MOVE YOUR ENVIRONMENT FORWARD

2018 ANNUAL REPORT

Waterbury, CT

Small Municipal Separate Storm Sewer Systems (MS4)

Prepared For:

City of Waterbury
Department of Public Works
Waterbury, CT

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Issued On: March 26, 2019

MS4 General Permit
City of Waterbury, CT, 2018 Annual Report
Existing MS4 Permittee
Permit Number GSM000094
January 1, 2018 – December 31, 2018

This report documents the City of Waterbury's efforts to comply with the conditions of the MS4 General Permit to the maximum extent practicable (MEP) from January 1, 2018 to December 31, 2018.

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 or projected completion date	Additional details
1-1 Implement public education and outreach	Ongoing	EPA Stormwater education materials located on City website, Educational Program at Girls, Inc., Stormwater information is provided on Social Media, Naugatuck River Brigade was formed	Provide Education May include: Workshops, Litererature Distribution and/or Signage Posting	Public Works or Dept. of Education/City Civil Engineer/Mayor's office	Annually	Implemented by July 1, 2018	
1-2 Address education/ outreach for	Ongoing	The City distributes info on common sources of phosphorus,	Distribute Literature Post Signage	Public Works or Dept. of Education/City	Annually	Implemented by July 1, 2018	Topics to address Bacteria may include: Septic systems, sanitary cross connections, pet waste, and waterfowl.

pollutants of concern		nitrogen and bacteria pollution and how to prevent/reduce the amount reaching the MS4		Civil Engineer			Two new "Do Not Feed the Geese" signs were installed at Fulton Park in 2018, in addition to others already posted at City parks. Handouts are distributed at various events by Public Works staff.
1-3 Make GIS information available	Ongoing	The City's storm system mapping can be found on the City's Live GIS mapping site.	Public GIS access	PW and IT/ City Civil Engineer	N/A	Ongoing	http://gis.waterburyct.org/GIS/GIS_MappingSites.asp
1-4 Storm Drain in- lets labelled	In progress	The City has a Catch basin standard frame that states "Dump No Waste. Drains to Waterways." Contractors are required to use this frame within the City Right Of Way.	Catch basin standard frame	PW/City Civil Engineer	N/A	Ongoing use with new Developer projects and City projects (when available)	

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

The City plans to schedule events for World Water Day in March, 2019, Earth Day in May, 2019 and World Oceans Day in June, 2019.

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.
Information on Stormwater for Citizen education can be found on the City's website at: http://www.waterburyct.org/content/9569/9605/9632/10197/default.aspx	City-wide (residents)	Stormwater	N/A	Public Works or Information Tech (IT)/ City Civil Engineer

Pet Waste Stations and signs have been posted at many City Parks in the past. These signs are maintained and replaced as needed.	City-wide (residents)	Pet Waste	E-coli (bacteria)	Public Works
Women of Water Program at Girls, Inc	Students (approx. 80)	Impact of litter on stormdrains and waterways	N/A	Public Works
Social Media (Facebook and Twitter)	Broad Audience	Litter, stormdrains, river clean-up	N/A	Public Works
Naugatuck River Brigade was formed with 13 high school students (seasonal). Removed litter and debris from the Naugatuck River	Broad Audience, Students	Impacts of litter on rivers and the ecosystem	E-coli (bacteria)	Mayor's office, Police Activity League

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 or projected completion date	Additional details
2-1 Continue availability of Final Stormwater Management Plan to the public	Completed	None	Plan posted on City website	Public Works/ City Civil Engineer	4/3/17	Posted on City website on 4/3/17	http://www.waterburyct.org/content/9569/9605/9632/10197/default.aspx Notice of Plan Availability on website posted on City website January 28, 2019.
2-2 Comply with public notice requirements for Annual Reports	Ongoing	2017 Annual Report Notice published in Republican American newspaper on 2/15/2018. 2017 Report posted on City website on 2/15/2018.	Publish public notice, Report posted on City website	Public Works/ City Civil Engineer	Annually on Feb 15th	2018 Annual Report Notice of Availability posted on City website January 28, 2019.	DRAFT 2018 Report posted on website on February 8, 2019 All reports can be found: http://www.waterburyct.org/content/9569/9605/9632/10197/default.aspx
2-3 Annual "Clean-up" Days along waterbodies	Events cancelled for 2018	Both original Earth Day Clean-up event (5/12/18) and raindate (5/19/18) were cancelled due to inclement weather.	Holding event	Public Works/Local Volunteers & Citizens	Annually	2018 Events cancelled	

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

The City plans to schedule events for World Water Day in March, 2019, Earth Day in May, 2019 and World Oceans Day in June, 2019.

2.3 Public Involvement/Participation reporting metrics

Metrics	Implemented	Date	Posted
Availability of the Stormwater Management Plan to public	Y	3/29/17 in newspaper, 4/3/17 on website. Plan has been posted on website since 4/3/17. 2018 Notice of Plan Availability posted on City website January 28, 2019.	http://www.waterburyct.org/content/9569/9605/9632/10197/default.aspx https://www.waterburyct.org/news/?FeedID=3307
Availability of Annual Report announced to public	Y	2017 Annual Report Newspaper Notice was published on 2/15/2018. 2018 Annual Report Notice of Availability posted on City website January 28, 2019	https://www.waterburyct.org/news/?FeedID=3307

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 or projected completion date	Additional details
3-1 Develop written IDDE program	Completed	IDDE Plan completed on June 29, 2018. Revisions have been ongoing.	Develop written plan of IDDE program	Public works/ City Civil Engineer	July 1, 2018	Original completed June 29, 2018 Revised February 2019	http://www.waterburyct.org/content/9569/9605/9632/10197/default.aspx

3-2 Develop list and maps of all MS4 stormwater outfalls in priority areas	In progress	Approximately 90% of outfalls are in the inventory and mapped	Completed list and map	Public Works/ City Civil Engineer	July 1, 2019	Anticipate completing by the deadline of July 1, 2019.	
3-3 Implement citizen reporting program	Completed	The Citizens Service Center website allows the public to search for info and submit service requests		Public Works/Mayor's office/IT	July 1, 2017	Completed prior to the new MS4 permit	*Citizen's Service Center webpage:* http://www.waterburyct.org/311/ Service requests can be submitted at this website. Smartphone Application: iReportWTBY can also be used to file complaints and concerns
3-4 Establish legal authority to prohibit illicit discharges	Completed	The City of Waterbury's Illicit Discharge and Connection Stormwater (IDDE) Ordinance was approved by the Board of Aldermen on August 20, 2018 and a legal notice was placed in local paper on August 31, 2018.	Establish the legal authority	Public Works/ Corporation Counsel	July 1, 2018	August 20, 2018	The IDDE Ordinance is officially part of the City's Ordinance but has not yet been codified into the Ordinance book. The Legal Department must revise the Ordinance section numbers to match the chapter numbering in the Ordinance book, in order for it to be codified. The Ordinance and legal notice can be found in the IDDE Plan on the City's website
3-5 Develop record keeping system for IDDE tracking	Completed	The past 5 years of SSOs have been summarized on the inventory spreadsheet provided in the IDDE plan, and are included in this report. The City is using a similar spreadsheet for other IDDE tracking, in Excel format.	Spreadsheet	Public Works/ City Civil Engineer	July 1, 2017	January 2018	
3-6 Address IDDE in areas with pollutants of concern	In Progress	IDDE will be addressed City-wide	IDDE Program	Public Works/ City Civil Engineer	Not specified	Ongoing	This BMP will be conducted in conjunction with IDDE Screening, Sampling and Investigation

3-7 Use of EpiCollect5 Mobile Phone Application for data collection in the field	Ongoing	In the fall field staff started using the App. while conducting Dry Weather Screening/Sampling and Impaired Waterbodies Monitoring	To have data from all outfalls in one database system	Consultant/City Civil Engineer	-	Ongoing	

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

The written IDDE program will be updated as needed throughout the permit term.

Maintain master IDDE tracking spreadsheet and ensure all employees involved in IDDE program understand the logging process.

The list of outfalls originally labelled as culverts will be analyzed to confirm that they are free of any connections and simply convey waters of the state. If not, these outfalls will be added to the current Outfall Inventory, priority ranked and investigated as needed. Additional "ends of pipes" in unknown category will also be evaluated to determine if they belong on the Outfall Inventory and ranked. See Section 3.7 below for more information.

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

Date of Report	Location / suspected source	Response taken
None reported		

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 Occurrence	Time Start	Time End	Discharge to MS4 or surface water?	Estimated volume discharged	Known or suspected cause / Responsible party	Corrective measures completed (include dates). Provide sampling data if applicable)	Corrective measures planned
The City reported the following SSOs:								

605 Woodtick Rd	1/05/2015	3:41 pm	4:15 pm	N/A	NOT Known homeowner said minor	Raw Sewage	Removed sticks, rags & other debris from MH#132	Added this section of Sanitary line to LTMP
Woodtick & Frost Rd	1/19/15	1:42 pm	3:00 pm	N/A	Not determined. Homeowner would not let WPC worker into house for inspection	Blockage	Removed grease blockage	Added to LTMP
Piping Rock Pump Station	2/6/15	10:00 am	10:20am	N/A	1,500 gal	Electrical Equip. Failure	Vacuum Truck	Trouble shoot electric control panel
76 Piping Rock Dr.	4/4/17	8:57 am	9:52 am	N/A	51-500 gal	Blockage	Removed piece of pipe from manhole. Cleaned and limed area	n/a
417 Pearl Lake Rd	3/26/15	12:30 pm	12:40pm	N/A	10 gal	Raw Sewage	Cleaned main line/homeowner will mop & clean garage floor	Added this area to Long Term Cleaning Plan
497 Plank Road	10/10/16	10:50 am	1:05 pm	Surface Water	5,000 gal	Blockage - I-84 construction crew broke a City MH while working in the Plank Rd area	Removed stones & bricks from MH.	State Contractor Repaired Manhole
62 Harper Ave.	6/29/17	8:30 am	10:37am	N/A	51-500 gal	Raw Sewage / sewer line blockage	Cleaned and limed area	Jetted and cleaned line from MH #63A to 64A.
Harper Ave. R.O.W	6/16/16	8:00 am	9:30 am	N/A	1,500 gal	Vandals	Removed debris from MH, Jetted line- vacuumed and removed paper products	Added new locking MH cover
831 Woodtick Road	8/20/17	10:15 am	10:50am	N/A	51-500 gal	Sewer Line Blockage	Cleaned 1000' of the sanitary line	This area added to the LTMP
282 Scott Rd	2/6/17	10:26 am	8:33 pm	N/A	51-500 gal	Roots	n/a	This area added to the LTMP
40 Old Colony Drive	5/7/17	5:07 am	7:30 am	N/A	0-50 gal	Raw Sewage-Excessive Flows storm event	Cleaned 650 ft.	Add to LTMP & Corrective Action Plan
95 Schraffs Drive	1/12/16	12:45 pm	2 pm	N/A	800-1,000 gal	Raw Sewage	Owner to call contractor	Jetted line

62 Hewlett St.	1/21/16	3:35 pm	4:00 pm	N/A	Not determined. Homeowner would not allow WPC into basement	Raw Sewage	Jetted sanitary line on Eculid Ave, MH # 59 to 61- there wasn't any waste on ground	Added this area to City's LTMP
25 Branch St	2/23/16	11:00 am	12:15pm	N/A	About 50 gals	Blockage	Cleaned 600ft of main sanitary line	Added another cleaning day to current LTMP
Overlook Ave ROW	3/31/15	12:45 pm	2:15 pm	Steel Brook	2,000 gals	Blockage	Vacuumed & racked, limed waste material	Added to Long Term cleaning plan
800' West of Bunker Hill Rd	5/6/15	12:30 pm	4:30 pm	Trumpet Brook	2,000 gals	Broken Pipe, misaligned Manhole & sewer line	Raked & pick up debris & paper products	Scheduled to repair misaligned manhole & sewer line
800' West of Bunker Hill Rd	5/13/15	2:00 pm	4:30 pm	Trumpet Brook	2,000-3,000 gal	Blockage	Raked & pick up debris & paper products	Repaired misaligned manhole & sewer line
35 Sharon Rd	12/15/12	5:30 pm	7:30 pm	Mad River	2,000-3,000 gals	Sewer Main	Jetted line & vacuumed debris Add to LTMP	Added to LTMP
Treatment Plant 210 Municipal Rd	4/16/17	10:35 pm	11:10 pm	Naugatuck River	0.58 MG	Electrical Equip. Failure	Debris around catch basin near the septage receiving area was removed manually using 5 gallon pails	Primary Pump Station Testing was completed on 5/15 by SNET
5 Ward Street	10/31/17	7:48 pm	9:15 pm	N/A	51-500 gals	Blockage**	Removed grease blockage	Added to LTMP
89 Clowes Terrace	1/12/18	4:15 pm	5:28 pm	N/A	1-50 gals	Blockage**	Removed grease blockage	Added to LTMP
Cornelius Ave	4/8/18	3:20 pm	5:00 pm	N/A	1-50 gals	Blockage	Removed roots and debris	Added to LTMP
3396 East Main Street*	6/4/18	5:20 pm	5:23 pm	N/A	Unknown	Unknown	N/A	N/A
151 Sharon Road	6/8/18	1:00 pm	1:45 pm	Mad River	501-1,000 gals	Blockage	Removed grease and sand blockage	Added to LTMP
611 Bunker Hill Avenue	6/19/18	9:29 am	11:01 am	Trumpet Brook	5,001-20,000 gals	Blockage in misaligned sanitary sewer line due to soil erosion in brook	Raked & pick-up debris, lime waste material	Contractor replaced misaligned sewer lines and encased sewer lines in concrete
15 Pritchard Road	7/3/18	1:00 pm	3:00 pm	N/A	1-50 gals	Blockage	N/A	Added to LTMP

509 Willow Street	8/2/18	5:15 pm	7:00 pm	N/A	51-500 gals	Blockage**	N/A	Added to LTMP
Lorraine Street ROW	11/26/18	11:30 am	1:30 pm	N/A	501-1,000 gals	Raw Sewage	Cleaned 400 feet of sanitary sewer line.	Added to LTMP
133 Maybrook Road	12/21/18	10:15 am	12:45 pm	Welton Brook	2500 gals	Heavy Rain 1"-2" per hour	Maintained with Vacuum tank truck	Review pump station capacity
52 Terrell Road	12/21/18	11:40 am	1:42 pm	N/A	300-400 gals	Heavy Rain 1"-2" per hour	Maintained with Vacuum tank truck	Review pump station capacity
Colonial Avenue	12/24/18	11:00 am	12:30 pm	N/A	250 gals	Pump Station force main failure	Maintained with Vacuum tank truck	Monitor pump station operations on SCADA

This was reported as a bypass, however, WPC was not provided access to the basement by the property owner, and therefore could not verify that there was a bypass, the volume of it, or the cause of it. If the cause of a Bypass is not immediately clear, it may take time to identify the cause of the backup. As these cases can sometimes become legal matters and may end up in formal court proceedings and/or arbitration; having to formally commit to a cause before completing the investigation and determining the true cause could potentially undermine those proceedings.

*****Initial appearance is that the cause was due to grease, and/or roots, however, further investigation is needed to confirm the cause of the bypass. If the cause of a Bypass is not immediately clear, it may take time to identify the cause of the backup. As these cases can sometimes become legal matters and may end up in formal court proceedings and/or arbitration; having to formally commit to a cause before completing the investigation and determining the true cause could potentially undermine those proceedings.***

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

Reports filed through the website or Smartphone Application are entered into the IDDE tracking spreadsheet by one of the City's Civil Engineers.

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

Date	Location and nature of structure with failing septic systems	Actions taken to respond to and address the failures	Impacted waterbody or watershed, if known
11/27/2018	Single family residence located at 1121 Chase Parkway	System fixed to City of Waterbury Department of Public Health code	Presumed to be contained on the property
1/9/2018	Single family residence located at 1149 Pearl Lake Road	System fixed to City of Waterbury Department of Public Health code	Presumed to be contained on the property
7/12/2018	Single family residence located at 1136 Chase Parkway	System fixed to City of Waterbury Department of Public Health code	Presumed to be contained on the property
1/30/2018	Multi family residence located at 1110 Pearl Lake Road	System fixed to City of Waterbury Department	Presumed to be contained on the

		of Public Health code	property
5/7/2018	Multi family residence located at 567 Boyden Street	System fixed to City of Waterbury Department of Public Health code	Presumed to be contained on the property
8/16/2018	Multi family residence located at 345 Huntingdon Avenue	System fixed to City of Waterbury Department of Public Health code	Presumed to be contained on the property
1/26/2018	Single family residence located at 172 Farrell Road	System fixed to City of Waterbury Department of Public Health code	Presumed to be contained on the property
8/17/2018	Single family residence located at 101 Malmalick Avenue	System fixed to City of Waterbury Department of Public Health code	Presumed to be contained on the property
10/19/2018	Single family residence located at 95 Hitchcock Road	System fixed to City of Waterbury Department of Public Health code	Presumed to be contained on the property
6/18/2018	Single family residence located at 19 Elmhurst Avenue	System fixed to City of Waterbury Department of Public Health code	Presumed to be contained on the property

(information obtained from Richard Lee, Chief Sanitarian of the Waterbury Health Department)

3.7 IDDE reporting metrics

Metrics	
Estimated or actual number of MS4 outfalls	~339 presumed city owned outfalls* (Also includes some culverts that require investigation)
Estimated or actual number of interconnections	~19 with State roads. Interconnections with other towns not yet determined
Outfall mapping complete	90%
Interconnection mapping complete	TBD-not yet labelled as such
System-wide mapping complete (detailed MS4 infrastructure)	~75% Most outfalls, Catch basins, MHs and storm piping mapped
Outfall assessment and priority ranking	~90% (Most culverts need to be verified before they are ranked)
Dry weather screening of all High and Low priority outfalls complete	107 outfalls

Catchment investigations complete	0
Estimated percentage of MS4 catchment area investigated	0%

*The City's original list of "Ends of Pipes" consisted of 562 City outfalls, 137 private outfalls, and 85 Culverts. In addition, approximately 21 "Ends of Pipes" that fell into an unknown category, were recently identified in January 2019, and are awaiting verification/evaluation for outfall status, and potential category assignment and ranking. Out of the 562 outfalls, 214 were removed from the list/inventory as they were determined to be from state owned roads or highways, private properties or roads, inlet pipes or not discharging to "waters of the state". However, these removed outfalls/ends of pipes are still shown on maps in a different color, for informational purposes. During outfall verification and field visits, 10 additional outfalls were added to the inventory and included in the IDDE ranking.

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).

Employees in the City of Waterbury involved in the IDDE program will be trained at a minimum on how to identify illicit discharges and SSOs. Staff will read the IDDE Program Plan and watch the workshop presentations located on the UCONN Nemo website for clarification on their specific duties. Training will be conducted annually (by July 1, 2019) and recorded on the form located in the Appendix of the IDDE Plan.

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 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	In Progress		Revised Regulations	PW/Planning/ City Civil Engineer	July 1, 2019	Anticipate completing by the deadline of July 1, 2019.	
4-2 Develop/Implement plan for interdepartmental coordination in site plan review and approval	Ongoing	Interdepartmental meetings are being conducted	As necessary by project	PW/Planning/ City Civil Engineer	Ongoing	Implemented by July 1, 2017	
4-3 Review site plans for stormwater quality concerns	Ongoing	Site Plan reviews include the review of stormwater controls or BMPs in	On-going as required	PW/Planning/ City Civil Engineer	Ongoing	Implemented by July 1, 2017	

		accordance with an E&S Control Plan for sites with soil disturbance of one-half acre or more					
4-4 Conduct site inspections	Ongoing	The City has been conducting inspections of construction sites to ensure the adequacy of the installation, maintenance, operation & repair of runoff control measures	On-going as required	PW/Planning/ City Civil Engineer	Ongoing	Implemented by July 1, 2017	
4-5 Implement procedure to allow public comment on site development	Completed	The public can contact the Citizens Service Center by phone or entering a complaint in the QAlert System on the website	Provide notification	PW/Planning/ City Civil Engineer	July 1, 2017	Implemented by July 1, 2017	Information submitted is forwarded to the P&Z and PW Depts. Info regarding construction site runoff is forwarded to the Zoning enforcement officer
4-6 Implement procedure to notify developers about DEEP construction stormwater permit	Completed	Waterbury informs developers that they have a potential obligation to apply for a permit if their construction disturbs >1 acre of land.	Provide notification	PW/Planning/ City Civil Engineer	July 1, 2017	Implemented by July 1, 2017	The notification includes a provision that a copy of the SWPPP be provided to the City upon request.

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

None at this time

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 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	Not Started		Publish guidelines	PW/Planning/ City Civil Engineer	July 1, 2021	Anticipate completing by the deadline of July 1, 2021.	
5-2 Enforce LID/runoff reduction requirements for development and redevelopment projects	In Progress	The City will continue to suggest LID/runoff reduction to the Maximum Extent Practical, for development and redevelopment projects	Notify developers	PW/Planning/ City Civil Engineer	July 1, 2019	Anticipate completing by the deadline of July 1, 2019.	The City will work with Developers to facilitate meeting permit requirements.
5-3 Identify retention and detention ponds in priority areas	Not Started		Update maps	PW/Planning/ City Civil Engineer	July 1, 2019	Not Started	
5-4 Implement long-term maintenance plan for stormwater basins and treatment structures	Not Started		Develop Plan	PW/ City Civil Engineer	July 1, 2019	Anticipate completing by the deadline of July 1, 2019.	
5-5 DCIA mapping	Not Started		Develop goals	PW/ City Civil Engineer	July 1, 2020	Anticipate completing by the deadline of July 1, 2020.	
5-6 Address post-construction issues in areas with pollutants of concern	Not Started		On-going as required	PW/Planning/ City Civil Engineer	Not specified		Waterbury will prioritize those areas for the DCIA retrofit program under BMP 6

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

None at this time

5.3 Post-Construction Stormwater Management reporting metrics

Metrics	
Baseline (2012) Directly Connected Impervious Area (DCIA)	See below
DCIA disconnected (redevelopment plus retrofits)	List not completed at this time
Retrofits completed	In progress
DCIA disconnected	In progress
Estimated cost of retrofits	In progress
Detention or retention ponds identified	In progress

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

The City will follow guidance provided on the UCONN-NEMO website to calculate the directly connected impervious area. The City plans to use either method 1 or 2 to calculate the baseline DCIA.

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 or projected completion date	Additional details
6-1 Develop/implement formal employee training program	Ongoing	Formal Industrial SW Permit training was conducted at 3 Public Works City facilities. Separate Training was provided for: pesticide & fertilizer application; proper pool maintenance; spill protocols; vehicle wash protocols; E&S controls for road, building & park repairs; & Work order system for SW system maintenance. Initiated the "Stormwater Management Overview" Online Training (Safe Personnel Training website).	Continue Training. Keep logs of trained personnel	PW/ City Civil Engineer	July 1, 2017	Ongoing. Industrial SW Permit Training 12/13/18	All staff within the Engineering & Streets Departments and other key Public Works Bureau Supervisors are required to complete the "Stormwater Management Overview" Online Training (Safe Personnel Training website). The City will continue its training program, and make amendments as needed with respect to the following: SOPs consistent with MS4 permit, goals and objectives of SMP, IDDE plan components, and Spill Response protocol and responsibilities.
6-2 Implement MS4 property and operations maintenance	Ongoing	Areas of maintenance include: Parks & Open Space; Pet Waste Mgmt; Waterfowl Mgmt.; City-owned Buildings, Facilities & Utilities; Vehicles & Equipment; & Leaf Management	Keep records of maintenance	PW/Parks/ Waterbury City Staff responsible for maintenance	July 1, 2018	Implemented by July 1, 2018	Property and operations maintenance is currently underway and will continue for the duration of the permit term
6-3 Implement coordination with interconnected MS4s	Not started		Schedule/ Conduct Meetings	PW/Planning/ City Civil Engineer	Not specified		

6-4 Develop/implement program to control other sources of pollutants to the MS4	Not started		Designate a responsible person(s), investigate, start a log	PW/ City Civil Engineer	Not specified		
6-5 Evaluate additional measures for discharges to impaired waters	No New Problem Areas Identified	The City continues to add "Do Not Feed the Geese" signs around parks. Many pet waste stations and "Pick-Up After Pet" signs are located in various parks.	Designate responsible person(s), hold meetings, start a log	PW/Parks/ City Civil Engineer	Not specified	Ongoing	
6-6 Track projects that disconnect DCIA	Ongoing	The City has a log to track projects that have disconnected DCIA from the MS4	Maintain spreadsheet/log	PW/Planning/ City Civil Engineer	July 1, 2017	Ongoing	The tracking log has been started and will be updated throughout the duration of the permit.
6-7 Implement infrastructure repair/rehab program	Not Started	Waterbury will begin to keep a log of MS4 structures requiring repair, rehabilitation, or an upgrade to reduce/eliminate the discharge of pollutants	Create spreadsheet/log Complete projects	PW/ City Civil Engineer	July 1, 2021	Anticipate completing by the deadline of July 1, 2021.	This program will be updated with information gathered during IDDE investigations and monitoring activities
6-8 Develop/implement plan to identify/prioritize retrofit projects	Not Started		Create spreadsheet/log to identify potential DCIA disconnection projects	PW/Planning/ City Civil Engineer	July 1, 2020	Anticipate completing by the deadline of July 1, 2020.	
6-9 Implement retrofit projects to disconnect 2% of DCIA	Not Started		Implement Plan (above)- Goal is to reduce DCIA acreage by 1% each year starting July 1, 2021	PW/Planning/ City Civil Engineer	July 1, 2022	Anticipate completing by the deadline of July 1, 2022.	

6-10 Develop/implement street sweeping program	Ongoing	See table in Section 6.3 for 2018 street sweeping statistics. Streets and parking lots within Priority Areas were swept following winter maintenance activities in 2018. This occurs at least once per year. In addition, areas with increased pollutant potential were swept more frequently. Street sweepings were disposed at the North End Disposal Area.	Maintain log of street sweeping details	PW/ City Civil Engineer	Implemented by July 1, 2017	This BMP will continue throughout the duration of the permit. Sweeping started April 16, 2018 and was completed by July 6, 2018. School lots completed by May 25, 2018	The City meets the sweeping frequencies outlined in the SMP, including rural and uncurbed streets and parking lots with no Catch basins.
6-11 Develop/implement catch basin cleaning program	Ongoing	The City cleaned catch basins observed to be full based on resident or department work reports or complaints; The City has a designated catch basin cleaning crew during the spring. The City continues to monitor the trash extruders that are still installed in catch basins in high litter areas.	Maintain log of catch basin cleanings and inspections. Develop formal program.	PW/ City Civil Engineer	July 1, 2020	This BMP will continue throughout the duration of the permit. Formal program to be completed by the deadline of July 1, 2020.	See Table below for 2018 statistics 1200 catch basins were cleaned by City staff. 1200 catch basins were cleaned by an outside contractor.
6-12 Develop/implement snow management practices	Ongoing	The City will continue to brief associated staff at every snow storm on the SOPs for the use, handling, storage, application and disposal of de-icing products to minimize exposure to stormwater. City maintains detailed logs of snow management activities and SOPs. See Table below for 2018 snow management statistics	Maintain manual with written SOPs, records of training, log of snow management activities	PW/ City Civil Engineer	Implemented by July 1, 2018	Ongoing. City hopes to have written SOPs and training for application rates of de-icing materials in the near future.	The City will manage and dispose of snow accumulations in accordance with the DEEP BMP found at www.ct.gov/deep/stormwater The City will continue to consider the use of alternative materials to chloride based or other salt deicing products.

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

Continue with ongoing BMP's described above

6.3 Pollution Prevention/ Good Housekeeping reporting metrics

Metrics	
Employee training provided for key staff	Not MS4 specific. Planned for 2019.
Street sweeping	
Curb miles swept	650 miles
Volume (or mass) of material collected	Data Unavailable. Will be implemented in 2019.
Catch basin cleaning	
Total catch basins in priority areas	6600
Total catch basins in MS4	6600
Catch basins inspected	~2800
Catch basins cleaned	2400
Volume (or mass) of material removed from all catch basins	Data Unavailable
Volume removed from catch basins to impaired waters (if known)	Data Unavailable
Snow management	
Type(s) of deicing material used	Sand and salt (4 parts sand, 1 part salt)
Total amount of each deicing material applied	16,000 cubic yards
Type(s) of deicing equipment used	Sand and salt spreader
Lane-miles treated	325 miles treated multiple times during each snow storm. During this snow season, DPW responded to approx. 32 storm events.
Snow disposal location	City owned property at 698 South Main Street
Staff training provided on application methods & equipment	Yes. Staff is briefed at every snow storm.
Municipal turf management program actions (for permittee properties in basins with N/P impairments)	
Reduction in application of fertilizers (since start of permit)	N/A
Reduction in turf area (since start of permit)	N/A
Lands with high potential to contribute bacteria (dog parks, parks with open water, & sites with failing septic systems)	
Cost of mitigation actions/retrofits	None at this time

6.4 Catch basin cleaning program

The City will utilize the citizen service request and work order tracking program called QAlert that includes a mobile app (iReportWTBY) for the public to report catch basins requiring maintenance, to prioritize catch basins to be cleaned. Use of this system aids the City in quantifying annual catch basin maintenance, including cleaning and repairs. The City will prioritize catch basins near impaired waters and construction sites. Those Catch basins shall be cleaned more frequently.

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. [Provide information if available in 2018 report. Section to be completed for the 2019 Annual Report.]
No information to report at this time.

Describe plans for continuing the Retrofit program and how to achieve a goal of 1% DCIA disconnection in future years. [Provide information if available in 2018 report. Section to be completed for the 2019 Annual Report.]
No information to report at this time.

Describe plans for continuing the Retrofit program beyond this permit term with the goal to disconnect 1% DCIA annually over the next 5 years. [Provide information if available in 2018 report. Section to be completed for the 2019 Annual Report.]
No information to report at this time.

Part II: Impaired waters investigation and monitoring [This section required beginning with 2018 Annual Report]

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.
1)Twenty-four (24) outfalls were screened in 2018 for stormwater pollutants of concern. 2)All 24 outfalls require follow-up. 3)No changes have been made to the Stormwater Management Plan at this time. If, during Follow-up Investigations and Drainage Area Investigation, the need arises to update the Plan, changes will be made at that time.

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

2.1 Screening data

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.

Outfall ID	**Sample date**	**Parameter** (Nitrogen, Phosphorus, Bacteria, or Other pollutant of concern)	**Results**	**Name of Laboratory and method**	**Follow-up required?**
6914-00-3-L4-004	*6/29/2018*	*- Bacteria* *- Other pollutant of concern*	*- E. coli 11,370 cfu/100ml* *- T Coliform 12,100 cfu/100ml* *- Turbidity of outfall 49.0 NTU* *- Turbidity upstream 17.0 NTU*	*CET Subcontracted to PH-0509 mColiBlue 24 SM 9222B*	*Yes*

6914-00-3-L4-015	*6/29/2018*	*- Bacteria - Other pollutant of concern*	*- E. coli 8,570 cfu/100ml - T Coliform 9,600 cfu/100ml - Turbidity of outfall 232.0 NTU - Turbidity upstream 27.0 NTU*	*CET Subcontracted to PH-0509 mColiBlue 24 SM 9222B*	*Yes*
6914-00-3-L4-012	*6/29/2018*	*- Bacteria - Other pollutant of concern*	*- E. coli 8,900 cfu/100ml - T Coliform 9,810 cfu/100ml - Turbidity of outfall 25.0 NTU - Turbidity upstream 20.0 NTU*	*CET Subcontracted to PH-0509 mColiBlue 24 SM 9222B*	*Yes*
6914-00-3-L3-007	*6/29/2018*	*- Bacteria - Other pollutant of concern*	*- E. coli 8,600 cfu/100ml - T Coliform 10,100 cfu/100ml - Turbidity of outfall 80.0 NTU - Turbidity upstream N/A †*	*CET Subcontracted to PH-0509 mColiBlue 24 SM 9222B*	*Yes*
6914-00-3-L3-008	*6/29/2018*	*- Bacteria - Other pollutant of concern*	*- E. coli 9,240 cfu/100ml - T Coliform 10,600 cfu/100ml - Turbidity of outfall 92.0 NTU - Turbidity upsteam N/A †*	*CET Subcontracted to PH-0509 mColiBlue 24 SM 9222B*	*Yes*
6914-00-3-R3-003	*11/13/2018*	*- Bacteria - Other pollutant of concern*	*- E. coli 1,732.9 MPN/100ml - T Coliform >2,419.6 MPN/100ml - Turbidity of outfall 16.5 NTU - Turbidity upstream N/A*	*CET SM 9223B Colilert-18**	*Yes*
6914-00-3-L3-017	*11/13/2018*	*- Bacteria - Other pollutant of concern*	*- E. coli >2,419.6 MPN/100ml - T Coliform >2,419.6 MPN/100ml - Turbidity of outfall 13.5 NTU - Turbidity upstream N/A*	*CET SM 9223B Colilert-18**	*Yes*
6914-00-3-R3-008	*11/13/2018*	*- Bacteria - Other pollutant of concern*	*- E. coli 1,553.1 MPN/100ml - T Coliform >2,419.6 MPN/100ml*	*CET SM 9223B Colilert-18**	*Yes*
6914-00-3-R3-005	*11/13/2018*	*- Bacteria - Other pollutant of concern*	*- E. coli 396.08 MPN/100ml - T Coliform >2,419.6 MPN/100ml*	*CET SM 9223B Colilert-18**	*Yes*

6914-00-3-L3-005	*11/13/2018*	*- Bacteria - Other pollutant of concern*	*- E. coli 1,986.3 MPN/100ml - T Coliform >2,419.6 MPN/100ml - Turbidity of outfall 17.5 NTU - Turbidity upstream N/A*	*CET SM 9223B Colilert-18**	*Yes*
6914-00-3-L3-013	*11/13/2018*	*- Bacteria - Other pollutant of concern*	*- E. coli >2,419.6 MPN/100ml - T Coliform >2,419.6 MPN/100ml*	*CET SM 9223B Colilert-18**	*Yes*
6914-00-3-L3-003	*11/13/2018*	*- Bacteria - Other pollutant of concern*	*- E. coli 547.50 MPN/100ml - T Coliform >2,419.6 MPN/100ml - Turbidity of outfall 21.0 NTU - Turbidity upstream N/A*	*CET SM 9223B Colilert-18**	*Yes*
6914-00-3-L3-001	*11/13/2018*	*- Bacteria - Other pollutant of concern*	*- E. coli 1,046.2 MPN/100ml - T Coliform >2,419.6 MPN/100ml - Turbidity of outfall 13.0 NTU - Turbidity upstream N/A*	*CET SM 9223B Colilert-18**	*Yes*
6914-00-3-L3-004	*11/13/2018*	*- Bacteria - Other pollutant of concern*	*- E. coli 1,732.9 MPN/100ml - T Coliform >2,491.6 MPN/100ml - Turbidity of outfall 6.52 NTU - Turbidity upstream N/A*	*CET SM 9223B Colilert-18**	*Yes*
6914-00-3-L3-002	*11/13/2018*	*- Bacteria - Other pollutant of concern*	*- E. coli 1,046.2 MPN/100ml - T Coliform >2,491.6 MPN/100ml - Turbidity of outfall 6.47 NTU - Turbidity upstream N/A*	*CET SM 9223B Colilert-18**	*Yes*
6914-00-3-L3-002A	*11/13/2018*	*- Bacteria - Other pollutant of concern*	*- E. coli 261.30 MPN/100ml - T Coliform >2,491.6 MPN/100ml - Turbidity of outfall 11.9 NTU - Turbidity upstream N/A*	*CET SM 9223B Colilert-18**	*Yes*

6914-00-3-L4-001	*12/28/2018*	*- Bacteria - Other pollutant of concern*	*- E. coli 749 MPN/100ml - T Coliform >2,000 CFU/100ml - Turbidity of outfall 19.20 NTU - Turbidity upstream 3.35 NTU*	*Phoenix SM9223B SM9222B*	*Yes*
6914-00-3-L4-013	*12/28/2018*	*- Bacteria - Other pollutant of concern*	*- E. coli 10 MPN/100ml - T Coliform 900 CFU/100ml - Turbidity of outfall 70.50 NTU - Turbidity upstream 16.44 NTU*	*Phoenix SM9223B SM9222B*	*Yes*
6914-00-3-R3-004	*12/28/2018*	*- Bacteria - Other pollutant of concern*	*- E. coli 706 MPN/100ml - T Coliform >2,000 CFU/100ml - Turbidity of outfall 25.20 NTU - Turbidity upstream 5.75 NTU*	*Phoenix SM9223B SM9222B*	*Yes*
6914-00-3-L3-021A	*12/28/2018*	*- Bacteria - Other pollutant of concern*	*- E. coli 52 MPN/100ml - T Coliform >2,000 CFU/100ml - Turbidity of outfall 12.45 NTU - Turbidity upstream 3.91 NTU*	*Phoenix SM9223B SM9222B*	*Yes*
6914-00-3-L3-010	*12/28/2018*	*- Bacteria - Other pollutant of concern*	*- E. coli 52 MPN/100ml - T Coliform >2,000 CFU/100ml - Turbidity of outfall 84.90 NTU - Turbidity upstream 2.10 NTU*	*Phoenix SM9223B SM9222B*	*Yes*
6914-00-3-L3-011	*12/28/2018*	*- Bacteria - Other pollutant of concern*	*- E. coli 63 MPN/100ml - T Coliform >2,000 CFU/100ml - Turbidity of outfall 43.20 NTU - Turbidity upstream 2.10 NTU*	*Phoenix SM9223B SM9222B*	*Yes*
6914-00-3-R3-018	*12/28/2018*	*- Bacteria - Other pollutant of concern*	*- E. coli 279 MPN/100ml - T Coliform >2,000 CFU/100ml - Turbidity of outfall 46.10 NTU - Turbidity upstream 4.75 NTU*	*Phoenix SM9223B SM9222B*	*Yes*

6914-00-3-R3-013	*12/28/2018*	*- Bacteria* *- Other pollutant of concern*	*- E. coli 620 MPN/100ml* *- T Coliform >2,000 CFU/100ml* *- Turbidity of outfall 48.70 NTU* *- Turbidity upstream 9.30 NTU*	*Phoenix SM9223B SM9222B*	*Yes*

*Chain of Custody indicated 40CFR136 methods however lab ran Colilert-18 for Total Coliform due to short holding time and inability to deliver to subcontracted lab for applicable method for Total Coliform.

†Upstream turbidity samples were not collected due to inaccessibility of the waterbody.

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?**
6912-00-3-R1-002	*10/27/2016*	*Bacteria*	*- E. coli 41,000 MPN/100ml*	*Connecticut Testing Laboratories*	*Yes*
6900-00-4-R13-012	*10/27/2016*	*Bacteria*	*- E. coli 18,600 MPN/100ml*	*Connecticut Testing Laboratories*	*Yes*
6914-00-3-R3-002	*10/27/2016*	*Bacteria*	*- E. coli 23,800 MPN/100ml*	*Connecticut Testing Laboratories*	*Yes*
6900-00-4-R9-002	*2000-2006*	*Bacteria*	*- 33 E. coli samples with a range of 50-24,000 col/100ml and a median of 11,000 col/100ml*	*Data found in "A Total Maximum Daily Load Analysis for Recreational Uses of the Naugatuck River Regional Basin by CT DEEP April 17, 2008*	*Yes*

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**
NA		

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)
NA				

Part III: Additional IDDE Program Data [This section required beginning with 2018 Annual Report]

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).

In order to assign a Priority Ranking of Catchments by DEEP basin, the method of averaging the IDDE ranking score was used. Scores were taken from the Catchment Assessment and Priority Ranking Matrix (hereafter referred to as the IDDE Ranking Matrix), included in the IDDE Plan. The IDDE Ranking Matrix score of outfalls within each DEEP local drainage basin were averaged and the basins were ranked by the averages, with 1 being the highest ranking and 23 being the lowest. Note that there are some duplicate ranking values as some averages of outfall scores were the same. See Column 3 below for results and below the table for additional background information.

1. DEEP Local Drainage Basin ID & Name of River Basin	2. Categories of Outfalls within DEEP Local Basin	3. Basin Ranking* (Average Outfall score in parantheses)
6900-00-4-R9 Naugatuck River	Low: 1/2 Problem: 1/2	1 (8.50)
6900-00-4-R13 Naugatuck River	Low: 4/14 High: 9/14 Problem: 1/14	2 (7.86)
6900-00-4-R12 Naugatuck River	Low: 3/5 High: 2/5	3 (7.20)
6914-00-3-R2 Mad River	Low: 2/2	4 (6.50)
6914-00-3-L4 Mad River	Low: 13/13	5 (6.23)
6914-00-3-R3 Mad River	Excluded: 1/16 Low: 13/16 High: 1/16 Problem: 1/16	6 (6.06)
6914-00-3-L3 Mad River	Low: 17/17	7 (6.00)
6900-00-4-R15 Naugatuck River	Low: 1/1	7 (6.00)
6913-00-1 Beaver Pond Brook	Problem: 1/1	7 (6.00)
6900-22-1 Naugatuck River	Low: 2/2	8 (5.50)
6900-21-1-L3 Naugatuck River	Low: 1/1	9 (5.00)

6900-22-1-L3 Naugatuck River	Low: 1/1	9 (5.00)
6914-11-1 Mad River	Low: 5/5	10 (4.80)
6912-00-3-R1 Steele Brook	Low: 22/25 Problem: 3/25	11 (4.56)
6900-00-4-R11 Naugatuck River	Excluded: 3/56 Low: 51/56 Problem: 2/56	12 (4.50)
6900-00-4-R14 Naugatuck River	Excluded: 1/5 Low: 4/5	13 (4.40)
6900-22-1-L4 Naugatuck River	Excluded: 1/3 Low: 2/3	14 (4.00)
6913-00-2-R2 Beaver Pond Brook	Low: 4/4	14 (4.00)
6911-00-3-R1 Hancock River	Low: 25/26 Problem: 1/26	15 (3.85)
6900-23-1 Naugatuck River	Low: 6/6	16 (3.50)
6913-00-2-R1 Beaver Pond Brook	Low: 21/21	17 (3.29)
6900-24-1 Naugatuck River	Low: 8/8	18 (3.13)
6900-22-1-L5 Naugatuck River	Low: 1/1	19 (3.00)
6900-22-1-L6 Naugatuck River	Low: 3/3	19 (3.00)
6900-23-1-L1 Naugatuck River	Low: 1/1	19 (3.00)
6900-23-1-L2 Naugatuck River	Low: 2/2	19 (3.00)
6900-23-1-L3 Naugatuck River	Low: 12/12	19 (3.00)
6911-00-3-L9 Hancock River	Low: 1/1	19 (3.00)
6912-06-1 Steele Brook	Low: 1/1	19 (3.00)
6914-08-1 Mad River	Low: 4/4	19 (3.00)
6914-09 Mad River	Low: 1/1	19 (3.00)
6914-09-1-L1 Mad River	Low: 1/1	19(3.00)

6916-11-1 Hop Brook	*Low: 3/3*	*19 (3.00)*
6916-11-1-L1 Hop Brook	*Low: 14/14*	*19 (3.00)*
6916 10-1 Hop Brook	*Low: 7/7*	*19 (3.00)*
6913-03-1 Beaver Pond Brook	*Excluded: 2/8 Low: 6/8*	*20 (2.91)*
6900-22-1-L1 Naugatuck River	*Excluded: 1/9 Low: 8/9*	*21(2.90)*
6916-00-3-L4 Hop Brook	*Low: 5/6 Excluded: 1/6*	*22 (2.83)*
6916-10-1-L1 Hop Brook	*Excluded: 3/7 Low: 4/7*	*23 (2.71)*
6913-03-1-L1 Beaver Pond Brook	*Low: 2/3 Excluded: 1/3*	*24 (2.67)*
6913-02-1 Beaver Pond Brook	*Excluded: 11/25 Low: 14/25*	*25 (2.56)*
6911-00-3-L8 Hancock River	*Excluded: 4/7 Low: 3/7*	*26 (2.43)*
6913-01-1 Beaver Pond Brook	*Excluded: 4/6 Low: 2/6*	*27 (2.33)*
6900-22-1-L2 Naugatuck River	*Excluded: 1/1*	*28 (2.00)*

***Overall Basin Rank based on average score of outfalls from IDDE Ranking Matrix.**

Background

The IDDE Ranking Matrix was used to score each individual outfall based on available catchment characteristics information. The outfalls in the IDDE Ranking Matrix were grouped by DEEP's local drainage basins and were assigned IDs based on these basin numbers. Outfalls were assigned to a priority category (excluded, low, high or problem) based on their score in the IDDE Ranking Matrix. The characteristics, and consequently the score and priority category, of each of the outfalls within a local drainage basin were not uniform. Therefore the associated local drainage basin could not be directly assigned a single priority category and the averages of outfall scores for each drainage basin were used for the table above.

Dry weather screening and sampling began in June of 2018, with outfalls designated as low or high priority within priority areas in drainage basins to Impaired Waterbodies first, in order to meet the permit deadline of July 1, 2018. However, the outfall inventory and ranking had not be completed at this time. Screening and sampling started within the Mad River basins, followed by the Steele Brook and the Naugatuck River basins. Outfalls screened and sampled were located in areas where a significant amount of outfalls are in close proximity to each other to maximize time in the field. The City of Waterbury will continue to dry weather screen and sample outfalls within the DEEP local drainage basins with the highest rankings as listed above.

The following limitations and assumptions were made as part of the IDDE activities:

- *Outfalls that had prior evidence of sewer impacts from analytical data or are located in close proximity to and downgradient from properties with failing septic systems were categorized as "Problem".*
- *In addition to assigning an outfall to an "Excluded" category based on the score in the IDDE Ranking Matrix, outfalls were also checked for characteristics for "excluded catchments" as defined in the permit.*
- *Outfalls determined to be from private properties or roads, state owned roads, inlets, true culverts or outfalls that discharge to wooded areas and not to "waters of the state", either from field reconnasciance or office research, were removed from the original list/total of outfalls found in the original IDDE Plan dated June 29, 2018.*
- *City-owned outfalls were prioritized for dry weather screening and sampling over interconnections and culverts. Only some interconnections and culverts were listed and ranked in the current IDDE Ranking Matrix. Once the locations and details of the additional interconnections and culverts can be verified, they can be added and ranked in the IDDE Ranking Matrix and screened/sampled/investigated if necessary.*

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.

Note: highlighted data exceed benchmark values

Outfall / Interconnection ID	Screening / Sample Date	Ammonia	Chlorine	Conductivity	Salinity	E. coli or Enterococcus	Surfactants	Water Temp	Pollutant of Concern	If required, follow-up actions taken
6913-00-2-R1-011	*4/5/2011**	-	-	-	-	-	-	-	*n/a*	*N/A*
6911-00-3-R1-022	*7/21/2011**	-	-	-	-	-	-	-	*Other*	*N/A*
6914-00-3-R3-008	*1/30/2012**	-	-	-	-	-	-	-	*E. coli & Other*	*N/A*
6900-00-4-R11-014	*1/30/2014**	-	-	-	-	-	-	-	*E. coli & Other*	*N/A*
6916-11-1-L1-007	*7/18/2014**	-	-	-	-	-	-	-	*n/a*	*N/A*
6916-11-1-L1-008	*7/1/2016**	-	-	-	-	-	-	-	*n/a*	*N/A*
6900-00-4-R14-005	*7/22/2016**	-	-	-	-	-	-	-	*E. coli & Other*	*N/A*
6914-00-3-L4-015	*6/7/2018*	-	-	-	-	-	-	-	*E. coli & Other*	*N/A*

6914-00-3-L4-014	*6/7/2018*	-	-	-	-	-	-	-	*E. coli & Other*	*N/A*
6914-00-3-L4-013	*6/7/2018*	-	-	-	-	-	-	-	*E. coli & Other*	*N/A*
6914-00-3-L4-012	*6/7/2018*	-	-	-	-	-	-	-	*E. coli & Other*	*N/A*
6914-00-3-L4-009	*6/7/2018*	-	-	-	-	-	-	-	*E. coli & Other*	*N/A*
6914-00-3-L4-008	*6/7/2018*	-	-	-	-	-	-	-	*E. coli & Other*	*N/A*
6914-00-3-L4-007	*6/7/2018*	-	-	-	-	-	-	-	*E. coli & Other*	*N/A*
6914-00-3-L4-005	*6/7/2018*	-	-	-	-	-	-	-	*E. coli & Other*	*N/A*
6914-00-3-L3-021	*6/7/2018*	-	-	-	-	-	-	-	*E. coli & Other*	*N/A*
6914-00-3-L3-021a	*6/7/2018*	-	-	-	-	-	-	-	*E. coli & Other*	*N/A*
6914-00-3-L3-013	*6/7/2018*	-	-	-	-	-	-	-	*E. coli & Other*	*N/A*
6914-00-3-L3-011	*6/7/2018*	-	-	-	-	-	-	-	*E. coli & Other*	*Odor and brown sludge present. Will be ranked at top of high priority category for catchment investigation*
6914-00-3-L3-005	*6/7/2018*	-	-	-	-	-	-	-	*E. coli & Other*	*N/A*
6914-00-3-L3-002	*6/7/2018*	-	-	-	-	-	-	-	*E. coli & Other*	*N/A*
6914-00-3-L3-019	*6/8/2018*	-	-	-	-	-	-	-	*n/a*	*N/A*
6914-00-3-L3-018	*6/8/2018*	-	-	-	-	-	-	-	*n/a*	*N/A*
6914-00-3-R3-013	*6/8/2018*	-	-	-	-	-	-	-	*E. coli & Other*	*N/A*
6914-00-3-R3-012	*6/8/2018*	-	-	-	-	-	-	-	*E. coli & Other*	*N/A*
6914-11-1-012	*7/31/2018*	-	-	-	-	-	-	-	*n/a*	*N/A*
6914-11-1-010	*7/31/2018*	-	-	-	-	-	-	-	*n/a*	*N/A*
6914-11-1-006	*7/31/2018*	-	-	-	-	-	-	-	*n/a*	*N/A*

6914-11-1-005	*7/31/2018*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*n/a*	*N/A*
6914-11-1-004	*7/31/2018*	*<0.10 mg/l*	*Not detected*	*491.5 uS/cm*	*0.3 ppt*	*E. coli 65.00 MPN/100ml*	*<0.05 mg/l*	*20 C*	*n/a*	*N/A*
6914-11-1-003	*7/31/2018*	*0.22 mg/l*	*Not detected*	*676 uS/cm*	*0.4 ppt*	*E. coli 727.00 MPN/100ml*	*<0.05 mg/l*	*21 C*	*n/a*	*Raised priority category from low to high for potential catchment investigation*
*6914-11-1-002***	*7/31/2018*	*<0.10 mg/l*	*0.6 mg/l*	*181.6 uS/cm*	*0.1 ppt*	*E. coli <1 MPN/100ml*	*<0.05 mg/l*	*20 C*	*n/a*	*Will be ranked at top of high priority category for catchment investigation*
6914-11-1-001	*7/31/2018*	*<0.10 mg/l*	*Not detected*	*399.3 uS/cm*	*0.2 ppt*	*E. coli 24.7 MPN/100mL*	*<0.05 mg/l*	*20.1 C*	*n/a*	*N/A*
6914-08-1-002	*7/31/2018*	*1.3 mg/l*	*Not detected*	*469 uS/cm*	*0.4 ppt*	*E. coli >2,419.6 MPN/100ml*	*<0.05 mg/l*	*19 C*	*n/a*	*Will be ranked at top of high priority category for catchment investigation*
6914-10-01-001	*7/31/2018*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*n/a*	*N/A*
6914-08-1-003	*7/31/2018*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*n/a*	*N/A*
6914-08-1-001	*7/31/2018*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*n/a*	*N/A*
6912-00-3-R1-013	*11/12/2018*	*<0.10 mg/l*	*Not detected*	*316 uS/cm*	*0.15 ppt*	*E. coli 107.60 MPN/100ml*	*<0.05 mg/l*	*1.1 C*	*E. coli*	*N/A*
6912-00-3-R1-011	*11/12/2018*	*<0.10 mg/l*	*Not detected*	*357 uS/cm*	*0.17 ppt*	*E. coli 770.10 MPN/100ml*	*<0.05 mg/l*	*1.1 C*	*n/a*	*Raised priority category from low to high for potential catchment investigation*
6912-00-3-R1-037	*11/29/2018*	*0.07 mg/l*	*Not detected*	*582 uS/cm*	*0.28 ppt*	*E. coli <10 MPN/100ml*	*<0.05 mg/l*	*6.35 C*	*E. coli*	*N/A*
6912-00-3-R1-004	*11/29/2018*	*<0.05 mg/l*	*Not detected*	*338 uS/cm*	*0.16 ppt*	*E. coli 75 MPN/100ml*	*<0.05 mg/l*	*7.52 C*	*E. coli & Other*	*N/A*
6912-00-3-R1-026	*11/29/2018*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*n/a*	*N/A*
6912-00-3-R1-006	*11/29/2018*	*<0.05 mg/l*	*Not detected*	*217 uS/cm*	*0.10 ppt*	*E. coli 988 MPN/100ml*	*<0.05 mg/l*	*6.13 C*	*E. coli*	*Raised priority category from low to high for potential catchment investigation*
6912-00-3-R1-006a	*11/29/2018*	*<0.10 mg/l*	*Not detected*	*328 uS/cm*	*0.24 ppt*	*E. coli 30 MPN/100 ml*	*<0.05 mg/l*	*6.9 C*	*E. coli & Other*	*N/A*
6912-06-1-001	*12/6/2018*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*n/a*	*N/A*
6912-00-3-R1-009	*12/6/2018*	*<0.05 mg/l*	*Not detected*	*307 uS/cm*	*0.15 ppt*	*E. coli <10 MPN/100ml*	*<0.05 mg/l*	*5.34 C*	*n/a*	*N/A*

6912-00-3-R1-012	*12/6/2018*	*<0.05 mg/l*	*Not detected*	*213 uS/cm*	*0.10 ppt*	*E. coli 199 MPN/100ml*	*<0.05 mg/l*	*6.6 C*	*n/a*	*N/A*
6912-00-3-R1-030	*12/6/2018*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*n/a*	*N/A*
6912-00-3-R1-025	*12/6/2018*	*0.07 mg/l*	*Not detected*	*356 uS/cm*	*0.17 ppt*	*E. coli 30 MPN/100ml*	*<0.05 mg/l*	*8.51 C*	*n/a*	*N/A*
6912-00-3-R1-021	*12/6/2018*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*n/a*	*N/A*
6912-00-3-R1-017	*12/6/2018*	*0.29 mg/l*	*Not detected*	*369 uS/cm*	*0.18 ppt*	*E. coli >24,200 MPN/100ml*	*0.34 mg/l*	*8.06 C*	*n/a*	*Will be ranked at top of high priority category for catchment investigation*
6912-00-3-R1-016	*12/6/2018*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*n/a*	*N/A*
6912-00-3-R1-010	*12/6/2018*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*E. coli*	*N/A*
6912-00-3-R1-014	*12/6/2018*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*E. coli*	*N/A*
6914-00-3-R2-008	*12/11/2018*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*n/a*	*N/A*
6914-09-1-L1-001	*12/11/2018*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*n/a*	*N/A*
6914-00-3-L4-004	*12/11/2018*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*E. coli & Other*	*N/A*
6914-00-3-L3-012	*12/11/2018*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*E. coli & Other*	*N/A*
6914-00-3-L3-020	*12/11/2018*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*n/a*	*N/A*
6914-00-3-L3-007	*12/11/2018*	*0.17 mg/l*	*Not detected*	*223.6 uS/cm*	*0.11 ppt*	*E. coli 20 MPN/100ml*	*<0.05 mg/l*	*1.8 C*	*E. coli & Other*	*N/A*
6914-00-3-L3-008	*12/11/2018*	*<0.05 mg/l*	*Not detected*	*0 uS/cm*	*0 ppt*	*E. coli 10 MPN/100ml*	*<0.05 mg/l*	*4.4 C*	*E. coli & Other*	*N/A*
6914-00-3-L3-004	*12/11/2018*	*<0.05 mg/l*	*Not detected*	*350 uS/cm*	*0.17 ppt*	*E. coli <10 MPN/100ml*	*<0.05 mg/l*	*7 C*	*E. coli & Other*	*N/A*
6914-00-3-L4-006	*12/12/2018*	*<0.05 mg/l*	*Not detected*	*192.1 uS/cm*	*0.09 ppt*	*E. coli 108 MPN/100ml*	*<0.05 mg/l*	*7.2 C*	*E. coli & Other*	*N/A*
6914-00-3-L3-017	*12/12/2018*	*<0.05 mg/l*	*Not detected*	*210.5 uS/cm*	*0.10 ppt*	*E. coli <10 MPN/100ml*	*<0.05 mg/l*	*10.1 C*	*n/a*	*N/A*
6914-00-3-R3-004	*12/12/2018*	*<0.10 mg/l*	*Not detected*	*0 uS/cm*	*0 ppt*	*E. coli 52 MPN/100ml*	*<0.05 mg/l*	*9.4 C*	*E. coli & Other*	*N/A*
6914-00-3-R3-011	*12/12/2018*	*<0.05 mg/l*	*Not detected*	*250.4 uS/cm*	*0.12 ppt*	*E. coli 10 MPN/100ml*	*<0.05 mg/l*	*7.9 C*	*E. coli & Other*	*N/A*

6914-00-3-R3-006	*12/12/2018*	*<0.05 mg/l*	*Not detected*	*712.5 uS/cm*	*0.35 ppt*	*E. coli <10 MPN/100ml*	*<0.05 mg/l*	*7.4 C*	*E. coli & Other*	*N/A*
6914-00-3-R3-007	*12/12/2018*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*E. coli & Other*	*N/A*
6914-00-3-R3-016	*12/12/2018*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*E. coli & Other*	*N/A*
6900-00-4-R11-068	*12/13/2018*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*n/a*	*N/A*
6900-00-4-R11-009	*12/13/2018*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*n/a*	*N/A*
6900-00-4-R11-055	*12/13/2018*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*n/a*	*N/A*
6900-00-4-R11-030	*12/13/2018*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*n/a*	*N/A*
6900-00-4-R11-002	*12/13/2018*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*n/a*	*N/A*
6900-00-4-R11-012	*12/13/2018*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*n/a*	*N/A*
6900-00-4-R11-003	*12/13/2018*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*n/a*	*N/A*
6900-00-4-R11-062	*12/13/2018*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*n/a*	*N/A*
6900-00-4-R11-061	*12/13/2018*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*n/a*	*N/A*
6900-00-4-R11-063	*12/13/2018*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*n/a*	*N/A*
6900-22-1-L1-002	*12/13/2018*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*n/a*	*N/A*
6900-22-1-L1-001	*12/13/2018*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*n/a*	*N/A*
6900-00-4-R14-001	*12/14/2018*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*E. coli & Other*	*N/A*
6900-00-4-R14-003	*12/14/2018*	*<0.05 mg/l*	*Not detected*	*325.7 uS/cm*	*0.16 ppt*	*E. coli 110 MPN/100ml*	*<0.05 mg/l*	*9.1 C*	*E. coli & Other*	*N/A*
6900-00-4-R14-002	*12/14/2018*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*E. coli & Other*	*N/A*
6900-24-1-010	*12/14/2018*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*n/a*	*N/A*
6900-24-1-009	*12/14/2018*	*<0.05 mg/l*	*Not detected*	*204.3 uS/cm*	*0.10 ppt*	*E. coli 110 MPN/100ml*	*<0.05 mg/l*	*6.8 C*	*n/a*	*N/A*
6900-24-1-001	*12/14/2018*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*n/a*	*N/A*

6900-24-1-005	*12/14/2018*	*<0.05 mg/l*	*Not detected*	*365.2 uS/cm*	*0.17 ppt*	*E. coli 1,240 MPN/100ml*	*<0.05 mg/l*	*4.7 C*	*n/a*	*Raised priority category from low to high for potential catchment investigation*
6900-22-1-L1-012	*12/14/2018*	*<0.05 mg/l*	*Not detected*	*159.6 uS/cm*	*0.08 ppt*	*E. coli 327 MPN/100ml*	*<0.05 mg/l*	*8.9 C*	*n/a*	*N/A*
6900-22-1-L1-013	*12/14/2018*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*n/a*	*N/A*
6900-22-1-L1-003	*12/14/2018*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*n/a*	*N/A*
6900-00-4-R13-025	*12/19/2018*	*0.06 mg/l*	*Not detected*	*886 uS/cm*	*0.64 ppt*	*E. coli 31 MPN/100ml*	*<0.05 mg/l*	*8.6 C*	*E. coli & Other*	*N/A*
6900-00-4-R13-017	*12/19/2018*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*E. coli & Other*	*N/A*
6900-004-R13-018	*12/19/2018*	*0.08 mg/l*	*Not detected*	*794.7 uS/cm*	*0.39 ppt*	*E. coli <10 MPN/100ml*	*<0.05 mg/l*	*5.6 C*	*E. coli & Other*	*N/A*
6900-00-4-R13-015	*12/19/2018*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*E. coli & Other*	*N/A*
6900-00-4-R13-014	*12/19/2018*	*<0.05 mg/l*	*Not detected*	*348.1 uS/cm*	*0.17 ppt*	*E. coli <10 MPN/100ml*	*<0.05 mg/l*	*6.5 C*	*E. coli & Other*	*N/A*
6900-00-4-R13-013	*12/19/2018*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*E. coli & Other*	*N/A*
6900-00-4-R13-006	*12/19/2018*	*0.05 mg/l*	*Not detected*	*550.7 uS/cm*	*0.27 ppt*	*E. coli <10 MPN/100ml*	*<0.05 mg/l*	*5.7 C*	*E. coli & Other*	*N/A*
6900-00-4-R13-005	*12/19/2018*	*0.05 mg/l*	*Not detected*	*972 uS/cm*	*0.40 ppt*	*E. coli <10 MPN/100ml*	*<0.05 mg/l*	*7.5 C*	*E. coli & Other*	*N/A*
6900-00-4-R13-002	*12/19/2018*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*E. coli & Other*	*N/A*
6900-00-4-R13-003	*12/19/2018*	*0.59 mg/l*	*Not detected*	*502.7 uS/cm*	*0.24 ppt*	*E. coli >24,200 MPN/100ml*	*1.33 mg/l*	*7.4 C*	*E. coli & Other*	*Sewage odor, ammonia, surfactants, & bacteria exceed minimal values. Will be ranked at top of high priority category for catchment investigation*
6900-00-4-R13-004	*12/19/2018*	*<0.05 mg/l*	*Not detected*	*588 uS/cm*	*0.43 ppt*	*E. coli <10 MPN/100ml*	*0.06 mg/l*	*7.3 C*	*E. coli & Other*	*N/A*
6900-00-4-R13-007	*12/19/2018*	*0.10 mg/l*	*Not detected*	*500 uS/cm*	*0.37 ppt*	*E. coli 2,990 MPN/100ml*	*<0.05 mg/l*	*7.1 C*	*E. coli & Other*	*Foam noted. Will be ranked at top of high priority category for catchment investigation*
6900-00-4-R13-010	*12/19/2018*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*E. coli & Other*	*N/A*
6900-00-4-R13-012	*12/19/2018*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*E. coli & Other*	*N/A*

6900-00-4-R13-008	*12/19/2018*	-	-	-	-	-	-	-	*E. coli & Other*	*N/A*
6900-00-4-R13-009	*12/19/2018*	-	-	-	-	-	-	-	*E. coli & Other*	*N/A*

* When the City performed GPS field locating of "ends of pipes" during the previous permit period, information such as observable flow, appearance, smell, in addition to other outfall characteristics/dimensions, was recorded. Historical weather data was verified that it was dry in the 24-hour period prior to this screening. Outfalls with no observable flow and no evidence of an illicit discharge, were considered to have had dry weather outfall screening and the date was recorded in current outfall inventory/sampling tables.

**The sample from 6914-11-1-02 for Ecoli analysis was in an unpreserved jar. Since the sample had chlorine detected, the Ecoli result may not be accurate. Outfall will be scheduled for follow-up investigation.

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
None at this time									

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.

Outfall ID	Receiving Water	System Vulnerability Factors
NA		

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
NA					

3.3 Wet weather investigation outfall sampling data

Outfall ID	Sample date	Ammonia	Chlorine	Surfactants
NA				

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
NA							

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."

Document Prepared by	Document Prepared by
Print name: **Correne M. Auer, P.E.**	Print name: **Willetta F. Capelle, P.E.**
Signature / Date: Correne M. Auer March 26, 2019	Signature / Date: Willetta Capelle March 26, 2019
Chief Elected Official or Principal Executive Officer	
Print name: **Neil M. O'Leary, Mayor**	
Signature / Date: 3/27/19	