2019 ANNUAL REPORT

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

Registration No. GSM000023

for

Town of Waterford, CT
15 Rope Ferry Road
Waterford, CT 06385

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MS4 General Permit
Town of Waterford 2019 Annual Report
Existing MS4 Permittee
Permit Number GSM000023
January 1, 2019 – December 31, 2019

This report documents the Town of Waterford's efforts to comply with the conditions of the MS4 General Permit to the maximum extent practicable (MEP) from January 1, 2019 to December 31, 2019.

Part I: Summary of Minimum Control Measure Activities

1. PUBLIC EDUCATION AND OUTREACH (Section 6 (a)(1) / page 19)

1.1 BMP Summary

BMP	Status	Activities in current reporting period	Measurable goal	Department/ Person Responsible	Due	Date completed / projected	Additional details
1-1 Implement public education and outreach	Complete	Link was created for accessing the Town's Stormwater Regulations website. Links were added discussing Stormwater & Water Quality, Impervious Cover, Urban Runoff, the NPDES Program and Save the Sound. Planning & Development and Recreation & Parks added a webpage link to the Stormwater. Informational material is also present at Town offices.	Continue distributing educational brochures as bill inserts, mailings, and fact sheets at town offices and with building permits, and on the town website.	Department of Public Works	Jul 1, 2018	Mar 23, 2018 On-going	

BMP	Status	Activities in current reporting period	Measurable goal	Department/ Person Responsible	Due	Date completed / projected	Additional details
1-2 Address education/ outreach for pollutants of concern*	Complete	Weblinks regarding nitrogen, phosphorus, turbidity and bacteria were added to the Stormwater website.	Develop and Distribute Information on Nitrogen and Bacteria Pollution	Department of Public Works	Jul 1, 2018	June 8, 2018	
1-3 Town Website	Complete	Public educational documents have been made available on the Town's Stormwater webpage. The SMP and draft Annual Report were added to the webpage. A link has been added for the Construction Stormwater General Permit to the webpage.	Update website to include additional stormwater information.	Department of Public Works	Jan 2018	Mar 23, 2018	
1-4 Catch Basin Stenciling/Badges	Compete	All catch basins have been stenciled.	Continue an on-going stenciling program in which basins in Town are prioritized and stenciled.	Department of Public Works	N/A	On-going	
1-5 Household Hazardous Waste Collection Days	Complete	HHW Collections Days were conducted.	Continue program in an effort to remove household hazardous waste safely from the waste stream using a Qualifying Local Program	Department of Public Works	Annually	On-going	SCRRRA provided fliers. Conducted monthly on Saturdays Apr thru Nov, 2019

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

- Continue to update the Town's Stormwater webpage with new/updated stormwater related information
- Continue distributing educational brochures as bill inserts, mailings, and fact sheets at town offices
- Coordinate efforts with local schools for presentation on stormwater management
- Continue to coordinate HHW program
- Continue the catch basin stenciling/badges program

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
Stormwater Management website was created	General Public	Stormwater runoff	All	Department of Public Works
Link for information on Household Hazardous Waste was added to the Public Works webpage	General Public	HHW Disposal	All	Department of Public Works
Links were added to the Stormwater Regulations website that discuss the following areas: Stormwater & Water Quality, Impervious Cover, Urban Runoff, the NPDES Program and Save the Sound.	General Public	General stormwater management topics	All	Department of Public Works

2. PUBLIC INVOLVEMENT/PARTICIPATION (Section 6(a)(2) / page 21)

2.1 BMP Summary

BMP	Status	Activities in current reporting period	Measurable goal	Department/ Person Responsible	Due	Date completed / projected	Additional details
2-1 Comply with public notice requirements for the Stormwater Management Plan and Annual Report	Complete	Notice of the SMP was published in The Day newspaper and on Town's Stormwater website. Notice of the and draft Annual Report was posted on the Town's website.	Notify public of published SMP and draft Annual Report and document comments received.	Department of Public Works	SMP Apr 3, 2017 Annual Report Jan 31, 2020	SMP April 1, 2017 Annual Report Feb 23, 2020	
2-2 Community Group Engagement	Complete	The Town continued to work with the Touch-A-Truck program, Niantic River Watershed Committee, NEIWPCC, Sustainable CT and Eastern CT Conservation District.	Identify and reach out to local organizations that may want to participate in review and implementation of this SMP.	Department of Public Works	Feb 15, 2018	On-going	NEIWPCC continued a pilot community social marketing campaign on reducing fertilizer application, including garbage container stickers.
2-3 Interagency Meetings	Complete	Meetings were held throughout the year with Public Works and Planning & Development.	Continue to facilitate a panel of staff and volunteers.	Department of Public Works	Ongoing	2/6/19; 9/5/19; 12/2/19 On-going	

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

- Continue to provide notice of updated SMPs and draft Annual Reports
- Continue to engage Community Groups
- Continue interagency meetings

2.3 Public Involvement/Participation reporting metrics

Metrics	Implemented	Date	Posted
Availability of the Stormwater Management Plan announced to public	Yes	April 1, 2017	The Day, Planning & Development and Town Clerk's Offices, Department of Public Works Complex, the Library and http://www.waterfordct.org/sites/waterfordct/files/file/file/20170912_waterford_bmp_smp_2017.pdf
Availability of Annual Report announced to public	Yes	Feb 23, 2020	Planning & Development and Town Clerk's Offices, Department of Public Works Complex, the Library and https://www.waterfordct.org/sites/waterfordct/files/uploads/2019_waterford_ms4_annual_report_draft.pdf

3. ILLICIT DISCHARGE DETECTION AND ELIMINATION (Section 6(*a*)(3) and Appendix B / page 22)

3.1 BMP Summary

BMP	Status	Activities in current reporting period	Measurable goal	Department/ Person Responsible	Due	Date completed / projected	Additional details
3-1 Develop written IDDE program	In Progress	The Town is in the process of finalizing its IDDE program.	Development and implement an IDDE Program	Department of Public Works	Jul 1, 2018	Apr 1, 2020	

BMP	Status	Activities in current reporting period	Measurable goal	Department/ Person Responsible	Due	Date completed / projected	Additional details
3-2 Develop list and maps of all MS4 stormwater outfalls in priority areas	In Progress	The Town conducted significant efforts to locate additional outfalls in priority areas that were not previously identified.	Finalize mapping of all MS4 Outfalls	Department of Public works	Jul 1, 2019	Jul 1, 2020	
3-3 Develop citizen reporting program	In Progress	Currently, citizens can call the Department of Public Works to report any activities. Updated system will be developed to include use of *Municity Software*.	Develop an online method for citizens to report spills and illicit dischargers	Department of Public Works	Jul 1, 2017	Jul 1, 2020	The Town is adding an email and phone contact of the will be provided in the stormwater page for reporting illicit discharges.
3-4 Establish legal authority to prohibit illicit discharges	In Progress	Current ordinance generally meets requirements. The Town reviewed its ordinance against the template provided by UConn CLEAR and will be making slight changes to be more consistent with the template.	Review and update ordinances.	Department of Public Works	Jul 1, 2018	Jul 1, 2020	
3-5 Develop record keeping system for IDDE tracking	In Progress	The Town started developed a recording system for IDDE tracking using the *Municity Software*, which will be implemented during the next Reporting Period.	Record illicit discharge abatement activities. Develop and maintain an SSO inventory.	Department of Public Works	Jul 1, 2017	Jul 1, 2020	

BMP	Status	Activities in current reporting period	Measurable goal	Department/ Person Responsible	Due	Date completed / projected	Additional details
3-6 Address IDDE in areas with pollutants of concern	In Progress	Began identifying areas where structures are that are not connected to sanitary sewer system and are located near the MS4.	Identify which areas in Town are most likely to contribute nitrogen phosphorous, and bacteria to the MS4 (IDDEs).	Department of Public Works	Jun 2020	On-going	
3-7 Map MS4 System in Priority Areas	In Progress	The Town conducted significant efforts to locate additional outfalls in priority areas that were not previously identified. The Town also conducted efforts for mapping catch basins, piping and stormwater structures in priority areas.	Map Priority Areas	Department of Public Works	Jun 2022	On-going	

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

- Finalize written IDDE Program
- Post IDDE Program to the Stormwater webpage and include link in next year's Annual Report
- Post an Illicit Discharge Reporting link on the Stormwater webpage
- Continue updating the MS4 outfall and system mapping
- Maintain master IDDE tracking system and ensure all employees involved in IDDE program understand the logging process
- Investigate illicit discharges in areas with pollutants of concern

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

Date of Report	Location / suspected source	Response taken
		No reports were received during the 2019 Reporting Period

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

Location (Lat long/ street crossing /address and receiving water)	**Date and duration of occurrence**	**Discharge to MS4 or surface water**	**Estimated volume discharged**	**Known or suspected cause / Responsible party**	**Corrective measures planned and completed** (include dates)	**Sampling data** (if applicable)
					No illicit discharges were reported during 2019	
					No SSOs were reported from 2012 through 2019	

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 will be tracking reports and responses using the *Municity Software* program.

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

Location and nature of structure with failing septic systems	Actions taken to respond to and address the failures	Impacted waterbody or watershed, if known
409 Mohegan Ave Pkwy; septic system failure	Action initiated by septic installer and repair completed in December 2018	UKN

3.7 IDDE reporting metrics

Metrics	
Estimated or actual number of MS4 outfalls	306
Estimated or actual number of interconnections	UNK
Outfall mapping complete	70%
Interconnection mapping complete	15%
System-wide mapping complete (detailed MS4 infrastructure)	25%
Outfall assessment and priority ranking	202 Outfalls Screened
Dry weather screening of all High and Low priority outfalls complete	202 of 306
Catchment investigations complete	0
Estimated percentage of MS4 catchment area investigated	0%

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).

An MS4 and IDDE training program was developed for presentation to all Town personnel that may come into contact with stormwater or that may review applications and plans that impact stormwater quality. This training will be conducted on an annual basis, or as needed when new employees are added. The training program was conducted on March 6, 2019 for members of Public Utility, Board of Education, Department of Public Works, Parks and Recreation, Police Department, and Fire Department.

4. CONSTRUCTION SITE RUNOFF CONTROL (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/ projected	Additional details
4-1 Implement, upgrade, and enforce land use regulations or other legal authority to meet requirements of MS4 general permit	Complete	P&Z updated the Subdivision and Zoning Regulations to incorporate LID, green infrastructure, and stormwater design requirements.	Review and update the regulations to be consistent with the requirements of the permit.	Planning	Jul 1, 2019	April 2018	
4-2 Develop/ Implement plan for interdepartmental coordination in site plan review and approval	Complete	Site applications are forwarded to Town Officials for review and comment during application process. Plans are not signed by commission until all departments have signed off on project plan.	Document Current Procedure	Planning	Jul 1, 2017	Jul 1, 2017 On-going	
4-3 Review site plans for stormwater quality concerns	Complete	Commercial and residential site plans involving greater than 0.5 acre of land disturbance were reviewed for stormwater quality control measures.	Continue to review all design plans for consistency with town and state guidelines for erosion and sediment control.	Planning	Jul 1, 2017	Jul 1, 2017 On-going	Application review checklists have been revised to include stormwater management regulation requirements

BMP	Status	Activities in current reporting period	Measurable goal	Department/ Person Responsible	Due	Date completed/ projected	Additional details
4-4 Conduct site inspections	Complete	Zoning and Inland Wetland enforcement staff verify site development practices are in accordance with approved plans. Planning staff employ an inspection checklist to document compliance and to identify measures requiring repair/additional control measures. Inspections occur after every significant rainfall event.	Document Inspections Performed Continue existing program of construction inspections.	Planning	Jul 1, 2017	Jul 1, 2017 On-going	
4-5 Implement procedure to allow public comment on site development	Complete	All agendas and minutes are noticed in compliance with State requirements for public notice. Public hearings announced in newspaper. Complaints regarding land-disturbance are forwarded to Planning and Development Department	Document Public Comments	Planning	Jul 1, 2017	Jul 1, 2017	

BMP	Status	Activities in current reporting period	Measurable goal	Department/ Person Responsible	Due	Date completed/ projected	Additional details
4-6 Implement procedure to notify developers about DEEP construction stormwater permit	Complete	Town agencies notify developers of stormwater requirements. When applicable, developers submit notification of registration to State. P&Z application checklist was revised to require applicant's determination if a Construction Stormwater GP is required.	Update application forms to include determining if Construction Stormwater GP is required. Updated webpage.	Planning	Jul 1, 2017	Jul 1, 2019	A note was added to the website regarding need for a Construction Stormwater GP.

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

- Add a standard note to the Town's website to notifying applicants of the requirements pertaining to the Construction Stormwater General Permit.

5. POST-CONSTRUCTION STORMWATER MANAGEMENT (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/ projected	Additional details
5-1 Establish and/or update legal authority and guidelines regarding LID and runoff reduction in site development planning	Complete	P&Z updated the Subdivision and Zoning Regulations to incorporate LID, green infrastructure, and stormwater design requirements.	Review and update the regulations to be consistent with the requirements of the Permit.	Planning	Jul 1, 2021	April 2018	

BMP	Status	Activities in current reporting period	Measurable goal	Department/ Person Responsible	Due	Date completed/ projected	Additional details
5-2 Enforce LID/runoff reduction requirements for development and redevelopment projects	Complete	Section 25.6 Stormwater Management regulations require LID, run-off control and stormwater treatment to the maximum extent practicable for all new development >0.5 acre.	Review current regulations to identify and, where appropriate, reduce or eliminate existing regulatory barriers to implementation of LID and runoff reduction practices to the MEP.	Planning	Jul 1, 2019	April 2018 On-Going	
5-3 Identify retention and detention ponds in priority areas	Complete	The Town has identified all of their retention/ detention ponds.	Inventory Town retention/ detention ponds	Department of Public Works	Jul 1, 2019	Mar 23, 2018	

BMP	Status	Activities in current reporting period	Measurable goal	Department/ Person Responsible	Due	Date completed/ projected	Additional details
5-4 Implement long-term maintenance plan for stormwater basins and treatment structures	Complete	Inspection reports and water quality monitoring for stormwater and treatment basins were completed. Town maintains an inventory of required stormwater management control practices for completed site developments. Documentation of inspection and maintenance of stormwater treatment is requested as part of land use and building permit approvals. Town employees receive instruction on maintenance for rain gardens, stormwater detention /treatment systems.	Develop a maintenance plan for retention/ detention ponds and stormwater treatment structures that it owns or over which it holds an easement or other authority and that are located in the Permittee's priority areas to ensure their long-term effectiveness.	Planning	Jul 1, 2019	Feb 15, 2018	All basins and structures are maintained at least annually.
5-5 DCIA mapping	In Progress	The Town is using the impervious cover layer available to begin to calculate the DCIA.	Calculate DCIA	Department of Public Works	Jul 1, 2020	Jul 1, 2020	
5-6 Address post-construction issues in areas with pollutants of concern	Not Started	None	Document issues identified and address. Prioritize areas for the DCIA retrofit program under MCM-6	Department of Public Works	Not specified	On-going	

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

- Work on calculating the Town's DCIA.

5.3 Post-Construction Stormwater Management reporting metrics

Metrics		
Baseline (2012) Directly Connected Impervious Area (DCIA)	240	acres
DCIA disconnected (redevelopment plus retrofits)	Unknown	acres this year / acres total
Retrofits completed	Unknown	#
DCIA disconnected	TBD	% this year / % total since 2012
Estimated cost of retrofits	Unknown	$
Detention or retention ponds identified	9	# total

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

- To calculate the baseline DCIA for the Town of Waterford, the Town used the process found on the CT NEMO website. CT NEMO developed 5 formulas to calculate the DCIA and Impervious Cover (IC) independently for each basin in the Town using the percent DCIA for the basin with the state DCIA removed from the equation. The Town took the formulas and created a bell curve to input the calculated percent of DCIA for each basin and calculate the total DCIA and IC amounts for the Town. Each basin value was added together to create the baseline for the DCIA and IC for the Town.

6. Pollution Prevention/Good Housekeeping (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/ projected	Additional details
6-1 Develop/ implement formal employee training program	In Progress	Training program has been developed and a training was conducted on March 6, 2019.	Track Town employee training	DPW, Parks and Rec., Utility Commission, Waterford Buildings and Grounds, and Waterford BOE.	Jul 1, 2017	Mar 6, 2019 On-going	
6-2 Implement MS4 property and operations maintenance	Complete	Salt piles are stored under cover and on impervious surfaces. Town industrial stormwater discharges are monitored. Vehicle maintenance is performed undercover.	Continue the pattern of MS4 property and operations maintenance in accordance with the Permit.	Depart of Public Works, Police Depart, Fire Depart, Board of Ed, Parks and Rec	Jul 1, 2018	Jul 1, 2017 On-going	The Town is reviewing current practices and looking for areas for optimization.
6-3 Implement coordination with interconnected MS4s	In Progress	Through the outfall identification process, the Town has identified several interconnections with the neighboring towns/cities.	Coordinate pollution prevention activities with interconnected MS4s.	Department of Public Works	Not specified	On-going	

BMP	Status	Activities in current reporting period	Measurable goal	Department/ Person Responsible	Due	Date completed/ projected	Additional details
6-4 Develop/ implement program to control other sources of pollutants to the MS4	In Progress	The Town will be reviewing a list of industrial properties not currently registered for the Industrial Stormwater General Permit and intends on submitting letters to these properties notifying them of their requirements under the General Permit.	Develop and implement a program to control the contribution of pollutants to the MS4.	Department of Public Works	Not specified		
6-5 Evaluate additional measures for discharges to impaired waters*	In Progress	None	Identify potential project locations.	Department of Public Works	Not specified		
6-6 Track projects that disconnect DCIA	In Progress	The Town is using a tracking table for creating an inventory of DCIA disconnect projects.	Annually track acreage of DCIA disconnected as a result of redevelopment/ retrofit projects within the Town.	Department of Public Works	Jul 1, 2017	Jul 1, 2019 On-going	
6-7 Implement infrastructure repair/rehab program	In Progress	None	Identify MS4 structures to repair, rehabilitate, or upgrade to reduce pollutant discharge.	Department of Public Works	Jul 1, 2021	Jul 1, 2021	
6-8 Develop/ implement plan to identify/prioritize retrofit projects	In Progress	In 2020, the Town will be working with its consultant to identify and prioritize potential projects for the Retrofit Program to the maximum extent practicable.	Develop a retrofit project plan to identify and prioritize DCIA connection projects	Department of Public Works	Jul 1, 2020	Jul 1, 2020	

BMP	Status	Activities in current reporting period	Measurable goal	Department/ Person Responsible	Due	Date completed/ projected	Additional details
6-9 Implement retrofit projects to disconnect 2% of DCIA	In Progress	In 2020, the Town will be working with its consultant to identify and prioritize potential projects for the Retrofit Program to the maximum extent practicable.	Implement retrofit projects	Planning	Jul 1, 2022	Jul 1, 2022	
6-10 Develop/ implement street sweeping program	Complete	All Town-owned roads are swept every year, starting after the last snow melt.	Continue sweeping all streets at least once per year, as soon as possible after snowmelt.	Department of Public Works	Jul 1, 2017	Jul 1, 2017 On-going	The Town is reviewing current practices and looking for areas for optimization.
6-11 Develop/ implement catch basin cleaning program	In Progress	The Town cleans approximately 1/3 of all of the catch basins annually.	Continue current maintenance program in accordance with the Permit.	Department of Public Works	Jul 1, 2020	Jul 1, 2019 On-going	The Town is reviewing current practices and looking for areas for optimization.
6-12 Develop/ implement snow management practices	Complete	DEEP Guidelines on snow management provided to Town. The Town streets and municipal lots were plowed, as necessary. Roads were treated with salt (no sand), as necessary.	Develop/implement snow management practices	Department of Public Works	Jul 1, 2018	Jul 1, 2017 On-going	The Town is reviewing current practices and looking for areas for optimization.

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

- Continue to conduct annual MS4 training programs.
- Review current MS4 property and operations maintenance practices and look for areas for optimization.
- Continue tracking projects that disconnect DCIA.
- Review current practices street sweeping practices and look for areas for optimization.
- Review current snow management practices and look for areas for optimization.
- Identify areas where pet waste receptacles maybe installed.
- Review current leaf management practices and look for areas for optimization.

6.3 Pollution Prevention/ Good Housekeeping reporting metrics

Metrics	
Employee training provided for key staff	March 6, 2019
Street sweeping	
Curb miles swept	242 miles
Volume (or mass) of material collected	45-50 Cu Yards
Catch basin cleaning	
Total catch basins in priority areas	~3,000
Total catch basins in MS4	~3,000
Catch basins inspected	1,000-1,100
Catch basins cleaned	1,000-1,100
Volume (or mass) of material removed from all catch basins	~200 CY
Volume removed from catch basins to impaired waters (if known)	UKN
Snow management	
Type(s) of deicing material used	Salt
Total amount of each deicing material applied	~1,000 tons
Type(s) of deicing equipment used	Truck/spreader
Lane-miles treated	242 miles
Snow disposal location	N/A

Staff training provided on application methods & equipment	Yes – as necessary
Municipal turf management program actions (for permittee properties in basins with N/P impairments)	
Reduction in application of fertilizers (since start of permit)	UKN
Reduction in turf area (since start of permit)	UKN
Lands with high potential to contribute bacteria (dog parks, parks with open water, & sites with failing septic systems)	
Cost of mitigation actions/retrofits	N/A

6.4 Catch basin cleaning program

Briefly describe the method used to optimize your catch basin inspection and cleaning schedule.
Catch basins will all be inspected, cleaned out and the sumps will be measured. A second round of inspections and cleaning will be conducted, and the amount of material removed will be recorded. A list will be generated and the catch basins with the most material present will be put on a more frequent cleaning schedule to ensure that the 50% design capacity for the sump is not exceeded.

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
In 2020, the Town will be working with its consultant to identify and prioritize potential projects for the Retrofit Program to the maximum extent practicable.

Describe plans for continuing the Retrofit program and how to achieve a goal of 1% DCIA disconnection in future years.
In 2020, the Town will be working with its consultant to identify and prioritize potential projects for the Retrofit Program to the maximum extent practicable.

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 2020, the Town will be working with its consultant to identify and prioritize potential projects for the Retrofit Program to the maximum extent practicable.

Part II: Impaired waters investigation and monitoring

1. Impaired waters investigation and monitoring program

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.
Wet weather samples were collected from 15 of 47 total outfalls that discharge to impaired waters corresponding to 24% completed. An additional 11 of 47 outfalls have been screened, but not sampled due to no discharge present during screening or inaccessibility due to tidal influence. Eleven outfalls sampled exceeded pollutant thresholds and require follow-up investigation.

2. Screening data for outfalls to impaired waterbodies (Section 6(i)(1) / page 41)

2.1 Screening data collected under 2017 permit

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

New Outfall ID	Sample Date	Turbidity (NTU)	Turbidity Upstream (NTU)	Total Coliform (col/100mL)	E. Coli (col/100mL)	Fecal Coliform (col/100mL)	Enterococcus (col/100mL)	Nitrogen (mg/L)	Phosphorous (mg/L)	Lab	Investigation Required
BLOOM-2	9/25/2018	6.07	3.34							Phoenix	NO
OLDMIL-2	9/25/2018	3.40	7.54							Phoenix	NO
OLDNOR-3	9/25/2018	7.04	7.74			3260	8160	0.52	0.117	Phoenix	YES
OLDNOR-5	9/25/2018	2.44	4.98							Phoenix	NO
WINT-1	9/25/2018	13.59	18.79			11200	4610	0.4	0.09	Phoenix	YES
WINT-2	9/25/2018	7.08	11.46			1500	2250	0.43	0.046	Phoenix	YES
EWHARF-1	9/28/2018	0.24	4.74	>24200	2280		3870	5.58	0.058	Phoenix	YES
OIL-1	9/28/2018	1.27	1.40	>24200	3440		860	2.33	0.064	Phoenix	YES
OSWE-2	9/28/2018	0.25	2.87	>24200	1500			0.93	0.148	Phoenix	YES
JORCIR-1	12/30/2019					933				Phoenix	YES
NIARIV-5	12/30/2019	15.5	0			<10	292	0.79	0.163	Phoenix	YES
NIARIV-6	12/30/2019	9.47	0			52	393	0.42	0.05	Phoenix	YES
NIARIV-7	12/30/2019	1.97	18.8			20	171	0.57	0.082	Phoenix	NO
OSWE-7	12/30/2019			30800	20					Phoenix	YES
SHORD-3	12/30/2019					771				Phoenix	YES

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

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**
	To be initiated during 2020	

4. Prioritized outfall monitoring (Section 6(i)(1)(D) / page 43)

Once outfall screening 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)**
			To be initiated during 2020	

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).

See attachment provided with this report.

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

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

Non-Impaired Outfalls

New Outfall ID	Sample Date	Ammonia (mg/L)	Chlorine (mg/L)	Conductivity (umhos/cm)	Salinity (g/kg)	Temp (°C)	MBAs (mg/L)	E. Coli (col/100ml)	Enterococcus (col/100mL)	Lab	Investigation Required
CHAP-3	6/18/2018	0	0.02	758	0.39	22.46	0.25	<10		Phoenix	NO
PILG-1	6/18/2018	0.25	0.05	210	0.11	21.34	0.25	<10		Phoenix	NO
TANGLE-2	6/18/2018	0.25	0.19	81	0.04	25.12	0.5	598		Phoenix	NO
TOTO-1	6/18/2018	0.25	0.01	59	0.03	24.04	0.5	10		Phoenix	NO
TWINLA-2	6/18/2018	0.25	0.51	190	0.09	23.69	0	<10		Phoenix	NO
AVERY-2	6/20/2018	0.25	0.07	675	0.33	20.85	0.25	63		Phoenix	NO
FULM-2	6/20/2018	0.5	0.11	360	0.17	16.89	0.5	393		Phoenix	YES
WESTW-1	8/24/2018	0	0.06	537	0.26	27.5	0.25	84		Phoenix	NO
ENECK-1	8/27/2018	0.25	0.03	471	0.23	25.15	0.25	52		Phoenix	NO
SHORD-4	6/28/2019	0.25	0.03	215	0.12	18.21	0.25	52		Phoenix	NO
SHORD-2	9/9/2019	0.25	0.13	275	0.139	20.1	0	20		Phoenix	NO
TWINLA_3	1/3/2020	0	0.02	118	0.089	2.8	0.25	<10		Phoenix	NO
HICK_1	1/15/2020	0	0.16	177	0.0834	10.4	0.25	<10		Phoenix	NO
POND_1	1/15/2020	0	0.05	231	0.111	9.9	0	30		Phoenix	NO
TWINLA_1	1/15/2020	0.25	0	78.1	0.0370	10.3	0.25	<10		Phoenix	NO

New Outfall ID	Sample Date	Ammonia (mg/L)	Chlorine (mg/L)	Conductivity (umhos/cm)	Salinity (g/kg)	Temp (°C)	MBAs (mg/L)	E. Coli (col/100ml)	Enterococcus (col/100mL)	Lab	Investigation Required
CROSDR-1	1/29/2020	0	0.55	120	0.0579	4.6	0.25		10	Phoenix	NO
LAUCRE-1	1/29/2020	0.25	0	204	0.0942	7.8	0.25	10		Phoenix	NO
LAUCRE-2	1/29/2020	0	0	187	0.0887	9.6	0.25	10		Phoenix	NO
VILL-2	1/29/2020	3	0	243	0.116	14	0.25	10		Phoenix	NO

Impaired Outfalls

New Outfall ID	Sample Date	Turbidity (NTU)	Turbidity Upstream (NTU)	E. Coli (col/100mL)	Enterococcus (col/100mL)	Nitrogen (mg/L)	Phosphorous (mg/L)	Lab	Investigation Required
ALEW-1	8/27/2018				51	2.41	0.086	Phoenix	NO
OIL-1	10/24/2018	4.04	3.10	52		0.77	0.032	Phoenix	NO
NIARIV-8	10/25/2018				107	2.63	0.252	Phoenix	YES
OSWE-2	10/25/2018				31	0.45	0.038	Phoenix	NO
NIARIV-2	2/5/2019	0.22	0.3		<10	0.46	0.039	Phoenix	NO
4TH-1	2/5/2019	1.09			<10	1.31	0.056	Phoenix	NO
WINDW-3	4/25/2019				<10			Phoenix	NO
WINDW-1	6/28/2019			63				Phoenix	NO
BALD-1	1/29/2020				<10			Phoenix	NO

2.2 Wet weather sample and inspection data

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

Outfall / Interconnection ID	Sample date	Ammonia	Chlorine	Conductivity	Salinity	E. coli or Enterococcus	Surfactants	Water Temp	Pollutant of concern
To be initiated during 2020									

3. Catchment Investigation data (Appendix B (A)(7)(e) / page 9)

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
CHAP-1	Thames River Basin	Sanitary and Storm Drain Infrastructure >40 years Old
EWHARF-1	LIS EB Inner - Niantic River(mouth), Niantic	Sanitary and Storm Drain Infrastructure >40 years Old; Septic with Poor Soils or Water Table Separation
FULM-2	Niantic River Basin	Sanitary and Storm Drain Infrastructure >40 years Old; Septic with Poor Soils or Water Table Separation
JORCIR-1	LIS EB Inner - Jordan Cove, Waterford	Sanitary and Storm Drain Infrastructure >40 years Old; Septic with Poor Soils or Water Table Separation
NIARIV-5	LIS EB Inner - Niantic River(mouth), Niantic	Sanitary and Storm Drain Infrastructure >40 years Old; Septic with Poor Soils or Water Table Separation
NIARIV-6	LIS EB Inner - Niantic River(mouth), Niantic	Sanitary and Storm Drain Infrastructure >40 years Old; Septic with Poor Soils or Water Table Separation
NIARIV-8	LIS EB Inner - Niantic River(mouth), Niantic	Sanitary and Storm Drain Infrastructure >40 years Old; Septic with Poor Soils or Water Table Separation
OIL-1	LIS EB Inner - Niantic River(mouth), Niantic	Sanitary and Storm Drain Infrastructure >40 years Old; Septic with Poor Soils or Water Table Separation
OLDNOR-3	LIS EB Inner – Thames River (middle)	Sanitary and Storm Drain Infrastructure >40 years Old; Septic with Poor Soils or Water Table Separation
OSWE-2	LIS EB Inner - Niantic River(mouth), Niantic	Sanitary and Storm Drain Infrastructure >40 years Old; Septic with Poor Soils or Water Table Separation
SHORD-3	Southeast Shoreline Basin	Sanitary and Storm Drain Infrastructure >40 years Old; Septic with Poor Soils or Water Table Separation
VILL-2	Southeast Shoreline Basin	Septic with Poor Soils or Water Table Separation
WINT-1	LIS EB Inner – Thames River (middle)	Sanitary and Storm Drain Infrastructure >40 years Old; Septic with Poor Soils or Water Table Separation
WINT-2	LIS EB Inner – Thames River (middle)	Sanitary and Storm Drain Infrastructure >40 years Old; Septic with Poor Soils or Water Table Separation

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 that 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 that 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
To be initiated during 2020					

3.3 Wet weather investigation outfall sampling data

Outfall ID	Sample date	Ammonia	Chlorine	Surfactants
To be initiated during 2020				

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
To be initiated during 2020							

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: **Robert J. Brule** **First Selectman**	Print name: **T.J. Therriault, EIT, CDT** **Anchor Engineering Services, Inc.**
Signature / Date: Robert Brule 4/1/2020	Signature / Date: T.J. Therriault 4/1/2020

Catchment ID	Receiving Water	Wet Sampling Results Indicate Likely Illicit Discharge? [1]	Dry Screening Results Indicate Likely Illicit Discharge? [1a]	Discharging to Area of Concern to Public Health? [2]	Frequency of Past Discharge Complaints	Receiving Water Quality [3]	Density of Generating Sites [4]	Age of Development/ Infrastructure [5]	Historic Combined Sewers or Septic? [6]	Aging Septic? [7]	Culverted Streams? [8]	Additional Characteristics	Score	Priority Ranking
New Catchment ID	Information Source	Catchment inspections and sample results	Catchment inspections and sample results	GIS Maps	Municipal Staff	Impaired Waters List	Land Use/GIS Maps, Aerial Photography	Land Use Information, Visual Observation	Municipal Staff, GIS Maps	Land Use, Municipal Staff	GIS and Stormwater system Maps	Other		
	See Note	Score is determined using an extrapolated formula based on the results		Yes = 3 No = 0	Frequent = 3 Occasional = 2 None = 0	Poor = 3 Fair = 2 Good = 0	High = 3 Medium = 2 Low = 1	High = 3 Medium = 2 Low = 1	Yes = 3 No = 0	Yes = 3 No = 0	Yes = 3 No = 0	TBD		
2ND-1	LIS EB Inner - Niantic River(mouth), Niantic	0	0	3		3		3			0		9	
4TH-1	LIS EB Inner - Niantic River(mouth), Niantic	0	4	3		3		3			0		13	
ALEW-1	LIS EB Inner - Alewife Cove, Waterford/New London	0	2	0		3		3			0		8	
ALMO-1	Jordan Brook Basin	0	0	0		0		3			0		3	
ARROW-1	Niantic River Basin	0	0	0		0		2			0		2	
AVERY-1	Jordan Brook Basin	0	0	0		0		3			0		3	
AVERY-2	Jordan Brook Basin	0	7	0		0		3			0		10	
AVERY-3	Jordan Brook Basin	0	0	0		0		3			0		3	
BALD-1	LIS EB Inner – Jordan Cove Waterford	0	0	0		3		3			0		6	
BALD-2	LIS EB Inner – Jordan Cove Waterford	0	0	0		3		3			0		6	
BEACH-1	LIS EB Shore – Outer Jordan Cove Waterford	0	0	0		3		3			0		6	
BEECH-1	Jordan Brook Basin	0	0	0		0		2			0		2	
BEECH-2	Jordan Brook Basin	0	0	0		0		2			0		2	
BLN-1	Jordan Brook Basin	0	5	0		0		3			0		8	
BLOOM-1	Hunts Brook Basin	0	0	0		0		3			0		3	
BLOOM-2	Hunts Brook (Waterford)-02	0	0	0		2		3			0		5	
BLOOM-3	Hunts Brook Basin	0	0	0		0		3			0		3	
BOLL-1	Hunts Brook Basin	0	0	0		0		3			0		3	
BRAM-1	Hunts Brook Basin	0	0	0		0		3			0		3	
BRAM-2	Hunts Brook Basin	0	0	0		0		3			0		3	
BRIAR-1	Jordan Brook Basin	0	0	0		0		3			0		3	
BROOK-1	Niantic River Basin	0	0	0		0		3			0		3	
BURL-1	Hunts Brook Basin	0	0	0		0		3			0		3	
BUTLER-1	Polly Brook	0	0	0		0		3			0		3	
BUTLER-2	Oil Mill Brook Basin	0	0	0		0		3			0		3	
CASE-1	Niantic River Basin	0	0	0		0		3			0		3	
CHAP-1	Thames River Basin	0	0	0		0		3			0		3	
CHAP-2	Thames River Basin	0	0	0		0		3			0		3	
CHAP-3	Lake Brandegee	0	6	0		0		3			0		9	
CHAP-4	Thames River Basin	0	0	0		0		3			0		3	
CHAP-5	Lake Brandegee	0	0	0		0		3			0		3	
CIRC-1	Niantic River Basin	0	0	0		0		3			0		3	
CLARLN-1	Fenger Brook (Waterford)-01	0	0	0		3		3			0		6	
CLARLN-2	Southeast Shoreline Basin	0	0	0		0		3			0		3	
CLARPL-1	Hunts Brook Basin	0	0	0		0		3			0		3	
COLL-1	Thames River Basin	0	0	0		0		3			0		3	
COLO-1	Jordan Brook Basin	0	0	0		0		3			0		3	
COLO-2	Jordan Brook Basin	0	0	0		0		3			0		3	
COUCLU-1	Southeast Shoreline Basin	0	0	0		0		3			0		3	
CROSDR-1	Jordan Mill Pond	0	0	0		0		3			0		3	
CROSRD-1	Niantic River Basin	0	0	0		0		3			0		3	
CROSRD-2	Niantic River Basin	0	0	0		0		3			0		3	
CROSRD-3	Niantic River Basin	0	0	0		0		3			0		3	
CROSRD-4	Jordan Brook Basin	0	0	0		0		3			0		3	
CROSRD-5	Jordan Brook Basin	0	0	0		0		3			0		3	
CROSRD-6	Niantic River Basin	0	0	0		0		3			0		3	
DANIEL-1	Jordan Brook Basin	0	0	0		0		3			0		3	
DANIEL-2	Jordan Brook Basin	0	0	0		0		3			0		3	
DAVID-1	Jordan Brook Basin	0	0	0		0		3			0		3	
DEVO-1	Jordan Brook Basin	0	0	0		0		3			0		3	
DIMM-1	Southeast Shoreline Basin	0	0	0		0		3			0		3	
DIVI-1	LIS EB Inner - Jordan Cove, Waterford	0	0	0		0		3			0		3	
DOYLE-1	Niantic River Basin	0	0	0		0		2			0		2	
EAST-1	Niantic River Basin	0	0	0		0		3			0		3	
ELAKE-1	Lake Brandegee	0	0	0		0		2			0		2	
ENECK-1	Southeast Shoreline Basin	0	4	0		0		3			0		7	
EWHARF-1	LIS EB Inner - Niantic River(mouth), Niantic	16	1	0		3		3			0		23	
FAIR-1	Thames River Basin	0	0	0		0		3			0		3	
FITZ-1	Thames River Basin	0	0	0		0		3			0		3	
FITZ-2	Church Brook	0	0	0		0		3			0		3	
FOG-1	Perry Pond	0	0	0		0		3			0		3	
FORE-1	Southeast Shoreline Basin	0	0	0		0		3			0		3	
FULM-1	Niantic River Basin	0	0	0		0		3			0		3	
FULM-2	Niantic River Basin	0	9	0		0		3			0		12	
GIOV-1	Jordan Brook Basin	0	0	0		0		2			0		2	
GLEN-1	LIS EB Inner - Alewife Cove, Waterford/New London	0	0	0		3		3			0		6	
GOUN-1	Southeast Shoreline Basin	0	0	0		0		2			0		2	
GRAH-1	Jordan Brook	0	0	0		0		3			0		3	
HAMA-1	Southeast Shoreline Basin	0	0	0		0		3			0		3	
HICK-1	Thames River Basin	0	0	0		0		3			0		3	
HICK-2	Thames River Basin	0	0	0		0		2			0		2	
HIGRID-1	Niantic River Basin	0	0	0		0		3			0		3	
HILL-1	Jordan Brook Basin	0	0	0		0		3			0		3	
INA-1	Niantic River Basin	0	0	0		0		2			0		2	
INDUS-1	Oil Mill Brook Basin	0	0	0		0		3			0		3	
JORCIR-1	LIS EB Inner - Jordan Cove, Waterford	1	0	0		3		3			0		7	
JORRD-1	Southeast Shoreline Basin	0	0	0		0		3			0		3	
JORRD-2	LIS EB Inner – Jordan Cove Waterford	0	0	0		3		3			0		6	
JORTER-1	Jordan Brook	0	0	0		0		3			0		3	
JOSA-1	Southeast Shoreline Basin	0	0	0		0		3			0		3	
KENY-1	Thames River Basin	0	0	0		0		3			0		3	
KENY-2	Thames River Basin	0	0	0		0		3			0		3	
KINGFI-1	Jordan Brook Basin	0	0	0		0		3			0		3	
KINGFI-2	Jordan Brook Basin	0	0	0		0		3			0		3	
KINGFI-3	Nevins Brook	0	0	0		0		3			0		3	
LAMP-1	LIS EB Inner – Jordan Cove Waterford	0	0	0		3		3			0		6	
LAUCRE-1	Southeast Shoreline Basin	0	0	0		0		3			0		3	
LAUCRE-2	Southeast Shoreline Basin	0	0	0		0		3			0		3	
LINC-1	LIS EB Inner – Jordan Cove Waterford	0	0	0		3		3			0		6	
LIND-1	Southeast Shoreline Basin	0	0	0		0		3			0		3	
LOCU-1	Niantic River Basin	0	0	0		0		3			0		3	
LOGHIL-1	Jordan Brook Basin	0	0	0		0		3			0		3	
LONG-1	Jordan Brook Basin	0	0	0		0		3			0		3	
MAGO-1	LIS EB Inner - Niantic River(mouth), Niantic	0	0	0		3		3			0		6	
MAGPOI-1	LIS EB Shore – Thames River Mouth (West) Waterford	0	0	0		2		3			0		5	
MAMA-1	Thames River Basin	0	0	0		0		3			0		3	
MAPL-1	Jordan Brook Basin	0	0	0		0		3			0		3	
MARBUT-1	Southeast Shoreline Basin	0	0	0		0		3			0		3	
MARY-1	Jordan Brook Basin	0	0	0		0		3			0		3	
MAYF-1	Southeast Shoreline Basin	0	0	0		0		3			0		3	
MEAD-1	Thames River Basin	0	0	0		0		3			0		3	
MELA-1	Southeast Shoreline Basin	0	0	0		0		2			0		2	
MILLW-1	Niantic River Basin	0	0	0		0		3			0		3	
MILT-1	Thames River Basin	0	0	0		0		3			0		3	
MINER-1	Southeast Shoreline Basin	0	0	0		0		3			0		3	
MINER-2	Southeast Shoreline Basin	0	0	3		0		3			0		6	
MONR-1	Southeast Shoreline Basin	0	0	0		0		3			0		3	
MULHIL-1	Jordan Brook Basin	0	0	0		0		3			0		3	
MULHIL-2	Southeast Shoreline Basin	0	0	0		0		3			0		3	
MULHIL-3	Jordan Brook Basin	0	0	0		0		3			0		3	
MYRO-1	Southeast Shoreline Basin	0	0	0		0		3			0		3	
NEWSHO-1	Southeast Shoreline Basin	0	0	0		3		3			0		6	
NIARIV-1	LIS EB Inner - Niantic River(mouth), Niantic	0	0	0		3		3			0		6	
NIARIV-2	LIS EB Inner - Niantic River(mouth), Niantic	0	1	0		3		3			0		7	
NIARIV-3	Niantic River Basin	0	0	0		0		3			0		3	
NIARIV-4	LIS EB Inner - Niantic River(mouth), Niantic	0	0	0		3		3			0		6	
NIARIV-5	LIS EB Inner - Niantic River(mouth), Niantic	0	0	0		3		3			0		6	
NIARIV-6	LIS EB Inner - Niantic River(mouth), Niantic	0	0	0		3		3			0		6	
NIARIV-7	LIS EB Inner - Niantic River(mouth), Niantic	0	0	0		3		3			0		6	
NIARIV-8	LIS EB Inner - Niantic River(mouth), Niantic	0	3	0		3		3			0		9	
NICH-1	Southeast Shoreline Basin	0	0	0		0		3			0		3	
NICH-2	Southeast Shoreline Basin	0	0	0		0		3			0		3	
NICH-3	Southeast Shoreline Basin	0	0	0		0		3			0		3	
NILHIL-1	Southeast Shoreline Basin	0	0	0		0		3			0		3	
NILHIL-2	Southeast Shoreline Basin	0	0	0		0		3			0		3	
NORTH-1	Jordan Brook Basin	0	0	0		0		3			0		3	
NORTH-2	Jordan Brook Basin	0	0	0		0		3			0		3	
NORTH-3	Jordan Brook Basin	0	0	0		0		3			0		3	
NORTH-4	Jordan Brook Basin	0	0	0		0		3			0		3	
NORWOD-1	Hunts Brook Basin	0	0	0		0		3			0		3	
OIL-1	LIS EB Inner - Niantic River(mouth), Niantic	14	5	0		3		3			0		25	
OIL-2	LIS EB Inner - Niantic River(mouth), Niantic	0	0	0		3		3			0		6	

Catchment ID	Receiving Water	Wet Sampling Results Indicate Likely Illicit Discharge? [1]	Dry Screening Results Indicate Likely Illicit Discharge? [1a]	Discharging to Area of Concern to Public Health? [2]	Frequency of Past Discharge Complaints	Receiving Water Quality [3]	Density of Generating Sites [4]	Age of Development/ Infrastructure [5]	Historic Combined Sewers or Septic? [6]	Aging Septic? [7]	Culverted Streams? [8]	Additional Characteristics	Score	Priority Ranking
New Catchment ID	Information Source	Catchment inspections and sample results	Catchment inspections and sample results	GIS Maps	Municipal Staff	Impaired Waters List	Land Use/GIS Maps, Aerial Photography	Land Use Information, Visual Observation	Municipal Staff, GIS Maps	Land Use, Municipal Staff	GIS and Stormwater system Maps	Other		
	See Note	Score is determined using an extrapolated formula based on the results		Yes = 3 No = 0	Frequent = 3 Occasional = 2 None = 0	Poor = 3 Fair = 2 Good = 0	High = 3 Medium = 2 Low = 1	High = 3 Medium = 2 Low = 1	Yes = 3 No = 0	Yes = 3 No = 0	Yes = 3 No = 0	TBD		
OLDBAR-1	Hunts Brook Basin	0	0	0		0		3			0		3	
OLDBAR-2	Hunts Brook Basin	0	0	0		0		3			0		3	
OLDCOL-1	Sandy Brook	0	5	0		0		3			0		8	
OLDMIL-1	Hunts Brook Basin	0	0	0		0		3			0		3	
OLDMIL-2	Hunts Brook (Waterford)-01	0	0	0		2		3			0		5	
OLDNOR-1	Hunts Brook Basin	0	0	0		0		3			0		3	
OLDNOR-2	Hunts Brook Basin	0	0	0		0		3			0		3	
OLDNOR-3	LIS EB Inner – Thames River (middle)	7	12	0		2		3			0		24	
OLDNOR-4	LIS EB Inner – Thames River (middle)	0	0	0		2		3			0		5	
OLDNOR-5	Hunts Brook (Waterford)-01	0	0	0		2		3			0		5	
OLDNOR-6	Church Brook	0	0	0		0		3			0		3	
OLDNOR-7	Thames River Basin	0	0	0		0		3			0		3	
OLDNOR-8	Thames River Basin	0	0	0		0		3			0		3	
OSWE-1	Niantic River Basin	0	0	0		0		3			0		3	
OSWE-2	LIS EB Inner - Niantic River(mouth), Niantic	10	13	3		3		3			0		32	
OSWE-3	Niantic River Basin	0	0	0		0		3			0		3	
OSWE-4	Niantic River Basin	0	0	0		0		3			0		3	
OSWE-5	LIS EB Inner – Niantic River (mouth) Niantic	0	0	0		3		3			0		6	
OSWE-6	Stony Brook (Waterford)-01	0	0	0		2		3			0		5	
OSWE-7	Stony Brook (Waterford)-02	0	0	0		2		3			0		5	
PADG-1	Thames River Basin	0	0	0		0		2			0		2	
PALM-1	Southeast Shoreline Basin	0	0	0		0		3			0		3	
PARK-1	LIS EB Inner - Niantic River(mouth), Niantic	0	0	0		3		3			0		6	
PARK-2	LIS EB Inner – Niantic River (mouth) Niantic	0	0	0		3		3			0		6	
PARKN-1	Niantic River Basin	0	0	0		0		3			0		3	
PENN-1	Hunts Brook Basin	0	0	0		0		3			0		3	
PEPP-1	Southeast Shoreline Basin	0	0	0		0		2			0		2	
PEPP-2	Southeast Shoreline Basin	0	0	0		0		2			0		2	
PEPP-3	Southeast Shoreline Basin	0	0	0		0		3			0		3	
PERFAR-1	Southeast Shoreline Basin	0	0	0		0		1			0		1	
PILG-1	Thames River Basin	0	6	0		0		3			0		9	
PINE-1	Southeast Shoreline Basin	0	0	0		0		3			0		3	
POND-1	Green Swamp Brook	0	0	0		0		3			0		3	
RAIN-1	Hunts Brook Basin	0	0	0		0		2			0		2	
RICGRO-1	LIS EB Inner – Thames River (middle)	0	0	0		2		3			0		5	
RIDG-1	Southeast Shoreline Basin	0	0	0		0		3			0		3	
RIDG-2	LIS EB Inner – Alewife Cove	0	0	0		3		3			0		6	
RIVSI-1	Niantic River Basin	0	0	0		0		3			0		3	
RIVSI-2	LIS EB Inner - Niantic River(mouth), Niantic	0	0	0		3		3			0		6	
ROBHIL-1	Jordan Brook Basin	0	0	0		0		3			0		3	
ROBHIL-2	Jordan Brook Basin	0	0	0		0		3			0		3	
ROCRID-1	Jordan Brook Basin	0	0	0		0		3			0		3	
ROPFER-1	Southeast Shoreline Basin	0	0	0		0		3			0		3	
ROPFER-2	Southeast Shoreline Basin	0	0	0		0		3			0		3	
ROPFER-3	Southeast Shoreline Basin	0	0	0		0		3			0		3	
ROPFER-4	Jordan Brook Basin	0	0	0		0		3			0		3	
ROPFER-5	Jordan Brook Basin	0	0	0		0		3			0		3	
ROSELE-1	Thames River Basin	0	0	0		0		3			0		3	
ROSEMA-1	Hunts Brook Basin	0	0	0		0		3			0		3	
ROSEMA-2	Hunts Brook Basin	0	0	0		0		3			0		3	
RT1-1	Jordan Brook Basin	0	0	0		0		3			0		3	
RT1-2	Jordan Brook Basin	0	0	0		0		3			0		3	
RT1-3	Fenger Brook (Waterford)-01	0	0	0		3		3			0		6	
RT1-4	Fenger Brook (Waterford)-01	0	0	0		3		3			0		6	
RT156-1	Jordan Brook Basin	0	0	0		0		3			0		3	
RT156-2	Jordan Brook Basin	0	0	0		0		3			0		3	
RT156-3	Jordan Brook Basin	0	0	0		0		3			0		3	
RT156-4	Southeast Shoreline Basin	0	0	0		0		3			0		3	
RT213-1	Southeast Shoreline Basin	0	0	0		0		3			0		3	
RT213-10	Southeast Shoreline Basin	0	0	0		0		3			0		3	
RT213-11	Southeast Shoreline Basin	0	0	0		0		3			0		3	
RT213-12	Southeast Shoreline Basin	0	0	0		0		3			0		3	
RT213-13	Southeast Shoreline Basin	0	0	0		0		3			0		3	
RT213-14	Southeast Shoreline Basin	0	0	0		0		3			0		3	
RT213-15	Southeast Shoreline Basin	0	0	0		0		3			0		3	
RT213-16	Southeast Shoreline Basin	0	0	0		0		3			0		3	
RT213-17	Southeast Shoreline Basin	0	0	0		0		3			0		3	
RT213-18	Southeast Shoreline Basin	0	0	0		0		3			0		3	
RT213-19	Southeast Shoreline Basin	0	0	0		0		3			0		3	
RT213-2	Southeast Shoreline Basin	0	0	0		0		3			0		3	
RT213-20	Southeast Shoreline Basin	0	0	0		0		3			0		3	
RT213-3	Southeast Shoreline Basin	0	0	0		0		3			0		3	
RT213-4	Southeast Shoreline Basin	0	0	0		0		3			0		3	
RT213-5	Southeast Shoreline Basin	0	0	0		0		3			0		3	
RT213-6	Southeast Shoreline Basin	0	0	0		0		3			0		3	
RT213-7	Southeast Shoreline Basin	0	0	0		0		3			0		3	
RT213-8	Southeast Shoreline Basin	0	0	0		0		3			0		3	
RT213-9	Southeast Shoreline Basin	0	0	0		0		3			0		3	
RT32-1	Hunts Brook Basin	0	0	0		0		3			0		3	
RT85-1	Oil Mill Brook Basin	0	0	0		0		3			0		3	
RT85-10	Oil Mill Brook Basin	0	0	0		0		3			0		3	
RT85-11	Jordan Brook Basin	0	0	0		0		3			0		3	
RT85-12	Jordan Brook Basin	0	0	0		0		3			0		3	
RT85-2	Oil Mill Brook Basin	0	0	0		0		3			0		3	
RT85-3	Oil Mill Brook Basin	0	0	0		0		3			0		3	
RT85-4	Oil Mill Brook Basin	0	0	0		0		3			0		3	
RT85-5	Oil Mill Brook Basin	0	0	0		0		3			0		3	
RT85-6	Oil Mill Brook Basin	0	0	0		0		3			0		3	
RT85-7	Oil Mill Brook Basin	0	0	0		0		3			0		3	
RT85-8	Oil Mill Brook Basin	0	0	0		0		3			0		3	
RT85-9	Oil Mill Brook Basin	0	0	0		0		3			0		3	
SAVI-1	Jordan Brook Basin	0	0	0		0		3			0		3	
SCOCAP-1	Hunts Brook Basin	0	0	0		0		3			0		3	
SCOCAP-2	Hunts Brook Basin	0	0	0		0		3			0		3	
SEABRE-1	Southeast Shoreline Basin	0	0	0		0		3			0		3	
SEAMEA-1	Southeast Shoreline Basin	0	0	0		0		3			0		3	
SEAMEA-2	Southeast Shoreline Basin	0	0	0		0		3			0		3	
SHAW-1	LIS EB Inner - Niantic River(mouth), Niantic	0	0	0		3		3			0		6	
SHODR-1	LIS EB Inner - Alewife Cove, Waterford/New London	0	0	0		3		3			0		6	
SHODR-2	LIS EB Inner - Alewife Cove, Waterford/New London	0	0	0		3		3			0		6	
SHODR-3	LIS EB Inner - Alewife Cove, Waterford/New London	0	0	0		3		3			3		9	
SHORD-1	Jordan Brook Basin	0	3	0		0		3			0		6	
SHORD-2	Jordan Brook Basin	0	1	0		0		3			0		4	
SHORD-3	Southeast Shoreline Basin	0	3	0		0		3			0		6	
SHORD-4	Southeast Shoreline Basin	0	4	0		0		3			0		7	
SHORD-5	Southeast Shoreline Basin	0	0	0		0		3			0		3	
SHORD-6	Southeast Shoreline Basin	0	6	0		0		3			0		9	
SHORD-7	Southeast Shoreline Basin	0	0	0		0		3			0		3	
SNOW-1	Jordan Brook Basin	0	0	0		0		3			0		3	
SOLJ-1	Thames River Basin	0	0	0		0		3			0		3	
SOLJ-2	Thames River Basin	0	0	0		0		3			0		3	
SPIN-1	Southeast Shoreline Basin	0	0	0		0		3			0		3	
STAN-1	LIS EB Inner - Niantic River(mouth), Niantic	0	0	0		3		3			0		6	
STOHEI-1	Jordan Brook Basin	0	0	0		0		2			0		2	
STOHEI-2	Jordan Brook Basin	0	0	0		0		2			0		2	
STOHEI-3	Jordan Brook Basin	0	0	0		0		2			0		2	
STOHEI-4	Jordan Brook Basin	0	0	0		0		2			0		2	
STONE-1	Niantic River Basin	0	0	0		0		3			0		3	
SUNS-1	Hunts Brook Basin	0	0	0		0		3			0		3	
SUSA-1	Southeast Shoreline Basin	0	0	0		0		3			0		3	
SUSA-2	Southeast Shoreline Basin	0	0	0		0		3			0		3	
SUSA-3	Southeast Shoreline Basin	0	0	0		0		3			0		3	
SUSA-4	Southeast Shoreline Basin	0	0	0		0		3			0		3	
SUSA-5	Southeast Shoreline Basin	0	0	0		0		3			0		3	
SUSA-6	Southeast Shoreline Basin	0	0	0		0		3			0		3	
TANGLE-1	Hunts Brook Basin	0	0	0		0		3			0		3	
TANGLE-2	Hunts Brook Basin	0	11	0		0		3			0		14	
THAM-1	Thames River Basin	0	0	0		0		1			0		1	
THAM-2	Thames River Basin	0	0	0		0		1			0		1	
THAM-3	Thames River Basin	0	0	0		0		1			0		1	
THAM-4	LIS EB Inner – Thames River (middle)	0	0	0		2		1			0		3	
TIFF-1	Jordan Brook Basin	0	0	0		0		3			0		3	

Catchment ID	Receiving Water	Wet Sampling Results Indicate Likely Illicit Discharge? [1]	Dry Screening Results Indicate Likely Illicit Discharge? [1a]	Discharging to Area of Concern to Public Health? [2]	Frequency of Past Discharge Complaints	Receiving Water Quality [3]	Density of Generating Sites [4]	Age of Development/ Infrastructure [5]	Historic Combined Sewers or Septic? [6]	Aging Septic? [7]	Culverted Streams? [8]	Additional Characteristics	Score	Priority Ranking
New Catchment ID	Information Source	Catchment inspections and sample results	Catchment inspections and sample results	GIS Maps	Municipal Staff	Impaired Waters List	Land Use/GIS Maps, Aerial Photography	Land Use Information, Visual Observation	Municipal Staff, GIS Maps	Land Use, Municipal Staff	GIS and Stormwater system Maps	Other		
	See Note	Score is determined using an extrapolated formula based on the results		Yes = 3 No = 0	Frequent = 3 Occasional = 2 None = 0	Poor = 3 Fair = 2 Good = 0	High = 3 Medium = 2 Low = 1	High = 3 Medium = 2 Low = 1	Yes = 3 No = 0	Yes = 3 No = 0	Yes = 3 No = 0	TBD		
TOTO-1	Thames River Basin	0	7	0		0		3			0		10	
TOTO-2	Thames River Basin	0	0	0		0		3			0		3	
TRUM-2	Jordan Brook Basin	0	0	0		0		3			0		3	
TWINHA-1	Jordan Brook Basin	0	0	0		0		3			0		3	
TWINLA-1	Thames River Basin	0	0	0		0		3			0		3	
TWINLA-2	Thames River Basin	0	4	0		0		3			0		7	
TWINLA-3	Thames River Basin	0	0	0		0		3			0		3	
TWINLA-4	Thames River Basin	0	0	0		0		3			0		3	
UPRBAR-1	Thames River Basin	0	0	0		0		3			0		3	
VALE-1	Niantic River Basin	0	0	0		0		3			0		3	
VALLEY-1	LIS EB Inner - Jordan Cove, Waterford	0	0	0		3		3			0		6	
VAUX-1	Jordan Brook Basin	0	0	0		0		3			0		3	
VAUX-2	Jordan Brook Basin	0	0	0		0		3			0		3	
VAUX-3	Hunts Brook Basin	0	0	0		0		3			0		3	
VAUX-4	Thames River Basin	0	0	0		0		3			0		3	
VAUX-5	Thames River Basin	0	0	0		0		3			0		3	
VAUX-6	Thames River Basin	0	0	0		0		3			0		3	
VAUX-7	Thames River Basin	0	0	0		0		3			0		3	
VILL-1	Southeast Shoreline Basin	0	0	0		0		2			0		2	
VILL-2	Southeast Shoreline Basin	0	0	0		0		2			0		2	
WALL-1	Jordan Brook Basin	0	0	0		0		3			0		3	
WESTW-1	Southeast Shoreline Basin	0	8	0		0		3			0		11	
WESTW-2	Southeast Shoreline Basin	0	0	0		0		3			0		3	
WESTW-3	Southeast Shoreline Basin	0	0	0		0		3			0		3	
WESTW-4	Southeast Shoreline Basin	0	0	0		0		3			0		3	
WIEM-1	Southeast Shoreline Basin	0	0	0		0		3			0		3	
WILL-1	Southeast Shoreline Basin	0	0	0		0		3			0		3	
WILL-2	Southeast Shoreline Basin	0	0	0		0		3			0		3	
WINDW-1	LIS EB Inner - Jordan Cove, Waterford	0	9	3		3		2			0		17	
WINDW-2	Southeast Shoreline Basin	0	0	0		0		2			0		2	
WINDW-3	LIS EB Shore - Outer Jordan Cove, Waterford	0	12	0		3		2			0		17	
WINRID-1	Jordan Brook Basin	0	0	0		0		2			0		2	
WINT-1	LIS EB Inner – Thames River (middle)	12	0	0		2		3			0		17	
WINT-2	LIS EB Inner – Thames River (middle)	7	0	0		2		3			0		12	
WOLAND-1	Southeast Shoreline Basin	0	0	0		0		3			0		3	
WOLAWN-1	Nevins Brook	0	0	0		0		3			0		3	
WOODS-1	Southeast Shoreline Basin	0	0	0		0		3			0		3	
YORK-1	Jordan Brook Basin	0	0	0		0		2			0		2	
YORK-2	Jordan Brook	0	0	0		0		2			0		2	
YORK-3	Jordan Brook Basin	0	0	0		0		2			0		2	
YORK-4	Jordan Brook Basin	0	0	0		0		2			0		2	
YORK-5	Jordan Brook Basin	0	0	0		0		2			0		2	

Impaired Waterbodies

Scoring Criteria:

If there's no waterbody feature identified the receiving body source will be the name of the subregional basin the outfall resides in

[1] Previous wet weather screening results indicate impacts to impaired waters including:
Total Nitrogen >2.5 mg/L, Total Phosphorous >0.3 mg/L,
E. Coli >235col/100 ml for swimming areas and >410 col/100 ml for all others or,
Total Coliform >500 col/100 ml, or Fecal coliform >31 col/100ml for Class SA and >260 Col/100ml for Class SB, or
Enterococci >104 col/100ml for swimming areas and >500 col/100ml for all others, or
Turbidity at outfall is more than 5 NTU greater than the in-stream sample.

[1a] Previous dry weather screening results indicate likely sewer input if any of the following are true:
Olfactory or visual evidence of sewage,
Ammonia ≥ 0.5 mg/L, surfactants ≥ 0.25 mg/L, and bacteria levels greater than the water quality criteria applicable to the receiving water, or
Ammonia ≥ 0.5 mg/L, surfactants ≥ 0.25 mg/L, and detectable levels of chlorine

[2] Catchments that discharge to or in the vicinity of any of the following areas: public beaches, recreational areas, drinking water supplies, or shellfish beds

[3] Receiving water quality based on latest version of State of Connecticut Integrated Water Quality Report.
Poor = Waters with approved TMDLs (Category 4a Waters) where illicit discharges have the potential to contain the pollutant identified as the cause of the impairment
Fair = Water quality limited waterbodies that receive a discharge from the MS4 (Category 5 Waters)
Good = No water quality impairments

[4] Generating sites are institutional, municipal, commercial, or industrial sites with a potential to contribute to illicit discharges (e.g., car dealers, car washes, gas stations, garden centers, industrial manufacturing, etc.)

[5] Age of development and infrastructure:
High = Industrial areas greater than 40 years old and areas where the sanitary sewer system is more than 40 years old
Medium = Developments 20-40 years old
Low = Developments less than 20 years old

[6] Areas once served by combined sewers and but have been separated, or areas once served by septic systems but have been converted to sanitary sewers.

[7] Aging septic systems are septic systems 30 years or older in residential areas.

[8] Any river or stream that is culverted for distance greater than a simple roadway crossing.