2022 Annual Report – MS4 General Permit

Town and Borough of Stonington

Stonington, Connecticut

February 15, 2023



Prepared by:



146 Hartford Road Manchester, CT 06040



Introduction

The following Annual Stormwater Report summarizes achievements made during 2021 by the Town & Borough of Stonington in implementing the goals and recommendations identified in the 2017 Stormwater Management Plan (SWMP). The SWMP was prepared to address the requirements of the CTDEEP General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4). Copies of the SWMP and the Annual Report can be viewed electronically on the Town of Stonington or Borough of Stonington website, or in person at either Town Hall location.

For more detailed stormwater information, please view the SWMP at the following location: <u>https://www.stonington-ct.gov/engineering-floodplain-management/pages/phase-2-stormwater-permitting</u>

Contacts provided below:

General Information for Primary Contact Person – Town of Stonington

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General Information for Primary Contact Person – Borough of Stonington

Name: Jeffrey Callahan Title: Warden Mailing Address: 26 Church St, P.O. Box 328 Mail City, State, Zip: Stonington, CT 06378 Phone Number: (860) 535-1298 E-Mail Address: borowarden@att.net Official Website: www.Borough.stonington.ct.us



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MS4 General Permit <u>Town and Borough of Stonington</u> 2022 Annual Report Permit Number GSM <u>000056 (TOS) & 000113 (BOS)</u>

January 1, 2022 – December 31, 2022

Primary MS4 Contacts: Christopher Greenlaw, PE, Town Engineer, 860.535.5076, cgreenlaw@stonington-ct.gov

Jeffrey Callahan, Borough Warden, 860.535.1298, borowarden@att.net

This report documents <u>Town of Stonington & Borough of Stonington's</u> efforts to comply with the conditions of the MS4 General Permit to the maximum extent practicable (MEP) from January 1, 2022 to December 31, 2022.

Part I: Summary of Minimum Control Measure Activities

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

1.1 BMP Summary

вмр	Activities in current reporting period	Sources Used (if applicable)	Method of Distribution	Audience (and number of people reached)	Measurable Goal	Department / Person Responsible	Additional details
1-1 Implement public education and outreach	 Maintained the Town and Borough's Stormwater webpage Town posted a link for residents to purchase rain barrels that they could pick up in town June 29th (Attachment 1) The Highway Department continued the catch basin marking program and marked 15 catch basins The Flood and Erosion Control Board is a new citizen board that was established in November of 2022 to replace the Stormwater Task Force. 	NA			 Update and maintain Town and Borough websites to include educational materials identified in Table 3 of the SWMP and/or available on the CLEAR and CT NEMO MS4 Guide website, CUSH website, or listed in the Connecticut Nonpoint Source Management Program Plan. Distribute educational materials. 	Engineering Dept.	

1-2 Address education/ outreach for pollutants of concern	• Town distributed articles in "Stonington Events" magazine regarding yard and pet waste, composting, and stormwater pollution and awareness. One of the articles publicized the LID project at the 4th District Voting Hall to install rain gardens and a tidal valve. (Attachment 2)	NA	Select educational materials appropriate for impaired waters and stormwater pollutants of concern (see Tables 2 and 3 of SMP).	Engineering Dept.	
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1.2 Describe any Public Education and Outreach activities planned for the next year, if applicable.

- The Town intends to continue distributing seasonally appropriate stormwater-focused articles and information in "Stonington Events" magazine, which tis mailed quarterly to all Town residents.
- The Town will continue to participate in the Eastern Connecticut Stormwater Collaborative meetings and events, to the extent that those occur in 2023.
- The Town and Borough, in past years, attended quarterly Eastern CT Conservation District meetings. However, as of 2022, these meetings are no longer open to municipal participation. The Town intends to continue to pursue similar discussions with the Southeastern Connecticut Council of Governments (SCCOG).

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

2.1 BMP Summary

вмр	Status (Complete, Ongoing, In Progress, or Not started)	Activities in current reporting period	Measurable Goal	Department / Person Responsible	Date completed or projected completion date (include the start date for anything that is 'in progress')	Location Posted	Additional details
2-1 Final Stormwater Management Plan publicly available	Completed	The Stormwater Management Plan is maintained on the Town Engineering webpage and the Borough Stormwater Management webpage.	Maintain current notices and copy of latest SMP on Borough and Town websites	Engineering & Borough Warden	Ongoing Completed March 2017	Town of Stonington: <u>https://</u> ct.gov/engineering-floodplai management/pages/phase-2	www.stonington- n- -stormwater-
2-2 Comply with public notice requirements for Annual Reports (annually by 2/15)	Completed	Applicable public notice is maintained on the Town Engineering webpage and the Borough Stormwater Management webpage.	Maintain current notices and copy of latest Annual Report on Borough and Town websites	Engineering & Borough Warden	April 2021	Borough of Stonington: <u>http://www.Borough.stoning</u> <u>-management/</u>	gton.ct.us/stormwater
2-3 Establish Stormwater Task Force (SWTF)	Completed	Completed the reformation of the Stormwater Task Force (SWTF) in 2018.	Create SWTF to assist in implementation of MS4 permit requirements	Town Engineer & Borough Warden	Summer 2018	The Storm Water Taskforce (replaced by the Flood and Er new citizen board establishe 2022. Board duties include co engineering, planning, and zo stormwater management iss	SWTF) has been osion Control Board, a d in November of oordinating with Town oning departments on ues.

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

- The Town will continue to participate in the Eastern Connecticut Stormwater Collaborative meetings and events, to the extent that those occur in 2023.
- The Town intends to improve regional collaboration between local towns regarding Stormwater Management by pursuing discussions with the Southeastern Connecticut Council of Governments (SCCOG).
- Work with the Flood and Erosion Control Board to improve public engagement and awareness of stormwater quality issues.

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

3.1 BMP Summary

ВМР	Status (Complete, Ongoing, In Progress, or Not started)	Activities in current reporting period	Measurable Goal	Department/ Person Responsible	Date completed or projected completion date (include the start date for anything that is 'in progress')	Additional details
3-1 Develop written IDDE program (Due 7/1/19)	Completed	The Town previously completed a joint written IDDE program for the Town and Borough.	Develop joint written plan of IDDE program for the Town and the Borough	Engineering & Borough Warden	Completed December, 2018	
3-2 Develop list and maps of all MS4 stormwater outfalls in priority areas (Due 7/1/20)	Completed	The Town/Borough previously contracted with Fuss & O'Neill to identify and map the priority areas in the Town and Borough to identify all MS4 stormwater outfalls in the priority areas. The Town/Borough also contracted with Fuss and O'Neill to complete an analysis of directly connected impervious area (DCIA) for each CT DEEP Local Basin within the Town and Borough. The Town's outfall mapping was included with the 2020 Annual Report.	Updating GIS storm system mapping & Develop a list (database or spreadsheet) of Stormwater outfalls in priority areas including catchment delineations.	Engineering & Planning	Completed December, 2019	Priority areas were identified to the CT DEEP Local Basin level and were based on urbanized area, catchment areas with DCIA greater than 11%, and catchment areas of outfalls that directly discharge to impaired waters. In 2022, the Town continued to meet with CTDOT staff to update stormwater mapping and collaborate on DCIA reduction. The Town and Borough are committed to continually improving MS4 related mapping.
3-3 Implement citizen reporting program (Ongoing)	Completed	The stormwater hotline is still available on the Engineering website for citizens to report concerns regarding stormwater.	Continue to support a citizen reporting 'hotline' and advertise it on the Town and Borough websites	Engineering	Ongoing, completed June 2017	
3-4 Establish legal authority to prohibit illicit discharges (Due 7/1/19)	Completed	The Town reviewed and updated the IDDE ordinance in 2018 to ensure compliance with the permit. The IDDE Ordinance is posted on the Town website.	Review existing ordinance and revise accordingly.	Engineering	Completed June 2018	

3-5 Develop record keeping system for IDDE tracking (Due 7/1/17)	Completed	In 2018 the Town/Borough contracted with Fuss & O'Neill to develop a digital data collection system for tracking and recording data related to dry weather outfall inspections and sampling and wet weather sampling of outfalls that discharge to impaired waters. Dry weather outfall inspections and sampling and wet weather sampling of impaired waters began in 2019.	Develop IDDE tracking recordkeeping system	Engineering & Borough Warden	Completed January 2019	
3-6 Address IDDE in areas with pollutants of concern	Ongoing	The Town/Borough hired a consulting firm to conduct dry weather outfall inspections and sampling and wet weather sampling of outfalls that discharge to impaired waters in the late winter of 2019.	Conduct dry weather outfall inspection on all outfalls within the priority area and sample as required by the permit. Conduct wet weather outfall sampling on all outfalls that directly discharge to impaired waters. Address identified illicit discharges following the procedures in the written IDDE plan.	Sanitation, Engineering	2023 (anticipated)	Initial outfall inspections were started in 2019 and are currently underway with expected completion in 2023. Dry weather inspections are complete at >95% of outfalls. Dry-weather sampling was conducted at 32 outfalls in 2022. See note in 3.2. Impaired outfalls sampling continued at 6 outfalls in 2022 and has been conducted at >50% of outfalls. (Attachment 3)
3-7 Assess and prepare a priority ranking of catchments	Completed	The Town/Borough contracted with Fuss & O'Neill to complete catchment ranking and prioritization of outfalls in 2018.	Classify each catchment within priority areas into an excluded, problem, high priority, or low priority catchment. Rank catchments within each category (except excluded catchments) based on screening factors found on page 6 & 7 in Appendix B of the Permit	Engineering	Completed December 2018	Catchment rankings are based on the CT DEEP Local Basins
3-8 Consolidate IDDE tracking spreadsheets	Completed	Compile all the IDDE tracking requirements into one spreadsheet	Create a consolidated spreadsheet	Engineering	Completed July 2018	Reason for addition: Make it easier to track all IDDE activities

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

- Maintain master list of any potential Illicit Discharges; monitor, evaluate, and address accordingly.
- Complete dry-weather inspection of outfalls. Approximately 20 outfalls require follow-up visits. These outfalls have been visited twice, with flow observed but not sampled during one visit, and no flow observed during a follow-up sampling visit. A third visit is planned for 2023 to attempt to obtain a sample of the intermittent flow.
- Complete wet-weather sampling of outfalls discharging directly to impaired waters.
- Conduct annual sampling of 6 "Worst" impaired waters outfalls. Update list, as necessary. (Sampling conducted Jan 3, 2023)
- Continue partnership with CTDOT towards completion of interconnection mapping

3.3 Provide a record of all citizen reports of suspected illicit discharges and other illicit discharges occurring during the reporting period and SSOs occurring July 2017 through end of reporting period using the following table. Illicit discharges are any unpermitted discharge to waters of the state that do not consist entirely of stormwater or uncontaminated groundwater except those discharges identified in Section 3(a)(2) of the MS4 general permit when such non-stormwater discharges are not significant contributors of pollution to a discharge from an identified MS4.

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)
4 Roosevelt, Rte. 1 Noble Smokehouse	10/11/2022	Discharge into storm grate behind restaurant to the east	5 gal	Restaurant employee	10/12/2022 - 2:00 PM - Meet onsite with WPCA (Dan Smith) & Ledge Light (Charlene X), viewed catch basin grates, Phone discussion with Josh Feldman (owner), admitted to employee erroneously pouring oil in storm drain. Action: Immediate cessation of illicit discharge, have oil\grease bins emptied and purchase additional containers as needed in interim. Dan smith (WPCA) to send email to Mr. Feldman with recap of all items discussed and WPCA directives.	NA
See Attachment 4 for ID	DE Resident Tra	acking Sheet.				

No SSOs occurred during 2022. The current SSO inventory, including SSOs identified since 2014, is included as Attachment 5.

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

Method used to track illicit discharge reports	Location and nature of structure with failing septic systems	Actions taken to respond to and address the failures	Impacted waterbody or watershed, if known	Dept. / Person responsible			
Please see Attachment 6 for list of septic system failures and repairs in 2022.							

3.5 Briefly describe the method and effectiveness of said method used to track illicit discharge reports.

The Town of Stonington Engineering Department is the lead party responsible for tracking and responding to any known or reported Illicit Discharges. Currently, the Town maintains an Excel spreadsheet with potential Illicit Discharges that require dry weather sampling or other further investigation. In addition to the Engineering Department, the Stonington Water Pollution Control Authority (WPCA) and local health district, Ledge Light Health District, typically field calls related to sewer overflows or sanitation issues and concerns. The Engineering Department has advised these Town departments of their responsibility to record any such SSO and/or Illicit Discharge related information on provided standardized forms and report to the Engineering Department on a yearly basis.

3.6 IDDE reporting metrics

Metrics	
Estimated or actual number of MS4 outfalls	Town 340 total (206 in urbanized area) Borough 17
Estimated or actual number of interconnections	19 (estimated)
Outfall mapping complete	100%
Interconnection mapping complete	50% (estimated)
System-wide mapping complete (detailed MS4 infrastructure)	100%
Outfall assessment and priority ranking	100%
Dry weather screening of all High and Low priority outfalls complete	98%
Catchment investigations complete	0
Estimated percentage of MS4 catchment area investigated	0%

3.7 Briefly describe the IDDE training for employees involved in carrying out IDDE tasks including what type of training is provided and how often it is given (minimum once per year).

No IDDE trainings were conducted in 2022. An illicit discharge training is scheduled for staff in Q1 2023.

On February 8, 2019, the Town of Stonington and the Town's sampling consultant received training regarding use of a digital data collection system for dry weather outfall screening and sampling and wet weather sampling of outfalls that discharge to impaired waters. The training included information on how to conduct outfall screening and sampling to meet permit requirements, how to detect an illicit discharge and how to document and record information gathered during screening and sampling.

The Town and Borough have contracted with their consultant to conduct annual MS4 training for Town and Borough employees involved in the MS4 program, especially those with specific roles in the Town and Borough's IDDE program. The Town's Engineering Intern received IDDE training in August 2021.

On December 21, 2017, the Town of Stonington Engineering Department coordinated 2 specific training sessions on the following topics:

- Spill Prevention and Response
- Town wide Stormwater Management Training MS4

Training was provided for the following facility employees:

- Public Works Water Pollution Control Authority
- Police Department Maintenance Solid Waste/Transfer Station
- School Facilities Maintenance Town Dock

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

4.1 BMP Summary

вмр	Status (Complete, Ongoing, In Progress, or Not started)	Activities in current reporting period	Measurable Goal	Department / Person Responsible	Date completed or projected completion date (include the start date for anything that is 'in progress')	Additional details
4-1 Implement, upgrade, and enforce land use regulations or other legal authority to meet requirements of MS4 general permit (Due 7/1/20)	In Progress	The Town/Borough contracted with Fuss & O'Neill in 2019 to complete a review of the Town and Borough's land use regulations and implementation policies for compliance with the MS4 permit.	Review and update, as necessary, existing land use regulations and implementation policies for compliance with the MS4 General Permit construction site stormwater runoff control requirements.	Town & Borough Land Use Agencies	Jul 1, 2023	The Town/Borough's consultant completed a review of legal authority and land use regulations in 2019. The Town plans to do a broader regulatory update through their Planning department so the process of amending regulations is ongoing.
4-2 Develop/Implement plan for interdepartmental coordination in site plan review and approval (Ongoing)	Ongoing	Site plan review & approval processes are followed for all applicable land use applications	Continue to implement interdepartmental coordination procedures as described in Section 5.2 of the Town SWMP	Town & Borough Land Use Agencies	Ongoing throughout entire permit	
4-3 Review site plans for stormwater quality concerns (Ongoing)	Ongoing	Reviewed 379 land development applications in total, including any sort of land use application, with any sort of site plan component, from a shopping center to a residential deck. This number includes sites both greater than and less than 1 acre. Applications were reviewed for compliance with existing stormwater quality regulations in the Town of Stonington. The Borough reviewed 4 site plans for land development in 2022.	Continue to complete site plan reviews for all projects subject to the land use regulations listed in BMP 4-1.	Engineering & Town, Borough Land Use Agencies	Ongoing throughout entire permit	The Town conducted 23 site plan reviews in 2021. No projects requiring review were received by the Borough in 2021.

4-4 Conduct site inspections (Ongoing)	Ongoing	The Stonington Zoning Enforcement Officer is tasked with ensuring all erosion and sediment control measures are adequately installed prior to the start of construction.	Continue to conduct inspections and enforcement to assess and ensure the adequacy of the installation, maintenance, operation, and repair of construction and postconstruction control measures.	Town & Borough Land Use Agencies and/or Town staff (Stonington ZEO)	Ongoing throughout entire permit	The Town conducted 52 site inspections in 2022. The Borough conducted 1 site inspection in 2022.
4-5 Implement procedure to allow public comment on site development (Ongoing)	Ongoing	Both the Town of Stonington & Borough have a hotline which remains active and up to date.	Continue to post notices of Stonington's "hotline" for stormwater related comments on the municipal stormwater websites	Town & Borough Land Use Agencies	March 31, 2017	No complaints were Received by either the Town of the Borough in 2022.
4-6 Implement procedure to notify developers about DEEP construction stormwater permit (Ongoing)	Ongoing	Require qualifying land development projects to register with the CTDEEP and show proof of registration prior to construction	Continue to inform developers/contractors of their obligation to register under the DEEP construction general permit and to provide a copy of the Storm Water Pollution Control Plan to Stonington upon Request, as necessary.	Town & Borough Land Use Agencies / Engineering Department	Ongoing throughout entire permit	

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

- Work with consultant to update and amend, as required, current Town and Borough construction site regulations.
- Continue to monitor construction sites to the best of staff ability.
- Ensure the CTDEEP Construction General Permit is applied for and on file with the Town for applicable projects prior to the start of construction.

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

5.1 BMP Summary

вмр	Status (Complete, Ongoing, In Progress, or Not started)	Activities in current reporting period	Measurable Goal	Department / Person Responsible	Date completed or projected completion date (include the start date for anything that is 'in progress')	Additional details
5-1 Establish and/or update legal authority and guidelines regarding LID and runoff reduction in site development planning (Due 7/1/22)	Ongoing	The Town/Borough contracted with Fuss & O'Neill in 2019 to complete a review of the Town and Borough's land use regulations, including the Town's Technical Standards. This includes review of the Town's Post-construction regulatory mechanisms and legal authority, as well as identification of regulatory barriers to implementing LID and runoff reduction practices and suggestions for reducing or eliminating those barriers. The Town is currently contracted with Fuss & O'Neill to update construction site legal authority and develop legal authority for stormwater retention standards. The Town is currently in Phase 1 of the zoning regulation rewrite and is currently reorganizing the regulations and making them more user-friendly. The Town anticipates starting Phase 2 (addressing significant regulation changes/changes to stormwater management) in Q2.	Review and update, as necessary, existing land use regulations and implementation policies (including Technical Standards) for compliance with the General Permit postconstruction stormwater management requirements	Town Planning Zoning Commission, Borough Planning Zoning Commission, Engineering	Jul 1, 2023	The Town/Borough's consultant completed a review of legal authority and land use regulations in 2019. The planning department received funding to begin evaluating regulations and zoning modifications. The Town plans to do a broader regulatory update through their Planning department so the process of amending regulations is ongoing. Stonington participated with other towns in the 2022 Southeastern Connecticut Council of Governments (SCCOG) circuit grant for a stormwater utility feasibility study in four towns. When regulatory changes arise from that initiative, it would be a good time to introduce additional regulatory changes related to stormwater.

5-2 Enforce LID/runoff reduction requirements for development and redevelopment projects (Due 7/1/22)	Ongoing	The Town/Borough contracted with Fuss & O'Neill in 2019 to complete a review of the Town and Borough's land use regulations, including the Town's Technical Standards. This includes review of the Town's Post-construction regulatory mechanisms and legal authority, as well as identification of regulatory barriers to implementing LID and runoff reduction practices and suggestions for reducing or eliminating those barriers.	Review and update, as necessary, current regulations to identify, reduce, or eliminate existing regulatory barriers to implementation of LID and runoff reduction practices.	Town Planning Zoning Commission, Borough Planning Zoning Commission, Engineering	Ongoing beginning Jul 1, 2019	See Additional Details 5-1.
5-3 Identify retention and detention ponds in priority areas (Due 7/1/20)	Ongoing	The Town and Borough have in past years contracted with Fuss & O'Neill to identify additional existing stormwater BMPs throughout the Town and Borough and update this list annually. This survey included identification of ownership and maintenance responsibility. This year the Town stormwater intern identified 15 WQS (water quality systems) including detention/retention ponds, rain gardens, infiltration basins, etc. and 11 WQUs (water quality units) including hydrodynamic separators, infiltration galleys, tidal gates, etc. that require additional maintenance as they are identified and cataloged.	Review past permits and known stormwater facilities to create a comprehensive list of stormwater systems within priority areas.	Planning Department, Engineering Department, Public Works, Borough Warden	Ongoing throughout permit term	The Town continued in 2022 to review site plans of private developments to identify private BMPs. To increase capacity, the Town hired a stormwater intern in 2021 who continues to help review site plans and update mapping. The Town intends to update their mapping with these newly identified structures in 2023.
5-4 Implement long- term maintenance plan for stormwater basins and treatment structures (Ongoing)	Ongoing	The Engineering Department and Planning Department continue to require maintenance plans for all stormwater infrastructure proposed as part of land-use applications. Follow-up of implementation strategies and measures can be improved upon. The Town conducted 15 maintenance inspections of BMPs in 2022. The Borough did not conduct any maintenance inspections of BMPs in 2022. Grates and gutters were cleaned, vegetation removed, and sediment	Develop a long-term maintenance plan for retention/ detention basins and stormwater treatment structures. Implement maintenance plan including annual inspection of retention/ detention basins and stormwater treatment structures and removal of accumulated sediment and pollutants.	Planning: Town Planning Department, Borough Planning & Zoning Commission, Engineering Implementation: Engineering, Public Works, Planning Department	Ongoing throughout permit term	The Town/Borough have also contracted with Fuss & O'Neill to develop operation and maintenance procedures for Town owned or operated stormwater BMPs. The Town asks BMP owners to keep maintenance logs and update them annually. The Town is really looking to make this process a

		removed. One detention pond was cleaned out. The Town is starting a program to clean out BMPs and reestablish as-built elevations, and is working on a plan to implement in 2023, as budget allows.				part of the regulations to ensure compliance.
5-5 DCIA mapping (Due 7/1/20)	Initial mapping is completed, revisions are ongoing as DCIA is added or removed.	The Town/Borough contracted with Fuss & O'Neill to complete an initial analysis of directly connected impervious area (DCIA) in the Town and Borough's Priority Area for each CT DEEP Local Basin. The Town/Borough have previously contracted with Fuss & O'Neill to complete revisions to DCIA estimates based on development projects completed within 5 years prior to the permit effective date.	Calculate the Directly Connected Impervious Area (DCIA) of outfall catchment areas using guidance provided by DEEP and UConn CLEAR. Revise DCIA estimate as development, redevelopment, or retrofit projects effectively add or remove DCIA.	Engineering & Planning	Completed December, 2018; updates ongoing throughout permit term.	DCIA was calculated using estimates of total impervious area provided by the UConn NEMO program and literature- based equations relating to total and connected impervious area for various land uses. Records of DCIA-related projects townwide are being updated. (Attachment 7)
5-6 Address post- construction issues in areas with pollutants of concern	Not Started	Not Started	Address erosion and sediment problems noted during inspections conducted under BMP 5-3 through the retrofit program developed under BMP 6-7.	Engineering, Planning, Public Works	On or before Jul 1, 2022	

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

- Continue to update stormwater BMP inventory
- Map updates: mapping WQS (water quality systems) including detention/retention ponds, rain gardens, infiltration basins, etc. and WQUs (water quality units) including hydrodynamic separators, infiltration galleys, tidal gates, etc. that require additional maintenance as they are identified and cataloged
- Work with the Zoning (and with the newly created Flood and Erosion Control Board) to determine best means and methods for requiring post-construction stormwater management maintenance and ensuring/tracking/monitoring ongoing maintenance.
- Update DCIA disconnection based on site plans from 5 years before the effective permit date through current year, based on updated BMP inventory
- Continue to coordinate with CTDOT staff on DCIA disconnection opportunities

5.3 Post-Construction Stormwater Management reporting metrics

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

Metrics					
Baseline (2012) Directly Connected Impervious Area (DCIA)	870.60 acres				
DCIA disconnected (redevelopment plus retrofits)	0.55 acres this year / 0.55 total				
Retrofit projects completed	1 - Allen Street				
DCIA disconnected	0.063 % this year / 0.063 % total since 2012*				
Estimated cost of retrofits	TBD				
Detention or retention ponds identified	15 this year /21 total				
*The Town will confirm for next year in the annual report that retrofits completed since 2012 have been appropriately applied (Attachment 7).					

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

DCIA was estimated for each CTDEEP local basin. All local basins were clipped to the geographic extent of the Town and therefore only include areas of the basins within this extent. The 30-meter resolution 2011 National Land Cover Database (NLCD) was used along with the 1-foot resolution 2012 Connecticut Statewide Impervious Surface dataset provided by CTECO to estimate DCIA. Land cover in the basin was separated into four categories that represent varying degrees of development density (Developed, High Intensity; Developed, Medium Intensity; Developed, Low Intensity; and all other classes). Each of these four categories was related to the four levels of basin connectivity as described on the UConn NEMO website ("Wicked Connected," "Moderately Connected," "Sorta Connected," and "Slightly Connected"). The Sutherland equations provided by UConn NEMO that are associated with each of the four connectivity levels were used to convert percent impervious area to percent DCIA. DCIA was estimated for each basin using the following steps:

1. The percent impervious cover was calculated for each 30x30 meter land cover raster cell and the total percentage was summed across all raster cells in the local basin, resulting in a percent impervious cover value for each land cover category.

2. The Sutherland equations were used to convert percent IC across the local basin to percent DCIA for each of the four areas of land cover.

3. The percent DCIA for each land cover category was multiplied by the total area of that category. The four resulting values were added together to find the total local basin DCIA.

4. The total local basin DCIA was divided by the local basin area (within the town boundary) to determine percent DCIA for the local basin.

Step 1 above was performed on a loop for each local basin using GIS and Python, while the remaining steps were performed as spreadsheet calculations. The 1-foot resolution IC raster was resampled to 5-foot resolution to reduce computational time. This changed the raster from 18 binary (1 for impervious, 0 for pervious) to non-binary, where the value of each 5x5 foot raster cell is the total square footage of IC within the cell (between 0 and 25 square feet). The DCIA analysis was conducted prior to the decision by CT DEEP that state roads should not be included in DCIA calculations. As such, the Town's calculations represent an overestimate of DCIA. The overestimation will be corrected later as DCIA is tracked in subsequent years.

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

6.1 BMP Summary

ВМР	Status (Complete, Ongoing, In Progress, or Not started)	Activities in current reporting period	Measurable Goal	Department / Person Responsible	Date completed or projected completion date (include the start date for anything that is 'in progress')	Additional details
6-1 Develop/ implement formal employee training program (Ongoing)	Ongoing	19 Town employees attended a HAZWOPER First Responder Awareness Level Training provided by CMG at the Highway Garage (DPW) on April 6, 2022. This training covered the following topics: Hazard Communication, Flammable and Combustible Liquids, Hazard Awareness and Personal Protective Equipment. 6 Town employees attended a training at the Town dock on October 18, 2022. This training covered the following topics: spill prevention and response, stormwater management, and waste management. The Town intends to hold an illicit discharge training in early 2023. On February 8, 2019, the Town of Stonington and the Town's sampling consultant received training regarding use of a digital data collection system for dry weather outfall screening and sampling and wet weather sampling of outfalls that discharge to impaired waters.	Continue to implement joint training program for Town and Borough employees, building on the Town's current program defined in section 7.2 of the SMP	Public Works, Engineering & Borough	Ongoing throughout entire permit	See Attachment 8 for sign-in sheets and an agenda from the trainings.
6-2 Implement MS4 property and operations maintenance (Ongoing)	Ongoing	The Town purchased 5 dog waste bag stations and has installed 3 in Spellman Park along with signs. The Town intends to install the remaining two in downtown Pawcatuck. DPW will take over maintenance of these stations moving forward. In 2022, \$3,060 was spent to purchase dog waste bags in the Borough. In the Borough, a dog waste bag station was donated by a pet show and additional dog waste bags have been donated. The Department of Public Works has two State certified lawn/turf care applicators who are directly responsible for the day to day maintenance of athletic fields for the	 Implement turf/fertilizer management BMPs for parks and open space Implement pet waste education program and install additional signage, baggies, and disposal receptacles, as needed, in areas where pet walking is common Implement waterfowl management BMPs in targeted areas as needed 	Town & Borough Public Works Departments	Ongoing throughout entire permit; began July 1, 2018	

		Stonington school district. The care of these athletic fields utilizes current industry BMP standards. Two Town employees attended pesticide/ herbicide training in 2019 and one employee attended in 2020. The Town was able to reduce herbicides used on Town properties by 20% in 2019 and 10% in 2020. There were no reductions in fertilizer use nor turf area reductions on Town-owned properties in 2021 or 2022. All other municipal buildings and facilities' grounds are maintained by the Public Works Department. The Town-wide residential leaf collection program was discontinued in 2020. The Town still collects leaves from the public right of way and from areas with poor drainage through street sweeping and in response to road flood complaints. Residents can drop off yard waste at the transfer station.	 Evaluate municipal buildings and facilities for spill prevention and pollution prevention practices and implement additional BMPs as necessary Evaluate and modify, as necessary, municipal vehicle and equipment parking, fueling, and maintenance practices Continue to collect leaf litter from the Town ROW, roadways, Town properties and areas of poor drainage 			
6-3 Implement coordination with interconnected MS4s	Ongoing	The Town currently notifies the clerk of any adjoining municipality or subdivision applications for which a significant portion of water drainage will flow through and significantly impact the adjoining municipality. The Town also requires Subdividers to obtain an encroachment permit from CTDOT when a proposed drainage system connects to a state maintained drainage system.	Coordinate with neighboring municipalities, institutions, and DOT regarding stormwater management program activities associated with the adjacent MS4s	Town Public Works, and Borough Highway Department	Ongoing	The Town continues to work with CTDOT.
6-4 Develop/ implement program to control other sources of pollutants to the MS4	Ongoing	The Town and Borough continue to control sources of pollution to the MS4 through the existing IDDE program, water quality monitoring, the Town's ordinance related to illicit discharge and illegal connection, and targeted education and outreach to commercial, industrial, municipal, institutional facilities owners/operators.	Control through IDDE program, water quality monitoring, the Town's Illicit Discharge and Illegal Connection Ordinance, and targeted education and outreach to commercial, industrial, municipal, institutional facilities owners/ operators (see BMP 1-1 within the SMP).	Town Engineering	Ongoing	

6-5 Evaluate O additional measures for discharges to impaired waters*	Dngoing	The Town/Borough continued its efforts to implement BMPs identified in Section 7.2 of the SWMP. These efforts are detailed at BMPs 6-3, 6-6, 6-7, 6-8, 6-10, at Section 6.5.	Implement the measures and procedures described in Section 7.2 of the SWMP, including those measures to address stormwater pollutants of concern	Town & Borough DPW	Ongoing throughout entire permit	
6-6 Track In projects that disconnect DCIA (Ongoing)	n Progress	The Town/Borough have previously contracted with Fuss & O'Neill to calculate removal of DCIA based on development projects completed within 5 years prior to the permit effective date to the current date.	Annually track total acreage of DCIA that is disconnected as part of redevelopment or retrofits (see BMPs 5-4 and 6-7 of the SMP)	Town Engineering, Planning	Ongoing throughout entire permit	
6-7 Implement infrastructure repair/rehab program (Due 7/1/21)	Dngoing	In 2022 the Town and Borough completed the following stormwater infrastructure repairs/improvements: - Repaired (85) catch basins in Town - Repaired (1) catch basin in Borough - Added (8) catch basins in Town - Added (1) catch basin in Borough In 2022, the Borough hired CLA Engineers to survey and assess the entire drainage system. The Engineering Department has continued work on (3) large-scale capital improvement projects pertaining to existing stormwater conveyance systems: Washington St Drainage Improvements: Additional funding is being requested through the CIP concurrently while the DEEP COP permit, Amtrak review. Pursuant to permits, easements, and funding approvals, construction is planned for Fall 2023. Fourth District Voting Hall: The rain garden and tide gate were constructed. This project is 90% complete. Remaining work includes tidal valve adjustment and rain garden re- planting.	Repair, rehabilitate, or retrofit MS4 infrastructure (e.g., conveyances, structures, outfalls) as needed in a timely manner.	Engineering, Public Works	Ongoing throughout entire permit	

6-8 Develop/ implement plan to identify/ prioritize retrofit projects (Due 7/1/20) 6-9 Implement retrofit projects to	In progress Ongoing	The Town developed soil test pits at certain locations identified in the retrofit plan to determine the infiltration capacity and retrofit project suitability. The Town's Engineering Department plans to work with the Parks Department to design and install a rain garden or bioretention basin at an area with poor drainage in 2023. The Allen Street Stormwater Infiltration has been completed and included 0.55 ac of DCIA disconnection (Attachment 7).	Develop retrofit plan and list of priority sites Disconnect 1% per year of Stonington's DCIA from the MS4	Engineering, Planning Engineering, Planning	Draft Retrofit Plan was completed in September 2021 Ongoing	
disconnect 2% of DCIA (Due 7/1/22)						
6-10 Develop/ implement street sweeping program (Ongoing)	Ongoing	Both the Town and the Borough sweep streets on an annual basis. Downtown areas get swept multiple times per year to keep areas clean and prepare for special events.	Continue to inspect and sweep all municipally owned or –operated streets and parking lots Schedule for completion: a. Priority Areas – annually in spring following the cessation of winter maintenance activities (i.e., sanding, deicing, etc. b. Outside Priority Areas (inc. rural uncurbed streets and parking lots with no catch basins) – in spring or develop and implement an inspection, documentation, and targeted sweeping plan	Town of Stonington & Borough DPW	Ongoing throughout entire permit; began July 1, 2017	
6-11 Develop/ implement catch basin cleaning program (Ongoing)	Ongoing	Both the Town and the Borough clean/vacuum catch basins on an annual basis.	Inspect and clean catch basins as necessary Inspection Schedule: a. 100% within Priority Areas b. 100% of MS4 Develop a plan for optimizing catch basin cleaning (i.e., reduced frequency in certain areas) based on inspection findings, such that no catch basin is more than 50% full	Town of Stonington & Borough DPW	Ongoing throughout entire permit; began July 1, 2020	

6-12 Develop/ implement snow management practices (Due 7/1/18)	Ongoing	The Town of Stonington has 14 designated plow routes. All plow drivers have attended training for salt application and snow removal BMPs in the past. Employees are trained annually on BMPs for snow management. Training was completed in November 2019 during the prewinter operations meeting. Software to manage salt application is installed in all large trucks with built in spreaders. All trucks with spreaders are calibrated prior to the start of any winter event and then are rechecked in February. The Town minimizes the use of salt and no sand is used on the Town's road system. The Town uses treated salt only and it is only applied when the road surface is wet to ensure maximum adhesion to the road surface. GPS units were previously installed on all	 Calibrate all trucks with spreaders prior to the start of any winter event Recheck truck calibration again in February Minimize the use of salt to the extent practicable. Use treated salt only and apply when road surface is wet to ensure maximum adhesion to the road surface. Provide annual training to staff on snow removal 	Town of Stonington & Borough DPW	Ongoing throughout entire permit; began July 1, 2018	
		plow trucks within the Town of Stonington DPW Department.				

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

- The Town installed software on all plow trucks with built-in spreaders to track quantity of salt used and the application rate. This information provides the DPW with valuable information necessary to improve and properly manage snow removal operations ensuring each treatment is effective.
- Training staff for advanced snow management techniques such as pretreatment and brine applications will continue to stay in tune with the leading industry standards.
- The Town/Borough have contracted with Fuss & O'Neill to track DCIA removal estimates based on development projects completed within 5 years prior to the permit effective date to the current date.
- The Town has two licensed employees that are certified as pesticide applicators that attend annual training to keep the license active. The Town is looking to increase the number of licensed individuals.
- Continue DCIA disconnection projects. Continue to coordinate with the state regarding shared maintenance concerns, namely around interconnections.
- The Town intends to hold an illicit discharge training in early 2023 and will continue to seek out training opportunities for Town employees.
- The Town completed its update of Standard Operating Procedures for municipal operations related to Parks and open space, Pet waste management, Waterfowl management, Buildings and facilities, Vehicles and Equipment, and Leaf management.

6.3 Pollution Prevention/ Good Housekeeping reporting metrics

Metrics	
Employee training provided for key staff	Yes, October 18, 2022 Town dock spill prevention/containment, stormwater
	management, and waste management training

	April 6, 2022 Highway garage HAZWOPER Health & Safety training (Attachment 8) November 2019 (snow removal training)
Street sweeping	
Curb miles swept	Town: 61 miles
	Borough: 10 miles
Volume (or mass) of material collected	Town: 50 tons
	Borough: 50 yds
Catch basin cleaning	
Total catch basins in priority areas (value will be less than or equal to total	Town: 1,777
catch basins town or institution-wide)	Borough: 97
Total catch basins town- (or institution-) wide	Town: 2,573 (2,158 in urbanized area)
	Borough: 97
Catch basins inspected	Town: 1,400
	Borough: 95
Catch basins cleaned	Town: 1,400
	Borough: 90
Volume (or mass) of material removed from all catch basins	Town: 96 tons
	Borough: 10 yds
Volume removed from catch basins to impaired waters (if known)	Town: Unknown
	Borough: Unknown
Snow management	
lype(s) of deicing material used	Magnesium Chloride Road Salt: Morton Ice-B-Gone or Blizzard Wizard Road Salt
Total amount of each deicing material applied	Town: 898 tons
	Borough: 82 tons
lype(s) of deicing equipment used	Town: Compu-Spread by Rexroth
	Borough: Standard Spreaders
Lane-miles treated (A lane-mile is a mile of roadway in a single driving lane)	Town: 234 lane miles of road per event
Consultaneous la costian	Borough: 10 miles per ice/snow event (5 events, 50 miles total)
Snow disposal location	Speliman Park common space
Staff training provided on application methods & equipment	I wo Town employees attended show removal training in 2019
Municipal turf management program actions (for permittee properties in basins with N	I/P impairments)
Reduction in application of fertilizers (since start of permit)	The Town of Stonington reduced its pesticide application rate on Town land
	by approximately 25% in 2018 and reduced herbicide use by approximately
	20% in 2019. Herbicide use was reduced another 10% in 2020.
Reduction in turf area (since start of permit)	None
Lands with high potential to contribute bacteria (dog parks, parks with open water, & s	ites with failing septic systems)
Cost of mitigation actions/retrofits	Borough spent \$3,060 on dog waste bags.

6.4 Catch basin cleaning program

Provide any updates or modifications to your catch basin cleaning program. Both the Town and the Borough continue to clean/vacuum catch basins on a yearly basis.

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. (Due 7/1/20)

The Town and Borough have started the Retrofit Program to identify and prioritize disconnection opportunities and intends to continue to implement projects. A draft Retrofit Plan has been completed and was submitted with the 2021 Annual Report. Town and Borough continue to pursue funding opportunities to complete identified projects.

Describe plans for continuing the Retrofit program and how to achieve a goal of 1% DCIA disconnection annually in future years. (Due 7/1/22)

The Allen Street Drainage Project was completed in 2022, the Fourth District Voting Hall is 90% complete. The Town and Borough continue to work closely on these projects, are actively pursuing funding opportunities, and are working with DOT on partnership opportunities.

Part II: Impaired waters investigation and monitoring

1. Impaired waters investigation and monitoring program

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

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

Nitrogen/ Phosphorus 🔀

Bacteria 🔀

Mercury

Other Pollutant of Concern

1.2 Describe program status

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

Wet Weather impaired waters sampling began in spring of 2019. In 2018 the Town/Borough contracted with Fuss & O'Neill to create a digital data collection system for dry weather outfall screening and sampling and wet weather impaired waters sampling. Wet Weather sampling has been conducted at >50% of outfalls with 6 additional outfalls sampled during wet weather in 2022. The results of the sampling are provided in Attachment 3.

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

2.1 Screening data

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

Each Annual Report will add on to the previous year's data showing a cumulative list of sampling data. You may also attach an excel spreadsheet with the same data rather than copying it into this table. If you do attach a spreadsheet, please write "See Attachment" below.

Outfall ID	Latitude / Longitude	Sample date	Parameter (Nitrogen, Phosphorus, Bacteria, or Other pollutant of concern)	Results	Name of Laboratory (if used)	Follow-up required? *
See Attachment 3 for outfall screening results						

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 ID	Status of drainage area investigation	Control measure to address impairment
OF-47	Not yet started	
OF-92	Not yet started	
OF-225	Not yet started	
OF-328	Not yet started	
OF-245	Not yet started	
OF-88	Not yet started	
OF-90	Not yet started	
OF-10	Not yet started	
OF-38	Not yet started	
OF-332	Not yet started	
OF-77	Not yet started	
OF-20	Not yet started	

OF-230	Not yet started	
OF-231	Not yet started	
OF-331	Not yet started	
OF-39	Not yet started	
OF-235	Not yet started	
OF-63	Not yet started	
OF-154	Not yet started	
OF-161	Not yet started	
OF-159	Not yet started	
OF-96	Not yet started	
OF-97	Not yet started	
OF-162	Not yet started	
OF-319	Not yet started	
OF-B369	Not yet started	
OF-B50	Not yet started	
OF-B52	Not yet started	

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

Once outfall sampling has been completed for at least 50% of outfalls to impaired waters, identify 6 of the highest contributors of any pollutants of concern. Begin monitoring these outfalls on an annual basis by July 1, 2021. You may also attach an excel spreadsheet with the same data rather than copying it to this table. If you do attach a spreadsheet, please write "See Attachment" below.

Outfall	Latitude / Longitude	Sample Date	Parameter(s)	Results	Name of Laboratory (if used)
See Attachmen	t 3 for monito	ring data			

Part III: Additional IDDE Program Data

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

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

1. Catchment ID (DEEP Basin ID)	2. Category	3. Rank
The catchment ranking v Report	vas submitted with the 201	9 Annual

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

This screening is the baseline IDDE dry weather screening. For details on this requirement, visit <u>https://nemo.uconn.edu/ms4/tasks/monitoring.htm</u>. Refer to the blue column of the Monitoring comparison chart and the IDDE baseline monitoring flowchart.

Provide sample data for outfalls where flow is observed, during dry weather, of outfalls and interconnections categorized as high or low priority in priority areas. Do not include problem or excluded catchments. Only include Pollutant of concern data for outfalls that discharge into stormwater impaired waterbodies. You may also attach an excel spreadsheet with the same data rather than copying it to this table. If you do attach a spreadsheet, please write "See Attachment" below.

Outfall / Interconnection ID	Latitude / Longitude	Screening / sample date	Ammonia	Chlorine	Conductivity	Salinity	E. coli or enterococcus	Surfactants	Water Temp	Pollutant of concern	If required, follow-up actions taken
See Attachment 3 for screening and sampling data											

2.2 Wet weather sample and inspection data

This sampling data is the baseline wet weather priority catchment investigation sampling. For details on this requirement, visit <u>https://nemo.uconn.edu/ms4/tasks/monitoring.htm</u>. Refer to the green column of the Monitoring comparison chart and the IDDE catchment investigation flowchart.

Provide baseline sample data for outfalls and key junction manholes of any catchment area (all high priority, low priority, and problem outfalls within the priority area) with at least one System Vulnerability Factor. You may also attach an excel spreadsheet with the same data rather than copying it to this table. If you do attach a spreadsheet, please write "See Attachment" below.

Outfall / Interconnection ID	Latitude / Longitude	Sample date	Ammonia	Chlorine	Conductivity	Salinity	E. coli or Enterococcus	Surfactants	Water Temp	Pollutant of concern
See Attachment 3	for screening	and samplii	ng data							

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

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

3.1 System Vulnerability Factor Summary

For those catchments being investigated for illicit discharges (i.e., categorized as high priority, low priority, or problem) document the presence or absence of System Vulnerability Factors (SVF). If present, report which SVF's were identified. An example is provided below.

Outfall ID	Receiving Water	System Vulnerability Factors
Not yet st	tarted.	

Where SVFs are:

- 1. History of SSOs, including, but not limited to, those resulting from wet weather, high water table, or fat/oil/grease blockages.
- 2. Sewer pump/lift stations, siphons, or known sanitary sewer restrictions where power/equipment failures or blockages could readily result in SSOs.
- 3. Inadequate sanitary sewer level of service (LOS) resulting in regular surcharging, customer back-ups, or frequent customer complaints.
- 4. Common or twin-invert manholes serving storm and sanitary sewer alignments.
- 5. Common trench construction serving both storm and sanitary sewer alignments.
- 6. Crossings of storm and sanitary sewer alignments.
- 7. Sanitary sewer alignments known or suspected to have been constructed with an underdrain system.
- 8. Sanitary sewer infrastructure defects such as leaking service laterals, cracked, broken, or offset sanitary infrastructure, directly piped connections between storm drain and sanitary sewer infrastructure, or other vulnerability factors identified through Inflow/Infiltration Analyses, Sanitary Sewer Evaluation Surveys, or other infrastructure investigations.
- 9. Areas formerly served by combined sewer systems.
- 10. Any sanitary sewer and storm drain infrastructure greater than 40 years old in medium and densely developed areas.

- 11. Widespread code-required septic system upgrades required at property transfers (indicative of inadequate soils, water table separation, or other physical constraints of the area rather than poor owner maintenance).
- 12. History of multiple local health department or sanitarian actions addressing widespread septic system failures (indicative of inadequate soils, water table separation, or other physical constraints of the area rather than poor owner maintenance).

3.2 Key junction manhole dry weather screening and sampling data

This screening is the dry weather priority catchment investigation screening. Provide sample data, both baseline and follow-up, for key junction manholes of any catchment area begin investigated for an illicit discharge and do not have any SVFs present. Follow-up investigations must take place within one year and again within five years. You may also attach an excel spreadsheet with the same data rather than copying it to this table. If you do attach a spreadsheet, please write "See Attachment" below.

Key Junction Manhole ID	Latitude / Longitude	Screening / Sample date	Visual/ olfactory evidence of illicit discharge	Ammonia	Chlorine	Surfactants
Not yet started.						

3.3 Wet weather follow-up investigation outfall sampling data

This sampling is the follow-up investigations for the wet weather priority catchment investigation. Provide follow-up sample data for outfalls and key junction manholes of any catchment area with at least one System Vulnerability Factor. Follow-up investigations must take place within one year and again within five years. You may also attach an excel spreadsheet with the same data rather than copying it to this table. If you do attach a spreadsheet, please write "See Attachment" below.

Outfall ID	Latitude / Longitude	Sample date	Ammonia	Chlorine	Surfactants		
Not yet started.							

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
Not yet started.							

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:	Print name:
Signature / Date:	Signature / Date:
Email:	Email:



Town Website Post: Great American Rain Barrels



Published on Stonington CT (https://www.stonington-ct.gov)

Home > Great American Rain Barrel Purchases DUE June 19th

Great American Rain Barrel Purchases DUE June 19th



Rain Barrels are available to order through June 19th and can be picked up at Human Services on Wednesday, June 29th from 5-7 pm. You can order them at <u>https://www.greatamericanrainbarrel.com/community/stonington/</u>

Source URL: https://www.stonington-ct.gov/engineering/news/great-american-rain-barrel-purchases-due-june-19th



Articles in Stonington Events Magazine

Stormwater Awareness

Dead leaves, trimmed plants, and grass clippings can clog up storm drains and increase pollution to local waterways. Before roadways and drainage systems, this plant material would degrade and feed other local plants. This natural process can be replicated by composting outdoor plants with organic materials from cooking in your home. This can create healthier dirt for your garden, lawn, and other native fauna. By cleaning up your leaves and clippings you can also keep polluting material from easily entering our local waters.

The Town of Stonington Solid Waste Department accepts all clippings and leaves yearround, at 151 Greenhaven Road Stonington CT, and provides its own composted material, free of charge, to all residents. You can learn more by visiting their website at <u>https://www.stonington-ct.gov/solid-waste-and-recycling</u>

If you are interested in composting at home, you can start your own composting bin, or purchase an indoor bin from a local hardware store or at Town Hall on the lower level for \$45 shown here:



DPW Engineering Stormwater Awareness Update

Over the past few years, the Town of Stonington has been working to monitor Stonington's waterways, in accordance with the **DEEP MS4 Permit**, to help keep important water bodies like the Pawcatuck River, the Mystic River, and the Long Island Sound clean. The most significant pollutant in our waterways is bacteria, which can be found in the annual stormwater report on our webpage (<u>https://www.stonington-ct.gov/engineering/pages/npdes-phase-2-ms4-stormwater-permitting</u>). Bags of pet waste are commonly found in our stormwater systems and contribute to polluting local waterways, and only better pet waste habits can help prevent this. You can also visit the **EPA's** initiative at <u>https://www.cleanwatercampaign.com</u> to learn more.

IF YOU THINK PICKING UP DOG POOP IS UNPLEASANT, TRY SWIMMING IN IT.

Pet Waste Pollutes Our Rivers, Lakes & Streams



WWW.CLEANWATERCAMPAIGN.COM

This year the United States and the EPA celebrated 50 years of the Clean Water Act. Passed by Congress and signed by President Nixon, this act led to a significant increase in fishable and drinkable waters, but there is still more to do. In the Stonington Engineering Department, we work under the guidance of the EPA and CT DEEP with regard to the NPDES (National Pollutant Discharge Elimination System) to monitor and maintain the drainage systems in Stonington. New projects like 4th District Voting Hall in Mystic with a tidal valve and a rain garden are helping protect land and clean stormwater before it is returned to the Long Island Sound. As a citizen, you can help clean your local waters clean by throwing out your garbage in designated bins, cleaning up after your pets, and visiting sites like EPA.gov or SavetheSound.org or by visiting us at our website through https://www.stonington-ct.gov/engineering





Lawn and Garden Tips to Help Curb Stormwater Pollution

Lawn and Garden season is upon us, and taking care of your property using environmentally friendly practices can help keep your local waterways clean. When it rains: excess chemicals from small motors, pesticides, and fertilizers will be washed into the street which drains to the closest body of water. This graphic from <u>www.ThinkBlueMassachusetts.org</u> shows ways you can keep your property, and all of our waters, healthy."



Outfall Screening and Sampling Data



IDDE Resident Tracking Sheet

I.D.D.E T	ACKING - MS4	Ļ					
EVENT	NOTIFY	RESIDENT	CONTACT	LOCATION	Concern	ACTION	ACTION 2
12/24/2020	12/24/2020	Whalen, Kevin	860.514.9764	Perkins Farm - Town_Homes_Entrance at cornet TH#1 & TH#2	Oil in run-off at gutter entrance @ TH#1 as observed 12/24/2020 rain event	Met on-site with Resident - 12/30/2020 Received video & location reference, no evidence of pollution at time of meeting	Continue to monitor
12/16/2021	12/16/2021	Bill Middleton	860.235.8115	8 Village Farm Road	Hot cleaning water (from oil fryer) was disposed of in catch basin on private property	Ledge Light reported cleaning water emptied to basin, no visual grease at drain, further stated Fire Marshall viewed water only	Engaged in discussion with owner, learned that cleaning water was accidentally discharged by employee. Owner understands operations, equipment, protocol for cleaning fryer. Corrective action is to cease operation of discharge to basin and use slop sink. DEEP informs that no further action required unless activity resumes.
10/11/2022	11/11/2022 per email Dan Smith - WPCA	Bestev LLC. Jo Feldman	osh	4 Roosevelt = Rte 1 Noble Smokehouse	Alleged: dispense 5 gallon bucket of animal fat from smoker into seewer (storm) behinc restaurant to east	10/12/2022 - 2:00 PM - Meet onsite with WPCA (Dan Smith & Ledge Light (Charlene X), viewed catch basin grates, Phone discussion with Josh Feldan (owner), admitted to employee erroneously pouring oil in storm drain. Action: Immediate cessation of illicit discharge, have oil\grease bins emptied and purhase additional contaners as needed in interim. Dan smith (WPCA) to send email to Mr. Feldman with recap of all items discusseed and WPCA directives.	



Sanitary Sewer Overflow Inventory

		San	tory Sowar (Warflow Inventory		
		Sam	itary Sewer		-	
Location (include street crossing/address and receiving water)	Discharge to surface water or MS4	Date and duration of occurrence	Estimated SSO volume	Description with known or suspected cause	Corrective measures completed (include dates)	Corrective measures planned (include dates)
				Failure of radio communicatoins between	Rebooted all radio	
End of Cutter Drive	No	4/28/14 <15min	<20 gal	facilities.	systems and checked for	
End of Whaler Rd	No	3/29/17 <20min	<50 gal	Failed input terminals on PLC	Replaced inputs and tested alarms for	
Old Mystic Pump Station	No	2021	<500 gal	Leakage of broken force main	Leak contained and bypassed until repaired	
Boulder Pump Station	No	2021	approx 1000 gal	Power Failure	Septage hauler called in, repaired as well	
Shawandasee Pump Station	No	2021	<1000 gal	Water contractor hit force main	Repaired	



Septic System Repairs



Town of Stonington Septic Repairs for the year 2022



Location and nature of structure with failing septic systems	Actions taken to respond to and address the failures	Impacted waterbody or watershed, if known
Failed system at 223 S. Broad St. – SFH	Full system replacement with pump system	Unknown
Failed system at 208 S. Anguilla Rd. – SFH	Full system replacement	Unknown
Failed leaching at 14 Island Rd. – SFH	Full system replacement	Unknown
Replacement Systems – not due to failures		
100 Cove Rd. – SFH (single family house)	Full repair, upgrade, central system with outbuilding	None
10 Sunrise Ave SFH	Teardown/rebuild, system upgrade	None
198 Masons Island Rd. – SFH	Leaching upgrade for lot split	None
53 Mistuxet Ave. – SFH	Tank replacement only	None
22 Riverside Dr. – SFH	Full repair	None
22 Milan Terrace. – SFH	Full repair	None
215 Miner Pentway – SFH	Full repair	None
40 Deans Mill Rd. – SFH	New sewer line, tank, & d box	None
34 Elm Ridge Rd. – SFH	Full repair, upgrade 3 to 5 bedrooms	None
335 River Rd SFH	Full repair	None
206 Jerry Browne Rd. – SFH	Tank replacement only	None
302 Flanders Rd. – SFH	Partial sewer line replacement	None
413 Pequot Trail – SFH	New tank for ADU, moved ex. tank for house	None
302 Montauk Ave. – SFH	Full repair, RE Trans	None
23 Riverside Dr. – SFH	Full repair, upgrade	None
75 Montauk Ave. – SFH	Tank replacement only	None
166 Briar Patch Rd. – SFH	Tank replacement only	None
595 Greenhaven Rd. – SFH	Teardown/rebuild, new system upgrade	None
8 Schoolhouse Rd. – SFH	Full repair, RE Trans	None
82 Riverside Dr. – SFH	Additional leaching Upgrade, RE Trans	None
336 N. Stonington Rd. – SFH	Full repair, upgrade from cesspool	None
552 Wheeler Rd. – SFH	Full repair, upgrade	None
7 Island Rd. – SFH	Full repair	None
64 Deans Mill Rd. – SFH	Tank replacement only	None

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Town of Stonington Septic Repairs for the year 2022

Promoting healthy communities

69 Wamphassuc Dr. – SFH	Tank replacement only	None
250 N. Water St. – SFH	New tank and D box	None
1 Lantern Hill – SFH	Full repair, system upgrade additional bedrooms	None
3 Seagull Ln. – SFH	Tank replacement only	None
910 Pequot Trail – SFH	Teardown/rebuild, system upgrade	None
36 Island Rd. – SFH	Teardown/rebuild, system upgrade	None
525 N. Stonington Rd. – SFH	New distribution pipe	None
1050 Pequot Trail – SFH	Full repair	None



DCIA Tracking Spreadsheet

Town of Stonington MS4

Impervious Area (IA) & Directly Connected Impervious Area (DCIA) Tracking

Updated 12/27/2022

GIS shows as Private Road

Needs additional information/investigation to complete

Total Watershed Area = Impervious Area (2012 Study) = Baseline DCIA (After Applying Sutherland Equations) =	24,961.94 A 1,953.80 A 870.60 A	Acres Acres Acres	From Fuss & O'Neil DCIS Analysis dated November 2, 2018) From Fuss & O'Neil DCIS Analysis dated November 2, 2018) From Fuss & O'Neil DCIS Analysis dated November 2, 2018)
Impervious Area Added Post 2012 =	55.06 A	Acres	From CLA (Combination of Visual Analysis and Town Records)
Total Impervious Area =	2,008.86 A	Acres	
DCIA Added to MS4 Post 2012 =	6.49 A	Acres	From CLA (Combination of Visual Analysis and Town Records)
Total DCIA added to MS4 =	877.09 A	Acres	
DCIA Disconnect Goal (2%) =	17.54 A	Acres	

	PROJECT INFORMATION			NEW DEVELOPMENT		REDEVI	ELOPMENT	RETROFITS	CHANG	ie in ia	CUMULATIVE TOTALS				NOTES & REFERENCES	
Ref No.	Development	Address	Plans Provided	Type of Development	Total IA added (ac)	DCIA added to MS4 (ac)	Total IA added or subtracted (ac)	DCIA added or subtracted to MS4 (ac)	IA Disconnected from MS4 (ac)	Change in Total IA (ac)	Change in DCIA to MS4 (ac)	Total IA (ac)	Total IA (%)	DCIA Discharging to MS4 (ac)	DCIA to MS4 (%)	Notes & References
			IMPE	RVIOUS AREA BASELI	NE (March	2012)						1953.80	7.83%	870.60	3.5%	
1	Olivia Lane	Olivia Lane		New Development	1.49	0.00				1.49	0.00	1955.29	7.83%	870.60	3.5%	New town drainage system to be mapped. SW Pond Present.
2	716 Al Harvey Rd	716 Al Harvey Rd		New Development	0.27	0.00				0.27	0.00	1955.56	7.83%	870.60	3.5%	
3	613 N Stonington Rd	613 N Stonington Rd		New Development	0.29	0.00				0.29	0.00	1955.85	7.84%	870.60	3.5%	Located on State Road
4	485 New London Tnpk	485 New London Tnpk		New Development	0.55	0.00				0.55	0.00	1956.40	7.84%	870.60	3.5%	Located on State Road
5	443 New London Tnpk	443 New London Tnpk		New Development	0.25	0.00				0.25	0.00	1956.65	7.84%	870.60	3.5%	Located on State Road
6	Old Mystic Estates	Nautilus Way	Y	New Development	9.47					9.47	0.00	1966.12	7.88%	870.60	3.5%	IA calculated from design plans provided by town. Need to review stormwater management design to determine DCIA.
7	2, 4, 5, 6, 13,41,49, 60, 66, 100, 102 Circle Dr	2, 4, 5, 6, 13,41,49, 60, 66, 100, 102 Circle Dr		New Development	0.58	0.00				0.58	0.00	1966.70	7.88%	870.60	3.5%	Drainage system present but private
8	106, 110, 136, 147 Stephen Dr	106, 110, 136, 147 Stephen Dr		New Development	0.19	0.00				0.19	0.00	1966.89	7.88%	870.60	3.5%	Drainage system present but private
9	472 N Anguilla Rd	472 N Anguilla Rd		New Development	0.06	0.00				0.06	0.00	1966.95	7.88%	870.60	3.5%	
10	1-3 Race St	1-3 Race St		New Development	0.18	0.00				0.18	0.00	1967.13	7.88%	870.60	3.5%	
11	61 Robinson St	61 Robinson St		New Development	0.03	0.00				0.03	0.00	1967.16	7.88%	870.60	3.5%	
12	312 River Rd	312 River Rd		New Development	0.13	0.00				0.13	0.00	1967.29	7.88%	870.60	3.5%	
13	Perkins Farm (Harbor Heights)	Jerry Browne Road		New Development	4.60	0.00				4.60	0.00	1971.88	7.90%	870.60	3.5%	
14	Birchwood Farms	126 South Broad Street		New Development	2.00	0.00				2.00	0.00	1973.88	7.91%	870.60	3.5%	IA calculated from Design Plans
15	West Vine St School	17 West Vine Street		Redevelopment	0.00	0.00	3.04	3.04		3.04	3.04	1976.92	7.92%	873.64	3.5%	No Retention (Steve Matile). Need site visit to determine what portion is DCIA.
16	3, 5, 7, 9, 11, 13, 15 Damato Dr	3, 5, 7, 9, 11, 13, 15 Damato Dr		New Development	0.33	0.00				0.33	0.00	1977.25	7.92%	873.64	3.5%	
17	118 Rowley Dr	118 Rowley Dr		New Development	0.25	0.00				0.25	0.00	1977.50	7.92%	873.64	3.5%	
18	1215 Pequot Tr	1215 Pequot Tr		New Development	0.24	0.00				0.24	0.00	1977.74	7.92%	873.64	3.5%	Located on State Road
19	305 Pequot Tr	305 Pequot Tr		New Development	0.27	0.00				0.27	0.00	1978.01	7.92%	873.64	3.5%	Located on State Road
20	49 High Rdige Dr	49 High Rdige Dr		New Development	0.10	0.00				0.10	0.00	1978.11	7.92%	873.64	3.5%	
21	138 Liberty St	138 Liberty St		New Development	0.12	0.00				0.12	0.00	1978.23	7.92%	873.64	3.5%	Located on State Road
22	Cedar Grove La/Grandview Farm Dr	Cedar Grove La/Grandview Farm Dr	Y	New Development	1.34					1.34	0.00	1979.57	7.93%	873.64	3.5%	New town drainage system to be mapped and provided by town.
23	Masonicare Senior Living	45 Clara Dr	Y	New Development	6.20	0.03				6.20	0.03	1985.77	7.96%	873.67	3.5%	1500 sf IA drains to Clara Drive MS4(Steve Matile)
24	21 Williams St	21 Williams St		New Development	0.11	0.00				0.11	0.00	1985.88	7.96%	873.67	3.5%	No DCIA (Steve Matile)
25	14/16 Cutter Dr	14/16 Cutter Dr	Y	New Development	0.17	0.12				0.17	0.12	1986.05	7.96%	873.80	3.5%	New Driveways are DCIA (Steve Matile)
26	132 Hewitt Rd	132 Hewitt Rd		New Development	0.06	0.00				0.06	0.00	1986.11	7.96%	873.80	3.5%	c0
27	1189 Pequot Tr	1189 Pequot Tr		New Development	0.79	0.00				0.79	0.00	1986.90	7.96%	873.80	3.5%	
28	19/23 Pequotsepos Ctr Rd	19/23 Pequotsepos Ctr Rd		New Development	0.22	0.00				0.22	0.00	1987.12	7.96%	873.80	3.5%	
29	271 Montauk Ave	271 Montauk Ave		New Development	0.11	0.00				0.11	0.00	1987.23	7.96%	873.80	3.5%	
30	Deans Mill School	35 Deans Mill Road	Y	Redevelopment			2.97	2.97		2.97	2.97	1990.19	7.97%	876.76	3.5%	No infiltration. Groundwater Protection Area
31	214 Flanders Rd	214 Flanders Rd		New Development	0.10	0.00				0.10	0.00	1990.29	7.97%	876.76	3.5%	
32	396 N Main St	396 N Main St		New Development	0.16	0.00				0.16	0.00	1990.45	7.97%	876.76	3.5%	
33	36 Stanton La	36 Stanton La	Y	New Development	0.16	0.00				0.16	0.00	1990.61	7.97%	876.76	3.5%	
34	132 Farmholme Rd	132 Farmholme Rd		New Development	0.25	0.00				0.25	0.00	1990.86	7.98%	876.76	3.5%	
35	52/54 Barnes Rd	52/54 Barnes Rd		New Development	0.14	0.00				0.14	0.00	1991.00	7.98%	876.76	3.5%	
36	491 Pequot Trail	491 Pequot Trail	Y	New Development	0.21	0.00				0.21	0.00	1991.21	7.98%	8/6./6	3.5%	Driveway has been paved. Design plans used to calculate IA.
37	30/40 Extrusion Drive	30/40 Extrusion Drive		New Development	1.88	0.00				1.88	0.00	1993.09	7.98%	8/6./6	3.5%	
38	30 N Broad St	30 N Broad St	Y	New Development	0.12	0.06				0.12	0.06	1993.21	7.98%	876.82	3.5%	Just driveway adds to DCIA (Steve Matile)
39	45 Lathrop Ave	45 Lathrop Ave	Y	New Development	0.12	0.00				0.12	0.00	1993.33	7.99%	876.82	3.5%	14 direction and the NACA on Declarated Da
40	59 Parkwood Dr/3 Shea Dr	225 Creanbauer R		New Development	0.13	0.13				0.13	0.13	1993.46	7.99%	876.95	3.5%	IA directly connects to MS4 on Parkwood Dr
41	235 Greennaven Rd	235 Greennaven Kd	V	New Development	0.15	0.00				0.15	0.00	1993.61	7.99%	876.95	3.5%	14 directly compose to MCA on Many Hell Dood
42		ST IVIALA HAII KO	ŕ	New Development	0.07	0.04				0.07	0.04	1993.67	7.99%	870.98	3.5%	ia unectiv connects to MS4 on Mary Hall Road
43	267 Ochroek Pt	267 Ochronik Dt		New Development	0.08	0.00				0.08	0.00	1993./5	7.99%	876.00	3.5%	
44	207 USDIOOK PL	207 OSDIOOK PL		New Development	0.20	0.00				0.20	0.00	1993.93	1.99%	070.90	5.5%	

Town of Stonington MS4

Impervious Area (IA) & Directly Connected Impervious Area (DCIA) Tracking

Updated 12/27/2022

GIS shows as Private Road

Needs additional information/investigation to complete

Total Watershed Area = Impervious Area (2012 Study) = Baseline DCIA (After Applying Sutherland Equations) =	24,961.94 1,953.80 870.60	Acres Acres Acres	From Fuss & O'Neil DCIS Analysis dated November 2, 2018) From Fuss & O'Neil DCIS Analysis dated November 2, 2018) From Fuss & O'Neil DCIS Analysis dated November 2, 2018)
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DCIA Disconnect Goal (2%) =	17.54	Acres	

	PROJECT INFORMATION						REDEV	ELOPMENT	RETROFITS	CHANG	E IN IA	CUMULATIVE TOTALS			
Ref No.	Development	Address	Plans Provided	Type of Development	Total IA added (ac)	DCIA added to MS4 (ac)	Total IA added or subtracted (ac)	DCIA added or subtracted to MS4 (ac)	IA Disconnected from MS4 (ac)	Change in Total IA (ac)	Change in DCIA to MS4 (ac)	Total IA (ac)	Total IA (%)	DCIA Discharging to MS4 (ac)	DCIA to MS4 (%)
45	Flemmings Feed	786 Stonington Rd		Addition	1.26	0.00				1.26	0.00	1995.21	7.99%	876.98	3.5%
46	45 Cutler St	45 Cutler St		New Development	0.15	0.00				0.15	0.00	1995.36	7.99%	876.98	3.5%
47	21 Oak Dr	21 Oak Dr	Y	New Development	0.11					0.11	0.00	1995.47	7.99%	876.98	3.5%
48	29 Maple St LP	29 Maple St LP		New Development	0.09	0.00				0.09	0.00	1995.56	7.99%	876.98	3.5%
49	12 Lambs Way	12 Lambs Way	Y	New Development	0.18	0.00				0.18	0.00	1995.74	8.00%	876.98	3.5%
50	44 Cove Rd	44 Cove Rd	Y	New Development	0.13	0.00				0.13	0.00	1995.87	8.00%	876.98	3.5%
51	48 Hewitt Rd	48 Hewitt Rd	Y	New Development	0.11	0.07				0.11	0.07	1995.98	8.00%	877.05	3.5%
52	Brustolon Buick GMC	47 Stonington Rd		Parking Addition	0.49	0.00				0.49	0.00	1996.47	8.00%	877.05	3.5%
53	8 Latimer Pt Rd	8 Latimer Pt Rd		New Development	0.31	0.00				0.31	0.00	1996.78	8.00%	877.05	3.5%
54	51 Latimer Pt Rd	51 Latimer Pt Rd		New Development	0.28	0.00				0.28	0.00	1997.06	8.00%	877.05	3.5%
55	1 Harry Austin Dr	1 Harry Austin Dr		Parking Addition	0.74	0.00				0.74	0.00	1997.80	8.00%	877.05	3.5%
56	Mystic Pt La	Mystic Pt La		New Development	0.36	0.00				0.36	0.00	1998.16	8.00%	877.05	3.5%
57	1 Orchard Hill Dr	1 Orchard Hill Dr		New Development	0.05	0.00				0.05	0.00	1998.21	8.01%	877.05	3.5%
58	33 Old North Rd	33 Old North Rd		New Development	0.11	0.00				0.11	0.00	1998.32	8.01%	877.05	3.5%
59	3 Niles Rd	3 Niles Rd	Y	New Development	0.10	0.04				0.10	0.04	1998.41	8.01%	877.09	3.5%
60	5 Egret Rd	5 Egret Rd		New Development	0.15	0.00				0.15	0.00	1998.56	8.01%	877.09	3.5%
61	22 Cormorant Rd	22 Cormorant Rd		New Development	0.13	0.00				0.13	0.00	1998.69	8.01%	877.09	3.5%
62	193 Masons Island Rd	193 Masons Island Rd		New Development	0.12	0.00				0.12	0.00	1998.81	8.01%	877.09	3.5%
63	4 Cormorant Rd	4 Cormorant Rd		New Development	0.08	0.00				0.08	0.00	1998.89	8.01%	877.09	3.5%
64	3 Chippechaug Tr	3 Chippechaug Tr		New Development	0.13	0.00				0.13	0.00	1999.02	8.01%	877.09	3.5%
65	Fiore Properties	110 S Broad St		Redevelopment	0.00	0.00	(0.01)	0.00		(0.01)	0.00	1999.01	8.01%	877.09	3.5%
66	Spruce Meadows	88/86 S Broad St	Y	Redevelopment	0.00	0.00	1.61	0.00		1.61	0.00	2000.83	8.02%	877.09	3.5%
67		118 S Broad St		Redevelopment	0.00	0.00	0.21	0.00		0.21	0.00	1999.22	8.01%	877.09	3.5%
68	Spruce Meadows	100 S Broad Street		Redevelopment	0.00	0.00	1.46	0.00		1.46	0.00	2002.29	8.02%	877.09	3.5%
69	Hartford Healthcare	Jerry Browne Road	Y	New Development	2.85	0.00				2.85	0.00	2005.14	8.03%	877.09	3.5%
70	Perkins Reserve (Town Houses)	Jerry Browne Road	Y	New Development	3.33	0.00				3.33	0.00	2008.47	8.05%	877.09	3.5%
71	Fiore Properties	116 S Broad St		Redevelopment			0.39	0.00		0.39	0.00	2008.86	8.05%	877.09	3.5%
					45.40	0.48	9.67	6.01	0.00	55.06	6.49				

				PROPOSE	D DEVELOR	PMENTS (IA DE	TERMINED	FROM DESIGN	PLANS)							
72	Latimer Point Association, Inc	Various (See Below)	Y	Redevelopment			0.08	0.00		0.08	0.00	2008.94	8.05%	877.09	3.5%	V
73	GPP Bachman	62 Voluntown Rd	Y	Redevelopment			0.00			0.00	0.00	2008.94	8.05%	877.09	3.5%	R
74	George B Dunnington	12 Jerome Ave	Y	Redevelopment			(0.01)	(0.01)		(0.01)	(0.01)	2008.93	8.05%	877.08	3.5%	R
75	Alamoe	19 Old Stonington Rd	Y	Redevelopment			0.05	(0.02)		0.05	(0.02)	2008.98	8.05%	877.06	3.5%	R
76	Mitchel & Regina Strand	18 Skiff Lane	Y	Redevelopment			(0.03)	(0.03)		(0.03)	(0.03)	2008.95	8.05%	877.04	3.5%	R
77	Mystic Seaport	50 Greenmanville Ave	Y	Redevelopment			0.07			0.07	0.00	2009.03	8.05%	877.04	3.5%	Ν
78	Coastal Wealth Management	56 Williams Ave	Y	Redevelopment			0.26	0.00		0.26	0.00	2009.29	8.05%	877.04	3.5%	S
79	A G Trust	40 Masons Island Rd	Y	New Development	0.65	0.00				0.65	0.00	2009.94	8.05%	877.04	3.5%	A
80	Michael Norcia	17,19,21 Oakwood Ave	Y	New Development	0.20	0.00				0.20	0.00	2010.14	8.05%	877.04	3.5%	h
81	Stonington Country Club	394 Taugwonk Rd	Y	New Development			0.03	0.00		0.03	0.00	2010.17	8.05%	877.04	3.5%	T
82	Winn Development	27 West Broad St	Y	Redevelopment			0.48	0.48		0.48	0.48	2010.66	8.05%	877.52	3.5%	Т
83	G Development	32 Broadway Ave	Y	Redevelopment			(0.05)	(0.05)		(0.05)	(0.05)	2010.61	8.05%	877.47	3.5%	Т
84	Garden Homes Derby	77 Fair Acres Cir	Y	New Development			0.48	0.00		0.48	0.00	2011.09	8.06%	877.47	3.5%	h
85	Brian J Stafford	3 Roseleah Drive	Y	New Development	0.03	0.03				0.03	0.03	2011.12	8.06%	877.50	3.5%	A
86	Whalers Inn	1-3 Haley St	Y	Redevelopment			0.06	(0.11)		0.06	(0.11)	2011.17	8.06%	877.39	3.5%	Т
87	Ocean Breeze Land	7 Williams Ave	Y	Redevelopment	0.00	0.00				0.00	0.00	2011.17	8.06%	877.39	3.5%	T
88	Masons Island Co.	Great Marsh Road	Y	New Development	0.34	0.00				0.34	0.00	2011.51	8.06%	877.39	3.5%	T
89	Perkins Farm Phase 2	100 Perkins Farm Drive	Y	New Development	3.09	0.00				3.09	0.00	2014.60	8.07%	877.39	3.5%	
90	506 Al Harvey Road	506 Providence-NL Tpke	Y	New Development	0.07	0.00				0.07	0.00	2014.67	8.07%	877.39	3.5%	T
91		Allen Street	Y	Redevelopment			0.00	(0.55)		0.00	(0.55)	2014.67	8.07%	876.84	3.5%	C

NOTES & REFERENCES Notes & References Located on State Road Town to provide drainage plans Driveway discharges directly to MS4 on Hewitt Rd Located on State Road Driveway discharges directly to MS4 on Niles Rd Driveway discharges directly to MS4 on Niles Rd Located on State Road Notes Road Notes

Various Addresses. IA Totals need to be monitored Redevelopment occuring on existing IA footprint. No new IA. Need drainage calcs to determine reduction in DCIA directed to new Water Quality Basin Redevelopment reduces IA Redevelopment reduces IA by 2% Redevelopment reduces IA Need to determine if any infiltration occurs Sub-surface Infiltration Utilized Appears infiltration units employed. Impermeable liner around perimeter? WQV? Infiltration Galleries Employed Impervious Area obtained from Drainage Report Assume all IA is DCIA

Town of Stonington MS4

Impervious Area (IA) & Directly Connected Impervious Area (DCIA) Tracking

Updated 12/27/2022

Total Watershed Area =	24,961.94 Acres	From Fuss & O'Neil DCIS Analysis dated November 2, 2018)	
Impervious Area (2012 Study) =	1,953.80 Acres	From Fuss & O'Neil DCIS Analysis dated November 2, 2018)	
Baseline DCIA (After Applying Sutherland Equations) =	870.60 Acres	From Fuss & O'Neil DCIS Analysis dated November 2, 2018)	
Impervious Area Added Post 2012 = Total Impervious Area = DCIA Added to MS4 Post 2012 = Total DCIA added to MS4 = DCIA Disconnect Goal (2%) =	55.06 Acres 2,008.86 Acres 6.49 Acres 877.09 Acres 17.54 Acres	From CLA (Combination of Visual Analysis and Town Records) From CLA (Combination of Visual Analysis and Town Records)	GIS shows as Private Road Needs additional information/investigation to complete

PROJECT INFORMATION					NEW DE	VELOPMENT	REDEV	ELOPMENT	RETROFITS	CHANG	ie in ia		CUMULAT	TIVE TOTALS		
Ref No.	Development	Address	Plans Provided	Type of Development	Total IA added (ac)	DCIA added to MS4 (ac)	Total IA added or subtracted (ac)	DCIA added or subtracted to MS4 (ac)	IA Disconnected from MS4 (ac)	Change in Total IA (ac)	Change in DCIA to MS4 (ac)	Total IA (ac)	Total IA (%)	DCIA Discharging to MS4 (ac)	DCIA to MS4 (%)	
																Γ
																Г
					4.38	0.03	1.44	(0.28)	0.00	5.81	(0.25)					

Latimer Point Association, Inc

Latimer Point Association, Inc	106 Latimer Point Road	Y	Redevelopment			0.03	0.00							
Latimer Point Association, Inc	39 East Shore Road	Y	Redevelopment			0.00	0.00							
Latimer Point Association, Inc	35 East Shore Road	Y	Redevelopment			0.01	0.00							
Latimer Point Association, Inc	108 Latimer Point Road	Y	Redevelopment			0.00	0.00							
Latimer Point Association, Inc	10 N Shore Way	Y	Redevelopment			0.03	0.00							
Latimer Point Association, Inc	12 N Shore Way	Y	Redevelopment			(0.02)	0.00							
Latimer Point Association, Inc	124 Latimer Pt Rd	Y	Redevelopment			0.01	0.00							
Latimer Point Association, Inc	1 Reid Rd	Y	Redevelopment			0.01	0.00							
						0.08	0.00							
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NOTES & REFERENCES

Notes & References



Training Agenda and Sign-in Sheets

Environmental Services



AGENDA

HAZWOPER FIRST RESPONDER AWARENESS LEVEL TRAINING FOR TOWN OF STONINGTON HIGHWAY GARAGE

April 6, 2022 Highway Garage Stonington, Connecticut Instructor: Matt Reiser Project No.: 2016-049

TOPICS

- 1. Hazard Communication
- 2. Flammable and Combustible Liquids
- 3. Hazard Awareness
- 4. Personal Protective Equipment

Environmental Services



ENGINEERING SERVICES

SIGN-IN SHEET

Course	Name: H+S Training	
Locati	on: Stonington Higher	ay Garage
Date:	4-6-27	Time: 7:15a-10:30a
Instruc	ctor Name: Matt Reizer	CMG ID: 2016 - 049
	Name (Please Print)	Signature
1	Tim KeenA	TReento
2	KimLilly	X Xilky
3.	Victor Limin	/hall
4.	pat Keeng	- Dr
5.	Rob Harsz	
6.	Evan Bell.	man Bel
7.	ADAM BROWN	all
8.	MIKE DENNIS	Impan
9.	DE BALESTRACCI	Indit)
10. M	1644el John Blessette -	N
11.	Janss Gastle	Trin
12.	Nute Mikeli	moni
13.	Dan Oliver 10	Aum
14.	Mike Barbean	Man
15.	I'm GOUVIN	herten
16.	Stelle Turrisi	Amanin
17. 1	Lomas Curioso	Thomas Pursies
18.	Steve Manni	AND -
19.	Joseph Ferraro	Josep Fucar
20.		

ENVIRONMENTAL Services



Engineering Services

SIGN-IN SHEET

Course Name: SPCC F	72/00-110-0-
Location: Stopicstra	19710ps Manual Training
Date: 10 - 18 - 77	Time O
Instructor Name: Matt Da	CMCID: 192
John Jehn Je	1361 CIMOID: 7022-186
Name (Please Pri	int) Signature
1. Cary Farrell	Say finell
2. Barbara MCKred	1 BULLER
3. Nate Miceli	Noton
4. Robert Smit	1 Palata
5. ERIK HONSSON	, alle
6. PETER BESS	CTIC Peter Resself
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