

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

DRAFT 2022 MS4 ANNUAL REPORT

Town of Ridgefield

January 26, 2023

Tighe & Bond
Engineers | Environmental Specialists

Table of Contents

Abbreviations	iv
Part I: Summary of Minimum Control Measure Activities	1
1. Public Education and Outreach	1
1.1 BMP Summary	1
1.2 Describe any Public Education and Outreach activities planned for the next year, if applicable.	2
1.3 Details of activities implemented to educate the community on stormwater.....	3
2. Public Involvement/Participation.....	4
2.1 BMP Summary	4
2.2 Describe any Public Involvement/Participation activities planned for the next year, if applicable.	6
2.3 Public Involvement/Participation reporting metrics	6
3. Illicit Discharge Detection and Elimination.....	7
3.1 BMP Summary	7
3.2 Describe any IDDE activities planned for the next year, if applicable.....	9
3.3 List of citizen reports of suspected illicit discharges received during this reporting period. .	9
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.	10
3.5 Briefly describe the method used to track illicit discharge reports, responses to those reports, and who was responsible for tracking this information.	11
3.6 Provide a summary of actions taken to address septic failures using the table below.....	11
3.7 IDDE reporting metrics	11
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).	12
4. Construction Site Runoff Control	13
4.1 BMP Summary	13
4.2 Describe any Construction Site Runoff Control activities planned for the next year, if applicable.	17
5. Post-construction Stormwater Management.....	19
5.1 BMP Summary	19
5.2 Describe any Post-Construction Stormwater Management activities planned for the next year, if applicable.....	23
5.3 Post-Construction Stormwater Management reporting metrics	23
5.4 Briefly describe the method to be used to determine baseline DCIA.	24
6. Pollution Prevention/Good Housekeeping	25

6.1 BMP Summary	25
6.2 Describe any Pollution Prevention/Good Housekeeping activities planned for the next year, if applicable.....	31
6.3 Pollution Prevention/ Good Housekeeping reporting metrics.....	32
6.4 Catch basin cleaning program.....	34
6.5 Retrofit program.....	34
Part II: Impaired waters investigation and monitoring	35
1. Impaired waters investigation and monitoring program.....	35
1.1 Indicate which stormwater pollutant(s) of concern occur(s) in your municipality or institution.	35
1.2 Describe program status.....	35
2. Screening data for outfalls to impaired waterbodies.....	35
2.1 Screening data.....	35
2.2 Credit for screening data collected under 2004 permit	39
3. Follow-up investigations	39
4. Prioritized outfall monitoring	40
Part III: Additional IDDE Program Data.....	41
1. Assessment and Priority Ranking of Catchments data	41
2. Outfall and Interconnection Screening and Sampling data	42
2.1 Dry weather screening and sampling data from outfalls and interconnections.....	42
2.2 Wet weather sample and inspection data	43
3. Catchment Investigation data.....	45
3.1 System Vulnerability Factor Summary	45
3.2 Key junction manhole dry weather screening and sampling data	46
3.3 Wet weather investigation outfall sampling data	46
3.4 Data for each illicit discharge source confirmed through the catchment investigation procedure	46
Part IV: Certification	47
Appendix A Interdepartmental Coordination Plan	
Appendix B Department of Public Services Worksheets	
Appendix C	

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 2022 Annual Report

Existing MS4 Permittee
Permit Number GSM 000041
January 1, 2022 – December 31, 2022

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, 2022 to December 31, 2022.

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 February 2022, the Town retained a consultant to assist it in developing educational materials to meet the public education requirements of the permit. The Town has developed educational materials for distribution in the past, including a pet waste	Develop and implement a public education process to reach out to the Ridgefield community. Including establishing a stormwater	Town Engineer Designee with Assistance from Consulting Engineer	Ongoing	Completed: 08/22/2022	

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
		<p>brochure and the WPCA sends out a brochure that includes MS4 elements such as avoiding illegal connections that could cause SSOs, yearly to all customers on the sewer system.</p> <p>The new brochures target specific pollutants and topics include information on pet waste management (bacteria), lawn care (nitrogen and phosphorus), impervious cover, and mercury. The brochures have been put on display at Town Hall, and will be posted to the Town's stormwater website.</p>	page on the Town website to share educational materials.				
1-2 Address education/ outreach for pollutants of concern	In progress	<p>In February 2022, the Town retained a consultant to assist it in developing educational materials to meet the public education requirements of the permit.</p> <p>The new brochures target specific pollutants and topics include information on pet waste management (bacteria), lawn care (nitrogen and phosphorus), impervious cover, and mercury. The brochures have been put on display at Town Hall, and will be posted to the Town's stormwater website.</p>	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	<p>Started: 02/01/2022</p> <p>Ongoing effort</p>	https://www.ridgefieldct.org/office-town-engineer/pages/storm-water-management-ms4-reporting

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

The following activities are planned for 2023:

1. Develop and distribute brochures for specific pollutants:
 - a. Illicit Discharges
 - b. 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/polluted-stormwater-runoff/>
 - ii. WestCOG Environmental Planning: <https://westcog.org/environmental/>
 - iii. UCONN NEMO Program: <https://nemo.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.
Pet Waste Brochure	50		Bacteria	Town Engineer Designee
Lawn Care Management	50		Nitrogen + Phosphorus	Town Engineer Designee
Waste Management	50		Mercury	Town Engineer Designee
Impervious Cover Reduction	50		Impervious Cover	Town Engineer Designee

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 Assitance from Consulting Engineer	07/01/2017	Completed: 07/01/2017	https://www.ridgefieldct.org/sites/g/files/vyhli4916/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 Assitance from Consulting Engineer	Annually, Due 02/15/2020	Completed: 02/15/2022 for 2021 Annual Report Projected: 02/15/2023 for 2022 Annual Report	https://www.ridgefieldct.org/office-town-engineer/pages/storm-water-management-ms4-reporting
2-3 Conduct Household Hazardous Waste collection day	Ongoing, Complete for 2022	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 Assitance from Consulting Engineer	Annually, by 12/31/2022	Completed: 12/31/2022 Refer to links for various collection dates.	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.					
2-4 Town recycling programs: household goods, food scraps, paint	Ongoing, Complete for 2022	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	Conduct recycling program throughout the year.	Department of Public Service	Annually, by 12/31/2022	Completed: 12/31/2022	Household goods: https://www.ridgefieldct.org/transfer-station/pages/recyclables Food scraps: https://hrra.org/organics-food-scraps-ridgefield/ 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
		<p>and negatively impact the health of watercourses.</p> <p>A full list of items accepted in on the Town's transfer station website, but includes electronic waste, mattresses, and appliances.</p> <p>In 2022, the Town explored creating a new solar powered composting area and waste oil collection.</p>					
2-5: Participate and assist community clean-up events	Ongoing, complete for 2022	The Town participated and lent support to the annual Rid Litter day clean-up event, providing trash pickup, trash bags	Provide support to one volunteer organized clean-up event.	Public Services Department	12/31/2023	04/23/2022	https://www.ridgefieldct.org/community/events/117436

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
		and safety vests.					

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

The following activities are planned for 2023:

1. Publish notice and post 2022 Annual Report to Town Website.
2. Conduct at least one Household Hazardous Waste Collection Day.
3. Continue recycling programs for household goods, paint, and food scraps.
4. 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.ridgefieldct.org/sites/g/files/vyhlif4916/f/uploads/smpfinal03282017.pdf
Availability of Annual Report announced to public	Yes	02/15/2022	https://www.ridgefieldct.org/office-town-engineer/pages/storm-water-management-ms4-reporting

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	The illicit discharge detection and elimination plan has been completed, and is available online.	Develop written plan of IDDE program	Town Engineer Designee with Assitance from Consulting Engineer	07/01/2018	Completed: 06/30/2022	https://www.ridgefieldct.org/office-town-engineer/pages/storm-water-management-ms4-reporting
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 Assitance from Consulting Engineer	07/01/2019	TBD	
3-3 Implement citizen reporting program	Complete	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 Department for follow-up and, if necessary, action.	Develop and implement a procedure to track citizen complaints of illicit discharges.	Town Engineer Designee with Assitance 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	<p>The Town's consultant provided sample ordinances from local communities for the Town to evaluate and develop an ordinance.</p> <p>Town Ordinance 298-6-B prohibits unlawful discharges of sanitary sewage, industrial waste, or other polluted waters to storm drains.</p>	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: 12/31/2023	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 Mamasasco Lake, and will be developing a standard operating procedure for	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	Town Engineer Designee with Assistance from Consulting Engineer	Not specified	<p>Projected date for written SOP:</p> <p>06/30/2023</p>	

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
		maintenance.	prioritized areas, actions taken by the Town to address these areas and the anticipated pollutant reduction.				

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

The following activities are planned for 2023:

1. Further develop Town storm sewer and outfall mapping into GIS.
2. 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 th Public Services Department to review and refer the concern for action.
3. Review illicit discharge ordinances crafted by other communities, and develop the draft ordinance for the Town, following the procedure established in the Town Charter.
4. Prepare adapt written SOP for Mamasasco Lake sediment structures to apply to other systems.
5. Continue sampling and screening program that was resumed in 2022.

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
None reported		

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.

Note: shaded rows indicate SSOs that occurred previous to the Annual Report calendar year **NEED 2022 SSOs.**

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)
Manhole, 16 Rowland Lane	09/03/2021 Unknown	MS4	Unknown	Extreme rain event ~ 200 year storm	As weather improved, bypass stopped	
22 South Street Effluent Manhole	09/02/2021 0.50 hours	MS4	250 gallons	Extreme rain event ~ 200 year storm.	6" trash pump utilized to help wet well pumps keep up	
120 Prospect Street	10/01/2020 0.50 hours	Great Swamp	75 gallons	Power outage and emergency generator could not run pumps causing bypass.	Variable frequency drives installed at pump station.	
Fox Hill Pump Station	03/20/2020 0.50 hours	MS4	100 gallons	Piece of wood blocked flow inside manhole resulting in bypass.	Blockage cleared day of bypass.	
120 Prospect Street	07/11/2019 0.75 hours	Great Swamp	500 gallons	Heavy rainfall	Bypass stopped as weather cleared	
125 Danbury Road	05/06/2019 0.50 hours	MS4	50 gallons	Unknown	Sewer line jet cleaned and vacuumed	
103 Danbury Road	04/30/2019 0.50 hours	MS4	50 gallons	Grease blockage caused manhole bypass.	Blockage cleared day of bypass.	
Near 21 Ramapoo Road	11/04/2017 0.50 hours	MS4	100 gallons	Roots and accumulation of grease in system on Gilbert Street	Roots and grease removed day of bypass.	

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)
22 South Street Influent Wet Well Manhole	07/25/2016 0.75 hours	MS4	Unknown	I/I	Ended with rainfall	
13 Rowland Lane	07/24/2013	MS4	Unknown	I/I	Ended with rainfall	
Influent Wet Well Bypass	07/23/2013 0.75 hours	MS4	125 gallons	I/I	Ended with rainfall	
74 Prospect Street	03/18/2013 0.50 hours	MS4	75 gallons	Unknown	Sewer line jet cleaned and vacuumed	

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.

Summary of actions to address septic failures

In 2021, the Town of Ridgefield Health Department issued 133 repair permits. The Town Health Department inspects all repairs upon completion to confirm that the issue requiring the repair has been addressed.

Additionally, the Health Department requires all food service establishments licensed with the Department to comply with CTDEEP Fats, Oils and Grease (FOG) regulations. All food service establishments are equipped with an appropriate grease interceptor (passive, AGRU, external), and must have a signed maintenance/pumping contract, and are required to submit pumping receipts quarterly. Those not in compliance are fined and corrections are made. The vigilance over the FOG program prevents clogs within the sanitary sewer system that can cause overflows and adversely impact the MS4.

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	100%
Dry weather screening of all High and Low priority outfalls complete	131
Catchment investigations complete	0
Estimated percentage of MS4 catchment area investigated	26%

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).

Training for Town Highway Department staff occurred on 03/23/2022.

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	<p>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.</p> <p>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>.</p> <p>Additionally, Section 7.15 of the Ridgefield Zoning Regulations requires consistency with the <i>2004 Connecticut Stormwater Quality Manual</i>.</p>	<p>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.</p> <p>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.</p>	Planning & Zoning	07/01/2019	Completed: 07/01/2017	<p>2018 Sediment and Erosion Control Policy:</p> <p>Planning & Zoning Regulations</p>

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	<p>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.</p> <p>The current interdepartmental plan is in Appendix A.</p>	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	<p>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.</p> <p>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.</p>	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	<p>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.</p> <p>Site plan reviews incorporate consideration of stormwater management practices to prevent or minimize impacts to stormwater quality.</p> <p>The Town conducts site inspections of all private and construction sites.</p>	Evaluate and update draft standard condition of approval.	Planning & Zoning	Ongoing	Completed: 07/01/2017	
4-5 Implement procedure to allow public comment on site development	Ongoing	<p>In accordance with state law, the Town conducts public hearings on site plan applications.</p> <p>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 Department for follow-up and, if necessary, action.</p>	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
4-6 Implement procedure to notify developers about DEEP construction stormwater permit	In Progress	<p>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.</p> <p>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.</p> <p>The Town added the requirement to be prominently visible on the Town's online permitting system beginning in 2022.</p>	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 Assitance from Consulting Engineer	Ongoing	Projected: 06/30/2023	
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	Assess existing regulations regarding construction site stormwater controls, and if goals are not being met, update as needed.	Town Engineer Designee with Assitance 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
		changes were implemented in 2022, 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 Assitance 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 2023:

1. Continue to enforce existing regulations
2. Continue to track citizen reports and concerns.
3. Continue site plan review process, including documentation of site plan review meetings.
4. Continue requirements for operations and maintenance plans.
5. Continue site inspection program.
6. Refine notification to applicants of their potential obligation to register for the CTDEEP Construction Stormwater General Permit.
7. 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	<p>The Town's existing stormwater management regulations require the use of low impact development practices and requires runoff reduction.</p> <p>The Town's stormwater management regulations reference the Low Impact Development Appendix to the <i>2004 Connecticut Stormwater Quality Manual</i>.</p> <p>The Town plans to engage a consultant in 2023 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.</p>	Review and evaluate existing stormwater management requirements to confirm LID and runoff reduction practices are required.	Planning & Zoning	07/01/2022	Complete: 07/01/2017	Stormwater Management Regulations (Section 7.15)
5-2 Enforce LID/runoff reduction requirements for development and 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	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 development and redevelopment projects	Planning & Zoning	07/01/2022	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
		full water quality volume. The MS4 Permit requirement for water quality is based on one inch of rainfall. The Ridgefield regulations are based on 1.5 inches.	in the Town as specified by the MS4 permit.				
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 Assitance from Consulting Engineer	07/01/2019	Projected: 12/31/2023	
5-4 Implement long-term maintenance plan for stormwater basins and treatment structures	Ongoing	<p>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.</p> <p>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.</p>	Prepare draft condition of approval for inspection access. Require operation and maintenance plans.	Town Engineer Designee with Assitance from Consulting Engineer	07/01/2019	Ongoing	Stormwater Management Drainage System Agreement
5-5 DCIA mapping	Completed	The Town computed its baseline DCIA coverage.	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 Assitance from Consulting Engineer	07/01/2020	Completed: 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	<p>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.</p> <p>The Town responds to post construction issues in areas with pollutants of concern as they are made aware of a specific situation.</p> <p>The Town provides funding to Harbor Watch to perform monitoring at selected areas in Town. In 2022, 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 2022 Harbor Watch Report is here: https://earthplace.org/data-and-publications/</p>	<p>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.</p> <p>On privately owned lands, typically a wetlands violation notice will be issued.</p>	Town Engineer Designee with Assitance 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	Reduce areas of turf to minimize pesticide and fertilizer inputs	Town Engineer Designee with Assitance from	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
		around wetlands and watercourses to the maximum extent practicable. Planning & Zoning and Wetlands monitors the buffer areas.		Consulting Engineer			
5-8 Require consistency with the 2004 Connecticut Stormwater Quality Manual	Ongoing	Section 7.15 of the Ridgefield Zoning Regulations requires consistency with the <i>2004 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 2023:

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. 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)	921.89 acres
DCIA disconnected (redevelopment plus retrofits) for 2022	TBD acres
DCIA disconnected since 2012	2.19 acres
Retrofit projects completed	2
DCIA disconnected for 2022	TBD %
DCIA disconnected since 2012	0.23 %
Estimated cost of retrofits	\$
Detention or retention ponds identified in 2022	0
Detention or retention ponds identified since 2012	0

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

Baseline DCIA was determined by using the State's 2012 impervious coverage layers, and then applying the EPA's Sutherland equations to approximate the directly connected area in each watershed. The methodology and watershed breakdown are described in further detail in the IDDE Plan

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	Training?.	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: 06/30/2023	
6-2 Implement MS4 property and operations maintenance	In progress	<p>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.</p> <p>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.</p> <p>The Fire Department no longer uses foam containing PFAS for firefighting,</p>	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: 06/30/2023	

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
		<p>continuing a policy developed years ago.</p> <p>The Town's salt storage facility continues to be used, and contains an impervious floor layer to prevent mobilization of salt into the ground.</p> <p>Property operations plans will be performed in conjunction with the Facilities Director.</p> <p>The Town's Fuel Depot has a facility specific spill prevention and countermeasure plan that was developed in 2017.</p>					
6-3 Implement coordination with interconnected MS4s	In Progress	The only interconnections identified to date have been to the CTDOT MS4. In the event that screening and sampling identifies a potential illicit discharge to their MS4, the Town will notify CTDOT.	Coordinate municipal operations with adjoining MS4s.	Town Engineer Designee with Assistance from Consulting Engineer	Not specified	Projected: Ongoing, will notify interconnected MS4 if and when illicit discharges impacting interconnection are identified.	
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: 12/31/2023	

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
6-5 Evaluate additional measures for discharges to impaired waters*	Please refer to BMP 6-13, 6-14 and 6-15 for additional detail.						
6-6 Track projects that disconnect DCIA	In Progress	Two significant projects since 2012 were identified and measured by the Town's consultant for DCIA disconnection.	Track the disconnected DCIA acreage, identifying DCIA credit eligible sites constructed within the preceding 5 years.	Town Engineer Designee with Assitance from Consulting Engineer	07/01/2017	Projected: 06/30/2023	
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 Assitance from Consulting Engineer	07/01/2022	Ongoing	
6-8 Develop and implement plan to identify/prioritize retrofit projects	Completed	The Town has developed a Disconnection Plan.	Identify required repairs based on data from previous permit and current permit, and prepare inventory. Prioritize proposed projects.	Town Engineer Designee with Assitance from Consulting Engineer	07/01/2020	Completed: 07/15/2022	

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	Any?	Disconnect 2% of the Town's DCIA.	Town Engineer Designee with Assistance from Consulting Engineer	07/01/2023	Projected: 06/30/2023	
6-10 Develop and implement street sweeping program	Ongoing	<p>The Town sweeps most of its streets yearly, and has an established schedule. Since the Town eliminated sand for winter roadway treatment, the volume of material collected has dropped significantly. The Town has developed 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.</p> <p>Additionally, all roads scheduled for resurfacing are swept at least twice prior to resurfacing operations.</p>	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.
6-11 Develop and implement catch basin cleaning program	Ongoing	<p>The Town has a vactor truck that the Highway Department uses to clean catch basins. The Town cycles through different areas of Town on a rotating basis, and inspects all catch basins when roads will be repaired, and as they are cleaned.</p> <p>Work typically begins in the spring, starting at the basins</p>	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	Highway Department	Ongoing beginning 07/01/2020	Ongoing	Refer to Department of Public Services Memo in Appendix B.

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
		in the Mamasco Lake area, then moving to selected deep sump basins. These are followed by roads to be overlaid, milled, and reclaimed, and then done on a rotating basis by plow route.	cleaning and maintenance process.				
6-12 Develop and implement snow management practices	Ongoing	<p>The Town currently has a Snow and Ice Management policy from 2012, and has drafted an updated Standard Operating Procedure to be adopted in 2023.</p> <p>The Town minimizes the use of sand on its roadways, and in 2022 used no sand. The Town uses magnesium chloride exclusively.</p> <p>The Town has adopted requirements from WestCOG's <i>Winter Maintenance Guide</i>.</p>	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 dicing materials. Update the Annual Report with required information on the snow and ice program.	Highway Department	Ongoing beginning 07/01/2018	Ongoing	<p>WestCOG Winter Maintenance Guide</p> <p>Draft Standard Operating Procedure, refer to Appendix C.</p>

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 2022	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 2023:

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. Utilize 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	
Employee training provided for key staff	Performed 03/22/2022
Street sweeping	
Curb miles swept	260.64 miles
Volume (or mass) of material collected	957.71 CY
Catch basin cleaning	
Total catch basins in priority areas (value will be less than or equal to total catch basins town or institution-wide)	TBD, based on town mapping development
Total catch basins town- (or institution-) wide	TBD based on town mapping development
Catch basins inspected	599
Catch basins cleaned	599
Volume (or mass) of material removed from all catch basins	577 CY
Volume removed from catch basins to impaired waters (if known)	Unknown
Snow management	
Type(s) of deicing material used	Magnesium chloride (Ice B Gone Magic)
Total amount of each deicing material applied	Up to 3,000
Type(s) of deicing equipment used	Liquid spreaders
Lane-miles treated (A lane-mile is a mile of roadway in a single driving lane)	349.88 miles
Snow disposal location	In-situ
Staff training provided on application methods & equipment	Ongoing and as needed
Municipal turf management program actions (for permittee properties in basins with N/P impairments)	
Reduction in application of fertilizers (since start of permit)	0 (Town already practices optimization of application)
Reduction in turf area (since start of permit)	0
Lands with high potential to contribute bacteria (dog parks, parks with open water, & sites with failing septic systems)	
Cost of mitigation actions/retrofits	\$ 0

6.4 Catch basin cleaning program

Provide any updates or modifications to your catch basin cleaning program

The Town has a vactor truck that the Highway Department uses to clean catch basins. The Town cycles through different areas of Town on a rotating basis, and has inspects 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 2023 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 2023. 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 2022, 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 2022 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)	<ul style="list-style-type: none"> 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

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. Where no data is presented, the outfall was not flowing at the time of visit. Values exceeding follow-up criteria are identified in red.

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 μ S/cm	Salinity, ppt	E. coli or enterococcus, col/100mL	Surfactants, mg/L	Water Temp $^{\circ}$ F	Pollutant of concern	If required, follow-up actions taken
ECCAA	08/24/2022									
F1524	08/24/2022									
A31F3	08/24/2022									
E017D	08/24/2022									
E1737	08/24/2022									
7E5C4	08/24/2022									
FB7AE	08/24/2022									
FC4EA	08/24/2022									
FC8D2	08/24/2022									
BD476	08/24/2022									
A07A9	08/24/2022									
DB8B2	08/24/2022									
BE727	08/24/2022									

Outfall / Interconnection ID	Screening / sample date	Ammonia mg/L	Chlorine mg/L	Conductivity μ S/cm	Salinity, ppt	E. coli or enterococcus, col/100mL	Surfactants, mg/L	Water Temp $^{\circ}$ F	Pollutant of concern	If required, follow-up actions taken
DC434	08/24/2022									
F3171	08/24/2022									
E1A1C	08/24/2022									
D1C6D	08/24/2022									
BE021	08/24/2022									
C3E8E	08/04/2022									
ABEE6	08/04/2022									
F1262	07/13/2022									
74EFC	07/13/2022									
0CEE4	08/24/2022									
1A624	08/24/2022									
4A635	08/24/2022									
42EB8	08/24/2022									
9B1E2	08/24/2022									
20-1 (955DF)	07/15/2022									
33-6 (328A4)	08/24/2022									
33-5 (1279B)	08/24/2022									

Outfall / Interconnection ID	Screening / sample date	Ammonia mg/L	Chlorine mg/L	Conductivity μ S/cm	Salinity, ppt	E. coli or enterococcus, col/100mL	Surfactants, mg/L	Water Temp $^{\circ}$ F	Pollutant of concern	If required, follow-up actions taken
29B5B	07/13/2022									
33-3 (D4CA4)	08/24/2022									
33-2 (C54B1)	08/24/2022									
33-1 (148FF)	08/24/2022									
73-7 (8BB70)	07/14/2022									
73-6 (8150F)	07/15/2022									
73-6 (FA241)	07/15/2022									
68F2D	08/24/2022									
73-5 (28A79)	07/15/2022									
73-4 (3A1BD)	07/15/2022									
73-2 (636EA)	07/14/2022									
73-1 (728BE)	07/14/2022	ND	ND	421	0.02	XXXX	XXX	72.7		
92CC4	07/14/2022									
110DB	08/04/2022									
164-2 (F1495)	08/24/2022	ND	ND	1,211	0.06	XXX	XXX	77.7		
164-1 (14111)	08/24/2022	ND	ND	1,211	0.06	XXX	XXX	77.7		
188-21 (EF8FD)	08/04/2022									

Outfall / Interconnection ID	Screening / sample date	Ammonia mg/L	Chlorine mg/L	Conductivity μ S/cm	Salinity, ppt	E. coli or enterococcus, col/100mL	Surfactants, mg/L	Water Temp $^{\circ}$ F	Pollutant of concern	If required, follow-up actions taken
188-20 A9E99	08/04/2022									
188-19 (891FF)	08/04/2022									
188-19A (E03D9)	08/04/2022									
188-18 (891FF)	08/04/2022									
188-17 (2C63F)	08/04/2022									
188-16 (2C63F)	08/04/2022									
188-15 (F4654)	08/04/2022									
188-14 (6C65F)	08/04/2022									
188-12 (6E88D)	08/04/2022									
188-11 (E1601)	08/04/2022									
188-10 (21213)	08/04/2022									
188-9 (F9A5A)	07/15/2022									
188-8 (F53F3)	07/15/2022									
188-7 (D3BE2)	07/15/2022	0.25	ND	728	0.04	6 MPN	XXX	77.0		
188-6 (E34B3)	07/15/2022									
188-5 (02386)	07/15/2022									
188-4 (1C07C)	07/15/2022									

Outfall / Interconnection ID	Screening / sample date	Ammonia mg/L	Chlorine mg/L	Conductivity μ S/cm	Salinity, ppt	E. coli or enterococcus, col/100mL	Surfactants, mg/L	Water Temp $^{\circ}$ F	Pollutant of concern	If required, follow-up actions taken
188-3 (7DC26)	07/15/2022									
188-2 (A556E)	07/13/2022	0.25	ND	590	0.03	XXXX	XXX	72.1		
188-1 (E698C)	07/13/2022									
201-1 (0C368)	07/15/2022									
207-6 (638BF)	07/15/2022									
207-5 (80FFF)	07/15/2022	ND	ND	280	0.01	285 MPN	XXX	74.8		
205-3 (332FB)	07/13/2022									
207-4 (74BE5)	07/15/2022									
205-2 (87438)	07/15/2022									
205-2 (6EC77)	07/13/2022									
207-3 (5FB57)	07/15/2022	0.25	ND	487	0.03	43 MPN	XXX	75.6		
205-1 (7C7F9)	07/15/2022									
207-2 (7E471)	07/15/2022	ND	ND	389	0.02	25 MPN	XXX	76.3		
214-9 (A5D70)	07/13/2022									
207-1 (BC461)	07/15/2022	0.25	ND	533	0.03	3 MPN	XXX	79.3		
214-8 (25237)	07/13/2022	0.25	ND	471	0.02	XXXX	XXX	75.2		
214-7 (3423D)	07/13/2022	ND	ND	385	0.02	XXXX	XXX	74.1		

Outfall / Interconnection ID	Screening / sample date	Ammonia mg/L	Chlorine mg/L	Conductivity μ S/cm	Salinity, ppt	E. coli or enterococcus, col/100mL	Surfactants, mg/L	Water Temp $^{\circ}$ F	Pollutant of concern	If required, follow-up actions taken
214-6 (459B8)	07/13/2022	ND	ND	388	0.02	XXXX	XXX	74.1		
214-5 (8A919)	07/13/2022	ND	ND	388	0.02	XXXX	XXX	74.1		
214-4 (328C7)	07/13/2022									
214-3 (5EAB4)	07/13/2022	ND	ND	1,231	0.06	XXX	XXX	77.4		
214-3A (F1262)	07/13/2022	ND	ND	1,247	0.06	XXX	XXX	79.4		
214-2 (12B4C)	07/13/2022	ND	ND	1,239	0.06	XXX	XXX	78.9		
214-1 (863C5)	07/13/2022									
257-2 (5BEFA)	08/24/2022									
295-7 (F29FB)	07/13/2022									
295-6 (4EFCA)	07/14/2022	ND	ND	517	0.03	XXXX	XXX	69.5		
295-5 (1EF6B)	07/14/2022									
295-4 (E8F5A)	07/14/2022									
295-3 (4A103)	07/14/2022									
295-2 (22C70)	07/14/2022									
295-1 (254B0)	07/14/2022									
302-1 (B70B4)	07/14/2022	ND	ND	475	0.02	XXX	XXX	72.0		
319-11 (BC083)	07/15/2022									

Outfall / Interconnection ID	Screening / sample date	Ammonia mg/L	Chlorine mg/L	Conductivity μ S/cm	Salinity, ppt	E. coli or enterococcus, col/100mL	Surfactants, mg/L	Water Temp $^{\circ}$ F	Pollutant of concern	If required, follow-up actions taken
319-10 (74441)	07/15/2022									
319-5 (65DCB)	07/15/2022									
319-4 (626BB)	07/15/2022									
319-3 (62770)	07/15/2022									
320-3 (7527F)	07/15/2022									
319-2 (1989F)	07/15/2022									
320-2 (45BA5)	07/15/2022									
319-1 (04449)	07/15/2022									
320-1 (DF1C9)	07/15/2022									
373C8	08/24/2022									
388-1 (47EFC)	08/24/2022									
390-2 (1E406)	08/24/2022									
400-2 (AD219)	07/15/2022	ND	ND	1,112	0.06	XXX	XXX	69.4		
400-1 (AD219)	07/15/2022	ND	ND	538	0.04	1,733 MPN	XXX	70.1		
400-1A (79233)	07/15/2022									
408-2 (B60B3)	07/15/2022									
408C4	08/24/2022									

Outfall / Interconnection ID	Screening / sample date	Ammonia mg/L	Chlorine mg/L	Conductivity μ S/cm	Salinity, ppt	E. coli or enterococcus, col/100mL	Surfactants, mg/L	Water Temp $^{\circ}$ F	Pollutant of concern	If required, follow-up actions taken
409-1 (7B6F1)	08/24/2022									
427-3A (1ACC0)	07/14/2022	ND	ND	544	0.03	XXX	XXX	75.7		
427-2 (0B418)	07/14/2022									
427-1 (57F50)	07/14/2022									
429-1 (3756D)	07/14/2022	ND	ND	680	0.03	XXXX	XXX	68.4		
430-1 (43AF9)	07/15/2022									
432-3 (35526)	07/14/2022	ND	ND	680	0.03	XXX	XXX	74.7		
432-1 (FF319)	07/14/2022									
935D7	08/24/2022									
6401D	07/14/2022	ND	ND	124	0.01	XXX	XXX	68.5		
25868	08/24/2022									
35974	08/24/2022									
57441	07/15/2022									
59023	08/24/2022									
71947	08/24/2022									
86465	08/24/2022									

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
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

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
8104-01-02	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
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 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).

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

3.3 Wet weather investigation outfall sampling data

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

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
--------------------	-----------------	-----------------------	---------------------	-------------------	---------------------	----------------------------------	----------------------------------

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."

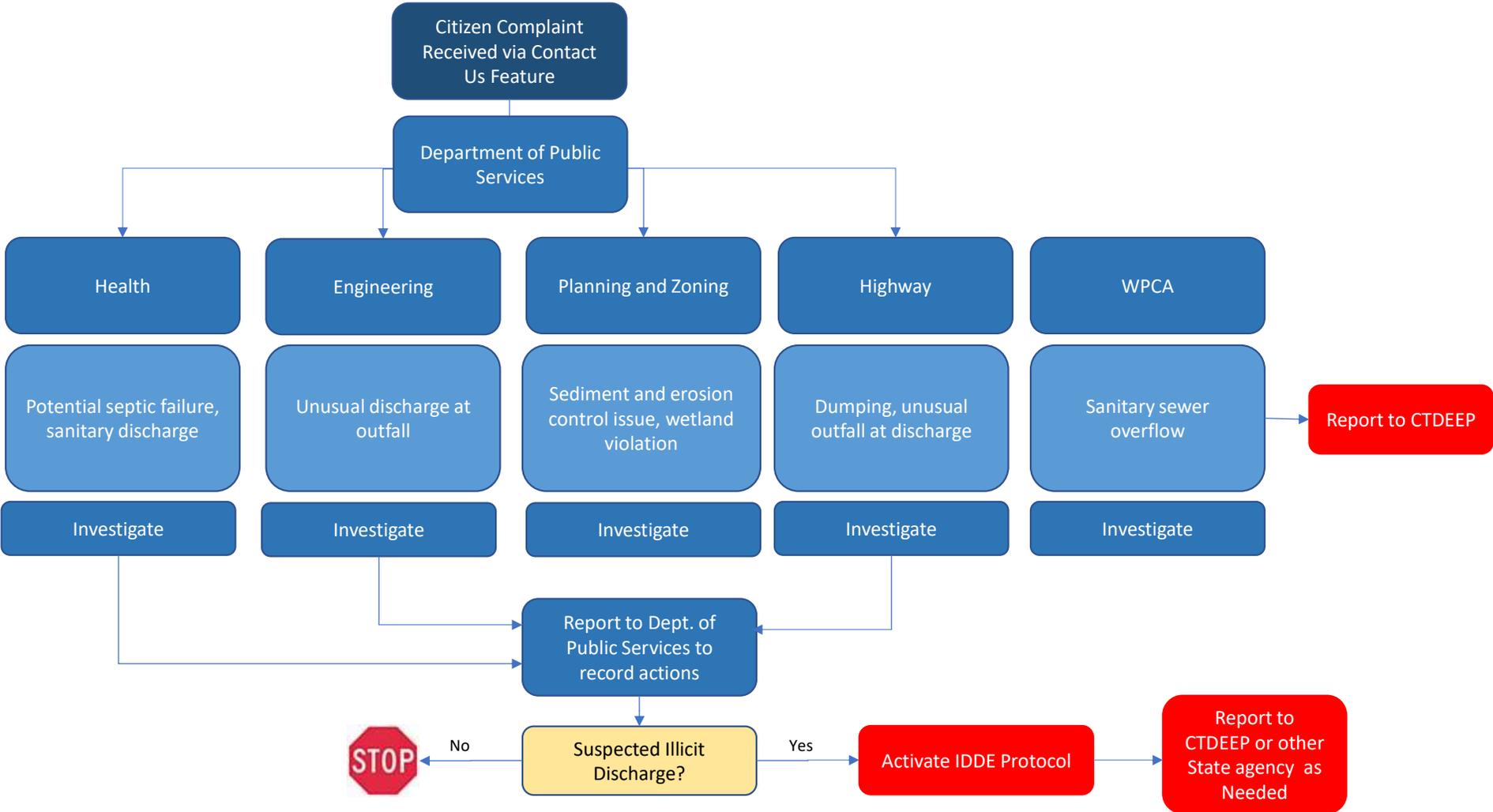
Chief Elected Official or Principal Executive Officer	Document Prepared by
Print name: Rudolph P. Marconi, First Selectman Town of Ridgefield	Print name: Joseph Canas, PE, LEED AP, CFM, Principal Engineer Tighe & Bond
Signature / Date:	Signature / Date:  -03/31/2023
Email: selectman@ridgefieldct.org	Email: jacanas@tighebond.com

Tighe&Bond

APPENDIX A



Town of Ridgefield MS4 Illicit Discharge Investigation Process



Tighe&Bond

APPENDIX B

Tighe&Bond

APPENDIX C

CATCH BASIN AND PIPE CLEANING SCHEDULE

STARTING EVERY SPRING:

1. Mamanasco Lake Basins
2. Deep Sump Basins
 - a. Bayberry Road
 - b. Crest Drive
 - c. Farmingville Road
 - d. Mountain Road
 - e. Old Musket Lane
 - f. Poplar Road
 - g. South Street
3. Paving List: Roads to be overlaid, milled or reclaimed
4. When finished with the basins above, all remaining basins will be cleaned on a rotating basis by plow route.

OPEN HEADERS / SILT COLLECTION PITS

Cleaned by excavator once a year or as needed.

1. Ashbee Lane
2. Mamanasco – 12th Lane
3. North Street
4. Old Sib Road

TOWN OF RIDGEFIELD, CONNECTICUT
PUBLIC SERVICES DEPARTMENT
BEST PRACTICES AND STANDARD OPERATING PROCEDURES
SNOW REMOVAL AND ICE CONTROLS

Draft: May 13, 2022 (last revised March 3, 2022)

Approval Date:

OBJECTIVE: It is the goal and intent of the Town of Ridgefield to provide timely, efficient and cost-effective winter maintenance, snow removal and ice control on the roadways of the municipality for the safety and benefit of the Town's residents and the general motoring public.

PROCEDURE: The objective stated above will be achieved by implementation and execution of the procedures and tasks outlined in the Town of Ridgefield Winter Operations Snow Removal and Ice Control Procedures. Due to the many variables that are inherent in New England weather, each storm and/ or weather event may require slightly different effort and/ or emphasis on any number of maintenance tasks, which together determine the overall winter maintenance, snow removal or ice control strategy.

LEVEL OF SERVICE: It is not possible to maintain bare, snow and ice-free roads during a storm. It is the intention of the Town to provide practical, safe access to homes, businesses and municipal facilities during winter storms.

Pre-treatment for snow and ice control is initiated prior to the actual start of the storm. Treatment for snow and ice control may take place during the active portion of the storm if deemed effective, or may be applied following the storm to assist in cleanup operations. It should be noted that salt has a much slower effect on melting snow and ice at temperatures below 20 degrees.

It is our policy to start to conduct snow removal operations upon accumulations of two-inches of snowfall. The Director of Public Services may, at his or her discretion based upon weather information reports, elect to remove snow at greater or lesser accumulations.

COMMAND: Direction of all winter maintenance activities for the Town of Ridgefield is vested with the Director of Public Services, or his or her designee.

EXECUTION: The policy outlined above is intended to serve as the normal operating procedures for winter maintenance, snow removal and/ or ice control for the Town of Ridgefield. One or more of the following, which may delay or prevent the implementation of this policy, may affect all or any part of this Policy:

- Equipment Breakdown
- Snow Accumulation in Excess of 1 inch per hour

- Freezing Rain or Other Icing Conditions
- Traffic Congestion
- Emergencies
- Personnel illness

WINTER OPERATIONS SNOW REMOVAL AND ICE CONTROL PROCEDURES

(Includes Roadways, Sidewalks, Parking Areas)

EQUIPMENT: The Department of Public Services utilizes all the assets of the department as needed to address snow emergencies,

ROUTES: Currently, the Town is divided into 14 major plow and/or treatment routes, with 3 smaller routes for more narrow roads. The Town uses one or more wheeled loaders in the downtown area to load snow for removal, as it may restrict parking or line of sight distances at intersections.

MANPOWER: The Town of Ridgefield has 22 full-time personnel assigned to its winter maintenance operations. In addition, a labor pool of 8 outside contractors are regularly called into service for plowing.

MATERIALS: The Town purchases 3000 tons of rock salt treated with “Ice B Gone Magic” per season. This is stored in a covered barn at 60 South St. In the event more is needed it will get replenished throughout the season. Winter maintenance routes are pre-treated with an application of treated salt. The salt is applied to the center of the roadway where traffic can work the material traveling either way. The salt creates liquid brine, which melts snow and/or ice, and resists snow and ice packing on the roadway.

COMMUNICATIONS: All of the Department of Public Services rolling stock is equipped with radios capable of transmitting and receiving. Each plow and equipment operator is assigned a unique call number. Base units are also maintained at the Highway Dept. garage and office, and each operator has the ability to communicate with the Town police and fire departments.

SCHOOLS: The Parks & Recreation Department, with assistance from the Department of Public Services when necessary, has the responsibility for the clearing of snow and the winter treatment of the Town schools’ access roads and parking lots. On days when school is in session, winter maintenance efforts must be timed to coincide with bus routing and delivery. The Board of Education has responsibility for the clearing of snow and ice from school sidewalks and staircases.

- The Director of Public Services, or a designated official representative, shall contact the School Superintendent, or a designated official representative, and advise as to the condition of the municipality’s roads, in order to determine the safety of students using school buses. The school representative(s) shall make the decision to cancel or postpone school for that day.

SIDEWALKS: Snow clearance will be the sole responsibility of the property owner or business owner with frontage abutting the sidewalk. Removal of snow from sidewalks is required within 8 hours of the cessation of the storm (but not later than noon of the following day). Sand and/ or salt must be broadcast as necessary. If snow has not been

removed within 24 hours, the Board of Selectmen will instruct a contractor to do so at the property owner's / business owner's expense.

PARKING: There is NO OVERNIGHT PARKING on any Town street, or in any municipal parking lot, in the Town of Ridgefield. The Town has also enacted a winter parking ban effective from November 15th to April 15th of each year. From the time a storm begins until such time all streets are clear of snow and ice, the overnight parking ban is extended to include daylight hours. Parking in the street will result in the vehicle being towed at the owner's expense. Fines may also be levied at the discretion of the Police Department. The purpose of this winter parking ban is to allow winter maintenance crews unobstructed snow removal and ice control routes, as much as possible, to maintain the maximum effectiveness of their efforts.

PLOW ROUTE PRIORITIES: With a total of 190 miles of roads from which to remove snow and control ice, the Department of Public Services has to assign priorities for winter maintenance route activity. This is in order to maximize the effectiveness of their efforts for the motoring public.

- A. Resources will be diverted for Emergency Assistance for the Police and Fire Departments, and will take priority over all regular plowing/salting.
- B. School bus routes will be given the first priority during school days. In the event the busses are on the road during a snow event, each route will be maintained as best as possible depending on the type of storm and rate of snowfall.
- C. The business district will be maintained as much as possible during business hours, with the main snow clearance effort to be done at night during the snow parking curfew hours. Public safety is a very great concern in this area due to many cars and pedestrians in the area.
- D. Public parking areas at the rear of the Town offices, municipal buildings and municipal lots will be maintained by plowing during the winter storm. The application of slip resistant materials will be applied after the storm as determined to be needed by the Director of Public Services or the Parks and Recreation Superintendent.

RESPONSIBILITIES OF OTHER PARTIES

STATE ROADS AND PUBLIC SIDEWALKS DO NOT RECEIVE WINTER MAINTENANCE BY THE TOWN OF RIDGEFIELD as part of its ongoing winter maintenance activities.

- A. Any State road within the Town limits is the responsibility of the State D.O.T. Office in Danbury. [**Route 33, Route 35, Route 102, Route 116, Route 822 (W. Mountain Rd), and Route 835 (West Ln)**]
- B. School sidewalks are the responsibility of the Board of Education.
- C. Public sidewalks are the responsibility of the business or homeowner with frontage on the sidewalk.

DAMAGE TO PRIVATE PROPERTY: The Town is not responsible for damage to private property that is located within the public right-of-way. The right-of-way (ROW) is typically 50' wide and extends approximately 10 feet to either side of the paved roadway surface. Property owners often confuse this area of public ROW with their property. Homeowners often extend lawns, place mailboxes, install sprinkler systems, plant flowers, shrubs & trees, and erect fences or stonewalls in these areas. These improvements often enhance the appearance of the property but create an obstruction to good maintenance of the roadway.

In the event of personal property damage, other than mailboxes, the Town of Ridgefield will only be responsible to repair or replace damaged property that is located on private property and not within the public ROW and that has actually been contacted or struck by the snow removal equipment. The Town's policy regarding mailbox damage is stated below.

MAILBOXES: In the event of mailbox damage, the Town of Ridgefield will only be responsible to repair or replace damaged mailboxes having been in actual contact with the snow removal equipment.

DRIVEWAYS: When residents, or their plowing contractors, are shoveling or plowing the entrance to their driveways, all snow must be pushed to the right side of the driveway (as you face the road); this will help minimize the amount of snow that will ultimately be pushed back into the driveways during the widening out phase of operations. Snow must not be thrown into the roads or plowed across the road. It is in violation of State and local codes by causing hazardous road conditions and will only be pushed back where it came from. Violators could be subject to fines.

POST STORM OPERATIONS: As determined by the Department of Public Services, trucks and equipment shall be cleaned and repaired as needed to prepare for the next storm event. Snow removal from Main St and the Downtown Business area will normally take place on the following night, or as soon as events allow. Snow removal from intersections and obstructed sight lines will take place as needed. Mailbox evaluations and repairs will likewise be done as needed.

TERMINOLOGY:

- "Pre-Treat or Anti-Icing" – Applying treated salt to roads prior to a storm.
- "Re-Treat or De-Icing" – Applying treated salt to roads during a storm event wherever ice and snow may build up.
- "Open of Routes" – Keeping the center of the roads plowed and open for travel.
- "Push Back or Cleanup Routes" – Pushing snow back from curb to curb, as well as cleaning up all intersections and culs de sac.
- "Slush Off" – Plowing off any slush/snow that has loosened up from treating with salt.

- “Treated Salt” – Rock salt treated with IBG Magic liquid, which is an agricultural byproduct of the distilling process that has been blended with magnesium chloride. For more info, please visit www.ibgmagic.com.

DISPOSAL OF SNOW

Recommended Management Practice: Snow accumulations removed from roadways, bridges, and parking lots should be placed in upland areas only, where sand and other debris will remain after snowmelt for later removal.

Snow is to be stored in-situ to the greatest extent possible. Care must be exercised not to deposit snow for storage in the following areas:

- a. freshwater wetlands or in areas immediately adjacent to such areas where sand and debris may be flushed during rainstorms;
- b. on top of storm drain catch basins;
- c. in storm drainage swales;
- d. on stream or river banks which slope toward the water,
- e. where sand and debris can get into the watercourse; and
- f. in areas immediately adjacent (within at least 100 feet) of private or public drinking water well supplies (due to the possible presence of road salt).

In extraordinary winter conditions, CTDEEP may, upon public notification, offer municipalities the flexibility of limited in-water disposal. When such flexibility is offered, municipalities who have determined that extraordinary circumstances exist where all upland, land-based disposal options have been fully exhausted (i.e., disposal capacity is not available) and snow needs to be removed to meet public safety demands (i.e., clear access ways for police, emergency medical and fire responders), may use certain waterways for snow disposal in accordance with the following conditions:

- a. Upland storage and disposal of snow (i.e., athletic fields, parks and other flat, open-field sites) and other snow management methods (i.e., snow melting equipment) must be the first alternatives explored and exhausted.
- b. Environmentally sensitive areas must be avoided; This guidance applies only to snow and ice which is not visibly contaminated with material other than salt and sand from road clearing activities;
- c. Disposal in rivers or streams must be limited to those water bodies that have adequate flow and mixing and are not prone to ice jams;
- d. The disposal must occur only in open water in areas that will not interfere with navigation;
- e. Disposal must be conducted in a manner so as to prevent ice dam formation or damage to bridges, docks or other structures;
- f. Disposal in ponds and lakes is discouraged;

- g. There shall be no disposal in freshwater wetlands, vegetated shallows, vernal pools, public water supply reservoirs and their tributaries, or others areas designated as being environmentally sensitive;
- h. The activity must comply with local laws and requirements;
- i. Precautions must be taken to avoid shoreline or stream bank damage or erosion from truck/equipment activity; and
- j. Municipal entities must notify the Department by email (address email to kevin.sowa@ct.gov) prior to disposing of snow and ice in waterways or, if advance notification is not possible, then the Department must be contacted as soon as possible after snow disposal has begun.

DEICING MATERIAL STORAGE REQUIREMENTS

Solid chemicals should be stored and handled in a manner that prevents them from leaching into the environment. This includes:

- a. Store on an impervious surface such as concrete or asphalt
- b. Store in a salt shed, or cover entirely with a secure tarp
- c. Load equipment as close to the pile as possible to prevent spillage
- d. If spillage occurs sweep it up and return it to the pile
- e. Do not overload equipment to prevent spillage while turning or going over bumps

Liquid chemicals should be stored in accordance with federal, and state guidelines, including the following best management practices:

- a. Store liquids in a double-walled tank OR have secondary containment which can contain 10% of all tanks, or 100% of the largest tank, whichever volume is larger.
- b. Avoid gravity discharge (bottom discharge), in favor of top discharge (pump-based discharge) to reduce the risk of accidental spills due to valve or hose failure.
- c. Always properly label liquid tanks and have Material Safety Data Sheets (MSDS) available for any proprietary chemicals.

The Highway Yard is registered under the Connecticut Department of Energy and Environmental Protection's General Permit for the Discharge of Stormwater Associated with Industrial Activities, which requires that storage piles of deicing materials (including pure salt, salt alternatives or either of these mixed with other materials) used for deicing or other commercial or industrial purposes that are in place for more than 180 days shall be enclosed or covered by a rigid or flexible roof or other structural means. Such structure shall not allow for the migration or release of material outside of the structure through its sidewalls.

For temporary storage piles of de-icing materials in place for less than 180 days per year, a waterproof cover may be used to prevent exposure to precipitation (except for exposure necessary to add or remove materials from the pile)

CALIBRATION OF SPREADERS

The amount applied by the spreaders shall be no more than that required to provide reasonably safe conditions for the travelling public. Amounts shall not be excessive and can be best managed through calibration of equipment:

- a. Calibrate each spreader at least annually.
- b. Re-calibrate whenever hydraulic equipment or components have been replaced
- c. Identical equipment should be calibrated separately

- d. As a guide, each spreader should have a low, medium, and high application rate

ADOPTION:

The Town of Ridgefield has adopted the Winter Operations Snow Removal and Ice Control Policy effective _____. All residents are encouraged to familiarize themselves with the content as it describes the condition that one might expect to encounter before, during and following a winter storm event.

**BOARD OF SELECTMEN
TOWN OF RIDGEFIELD**

Tighe&Bond

APPENDIX D

Planning and Zoning Commission Applications / Special Permit Application

[Apply Online](#)

Special Permit Application

In addition to the Special Permit Application, a Watershed Notification form is required to be completed.

[Ridgefield Watershed Notification Form.pdf](#)

Your project may need to register under CTDEEP's General Permit for the Discharge of Stormwater and Dewatering Wastewaters Associated with Construction Activities. ("Construction General Permit") Projects disturbing one or more acres of land, either individually or collectively, as part of a common plan, and resulting in a point discharge to the surface waters of the State. A copy of the Stormwater Pollution Control Plan required by the Construction General Permit shall be provided to the Town upon request.

More information can be obtained at <https://portal.ct.gov/DEEP/Water-Regulating-and-Discharges/Stormwater/Construction-Stormwater-GP>