DRAFT

TOWN OF GROTON

STORMWATER MANAGEMENT PLAN ANNUAL REPORT

REPORTING PERIOD: JANUARY 1, 2019 to DECEMBER 31, 2019

AS REQUIRED BY THE CONNECTICUT DEPARMTNET OF ENERGY & ENVIRONMENTAL PROTECTION GENERAL PERMIT FOR THE DISCHARGE OF STORMWATER FROM SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS EFFECTIVE JULY 1, 2017

MS4 General Permit Town of Groton 2019 Annual Report

Existing MS4 Permittee // Permit Number GSM 000055

January 1, 2019 – December 31, 2019

This report documents The Town of Groton'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.

NOTE RE: "Department / Person Responsible" Column 5, for entirety of report

Leadership / Staffing Transition: Town of Groton MS4 work is split between Public Works (PWD) and the Office of Planning & Development Services (OPDS), with Public Works serving as lead facilitator. In the last 18 months, three employees, each in different roles but all whose work involved MS4, coincidentally left employment with the Town. Longtime Project Management Specialist (PMS) Kristin Doundalakis, who oversaw environmental permitting, left her position in September 2018. The town was well-poised to maintain protocols in her absence; however, delayed taking on new projects. The position was filled in March 2019 by subsequent PMS Michelle Maitland who was new to MS4. 5-year PWD Associate Director Christian Lund left in June, and in September, 35-year veteran Director **Gary Schneider** announced his October retirement. Long-time Town Engineer **Greg Hanover** was appointed as Interim Director in November, and named his successor in January.

Because Gary Schneider led the PWD for the majority of 2019 he will remain listed as the 'Person Responsible' with this note offered as qualifier and added context to PWD efforts. With the staffing transition nearly complete, in 2020, PWD anticipates resuming its role as leading area environmental stewards.

Added NOTE: The Town realized two goals in 2019 which would not otherwise be listed here but are worth mention:

- Achievement of ***Bronze level "Sustainable CT" certification*** and
- Creation by the Town Council of a "***Resiliency & Sustainability Task Force***" whose appointed members will support assessment & coordination of all town efforts.

Part I: Summary of Minimum Control Measure (MCM) Activities

1. Public Education and Outreach (Section 6 (a)(1) / page 19)

1.1 BMP Summary (Best Management Practices)

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion	Additional details
1-1 Implement public education and outreach	Completed / Ongoing	PWD continues to distribute info via Facebook and conduct outreach events in association with its Parks & Recreation and Town Library partners.	Post info on social media annually	Public Works/ Gary Schneider, Director	By June 30, 2018	2017	• Education outlined in 1.3 below • Stormwater related content was added into newly designed Town manager publicly distributed monthly reports as well as in more Parks & Rec materials.
1-2 Address education/outreach for pollutants of concern*	Completed / Ongoing	DEEP "Do Not Feed Waterfowl" brochures continue to be available at Town Hall Annex.	Post info on social media annually	Public Works/ Gary Schneider, Director	By June 30, 2018	2017	PW & OPDS are both on newly created Eastern CT Conservation District Baker Cove Watershed Committee to reduce pollutants of concern

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion	Additional details
1-3 Stormwater info provided on local cable access	Completed / Ongoing	GMTV aired 3 informational slides (LID, catch basins, & PWD practices) amidst ongoing content for month of May as part of Ntl. Public Works Wk.	Content aired annually on cable access channel	Public Works/ Gary Schneider, Director	By June 30, 2018	2017	Slides ran est. 40x day (or 1120x total) in 4 wks over late May/early June. Available to 25K+ Comcast & TVC TOG Channel 2 subscribers. Also streamed "live" via YouTube 24/7 w/ average 4K views/mo.
1-4 Stormwater info provided on town website	Completed / Ongoing	SWMP, Illicit Discharge reporting guide, Catch Basin Cleaning, & educational links are on PWD stormwater page	Update Stormwater webpage annually	Public Works/ Gary Schneider, Director	By June 30, 2018	April 2018	Site data shows 510 Page views from 302 unique visitors in 2019. New content developed to be introduced in Q1 2020.
1-5 Educate dog owners about picking up pet waste	Completed / Ongoing	Brochures are offered annually with dog license renewal (due in June); educational information on cleaning up pet waste provided on website.	Pet waste facts distributed to licensed dog owners with annual license.	Public Works/ Gary Schneider, Director	By June 30, 2018	2017	"Step by Step, A citizen's guide to curbing polluted runoff" brochure printed by Long Island Sound Study (LISS) details proper pet waste disposal. 1,694 dog owners offered it in 2019, appr. 1/4 taken. Steps taken to add veterinary offices to distribution efforts.

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

TOG plans to continue the above efforts as well improve the town's stormwater page. A regularly scheduled municipal TV 'stormwater show' with themed segments is also being explored. Further efforts, as time and budget allows, will be expanding collaboration with Parks & Rec, the Town Library, and Baker Cove Watershed Committee or 'Bacwac', and with possible added partners: Board of Education, TOG Sustainability Task Force, Groton Open Space Association (GOSA), and/or CUSH (Clean Up Sound & Harbors). Also planned is new outreach to area veterinarians to better reach dog owners,the majority of whom are in violation of mandated licensing.

1.3 Details of activities implemented to educate the community on stormwater

Program Element/Activity	Audience (# ppl reached)	Topic(s) covered	Pollutant of Concern (if applicable)	Responsible dept. or partner org.
Public Works Week, 5/19-25 LIBRARY CONTENT: **Children's Room Book Display, Public Resource Info Display, Exterior Entrance In-Column Display, Stormwater education flyer** 5/25 10 am **Pre-K Program** – guest reader AD C. Lund offered hands-on water activity; PMS gave families free Polaroids of children w/ their parent or guardian holding a printed pledge that their family will keep water clean Related **social media (FB) push** by Parks & Rec, Senior Center, & PWD via Town FB page	Library estimates 3500 visitors in May 15 families attended the 1 hour workshop with children ages 2-7. Info captured from 4 adults. Combined engagement 1600+ FB views, 50 likes + 2 shares plus 2 users (PkRec page followers) commenting they'd learned something new	Waste/ sewage (what is safe to put down the toilet vs storm drains)	N/A	Library Parks & Recreation Town Hall
June – 6/8 5K Swag bag half-sheet insert	350	Runner/Walker roles: pet waste, no dumping, reporting	N/A	Parks & Recreation

2. Public Involvement/Participation (Section 6(a)(2) / page 21)

2.1 BMP Summary (Best Management Practices)

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
2-1 Final Stormwater Management Plan publically available	Completed / Ongoing	Posted required notices and reports.	Report is available online	Public Works/ Gary Schneider, Director	Ongoing	April 2019	
2-2 Comply with public notice requirements for Annual Reports	Completed / Ongoing	Public notice posted for Annual Report on Town website in January 2019	Comply with annual notice requirements	Public Works/ Gary Schneider, Director	Feb 15, 2019	Feb 15, 2019	
2-3 Conduct Stormwater Committee Meetings	Completed / Ongoing	Meeting held Monday November 25, 2019 to discuss SWMP implementation and 2019 Annual Report	One meeting held annually	Public Works/ Gary Schneider, Director	Dec 30, 2019	November 25, 2019	
2-4 Sponsor community participation event	Completed / Ongoing	Mystic Aquarium hosted Bluff Pt. clean-up 9/29/2019 though not TOG sponsored. Note 1.3 Library program above.	One event held annually	Public Works/ Gary Schneider, Director	Dec 30, 2019	May 25, 2019 (Library program) Sept. 29, 2019 (Aquarium event)	Previous partner plans with CUSH plans were unrealized but are resumed for next year

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

TOG will continue the above efforts with an aim to increase public awareness of the Stormwater Plan through use of more sustained promotion.

Public Works and Planning & Development Services are also both represented on the new Baker Cove Watershed Committee-- or Bacwac-- noted above in Item 1.2 and managed by the Eastern CT Conservation District. Committee goals are continued improvement of water quality by implementing the aims of the Watershed Based Plan (WBP), which includes the Canada Goose project, and reduction / elimination of other sources of pollution via government, non-profit, commercial/ industrial, neighborhood, and school group collaboration. The group meets every other month and will commence with selection of activities in Q1 of 2020. A number of Community Engagement efforts are being discussed, as is creation of an illustrated educational map which would serve as a tool in Bacwac's continuing efforts.

2.3 Public Involvement/Participation reporting metrics

Metrics	Implemented	Date	Posted
Availability of the Stormwater Management Plan to public	Y	ongoing	http://www.groton-ct.gov/depts/pubwks/storm.asp
Availability of Annual Report announced to public	Y	ongoing	http://www.groton-ct.gov/depts/pubwks/storm.asp

3. Illicit Discharge Detection and Elimination (Section 6(*a*)(3) and Appendix B / page 22)

3.1 BMP Summary (Best Management Practices)

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	n/a	written IDDE program	Public Works/ Gary Schneider, Director	Jul 1, 2018	October 2018	
3-2 Develop list and maps of all MS4 stormwater outfalls in priority areas	Completed / Ongoing	Owner easement research on 50 potential inter-connections underway by Engineering	Outfall and Interconnections inventory and map completed by deadline.	Public Works/ Gary Schneider, Director	Jul 1, 2019	Ongoing / June 30, 2020	Maps substantially complete. Only minor modifications remain after final investigations are completed early 2019.
3-3 Implement citizen reporting program	Completed	n/a	Complete citizen reporting program	Public Works/ Gary Schneider, Director	Ongoing	2017	No reports. Outreach initiated with Fire marshals to determine level of confidence 'no reports'= 'no discharges observed or reported'
3-4 Establish legal authority to prohibit illicit discharges	Completed	n/a	Ordinance enacted by Town Council	Public Works/ Gary Schneider, Director	Jul 1, 2018	May 1, 2018	
3-5 Develop record keeping system for IDDE & SSO tracking	Completed / Ongoing	n/a	IDDE tracking & SSO Inventory developed and incidents included in Annual Report.	Public Works/ Gary Schneider, Director	Jul 1, 2017	2017	Continued tracking of SSO. No IDDE reported/identified. Table included below. See note above re: fire marshal outreach.
3-6 Address IDDE in areas with pollutants of concern	Completed / Ongoing	n/a	ID of areas w/ failing septic; % of failing systems addressed each yr.	Public Works/ Gary Schneider, Director	Not specified	Ongoing	Rcvd historical LLHD data, mapping septic repairs to determine catchment areas priority ranking and system vulnerability factors.

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

Maintain master IDDE tracking spreadsheet. Respond to & investigate reports. Implement IDDE policy. Improve reporting via communication with 11 area Fire Districts.

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

Date of Report	Location / suspected source	Response taken
4/24/2019	West Main @ East Main ("sheen in water near bridge" reported to Fire Dept)	Investigated by Mystic Fire Dept, nothing found per G-5 (incident #19-0000206)
6/25/19	Steamboat Wharf, Mystic ("reported large diesel fuel spill in river" beside hotel)	Mystic Fire Dept reported it investgated and cleared the spill (incident # 19-0000326)

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)
24 Tower Avenue	11/27/2012 @ 10:00 AM	Mumford Cove	undetermined	Break in Effluent Force Main pipe, prompted emergency turn off for repair, open bypass to Mumford Cove	Contractor repaired pipe	
18 West Main St.	1/7/2013 @10:45 AM	Mystic River	5 gallons	mechanical equipment failure; tide	SSO stopped at 11:30 AM on 1/7/2013; Contractor repaired 6" PVC gravity sewer line, reinforced suspended gravity line with hanger/rope	
Corner of Spicer Avenue and Elm Street (Noank)	3/25/2013 @ 1:30 PM	No discharge to surface water or MS4	<50 gallons	manhole blockage due to roots and rags	Used septic hauler to pump raw sewage out of manhole until blockage was cleared; bypass ended at 2:30 PM on 3/25/2013; jetted sewer line and hosed down area	
Poquonnock River Pump Station: 1286 Poquonnock Road	6/7/2013 @ 9:30 PM	Poquonnock River	166,000 gallons	Heavy rain (6"+) caused a GITCH, all pump shut down, & sewage to come out of manhole	Restarted pumps, hosed down road, SSO stopped at 11:30 PM on 6/7/2013	
WPCF, 170 Gary Court	7/1/2013 @ 12:00 AM	Fort Hill Brook	10,000 gallons	electrical utility and equipment failure at Effluent Pump Station	Reset breaker that motor had tripped; bypass stopped at 12:45 PM on 7/1/2013	
WPCF, 170 Gary Court	1/11/2014 @ 10:00 PM	Fort Hill Brook	115,000 gallons	Operator Error: Effluent Lag pump turned off @ pump, wet well overflowed, treated @ parshall flume	Turned lag pump on and pumped down wet well; bypass ended at 10:30 PM on 1/12/2014; make sure that both the lead and lag pumps are turned on at the pump before pumps are put on line.	
173 Route 12: Motel 8	2/8/14 @ 11:00 AM	Parking lot swale	500-1,000 gallons	Sewer line grease blockage at manhole	Cleaned blockage at manhole	
697 Noank Road	8/29/14 @ 9:45 AM	Beebe Cove	400 gallons	Sewer lateral pipe broken in dig to locate	Hosed down area with jet truck; SSO stopped at 9:50 am on 8/29/2014	
Lestertown Road Pump Station, 285 Lestertown Road	8/7/2015	No discharge to surface water or MS4	50 gallons	Operator error while working at the station	The duration of the spill was only a short time period. The affected area was cleaned and lime was applied.	

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)
131 Prospect Hill Road: bottom of driveway	2/26/2016 @ 1:00 PM	No discharge to surface water or MS4	250 gallons	Broken lateral due to differential settlement or vehicle traffic	SSO stopped at 12:00 PM 2/29/2016. Excavator removed material, 25 lbs. lime placed on lawn. Replaced lateral fitting, poured thrust block, ensured proper bedding & soil compaction to support new fitting.	
WPCF, 170 Gary Court: Caustic Room	3/3/2016 @ 1:15 AM	Lawn area near Caustic bldg	300 gallons	Broken plant water (effluent for inplant reuse) supply line	Water supply shut off and bypass stopped at 1:40 AM on 3/3/2016, repair/replace waterline	
WPCF, 170 Gary Court	7/18/2016 @ 1:00 PM	Fort Hill Brook	7.5 mg	Effluent force main was bypassed to enable draining and repair of force main	Effluent force main was repaired, bypass closed at 12:00 pm 7/21/2016	
WPCF, 170 Gary Court	10/25/2016 @6:06 PM	Fort Hill Brook	151,000 gallons	Electrical failure in chlorine pump control system resulting in non-compliance for Cl_2 and fecal coliform	SSO stopped at 8:32 PM on 10/25/16; System is monitored and inspected daily	
Charles Barnum Elementary School, 68 Briar Hill Road	11/17/2016 @ 12:01 PM	No discharge to surface water or MS4	250 gallons	School sewer lateral blockage caused manhole overflow	SSO stopped at 16:05 PM on 11/17/2016. surface area cleaned, lateral jet cleaned	
Mumford Cove Pump Station, 80 Sunrise Road, GLP	4/18/2017 @ 10:30 AM	No discharge to surface water or MS4	1,500 gallons	Gate valve in force main bypass pit at pump station packing failed, filling overtopping pit	SSO stopped at 12:00pm 4/19/2017. Valve packing repaired. Area cleaned and limed.	
Mumford Cove Pump Station, 80 Sunrise Rd, GLP	9/14/2017 @ 5:00 PM	No discharge to surface water or MS4	7,000 gallons	Mechanical equip. failure	SSO stopped at 6 PM on 9/14/2017. Valve temp repaired, replacement completed 2018.	
Poquonnock River Pump Station: 1286 Poquonnock Road	7/29/2018 @ 3:30 PM	Poquonnock River	Estimated 5,400 gallons	Electrical equip. failure	SSO stopped at 4:55 PM when pumps were restarted	
WPCF, 170 Gary Court	7/29/2018 @ 6:50 PM	Fort Hill Brook	125,000 gallons	Electrical equip. failure	SSO stopped at 9:00 AM on 7/30/18. Repaired electrical power distribution.	
WPCF, 170 Gary Court	1/5/2019 @ 7:29 pm	Fort Hill Brook	62,500 gallons	Excess flow during storm event	Duration short (9 m), 7:38 pm stop, with only fully treated disinfected (clean) effluent. A $5.5 million Effluent Pump Station upgrade is underway & will increase capacity and back-ups to reduce overflows.	
I-95 right-of-way betw. north & south lanes at Pamela Avenue	1/14/2019 @ 10:48 am	Drozdyk Drive stormwater basin	undetermined	Grease blockage plus pipe under I-95 sagged from weight	Reported by DOT personnel, incident time span & volume unknown. Sewer line was jetted to resolve SSO. Correction was added monitoring and increased jetting (from periodic to 1x monthly).	

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)
WPCF, 170 Gary Court	7/22/2019 @ 10:28 pm	Fort Hill Brook	125,000 gallons	Excess flow during storm event	SSO stopped at 11:23 pm. Bypass was fully treated (clean) effluent, however, DEEP filing says 'disinfected partially treated raw sewage' since 'clean' is not a choice. A $5.5 million Effluent Pump Station upgrade is underway and will increase capacity & back-ups to reduce overflows.	
WPCF, 170 Gary Court	8/3/2019 @ 5:30 am	Fort Hill Brook	20,001 – 50,000 gallons	Electrical Equipment Failure	After discovery via a report by the on-site guard, SSO stopped at 6:30 pm when commercial power was restored and equipment was reset	

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

Public Works is notified of illicit discharges by citizens, organizations, or police dispatch, and responds accordingly. The IDDE program contains guidance and a reporting template. Reports prompt investigation (site visit, interviews &/or photos) as soon as is practicable to gauge degree and manner of follow-up needed.

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**
NONE		

3.7 IDDE reporting metrics

Metrics	
Estimated or actual number of MS4 outfalls	450
Estimated or actual number of interconnections	74
Outfall mapping complete	100%
Interconnection mapping complete	100%
System-wide mapping complete (detailed MS4 infrastructure)	99%
Outfall assessment and priority ranking	100%
Dry weather screening of all High and Low priority outfalls complete	0%
Catchment investigations complete	0
Estimated percentage of MS4 catchment area investigated	0%

3.8 Briefly describe IDDE training for employees involved in carrying out IDDE tasks including type of training and how often given (minimum once per year).

The IDDE specific training slated for development and intro in 2019 will be undertaken in 2020 (see comment at top). However, there is much IDDE content already included in mandatory training for SPCC requirements (Spill Prevention, Control, & Countermeasures) so it remains to be seen how much new added content is needed

4. Construction Site Runoff Control (Section 6(a)(4) / page 25)

4.1 BMP Summary (Best Management Practices)

BMP	Status	Activities in current reporting period	Measurable goal	Dept / Person Responsible	Due	Date completed or projected completion	Additional details
4-1 Implement, upgrade, and enforce land use regulations or other legal authority to meet requirements of MS4 general permit	Completed/ Ongoing	Adopted comprehensive revision to Zoning Regulations incl. stricter stormwater standards, E&S, & Low Impact Development (LID) requirements.	Existing E&S control and stormwater regulations reviewed and revised as necessary by deadline.	Office of Planning & Development Svcs. (OPDS), Jon Reiner, Director	July 1, 2019	October 1, 2019	Enforced through plan review & Zoning Officer.
BMP #4-1b: Establish interagency or inter-jurisdictional agreements	Completed	Entered into agreements with reps of interconnected MS4s: Groton City, Town of Ledyard, Navy Sub Base, & CT Dept. of Transportation	Inter-jurisdictional agreements established to control pollutants betw entities	Public Works/ Gary Schneider, Director	July 1, 2019	Jul 1, 2019	As time / funding permits, further consideration will be given to examination of DOT infrastructure on Town waters
4-2 Develop/Implement plan for interdepartmental coordination in site plan review and approval	Completed / Ongoing	Continued to follow plan.	Site plan review and approval procedures outlined.	Office of Planning & Development Svcs. (OPDS), Jon Reiner, Director	July 1, 2017	July 1, 2017	Groton has used a team approach for review of site plans since 1980. OPDS sends applications to PWD, Parks & Rec, Fire Marshal, Police & Health District. Dept. reps meet with applicant to discuss concerns, then plan is presented to Planning & Zoning Commission for decision.
4-3 Review site plans for stormwater quality concerns	Completed / Ongoing	OPDS reviewed all site plans & administrative site plans received for E&S control to prevent or minimize impacts to water quality prior to approval.	100% of site plans reviewed for E&S control.	Office of Planning & Development Svcs. (OPDS), Jon Reiner, Director	July 1, 2017	July 1, 2017	All proposals this year which included site plans, subdivision plans and/or wetland permit plans were reviewed byproper officials.

BMP	Status	Activities in current reporting period	Measurable goal	Dept / Person Responsible	Due	Date completed or projected completion	Additional details
4-4 Conduct site inspections	Completed / Ongoing	OPDS conducted weekly inspections for adequate E&S controls on all projects under construction until project sites were permanently stabilized	100% of site inspections conducted for all sites constructed within reporting period.	Office of Planning & Development Svcs. (OPDS), Jon Reiner, Director	July 1, 2017	July 1, 2017	
4-5 Implement procedure to allow public comment on site development	Completed / Ongoing	Meetings were properly posted and held for required projects.	Public mtgs held by Planning, Zoning & Inland Wetlands Agency for 100% of eligible projects. 100% of projects posted on Town website when not presented at a meeting.	Office of Planning & Development Svcs. (OPDS), Jon Reiner, Director	July 1, 2017	July 1, 2017	
4-6 Implement procedure to notify developers about DEEP construction stormwater permit	Completed / Ongoing	Continued to provide flyers in 100% of preconstruction meetings and land use application reviews.	Flyers provided in 100% of preconstruction meetings and land use application reviews.	Jonathan Reiner, Director of Office of Planning and Developmental Services (OPDS)	July 1, 2017	July 1, 2017	
4-7 Document compliance with the CT Anti-Degradation Implementation Policy in the Water Quality Standards for all new or increased discharges to High Quality Waters from the MS4	Completed / Ongoing	None - N/A	100% compliance with policy for all new or increased discharges to high quality waters.	Office of Planning & Development Svcs. (OPDS), Jon Reiner, Director	July 1, 2017	July 1, 2017	
4-8 Demonstrate no new or increased discharges to Impaired Waters from the MS4	Completed / Ongoing	None – N/A	Zero net increase in pollutant load in discharges to Impaired Waters.	Office of Planning & Development Svcs. (OPDS), Jon Reiner, Director	July 1, 2017	July 1, 2017	

BMP	Status	Activities in current reporting period	Measurable goal	Dept / Person Responsible	Due	Date completed or projected completion	Additional details
4-9 Retain Water Quality Volume for all new stormwater discharges located less than 500 feet from a tidal wetland	Completed / Ongoing	None – N/A	100% Water Quality Volume retained for all new stormwater discharges less than 500 ft from non-freshwater tidal wetlands.	Office of Planning & Development Svcs. (OPDS), Jon Reiner, Director	July 1, 2017	July 1, 2017	
4-10 Obtain required permits for stormwater discharges below the coastal jurisdiction line	Completed / Ongoing	None – N/A	100% of all required permits obtained for new stormwater discharge below coastal jurisdiction line.	Office of Planning & Development Svcs. (OPDS), Jon Reiner, Director	July 1, 2017	July 1, 2017	

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

Continue current efforts and proceed with implementation and enforcement of revised Zoning Regulations.

5. Post-construction Stormwater Management (Section 6(*a*)(5) / page 27)

5.1 BMP Summary (Best Management Practices)

BMP	Status	Activities in current reporting period	Measurable goal	Dept / Person Responsible	Due	Date completed or projected completion	Additional details
5-1 Establish or update legal authority & guidelines regarding LID and runoff reduction in site development planning	Completed	Zoning Regulation revisions effective Oct. 1, 2019 require LID and more strict stormwater reduction & treatment requirements	Adoption of updated legal authority & guidelines	Office of Planning & Development Svcs. (OPDS), Jon Reiner, Director	July 1, 2021	October 1, 2019	
5-2 Enforce LID/runoff reduction requirements for development and redevelopment projects	Completed / Ongoing	These requirements, updated as of October, are enforced through site plan review and by the Zoning Enforcement Officer.	Percent of Water Quality Volume retained.	Office of Planning & Development Svcs. (OPDS), Jon Reiner, Director	July 1, 2019	October 1, 2019	

BMP	Status	Activities in current reporting period	Measurable goal	Dept / Person Responsible	Due	Date completed or projected completion	Additional details
5-3 Identify retention and detention ponds in priority areas	Not started			Public Works/ Gary Schneider, Director	July 1, 2019		
5-4 Implement long-term maintenance plan for stormwater basins and treatment structures	Ongoing	Hydrodynamic separators were inspected 5/22/18. A work order was issued to clean 3. Stormwater Basins have been inventoried and mapped in GIS but are not inspected yet.	Inspect 100% of Town-owned stormwater basins and treatment structures located in the Priority Areas annually.	Public Works/ Gary Schneider, Director	Ongoing beginning Jul 1, 2019	Jul 1, 2019	
5-5 DCIA mapping	In progress	Continued to calculate DCIA for those sub-basins with <11% DCIA and incorporate information into Town's GIS	Percent of total sub-basins for which DCIA has been mapped and calculated.	Public Works/ Gary Schneider, Director	July 1, 2020		
5-6 Address post-construction issues in areas with pollutants of concern	Not started			Office of Planning & Development Svcs. (OPDS), Jon Reiner, Director	Not specified		

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

Develop & implement policy for maintaining basins and structures. Plus two School renovations (Cutler & Westside) will incorporate improved stormwater conditions before their completion in 2020/2021

5.3 Post-Construction Stormwater Management reporting metrics

Metrics	
Baseline (2012) Directly Connected Impervious Area (DCIA)	3,132.34 acres - 15.13%
DCIA disconnected (redevelopment plus retrofits)	0 acres this year / 0 acres total
Retrofits completed	0
DCIA disconnected	N/A - 0% this year / % total since 2012
Estimated cost of retrofits	No retrofits this year
Detention or retention ponds identified	0 this year /7 total

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

- UCONN CLEAR calculated the impervious cover area for each DEEP sub basin in the Town and this info was incorporated into the Town's GIS.
- The Town used the impervious cover data to calculate the DCIA for each sub-basin that had impervious cover >11% using the Option 1 method to calculate DCIA outlined in Appendix 3 of the Connecticut Watershed Response Plan for Impervious Cover. This option provides a general assumption for the type of land use related to the MS4 sub-basin and only requires using the percent area of impervious cover (IC) calculated for the Town. Option 1 assumes connection between IC and DCIA in a contributing area that is mostly storm sewered with curb and gutter, and residential rooftops connected to the MS4. The equation applied was: DCIA%=0.1(%IC)^1.5. A map was created depicting the urbanized areas, outfalls discharging to impaired waters and sub-basins that have >11% DCIA that will serve as Figure 1-1 "Priority Areas" of the written IDDE program.

6. Pollution Prevention/Good Housekeeping (Section 6(*a*)(6) / page 31)

6.1 BMP Summary (Best Management Practices)

BMP	Status	Activities in current reporting period	Measurable goal	Dept. / Person Responsible	Due	Date completed or projected completion	Additional details
6-1 Develop/implement formal employee training program	Completed / Ongoing	Conducted annual training.	Conducted annual training.	Public Works/ Gary Schneider, Director	July 1, 2017	Completed 2017/ Ongoing	
6-2a Minimize the discharge of pollutants to MS4 from parks and open space management	Completed / Ongoing	Continued to follow SOPs	100% of existing SOP's reviewed and updated by deadline.	Public Works/ Gary Schneider, Director	December 31, 2017	Completed 2017/ Ongoing	
6-2b Minimize the discharge of pollutants to MS4 from pet waste	Completed / Ongoing	Continued monitoring of parks for poor pet waste practices, maintained Town installed pet waste stations, no dumping signs, & public education.	1) Locations w/ inappropriate pet waste management ID'd by deadline; 2) % locations with compliance complete.	Public Works/ Gary Schneider, Director	December 31, 2017	Completed 2017/ Ongoing	
6-2c Minimize the discharge of pollutants to MS4 from waterfowl	Completed / Ongoing	DEEP "Do Not Feed Waterfowl" brochures available at Town Hall Annex. Joined Eastern CT Conservation District (ECCD) Baker Cove Watershed Committee-initiated in part to continue Canada Goose Task Force activities.	1) Identify waterfowl congregations & feed on a schedule 2) % of ID'd land w/ educational signs or other methods to discourage feeding; 3) % of ID'd lands that practice prevention, congregation and/or the areas of direct drainage isolated.	Public Works/ Gary Schneider, Director	December 31, 2017	Completed 2017/ Ongoing	

6-2d Minimize the discharge of pollutants to MS4 from buildings & facilities	Completed / Ongoing	Parking lots swept per plan. Existing SWPPP followed and maintained.	1) Procedures developed and implemented for dumpsters by deadline; 2) Parking lots swept annually; 3) Non-SWPPP facilities evaluated by deadline to ensure no interior floor drains connect to the MS4.	Public Works/ Gary Schneider, Director	December 31, 2017	Completed 2017/ Ongoing	Non-SWPPP facility evaluation delayed, to be undertaken in 2020
6-2e Minimize the discharge of pollutants to MS4 from municipal vehicle and equipment maintenance	Completed / Ongoing	Continued to follow procedures established for vehicle storage and washing.	1) Procedures established for Town vehicle storage; 2) Procedures established to ensure that vehicle wash waters are not discharged to the MS4 or to surface waters.	Public Works/ Gary Schneider, Director	December 31, 2017	Completed 2017/ Ongoing	
6-2f Minimize the discharge of pollutants to MS4 from leaf management	Completed / Ongoing	Streets swept and information distributed.	Problem streets swept annually in the fall as part of BMP #6-9; Educational information provided on the Town Stormwater webpage (BMP #1-4).	Public Works/ Gary Schneider, Director			
6-2 Implement MS4 property and operations maintenance	Completed / Ongoing	Continued to follow SOPs		Public Works/ Gary Schneider, Director	Ongoing beginning Jul 1, 2018		
6-3 Implement coordination with interconnected MS4s	Completed / Ongoing	Completed	Entered into agreements with representatives of interconnected MS4s: Groton City, Town of Ledyard, Navy Sub Base, & CT Dept. of Transportation	Public Works/ Gary Schneider, Director	Not specified		
6-4 Develop/implement program to control other sources of pollutants to the MS4	Ongoing		Program developed and implemented to control the contribution of pollutants to MS4 by deadline	Public Works/ Gary Schneider, Director	Not specified		

6-5 Evaluate additional measures for discharges to impaired waters*	Ongoing	n/a		Public Works/ Gary Schneider, Director	Not specified		
6-6 Track projects that disconnect DCIA	Completed / Ongoing	Continued to follow procedures for vehicle storage and washing.		Public Works/ Gary Schneider, Director	Ongoing		
6-7 Implement infrastructure repair/rehab program	Ongoing	n/a	Program developed and implemented by deadline.	Public Works/ Gary Schneider, Director	Jul 1, 2021		Began to develop and implement program in 2017.
6-8 Develop/implement plan to identify/prioritize retrofit projects	Not started			Public Works/ Gary Schneider, Director	Jul 1, 2020		
6-9 Implement retrofit projects to disconnect 2% of DCIA	Not started			Public Works/ Gary Schneider, Director	Jul 1, 2022		
6-10 Develop/implement street sweeping program	Completed / Ongoing			Public Works/ Gary Schneider, Director	Jul 1, 2017		
6-11 Develop/implement catch basin cleaning program	Completed / Ongoing			Public Works/ Gary Schneider, Director	Jul 1, 2020		
6-12 Develop/implement snow management practices	Completed / Ongoing	Adopted formal written policy for Snow Management SOPs in January 2018.and met chemical application rates	1) SOPs implemented, 2) % of road crew trained on application methods and equipment; 3) goals for chemical application rates met annually	Public Works/Gary J. Schneider, Director	Jul 1, 2018	December 31, 2017	

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

Existing efforts will be maintained but with added emphasis on finding possibilities to improve efficiency and effectiveness and quantifying results.

6.3 Pollution Prevention/ Good Housekeeping reporting metrics

Metrics	
Employee training provided for key staff	Jan 2019 / February 2020
Street sweeping	
Curb miles swept	401 miles
Volume (or mass) of material collected	1024 cubic yards
Catch basin cleaning	
Total catch basins in priority areas	590
Total catch basins in MS4	2656
Catch basins inspected	370
Catch basins cleaned	370
Volume (or mass) of material removed from all catch basins	329.53 cubic yards
Volume removed from catch basins to impaired waters (if known)	Unknown
Snow management	
Type(s) of deicing material used	Liquid Magnesium Chloride and IB30/70 treated salt
Total amount of each deicing material applied	300 gal Magnesium Chlorides + 3,490 tons IB30/70
Type(s) of deicing equipment used	Computerized ground speed control spreaders
Lane-miles treated	190.42 miles
Snow disposal location	741 Flanders Rd.
Staff training provided on application methods & equipment	Yes- 10/2018
Municipal turf mgmt. program actions (for permittee properties in basins with N/P impairments)	
Reduction in application of fertilizers (since start of permit)	Unknown
Reduction in turf area (since start of permit)	0 acres
Land w/ high potential to contribute bacteria (dog parks, parks w/ open water, sites w/ failing septic)	
Cost of mitigation actions/retrofits	Unknown

Catch basin cleaning program

Provide any updates or modifications to your catch basin cleaning program
The Town owns & operates two vacuum trucks for catch basin cleaning but for the better part of 2019 one of the trucks was out of commission (repeatedly in & out of shop for repairs) thus the number of catch basins cleaned was down from prior years. It is hoped that in 2020 the previous ratio will be resumed.

6.4 Retrofit program

Briefly describe the Retrofit Program ID & prioritization process, projects selected, the rationale and the total DCIA to be disconnected upon completion of each project.
TOG will initiate planning of a Retrofit program in 2020 in collaboration with OPDS, the Board of Ed, Parks & Rec and other interested parties it will seek to identify. Funds have been requested for FY21 to hire a consultant to undertake a comparison and feasability study of ideas to be generated in the coming year.

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

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

Part II: Impaired waters investigation and monitoring

1. Impaired waters investigation and monitoring program

1.1 Indicate which pollutant(s) of concern occur(s) in your municipality or institution. This data is available on MS4 map viewer: http://s.uconn.edu/ctms4map.

Nitrogen/ Phosphorus ☒ Bacteria ☒ Mercury ☐ Other Pollutant of Concern ☐

1.2 Describe program status.

Discuss 1) status of monitoring completed 2) summary of results & notable findings 3) any changes to the Stormwater Management Plan based on monitoring results.
Funding non-availability and staff vacancies prevented the Town from commencing monitoring in 2018. Funds were then allocated in FYE20, but staff transition delayed initiation. Contracting will commence in 2020. SWMP goals are screen 50% of initial dry weather outfalls (or 174 outfalls) by September 2020 with 100% by 2022.

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

2.1 Screening data

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

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

2.2 Credit for screening data collected under 2004 permit

If any outfalls to impaired waters were sampled under the 2004 permit, that data can count toward monitoring requirements under the modified 2017 MS4. 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?*
#0312	12/12/16	Bacteria	E. coli – 360/100 ml	CTL, Inc.	No

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

Pollutant of concern	Pollutant threshold
Nitrogen	Total N > 2.5 mg/l
Phosphorus	Total P > 0.3 mg/l
Bacteria (fresh waterbody)	• E. coli > 235 col/100ml for swimming areas or 410 col/100ml for all others • Total Coliform > 500 col/100ml
Bacteria (salt waterbody)	• Fecal Coliform > 31 col/100ml for Class SA and > 260 col/100ml for Class SB • Enterococci > 104 col/100ml for swimming areas or 500 col/100 for all others
Other pollutants of concern	Sample turbidity is 5 NTU > in-stream sample

3. Follow-up investigations (Section 6(i)(1)(D) / page 43)

Provide the following information for outfalls exceeding the pollutant threshold.

Outfall	Status of drainage area investigation	Control measure implementation to address impairment
N/A	N/A	N/A

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

Once outfall screening to impaired waters for at least 50% is done, ID 6 of the highest contributors of any pollutants of concern. Begin monitoring annually by 7/1/20.

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

Part III: Additional IDDE Program Data

1. Assessment & Priority Ranking of Catchments data (Appendix B (A)(7)(c) / page 5)

List all catchments with their ranking (DEEP basins may be used instead of manual catchment delineations).

1. Catchment ID (DEEP Basin ID)	2. Category	3. Rank
Outfall 0859	High	1
Outfall 0312	High	2
Outfall 0271	High	3
Outfall 1108	High	4
Outfall 0924	High	5
Outfall 0462	High	6
Outfall 0290	High	7
Outfall 0156	High	8
Outfall 0288	High	9
Outfall 0525	High	10
Outfall 0194	High	11
Outfall 0193	High	12
Outfall 0192	High	13
Outfall 0191	High	14
Outfall 0025	Low	15
Outfall 0154	Low	16
Outfall 0381	Low	17
Outfall 0026	Low	18
Outfall 0196	Low	19
Outfall 0296	Low	20
Outfall 0458	Low	21
Outfall 0426	Low	22
Outfall 0267	Low	23
Outfall 0395	Low	24
Outfall 0360	Low	25
Outfall 0259	Low	26
Outfall 0222	Low	27
Outfall 0378	Low	28
Outfall 0094	Low	29
Outfall 0095	Low	30
Outfall 0102	Low	31
Outfall 0342	Low	32
Outfall 1022	Low	33
Outfall 0213	Low	34
Outfall 0214	Low	35
Outfall 0215	Low	36
Outfall 0216	Low	37
Outfall 0217	Low	38
Outfall 0221	Low	39
Outfall 0220	Low	40
Outfall 0218	Low	41
Outfall 0219	Low	42
Outfall 0159	Low	43
Outfall 1147	Low	44
Outfall 1297	Low	45
Outfall 0413	Low	46
Outfall 0075	Low	47
Outfall 0422	Low	48
Outfall 0263	Low	49
Outfall 0035	Low	50
Outfall 0036	Low	51
Outfall 1193	Low	52
Outfall 1307	Low	53
Outfall 1306	Low	54
Outfall 0073	Low	55
Outfall 0074	Low	56
Outfall 0065	Low	57
Outfall 0064	Low	58
Outfall 0239	Low	59
Outfall 0311	Low	60
Outfall 1560	Low	61
Outfall 0283	Low	62
Outfall 0027	Low	63
Outfall 0155	Low	64
Outfall 0292	Low	65
Outfall 0315	Low	66

Outfall 0268	Low	67
Outfall 0157	Low	68
Outfall 0447	Low	69
Outfall 0291	Low	70
Outfall 0262	Low	71
Outfall 0016	Low	72
Outfall 0149	Low	73
Outfall 0340	Low	74
Outfall 0446	Low	75
Outfall 1389	Low	76
Outfall 0893	Low	77
Outfall 0127	Low	78
Outfall 1202	Low	79
Outfall 1204	Low	80
Outfall 0050	Low	81
Outfall 0051	Low	82
Outfall 0467	Low	83
Outfall 0052	Low	84
Outfall 0047	Low	85
Outfall 0787	Low	86
Outfall 1205	Low	87
Outfall 0014	Low	88
Outfall 1074	Low	89
Outfall 0224	Low	90
Outfall 0223	Low	91
Outfall 1239	Low	92
Outfall 0855	Low	93
Outfall 0085	Low	94
Outfall 0431	Low	95
Outfall 1083	Low	96
Outfall 0107	Low	97
Outfall 0842	Low	98
Outfall 0247	Low	99
Outfall 0795	Low	100
Outfall 0796	Low	101
Outfall 1084	Low	102
Outfall 0022	Low	103
Outfall 0023	Low	104
Outfall 0198	Low	105

Outfall 0265	Low	106
Outfall 0320	Low	107
Outfall 0124	Low	108
Outfall 0011	Low	109
Outfall 0285	Low	110
Outfall 0852	Low	111
Outfall 0176	Low	112
Outfall 0250	Low	113
Outfall 0039	Low	114
Outfall 0343	Low	115
Outfall 0333	Low	116
Outfall 0998	Low	117
Outfall 0853	Low	118
Outfall 0246	Low	119
Outfall 0817	Low	120
Outfall 0041	Low	121
Outfall 1128	Low	122
Outfall 1101	Low	123
Outfall 1103	Low	124
Outfall 0284	Low	125
Outfall 0201	Low	126
Outfall 0200	Low	127
Outfall 0857	Low	128
Outfall 0856	Low	129
Outfall 0203	Low	130
Outfall 1181	Low	131
Outfall 0202	Low	132
Outfall 0923	Low	133
Outfall 0382	Low	134
Outfall 0300	Low	135
Outfall 0264	Low	136
Outfall 0396	Low	137
Outfall 1512	Low	138
Outfall 1514	Low	139
Outfall 0297	Low	140
Outfall 0424	Low	141
Outfall 0181	Low	142
Outfall 0184	Low	143
Outfall 0298	Low	144

Outfall 1025	Low	145
Outfall 0445	Low	146
Outfall 0185	Low	147
Outfall 0339	Low	148
Outfall 0390	Low	149
Outfall 0399	Low	150
Outfall 0348	Low	151
Outfall 1362	Low	152
Outfall 0314	Low	153
Outfall 1240	Low	154
Outfall 0437	Low	155
Outfall 0398	Low	156
Outfall 0393	Low	157
Outfall 0186	Low	158
Outfall 0341	Low	159
Outfall 0412	Low	160
Outfall 0484	Low	161
Outfall 0190	Low	162
Outfall 0189	Low	163
Outfall 0400	Low	164
Outfall 0439	Low	165
Outfall 0119	Low	166
Outfall 0211	Low	167
Outfall 0183	Low	168
Outfall 0212	Low	169
Outfall 0019	Low	170
Outfall 0423	Low	171
Outfall 0097	Low	172
Outfall 0463	Low	173
Outfall 0141	Low	174
Outfall 0140	Low	175
Outfall 1431	Low	176
Outfall 0861	Low	177
Outfall 0287	Low	178
Outfall 0475	Low	179
Outfall 0230	Low	180
Outfall 0228	Low	181
Outfall 0227	Low	182
Outfall 0304	Low	183

Outfall 0281	Low	184
Outfall 0209	Low	185
Outfall 0210	Low	186
Outfall 0454	Low	187
Outfall 0815	Low	188
Outfall 0123	Low	189
Outfall 0122	Low	190
Outfall 0158	Low	191
Outfall 0278	Low	192
Outfall 0276	Low	193
Outfall 0277	Low	194
Outfall 0275	Low	195
Outfall 0137	Low	196
Outfall 1487	Low	197
Outfall 1488	Low	198
Outfall 0273	Low	199
Outfall 0272	Low	200
Outfall 0174	Low	201
Outfall 0175	Low	202
Outfall 1215	Low	203
Outfall 0133	Low	204
Outfall 0132	Low	205
Outfall 0205	Low	206
Outfall 0206	Low	207
Outfall 0295	Low	208
Outfall 0207	Low	209
Outfall 0208	Low	210
Outfall 1537	Low	211
Outfall 1518	Low	212
Outfall 0881	Low	213
Outfall 1392	Low	214
Outfall 0237	Low	215
Outfall 0136	Low	216
Outfall 0234	Low	217
Outfall 0235	Low	218
Outfall 1361	Low	219
Outfall 0482	Low	220
Outfall 0236	Low	221
Outfall 0326	Low	222

Outfall 0328	Low	223
Outfall 0327	Low	224
Outfall 0385	Low	225
Outfall 0324	Low	226
Outfall 0322	Low	227
Outfall 0321	Low	228
Outfall 0251	Low	229
Outfall 0252	Low	230
Outfall 0384	Low	231
Outfall 0820	Low	232
Outfall 0364	Low	233
Outfall 0317	Low	234
Outfall 0379	Low	235
Outfall 0318	Low	236
Outfall 0319	Low	237
Outfall 0459	Low	238
Outfall 0452	Low	239
Outfall 0361	Low	240
Outfall 1562	Low	241
Outfall 1062	Low	242
Outfall 0332	Low	243
Outfall 0330	Low	244
Outfall 0331	Low	245
Outfall 0803	Low	246
Outfall 0329	Low	247
Outfall 0843	Low	248
Outfall 0081	Low	249
Outfall 0087	Low	250
Outfall 0126	Low	251
Outfall 0125	Low	252
Outfall 0135	Low	253
Outfall 0421	Low	254
Outfall 0420	Low	255
Outfall 0089	Low	256
Outfall 0389	Low	257
Outfall 0453	Low	258
Outfall 1186	Low	259
Outfall 0241	Low	260
Outfall 0199	Low	261

Outfall 0238	Low	262
Outfall 1477	Low	263
Outfall 0049	Low	264
Outfall 0256	Low	265
Outfall 0033	Low	266
Outfall 1139	Low	267
Outfall 0397	Low	268
Outfall 0144	Low	269
Outfall 0145	Low	270
Outfall 1214	Low	271
Outfall 0067	Low	272
Outfall 1356	Low	273
Outfall 1081	Low	274
Outfall 0372	Low	275
Outfall 0131	Low	276
Outfall 0419	Low	277
Outfall 0418	Low	278
Outfall 0417	Low	279
Outfall 0402	Low	280
Outfall 1355	Low	281
Outfall 0432	Low	282
Outfall 0404	Low	283
Outfall 0403	Low	284
Outfall 0479	Low	285
Outfall 1449	Low	286
Outfall 0394	Low	287
Outfall 0225	Low	288
Outfall 0785	Low	289
Outfall 0862	Low	290
Outfall 0146	Low	291
Outfall 0018	Low	292
Outfall 0478	Low	293
Outfall 0477	Low	294
Outfall 0229	Low	295
Outfall 0401	Low	296
Outfall 0441	Low	297
Outfall 1137	Low	298
Outfall 0082	Low	299
Outfall 0847	Low	300

Outfall 0076	Low	301
Outfall 1140	Low	302
Outfall 0444	Low	303
Outfall 0299	Low	304
Outfall 0411	Low	305
Outfall 0920	Low	306
Outfall 0905	Low	307
Outfall 0904	Low	308
Outfall 0336	Low	309
Outfall 0335	Low	310
Outfall 0902	Low	311
Outfall 0903	Low	312
Outfall 1162	Low	313
Outfall 1163	Low	314
Outfall 1164	Low	315
Outfall 0838	Low	316
Outfall 1116	Low	317
Outfall 0408	Low	318
Outfall 0407	Low	319
Outfall 0139	Low	320
Outfall 0180	Low	321
Outfall 1141	Low	322
Outfall 1112	Low	323
Outfall 1166	Low	324

Outfall 1167	Low	325
Outfall 1168	Low	326
Outfall 1169	Low	327
Outfall 1170	Low	328
Outfall 1171	Low	329
Outfall 1172	Low	330
Outfall 1177	Low	331
Outfall 1178	Low	332
Outfall 1179	Low	333
Outfall 1180	Low	334
Outfall 1175	Low	335
Outfall 1176	Low	336
Outfall 1157	Low	337
Outfall 1158	Low	338
Outfall 1159	Low	339
Outfall 1160	Low	340
Outfall 1161	Low	341
Outfall 0415	Low	342
Outfall 0435	Low	343
Outfall 0434	Low	344
Outfall 0128	Low	345
Outfall 0466	Low	346
Outfall 1023	Low	347
Outfal 0226	Low	348

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.

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
N/A										

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
N/A									

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
N/A		

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
N/A					

3.3 Wet weather investigation outfall sampling data

Outfall ID	Sample date	Ammonia	Chlorine	Surfactants
N/A				

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
N/A							

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: Greg Hanover	Print name: Michelle Maitland
Signature / Date:	Signature / Date: