07-1*	Low Priority	4
7300-06-1	Low Priority	5
7301-02-1-L1	Low Priority	6
7301-02-1-L2	Low Priority	7
7300-02-1-L2	Low Priority	8
7300-02-1	Low Priority	9
7300-001-1	Low Priority	10
7300-00-2-L2	Low Priority	11
7300-00-2-R1	Low Priority	12
7200-00-1-L3	Low Priority	30

1. Catchment ID (DEEP Basin ID)	2. Category	3. Rank
7300-04-1	Low Priority	14
7300-00-2-R2	Low Priority	15
8104-00-1-L1	Low Priority	16
6601-01-1-L1	Low Priority	17
7300-00-2-R3	Low Priority	18
7200-03-1-L3	Low Priority	19
7300-03-1	Low Priority	20
7300-01-1	Low Priority	21
7300-02-1-L1	Low Priority	22
6600-01-1-L2	Low Priority	23
6600-01-1-L1	Low Priority	24
8804-02-1	Low Priority	25
8104-03-1	Low Priority	26
6601-02-1	Low Priority	27
7200-00-1-L3	Low Priority	28
7200-01-1	Low Priority	29

1. Catchment ID (DEEP Basin ID)	2. Category	3. Rank
7200-00-1*	Low Priority	31
7200-02-1	Low Priority	32
7200-02-1-L1	Low Priority	33
7200-01-1-L1	Low Priority	34
8104-01-01	Low Priority	35
8105-00-1	Low Priority	36
8105-01-1-L1	Low Priority	37
7400-00-1-L1	Low Priority	38
7301-01-1	Low Priority	39
7302-04-1	Low Priority	40
7302-05-01	Low Priority	41
7302-02-1	Low Priority	42
7302-01-2-L1	Low Priority	43
7300-07-1-L1	Low Priority	44
7300-07-1-L2	Low Priority	45
6601-03-1	Low Priority	46

2. Outfall and Interconnection Screening and Sampling data

(Appendix B (A)(7)(d) / page 7)

2.1 Dry weather screening and sampling data from outfalls and interconnections

For details on this requirement, visit www.nemo.uconn.edu/ms4/tasks/monitoring.htm. Refer to the blue column of the Monitoring comparison chart and the IDDE baseline monitoring flowchart.

Provide sample data for outfalls where flow is observed. Only include Pollutant of concern data for outfalls that discharge into stormwater impaired waterbodies. You may also attach an excel spreadsheet with the same data rather than copying it into this table.

Outfall / Interconnection ID	Screening / sample date	Ammonia mg/L	Chlorine mg/L	Conductivity µmhos/cm	Salinity ppt	E. coli or enterococcus CFU/100mL	Surfactants mg/L	Water Temp	Pollutant of concern	If required, follow- up actions taken
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2.2 Wet weather sample and inspection data

For details on this requirement, visit www.nemo.uconn.edu/ms4/tasks/monitoring.htm. Refer to the green column of the Monitoring comparison chart and the IDDE catchment investigation flowchart.

Provide sample data for outfalls and key junction manholes of any catchment area with at least one System Vulnerability Factor. You may also attach an excel spreadsheet with the same data rather than copying it to this table.

Outfall / Interconnection ID	Sample date	Ammonia mg/L	Chlorine mg/L	Conductivity µmhos/cm	Salinity ppt	E. coli or Enterococcus CFU/100mL	Surfactants mg/L	Water Temp	Pollutant of concern
6601-1	06/28/18	0	0	416	0.14	6000	<0.05	65 °F	Nitrogen, Bacteria, Phosphorus
6601-2	06/28/18	0	0	355	0.17	6000	0.09	68 °F	Nitrogen, Bacteria, Phosphorus
6601-3	06/28/18	0	0	310	0.15	6000	0.06	69 °F	Nitrogen, Bacteria, Phosphorus
6601-4	06/28/18	0	0	570	0.28	6000	<0.05	65 °F	Nitrogen, Bacteria, Phosphorus
6601-6	06/28/18	0	0	569	0.28	6000	<0.05	68 °F	Nitrogen, Bacteria, Phosphorus
6601-7	06/28/18	0	0	2000	1.00	6000	0.22	69 °F	Nitrogen, Bacteria, Phosphorus
6601-8	06/28/18	0	0	437	0.21	6000	<0.05	69 °F	Nitrogen, Bacteria, Phosphorus
6601-9	06/28/18	0	0	438	0.22	6000	0.06	67 °F	Nitrogen, Bacteria, Phosphorus
6601-10	06/28/18	0	0	172	0.09	6000	<0.05	63 °F	Nitrogen, Bacteria, Phosphorus

Outfall / Interconnection ID	Sample date	Ammonia mg/L	Chlorine mg/L	Conductivity µmhos/cm	Salinity ppt	E. coli or Enterococcus CFU/100mL	Surfactants mg/L	Water Temp	Pollutant of concern
6601-11	06/28/18	0	0	222	0.11	6000	0.08	68 °F	Nitrogen, Bacteria, Phosphorus
6601-12	06/28/18	0	0	443	0.22	6000	0.07	65 °F	Nitrogen, Bacteria, Phosphorus
6601-13	06/28/18	0	0	236	0.12	6000	0.06	68 °F	Nitrogen, Bacteria, Phosphorus
6601-14	06/28/18	0	0	629	0.31	6000	<0.05	66 °F	Nitrogen, Bacteria, Phosphorus
6601-15	06/28/18	0	0	360	0.17	6000	0.09	65 °F	Nitrogen, Bacteria, Phosphorus
7300-01-01	06/22/18	0	0	1907	0.95	600	0.08	63 °F	Nitrogen, Bacteria, Phosphorus
7300-01-02	06/22/18	0	0	712	0.36	600	0.10	62 °F	Nitrogen, Bacteria, Phosphorus
8104-01-01	06/25/18	0	0	1130	0.57	28000	0.08	65 °F	Nitrogen, Bacteria, Phosphorus
8104-01-02	06/22/18	0	0	463	0.24	600	0.05	65 °F	Nitrogen, Bacteria, Phosphorus
8104-01-03	06/22/18	0	0	1348	0.68	600	<0.05	66 °F	Nitrogen, Bacteria, Phosphorus
8104-01-06	06/22/18	0	0	1361	0.69	600	0.14	63 °F	Nitrogen, Bacteria, Phosphorus
8104-01-08	06/22/18	0	0	757	0.38	600	0.07	66 °F	Nitrogen, Bacteria, Phosphorus
8104-01-09	06/22/18	0	0	774	0.39	600	0.05	66 °F	Nitrogen, Bacteria, Phosphorus
8104-03-02	06/22/18	0	0	538	0.28	600	<0.05	65 °F	Nitrogen, Bacteria, Phosphorus
8104-03-05	06/22/18	0	0	710	0.35	<10	0.06	62 °F	Nitrogen, Bacteria, Phosphorus
8104-03-06	06/22/18	1	0	621	0.31	600	0.06	63 °F	Nitrogen, Bacteria, Phosphorus
8104-03-07	06/25/18	0	0	181.4	0.09	6000	<0.05	63 °F	Nitrogen, Bacteria, Phosphorus
8104-03-08	06/25/18	0	0	401	0.2	6000	0.06	66 °F	Nitrogen, Bacteria, Phosphorus
8104-03-10	06/25/18	0	0	470	0.23	6000	0.05	65 °F	Nitrogen, Bacteria, Phosphorus
8104-03-11	06/25/18	0	0	304	0.16	6000	<0.05	63 °F	Nitrogen, Bacteria, Phosphorus

Outfall / Interconnection ID	Sample date	Ammonia mg/L	Chlorine mg/L	Conductivity µmhos/cm	Salinity ppt	E. coli or Enterococcus CFU/100mL	Surfactants mg/L	Water Temp	Pollutant of concern
8104-03-12	06/25/18	0	0	380	0.19	35000	<0.05	64 °F	Nitrogen, Bacteria, Phosphorus
8104-03-14	06/25/18	1.00	0	245.00	0.12	31000	<0.05	64 °F	Nitrogen, Bacteria, Phosphorus
8104-03-16	06/25/18	0.50	0	278.00	0.14	22000	0.08	65 °F	Nitrogen, Bacteria, Phosphorus

3. Catchment Investigation data

(Appendix B (A)(7)(e) / page 9)

For details on this requirement, visit www.nemo.uconn.edu/ms4/tasks/monitoring.htm. Refer to the green column of the Monitoring comparison chart and the IDDE catchment investigation flowchart.

3.1 System Vulnerability Factor Summary

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.

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 sanitation 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).

3.2 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
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3.3 Wet weather investigation outfall sampling data

Outfall ID	Sample date	Ammonia	Chlorine	Surfactants
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3.4 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
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Part IV: Certification

"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	Document Prepared by
Print name: Rudolph P. Marconi, First Selectman Town of Ridgefield	Print name: Joseph Canas, PE, LEED AP, CFM, Principal Engineer Tighe & Bond
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