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

2019 MS4 ANNUAL REPORT

Town of Trumbull

April 3, 2020

Tighe&Bond
Engineers | Environmental Specialists

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Table of Contents

Part I: Summary of Minimum Control Measure Activities 1
1. Public Education and Outreach 1
1.1 BMP Summary 1
1.2 Describe any Public Education and Outreach activities planned for the next year, if applicable. 3
1.3 Details of activities implemented to educate the community on stormwater 3
2. Public Involvement/Participation 4
2.1 BMP Summary 4
2.2 Describe any Public Involvement/Participation activities planned for the next year, if applicable. 5
2.3 Public Involvement/Participation reporting metrics 6
3. Illicit Discharge Detection and Elimination 7
3.1 BMP Summary 7
3.2 Describe any IDDE activities planned for the next year, if applicable. 9
3.3 List of citizen reports of suspected illicit discharges received during this reporting period.....9
3.4 Provide a record of illicit discharges occurring during the reporting period and SSOs occurring July 2012 through end of reporting period using the following table. 10
3.5 Briefly describe the method used to track illicit discharge reports, responses to those reports, and who was responsible for tracking this information. 11
3.6 Provide a summary of actions taken to address septic failures using the table below. 11
3.7 IDDE reporting metrics 12
3.8 Briefly describe the IDDE training for employees involved in carrying out IDDE tasks including what type of training is provided and how often is it given (minimum once per year).....13
4. Construction Site Runoff Control 14
4.1 BMP Summary 14
4.2 Describe any Construction Site Runoff Control activities planned for the next year, if applicable. 18
5. Post-Construction Stormwater Management 19
5.1 BMP Summary 19
5.2 Describe any Post-Construction Stormwater Management activities planned for the next year, if applicable. 22
5.3 Post-Construction Stormwater Management reporting metrics.....23
5.4 Briefly describe the method to be used to determine baseline DCIA. 23
6. Pollution Prevention/Good Housekeeping 24

6.1 BMP Summary 24
6.2 Describe any Pollution Prevention/Good Housekeeping activities planned for the next year, if applicable. 29
6.3 Pollution Prevention/ Good Housekeeping reporting metrics 30
6.4 Catch Basin Cleaning Program 31
6.5 Retrofit Program 31
Part II: Impaired Waters Investigation and Monitoring 33
1. Impaired Waters Investigation and Monitoring Program 33
1.1 Indicate which stormwater pollutant(s) of concern occur(s) in your municipality or institution. 33
1.2 Describe program status 33
2. Screening Data for Outfalls to Impaired Waterbodies 33
2.1 Screening data collected under 2017 permit 33
3. Follow-up Investigations 34
4. Prioritized Outfall Monitoring 34
Part III: Additional IDDE Program Data 35
1. Assessment and Priority Ranking of Catchments data 35
2. Outfall and Interconnection Screening and Sampling Data 38
2.1 Dry weather screening and sampling data from outfalls and interconnections 38
2.2 Wet weather sample and inspection data 43
3. Catchment Investigation Data 44
3.1 System Vulnerability Factor Summary 44
3.2 Key junction manhole dry weather screening and sampling data 45
3.3 Wet weather investigation outfall sampling data 45
3.4 Data for each illicit discharge source confirmed through the catchment investigation procedure 46
Part IV: Certification 47

MS4 General Permit
Town of Trumbull 2019 Annual Report

Existing MS4 Permittee
Permit Number GSM 000107
January 1, 2019 – December 31, 2019

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

Part I: Summary of Minimum Control Measure Activities

1. Public Education and Outreach

MS4 General Permit Section 6(a)(1) / page 19, requires the Town to "implement a public education program to distribute educational materials to the permittee's community or conduct equivalent outreach activities about the sources and impacts of stormwater discharges on waterbodies and the steps that the public can take to reduce pollutants in stormwater runoff."

1.1 BMP Summary

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
1.1 Implement public education and outreach	Ongoing, Complete for 2019	**1.1a. Pet Waste Brochure:** 50 copies of a brochure titled "Don't Let Our Water Quality Go to the Dogs" were developed for distribution. A copy of the brochure appears in **Appendix A.** **1.1b. Mercury Waste Brochure:** 50 copies of a brochure titled "Keep the Hg Out of Our H2O" were developed for distribution. A copy of the brochure appears in **Appendix A.**	Develop and implement public education process to reach out to the Trumbull community, including establishing a stormwater page on the Town website to share educational materials. Year 1: Bacteria and pet waste.	Town Engineer	Pet Waste: 07/01/18 Mercury: 07/01/19	Completed:1 1/15/19 Completed: 12/17/19	

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
			Year 2: Nitrogen & phosphorous Year 3: Mercury Year 4: Impervious coverage Year 5: Illicit Discharges				
1.2 Address education/ outreach for pollutants of concern*	Ongoing, Complete for 2019	**1.2a Pet Waste Brochure:** 50 copies of a brochure titled "Don't Let Our Water Quality Go to the Dogs" were placed outside the Parks and Recreation Office. **1.2b: Mercury Educational Material:** The Town developed a brochure titled "Keep the Hg Out of Our H2O" that mercury waste disposal. 50 copies of the brochure were placed in the Public Works Office, and on the Town website. A copy of the brochure appears in **Appendix A.**	Develop/procure and disseminate educational materials focused on bacteria and pet waste management. Develop/procure and disseminate educational materials focused on mercury waste management.	Town Engineer	Pet Waste: 07/01/18 Mercury: 07/01/19	Completed:: 11/15/19 Completed: 12/17/19	
1.3 Establish stormwater page on Town website	In Progress	**1.3 Town stormwater website.** The Town updated its website in 2019 and will re-publish its educational materials to a dedicated stormwater management page on the Town website.	Develop and collect stormwater-specific educational materials to share with the public, pursuant to BMP 1.1 and 1.2. Establish stormwater page on Town website	Town Engineer	06/30/19	Initially completed, 07/01/17. Update to be completed by: 06/30/20	

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
			with information on potential sources of, impacts of, and solutions to stormwater pollutants. of concern.				

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

The following activities are planned for 2020:

1. Develop or procure from CTDEEP/other MS4s educational materials focused on impervious cover, and its impacts on stormwater quality (at least one brochure, flyer, booklet, presentation, or public access advertisement per topic).
2. Post the material from Item 1 to the Town stormwater website.
3. Update and Continue to maintain the Town's stormwater website.

1.3 Details of activities implemented to educate the community on stormwater

Program Element/Activity	Audience (and number of people reached)	Topic(s) covered	Pollutant of Concern addressed (if applicable)	Responsible dept. or partner org.
Brochure: Don't Let Our Water Quality Go to the Dogs	Town Residents (50 copies places at Parks Office front desk)	Pet waste management	bacteria	Town Engineer
Brochure: Keep the Hg Out of Our H2O	Town Residents (50 copies places at DPW front desk)	Proper mercury disposal.	Nitrogen	Town Engineer
Town Website	Town Residents (number of page visitors unknown)	General housekeeping best practices		Town Engineer

2. Public Involvement/Participation

MS4 General Permit Section 6(a)(2) / page 21, requires the Town to "provide opportunities to engage their community to participate in the review and implementation of the permittee's Plan."

2.1 BMP Summary

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
2.1 Comply with public notice requirements for the Stormwater Management Plan and Annual Report	Plan: Complete Annual Report: Yearly, Complete for 2019	**2.1a Stormwater Management Plan Notification.** The Town published notice on its website regarding availability of the Stormwater Management Plan. No comments were received.	Publish public notice about the MS4 Plan and Annual Report by January 31. Accept public comments for 30 days following the public notice.	Town Engineer	04/01/17	Completed: 01/26/2017	
		2.1b MS4 Annual Report Notice. The Town provided notice of the availability of the 2018 Annual Report. The report was posted to http://www.trumbull-ct.gov/DocumentCenter/View/941/2018-Annual-Report-Stormwater-from-Small-Municipal-Separate-Storm-Sewer-Systems-PDF?bidId=	Publish public notice about the MS4 Plan and Annual Report by January 31. Accept public comments for 30 days following the public notice.		02/15/18	Completed: 02/22/19	
2.2 Conduct household hazardous waste collection	Ongoing, Yearly Complete for 2019	**2.2 Household Hazardous Waste Collection Day.** The Town of Trumbull held its annual hazardous waste collection day for residents at Indian Ledge Park on June 29, 2019 and November 2, 2019. Items that were able to be collected included oil based paints and strippers paint thinner, solvents, stains and varnishes, solvent adhesives, lighter fluid, waste fuels: kerosene, gasoline engine degreaser, carburetor cleaner, brake fluid, transmission fluid, pesticides and insecticides, weed killers, moth balls, flea powder, resins and adhesives, rubber cement, airplane glue, hobby supplies, artist supplies, photo chemicals, chemistry sets, furniture, floor, metal polishes, oven, toilet and	Conduct at least one Household Hazardous Waste Collection Day per year for the Trumbull community. Notify residents about Household Hazardous Waste Collection dates through the Town website.	Town Engineer	06/30/19	Completed: 06/29/19	

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
		drain cleaners, rug and upholstery cleaner, dry cleaning solvents, spot removers, swimming pool chemicals, fluorescent light bulbs, mercury thermometers. http://www.trumbull-ct.gov/446/Household-Hazardous-Waste-Collection					
2.3 Partner with local volunteer organizations	Ongoing, Yearly Complete for 2019	**2.3 Partner with local volunteer organizations.** There are a number of volunteer organizations in Trumbull that are engaged in Town cleanups and volunteer opportunities. **Trumbull Nature Center** The Trumbull Nature Center held an Earth Day Celebration on April 27, 2019.	Review MS4 plan and identify opportunities to engage with local organizations in implementing the plan. Contact at least one local organization and/or school to engage them in plan implementation and related programs, such as volunteer opportunities and town cleanup days. Engage organizations in plan implementation and programming.	Town Engineer	07/01/19	Complete: 04/27/2019	

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

The following activities are planned for 2020:

1. Publish notice of 2019 Annual Report Posting.
2. Identify one volunteer organization for clean up assistance. Provide material/logistical support as needed and available.
3. Conduct at least one Household Hazardous Waste Collection Day.

2.3 Public Involvement/Participation reporting metrics

Metrics	Implemented	Date	Posted
Availability of the Stormwater Management Plan announced to public	Yes	01/26/2017	http://www.trumbull-ct.gov/filestorage/7112/7168/MS4_Stormwater_Management_Plan_-_2017.pdf
Availability of Annual Report announced to public	Yes	02/22/2019	http://www.trumbull-ct.gov/DocumentCenter/View/941/2018-Annual-Report-Stormwater-from-Small-Municipal-Separate-Storm-Sewer-Systems-PDF?bidId=

3. Illicit Discharge Detection and Elimination

Reference: Section 6(*a*)(3) and Appendix B / page 22

3.1 BMP Summary

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
3.1 Develop written IDDE program	Complete	**3.1 Develop written IDDE program.** The Town completed written IDDE Plan.	Develop written IDDE Program.	Town Engineer	07/01/18	Completed: 12/31/2017	
3.2 Develop list and maps of all MS4 stormwater outfalls in priority areas	Complete	**3.2 Develop list and mapping of stormwater outfalls.** The Town is in the process of mapping its stormwater infrastructure in GIS format. All known outfalls 12 inches and greater are mapped, and the known storm sewer infrastructure is mapped.	Develop and maintain a list and GIS-based map of all stormwater discharges from a pipe or conduit located within and owned/operated by the Town, and all interconnections with other MS4s.	Town Engineer	07/01/19	Completed: 07/01/2019	
3.3 Implement citizen reporting program	Complete	**3.3 Implement citizen reporting program.** The Town has developed a procedure for citizen reporting of illicit discharges using an online software package. In 2019, the Town switched from Q-Alert to Veoci.	Develop and implement procedure to track citizen complaints of illicit discharges. Update stormwater page on Town website to include reporting process guidelines and contact information. Promptly investigate reported discharges. Update IDDE program with reported illicit discharge information as needed. Update Annual Report with reported illicit discharge information as needed.	Town Engineer	07/01/17	07/01/17	

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
3.4 Establish legal authority to prohibit illicit discharges	In Progress	**3.4a Establish legal authority to prohibit illicit discharges.** Trumbull Ordinance 19-74 states "Stormwater and all other unpolluted drainage shall be discharged to such sewers as are specifically designated as storm sewers, or to a natural outlet approved by the Town or its authorized agent. Industrial cooling water or unpolluted process waters may be discharged, on approval of the Town, to a storm sewer or natural outlet." Section 19-90 identifies the powers and authority of inspectors, and penalties are outlined in Section 19-91. The Town is evaluating ordinances of other municipalities to strengthen their existing policies.	Establish legal authority in the Town to eliminate illicit discharges. Implement and enforce the ordinance.	Town Engineer	07/01/18	Projected: 07/01/20	
3.5 Develop record keeping system for IDDE tracking	Complete	**3.5 Develop record keeping system for IDDE tracking.** The Town had utilized the "Q-Alert" system, and is making a changeover to "Veoci". Both are customer service and public outreach internet based software packages which allow residents to directly report problems. The package also functions as a database to track number of, and response times to, specific registered concerns..	Develop and implement documentation procedures for illicit discharge abatement activities. Update Annual Report with required abatement activity information pursuant to the updated MS4 permit.	Town Engineer	07/01/17	07/01/17	
3.6 Address IDDE in areas with pollutants of concern	In Progress	The Town will identify locations within Trumbull at risk of pollution by bacteria,	Identify locations within Trumbull at risk of pollution by bacteria, phosphorus, and	Town Engineer	Not specified	Ongoing, as identified	

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
		phosphorus, and nitrogen as part of the written IDDE Plan.	nitrogen, and explicitly prioritize these areas within the written IDDE program. Update the Annual Report with information on the prioritized areas, actions taken by the Town to address these areas, and the anticipated pollutant reduction.				

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

The following actions are planned for 2020:

1. Continue to utilize online citizen service request form for reporting and tracking illicit discharges.
2. Develop draft illicit discharge ordinance.
3. Identify outfalls discharging to impaired watercourses.

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

Date of Report	Location / suspected source	Response taken
None received		

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)
119 White Plains Road/ Beardsley Station	05/01/2014-05/02/2014	Surface water	0.42 M.G.	Discharge of 0.42 Million Gallons of raw sewage from bypass at pump station into Pequonnock River due to sustained heavy rainfall(4" in 26 hours).	Both pumps ran at maximum capacity during overflow. Wright Pierce Engineering doing infrastructure I + I testing. High pressure vacuum and Jet truck used to mitigate.	
119 White Plains Road/ Beardsley Station	12/09/2014-12/10/2014	Surface water	0.108 M.G.	Discharge of 0.108 Million Gallons of raw sewage from bypass at pump station into Pequonnock River due to heavy sustained rainfall (3+" in 24 hours).	Both pumps ran at maximum capacity during overflow. Wright Pierce Engineering doing infrastructure I + I testing. Hihg pressure vacuum and jet truck used to mitigate.	
2595 Reservoir Ave/ Reservoir Ave Station	05/01/2014	Surface water	1,200 Gal.	Discharge of 1,200 Gallons of raw sewage from bypass at pump station into Pequonnock River due to heavy sustained rainfall (4" in 26 hours).	All pumps ran at maximum capacity during overflow. Wright Pierce Engineering doing I + I testing. High pressure vacuum and jet truck used to mitigate.	
119 White Plains Road/ Beardsley Pump Station	02/27/2013–02/28/2013	Surface water	Moderate	Discharge of "Moderate" volume of raw sewage from bypass at pump station into Pequonnock River due to heavy rain and significant snow melt.	Both pumps were run at maximum output during the overflow. Hired Wright Pierce Engineering to evaluate I + I. Four phases of SSES analysis. Jet rodder used to mitigate.	
119 White Plains Road/ Beardsley Pump Station	06/14/2013-06/16/2013	Surface water	1.83 M.G.	Discharge of 1 M.G.D. of raw sewage from bypass at pump station into Pequonnock River due to extremely heavy sustained rainfall.	Both pumps were run at maximum output during overflow. Wright Pierce Engineering is doing infrastructure I + I testing. High pressure vacuum and jet truck used to mitigate.	
119 White Plains Road/ Beardsley Pump Station	03/16/2017-03/17/2017	MS4 & Surface Water	87,000 -130,500 Gal.	Discharge of 100-150 G.P.M. of raw sewage through bypass at pump station and from overflowing manholes as a result of electric motor failure. Pequonnock river	3-3,500 Gal. pump trucks pumping from 12 PM to 9 PM high peak. Electric motor in for repair.	

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)
				acted as receiving water to bypass.		
6540 Main Street - Easement	02/29/2016	MS4	3,750 Gal.	Discharge of 3,750 Gal. of raw sewage resulting in overflowing manholes.	Jet rodder cleared stoppage.	
2595 Reservoir Road/ Reservoir Ave Station	05/08/2017	MS4	67,500 Gal.	Discharge of 67,500 Gal. caused by mechanical failure. Manholes overflowed as a result.	Septic truck on standby. Repaired electrical failure. Fresh water spray down.	
119 White Plains Road / Beardsley Pump Station	07/16/2019	Surface water, Pequonnock River	Undetermined	During construction, Contractor was excavating for force main to install a inline bypass so that they could continue the upgrade of the building. While digging for main line, Contractor hit thrust block and shifted line just enough to release a minor amount of sewage.	During construction filter fabric in storm catch basin already in place also dewatering ground water from trench going into filter bladder surrounded by haybales also 6" bypass pump being used bypassing into wet well Minor mount of sewer water along with ground water being directed into filter bags maintain water level	

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

The Town utilizes the “Veoci” system which is a customer service and public outreach internet based software package which allows residents to directly report problems. The package also functions as a database to track number of, and response times to, specific registered concerns. Town Engineer. is responsible for tracking this information.

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**
19 septic failures reported throughout Town	19 permits issued for repairs	Various

Location and nature of structure with failing septic systems	Actions taken to respond to and address the failures	Impacted waterbody or watershed, if known

3.7 IDDE reporting metrics

Metrics	
Estimated or actual number of MS4 outfalls	745
Estimated or actual number of interconnections	Unknown
Outfall mapping complete	99%
Interconnection mapping complete	99%
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	401
Catchment investigations complete	0

Estimated percentage of MS4 catchment area investigated	54%

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

Town Highway staff is trained once per year that when identifying a non-stormwater discharge, the source of the discharge shall be determined, and if found to be beyond or outside the Town's system, the owner of the property is notified. Training was provided on April 10, 2019.

4. Construction Site Runoff Control

Reference: Section 6(a)(4) / page 25

4.1 BMP Summary

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
4.1 Implement, upgrade, and enforce land use regulations or other legal authority to meet requirements of MS4 general permit	Ongoing, Complete for 2019	**4.1a 2002 Connecticut Sediment and Erosion Control Guidelines.** The Town will continue to require that developers, construction site operators, or contractors maintain consistency with the *2002 Guidelines for Soil Erosion and Sedimentation Control*, as amended. Article X of the Trumbull Zoning Regulations require the submission and approval of an erosion and sediment control plan whenever more than one half acre of land will be disturbed. The regulations reference the *Connecticut Guidelines for Soil Erosion and Sediment Control*, as amended. Article I, Section 5.3 references the Connecticut Stormwater Quality Manual	Continue to require developers, construction site operators, or contractors maintain consistency with the 2002 Guidelines for Soil Erosion and Sedimentation Control, as amended. Require consistency with the 2004 Connecticut Stormwater Quality Manual, and all stormwater discharge permits issued by CTDEEP within the municipal or institutional boundary pursuant to CGS 22a 430 and 22a-430b.	Town Engineer	07/01/19	Completed: 06/30/18	
4.2 Develop/Implement plan for interdepartmental coordination in site plan review and approval	Ongoing, Complete for 2019	**4.2 Develop Interdepartmental coordination plan.** The Town Fire Marshal leads a monthly meeting to discuss building permits, projects, and other upcoming projects and development	Continue to follow the Interdepartmental Coordination Plan for the management of stormwater quality	Town Engineer	07/01/17	Completed: 07/01/18	

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
		issues, including projects under construction. The participating departments include Engineering, Planning and Zoning, Police, Fire, Health, and Emergency Management. These meetings are then summarized and action items identified for various departments where needed. This process has fostered a cooperative spirit between the Town departments.					
4.3 Review site plans for stormwater quality concerns	Ongoing, Complete for 2019	**4.3 Site plan review process.** The Town continues to implement its existing practice of engineering comments and site inspections, and will update the site plan review process as needed to provide consistency with updated MS4 regulations. Site plan reviews incorporate consideration of stormwater management practices to prevent or minimize impacts to water quality.	The Town will review and update, if needed, the site review and inspection process by July 1, 2017, and then continue the review and inspection process throughout the duration of the permit.	Town Engineer	07/01/17	Completed: 07/01/17	
4.4 Conduct site inspections	Complete, ongoing practice	**4.4 Site inspections.** The Town continues to implement its existing practice of engineering comments and site inspections, and will update the site plan review process as needed to provide consistency with	Evaluate and update draft standard condition of approval. Inventory privately-owned retention and detention ponds, and other stormwater basins	Town Engineer	07/01/19	Completed: 06/30/18	

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
		updated MS4 regulations. Site plan reviews incorporate consideration of stormwater management practices to prevent or minimize impacts to water quality.	that discharge to/receive drainage from the Town's MS4.				
4.5 Implement procedure to allow public comment on site development	Ongoing, Complete for 2019	**4.5 Online notification system.** The Town has reviewed the procedure for collecting and reviewing citizen feedback regarding proposed and ongoing land disturbance and land development activities.	The Town routes phone calls or e-mails regarding citizen complaints about land use activities to appropriate staff for review. The Town will continue its existing practices, but will also review and modify, if necessary, its procedure for collecting and reviewing citizen feedback regarding proposed and ongoing land disturbance and development activities by July 1, 2017, and continue to follow the procedure through the duration of the permit	Town Engineer	07/01/17	Completed 07/01/17	
4.6 Implement procedure to notify developers about DEEP construction stormwater permit	Ongoing, Complete for 2019	**4.6 Standard condition of approval regarding Construction General Permit.** The Town has evaluated its procedure for notifying developers or contractors about the	The Town shall evaluate its procedure for notifying developers or contractors about the potential need	Town Engineer	07/01/17	Completed: 07/01/17	

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
		potential need for DEEP's General Permit by July 1, 2017, and will include a general statement as a standard condition on all site plan approvals	for DEEP's General Permit by July 1, 2017, and modify as needed. The Town shall continue to provide notification throughout the permit term				
4-7 Regulatory Flexibility for Additional Controls	Ongoing, Complete for 2019	The Town has reviewed its existing regulatory process and has determined that no additional changes beyond those already identified in the Plan are required at this time.	Assess existing regulations regarding construction site stormwater controls; if goals are not being met, update as needed.	Town Engineer	07/01/18	Completed: 12/31/17	
4-8 Require Maintenance and Operation Plans	Ongoing, Complete for 2019	The Town already requires maintenance plans for stormwater systems, and such maintenance plans must be included on the drawings.	The Town shall evaluate, by July 1, 2019, if any modifications to the existing Regulations are required for the Town to carry out all inspection, surveillance and monitoring procedures as required by the MS4 permit. Such modifications will include a requirement for private landowners to submit a report annually to the Town regarding maintenance and operation of their stormwater basins	Town Engineer	07/01/19	Completed: 07/01/17	

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
4-9 Interjurisdictional Agreements	In Progress	The Town is reviewing its stormwater mapping to identify potential interconnections with adjacent MS4s.	Identify locations where Trumbull's MS4 discharges into the MS4 of a neighboring community. Notify adjoining communities.	Town Engineer	07/01/18	Projected: 07/01/20	

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

The following activities are planned for 2020:

1. Continue to enforce existing regulations.
2. Continue to utilize the Veoci system to track citizen reports and concerns.
3. Formalize existing practices into Interdepartmental coordination plan.
4. Continue site review process, including requiring operation and maintenance programs.
5. Continue site inspection program.
6. Identify interconnected MS4s.
7. Continue notification to applicants of their potential obligation to register for the Construction General Permit.

5. Post-Construction Stormwater Management

Reference: Section 6(*a*)(5) / page 27

5.1 BMP Summary

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
5.1 Evaluate and/or update legal authority and guidelines regarding LID and runoff reduction in site development planning	Complete	**5.1 Evaluate existing regulations for LID stormwater practices.** Trumbull's existing ordinances and procedures meet the requirements of the 2017 permit.	Review and evaluate existing relevant ordinances, regulations and procedures.	Town Engineer	07/01/22	Complete: 06/30/18	
5-2 Enforce LID/runoff reduction requirements for development and redevelopment projects	Ongoing, Complete for 2019	**5.2 Enforce LID requirements.** The Town Engineer provides stormwater management advisory reviews to the Planning and Zoning Department for most land use applications. Stormwater BMPs are required, and evaluated on a project-specific basis, subject to the requirements of the Town's Stormwater Management Policy. The 2014 Trumbull Plan of Conservation and Development includes provisions which encourage the use of low-impact development practices.	Update or develop regulations and/or design guidelines that require developers/contractors to first consider implementation of LID/runoff reduction measures for development and redevelopment projects in the Town as specified in the MS4 permit.	Town Engineer	07/01/22	Complete: 06/30/18	
5.3 Maintenance and inspection of stormwater structures	Ongoing, Complete for 2019	**5.3 Maintenance and inspection of stormwater structures.** As part of the ongoing mapping efforts in Town the Town owned detention and retention facilities are being identified.	Draft long-term maintenance plan for retention or detention ponds and stormwater treatment structures or measures.	Town Engineer	06/30/18	Complete: 06/30/18	

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
		The Town's Administrative Policy for Stormwater Management and Drainage Design Standards requires owners to maintain their stormwater treatment practice so that they do not become nuisances. The Town requires a plan of operation and maintenance for each system, with the required contents of the plan including requirements for inspection and maintenance.					
5.4 DCIA mapping	Complete	**5.4 DCIA Mapping.** The Town utilized the state's impervious coverage layer, subtracted out the state roadways and then applied the Sutherland Equations. Refer to **Appendix B.**	Calculate the DCIA that contributes stormwater runoff to each MS4 outfall by July 1, 2020, and update calculations as DCIA is added or removed within the Town.	Town Engineer	07/01/20	Completed: 12/09/19	
5.3 Identify retention and detention ponds in priority areas	In progress	**5.3 Identification of Detention Ponds in Priority Areas.** The Town will identify known private and public detention ponds.	Identify retention and detention ponds in priority areas.	Town Engineer	07/01/22	Projected: 07/01/22	
5.4 Implement long-term maintenance plan for stormwater basins and treatment structures	In Progress	**5.4 Detention/retention system maintenance.** The Town's Stormwater Management Policy requires owners to maintain their stormwater treatment practices so that they do not become nuisances. The Town also requires the submission of an operations and maintenance plan or notice of drainage maintenance plan for each system; the required contents of	Prepare draft condition of approval for inspection access. Require operation and maintenance plans.	Town Engineer	07/01/22	Projected: 07/01/22	

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
		the plan include inspection frequency, maintenance requirements, and intervals for proposed stormwater management practices at the site. The Town is currently working on an illicit discharge ordinance which will include provisions for inspection access.					
5.5 Address post-construction issues in areas with pollutants of concern	Ongoing, Complete for 2019	**5.5 Post Construction Erosion and Sediment.** Identify erosion and sediment problems in impaired waters. Develop and implement short- and long-term maintenance solutions to the problems as funding becomes available, or use legal authority to hold property owners accountable. Update annual report with identification of problem areas, the cost of the retrofit, and the anticipated pollutant reduction. In 2019, the Town completed a project at Long Hill Green, funded under an EPA Section 319 grant that converted impervious parking spaces and a drive aisle to porous pavement.	As issues arise on publically owned property, work is done in-house to correct the issue to the extent practicable. Otherwise, it is incorporated into a listing of projects. On privately owned land, typically a wetlands violation notice will be issued.	Town Engineer	Not specified	Ongoing	
5.6 Turf reduction	Ongoing, Complete for 2019	**5.6 Turf reduction.** The Town's wetland regulations require applicants to preserve as much as the natural buffer as possible.	The Town is continuing to review the need for requirements for turf reduction, and is looking at turf reduction as part of	Town Engineer	07/01/18	Complete: 07/01/17	

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
			the Unity and Twin Brooks Parks master plans				
5.7 Require consistency with the 2004 Connecticut Stormwater Quality Manual	Ongoing, Complete for 2019	**5.7 Require consistency with the 2004 Connecticut Stormwater Quality Manual.** The Town is continuing to review the need for requirements for turf reduction, and is looking at turf reduction as part of the Unity and Twin Brooks Parks master plans.	Update regulations or policies for permit applicants to maintain consistency with the 2004 Stormwater Quality Manual.	Town Engineer	07/01/18	Complete: 07/01/17	
5.8 Coordination with Local Health Department	Ongoing, Complete for 2019	**5.8 Coordination with Local Health Department.** The local Health Department is included on application reviews as warranted.	Continue actively coordinating with local Health Department on MS4 Plan requirements.	Town Engineer	07/01/18	Complete: 07/01/17	

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

The following activities are proposed for 2020:

1. Identify public and private retention/detention ponds in priority areas.
2. Address post-construction sediment and erosion control issues as they occur.
3. Continue to encourage preservation and enhancement of natural buffers.
4. Continue to require consistency with the 2004 Stormwater Quality Manual.
5. Continue to coordinate application reviews with the local Health Department.

5.3 Post-Construction Stormwater Management reporting metrics

Metrics	
Baseline (2012) Directly Connected Impervious Area (DCIA)	1,543.69
DCIA disconnected (redevelopment plus retrofits)	0.004%
Retrofits completed	1
DCIA disconnected	0.0608 acres
Estimated cost of retrofits	$600,000
Detention or retention ponds identified	0

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

We began with the state impervious coverage layer, and then looked at the subregional watersheds throughout town, subtracting out the state DOT impervious coverage for each watershed. We then applied the Sutherland Equations for each watershed. Please refer to **Appendix B.**

6. Pollution Prevention/Good Housekeeping

Reference: Section 6(*a*)(6) / page 31

6.1 BMP Summary

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
6.1 Develop/implement formal employee training program	Ongoing, Complete for 2019	**6.1 Develop formal training program.** The Town already provides annual training as part of its Industrial Stormwater General Permit. The Town will incorporate MS4 topics into the next training session.	Update training program as needed, incorporate MS4 topics into the annual training program already done as part of the Industrial Stormwater Permit.	Highway Department	07/01/19	Projected: 02/28/2019	
6.2 Implement MS4 property and operations maintenance	Ongoing, Complete for 2019	**6.2a Liquid Containment and Handling.** The Town offers an annual training session as part of its Industrial Stormwater permit, and utilizes secondary containment for storage of liquid materials. **6.2b Town Vehicle Washing.** The Town has a wash area and permitted separator at its public works garage. **6.2c Town Facilities Sweeping.** Town-owned facilities are swept a minimum of once per year, and on an as-needed basis.	Ensure the petroleum and non-petroleum products at its facilities are properly handled via employee education and training. Develop and implement (i) Spill Prevention Plans at facilities as appropriate, (ii) management procedures for waste management equipment, and (iii) plans to sweep parking lots and keep facilities and their surrounding areas clean. Evaluate impacts of vehicle wash areas at public facilities, and develop best management practices to mitigate their impacts on water quality.	Highway Department	07/01/18	12/31/17	

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
6.3 Implement coordination with interconnected MS4s	Not started		Coordinate municipal operations with adjoining MS4s.	Town Engineer	Not specified	Projected: 07/01/20	
6.4 Develop/implement program to control other sources of pollutants to the MS4	Complete	**6.4 Identify non-registered facilities that may be contributors.** The Town reviewed its commercial and industrial areas and did not identify any specific facilities that may be contributors to stormwater pollution.	Review stormwater general permit registrant list and identify potential contributing facilities not on the list. Compare locations of potential contributors to screening and monitoring results to determine if further investigation is warranted.	Town Engineer	Not specified	Completed: 12/23/19	
6.5 Evaluate additional measures for discharges to impaired waters*	Please refer to BMP 6.13, 6.14 and 6.15 for additional detail. 6.5 Evaluate additional measures for discharges to impaired waters*						
6.6 Track projects that disconnect DCIA	Ongoing, Complete for 2019	**6.6 Track DCIA coverage.** The Town will track the DCIA coverage on a separate spreadsheet as land development projects are approved and Certificates of Occupancy are issued. The Town did not identify any significant disconnection projects in the past 5 years.	Track the disconnected DCIA acreage, identifying DCIA credit eligible sites constructed within the preceding 5 years.	Town Engineer	07/01/17	07/01/17	
6.7 Implement infrastructure repair/rehab program	Ongoing, Complete for 2019	**6.7 Implement infrastructure repair/ rehab program.** The Town has a list of projects and reviews them periodically, adding projects or reprioritizing them. The Town disconnected parking and a drive aisle at	Prepare draft internal policy on MS4 infrastructure repair, rehabilitation, and retrofits.	Town Engineer	07/01/21	07/01/17	

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
		Long Hill Green in November 2019. The Town will continue this list.					
6.8 Develop/implement plan to identify/prioritize retrofit projects	Complete	**6.8 Implement plans based upon data from previous MS4 permit.** The work conducted under the pervious MS4 permit did not indicate any problems with the Town's MS4 infrastructure that required retrofit.	Identify required repairs based on data from previous permit and prepare inventory. Make repairs as funding becomes available.	Town Engineer	07/01/20	07/01/17	
6.9 Implement retrofit projects to disconnect 2% of DCIA	Not started	**6.9 Implement retrofit projects to disconnect 2% of DCIA.** The Town has not identified any opportunities for DCIA disconnection. The Town will continue to look for opportunities on its facilities and with developers.	Disconnect 2% of the Town's DCIA.	Town Engineer	07/01/22	Projected: 07/01/22	
6.10 Develop/implement street sweeping program	Ongoing, Complete for 2019	**6.10 Street sweeping program.** The Town sweeps all its streets on an as-needed basis. The Town has indicated that with the reduction in sand use, sweeping is needed less frequently.	Develop and implement a procedure for identifying targeted areas for additional street sweeping. Establish a schedule for street sweeping to ensure minimum frequency is met for areas inside and outside areas with DCIA greater than 11% and/or in the Urbanized Area. Document results of sweeping program.	Highway Department	07/01/18	07/01/17	

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
6.11 Develop/implement catch basin cleaning program	Ongoing, Complete for 2019	**6.11 Catch basin cleaning.** The Town cleans its catch basins on a rotating basis. 813 catch basins were cleaned in 2019. As part of the cleaning process, the Town records the condition of each catch basin, and its workers look for signs of illicit discharges.	Continue conducting routine cleaning of all catch basins. Track catch basin inspection observations. Develop and implement a plan for catch basin inspection and maintenance. Update the Annual Report with documentation of the Town's catch basin cleaning and maintenance process.	Highway Department	07/01/20	07/01/17	
6.12 Develop/implement snow management practices	Ongoing, Complete for 2019	**6.12 Snow management practices.** The Town currently has a Snow and Ice Management policy from 2012. The Town minimizes the use of sand on its roadways, and in 2019 used no sand. The Town uses magnesium chloride exclusively.	Develop and implement a written snow and ice management plan, including protocols for staff training and record maintenance and updated standard operating practices. Provide appropriate secondary containment for any exterior containers of liquid dicing materials. Update the Annual Report with required information on the snow and ice program.	Highway Department	07/01/18	07/01/18	
6.13 Parks and Open Space Management	Ongoing, Complete for 2019	**6.13 Parks and Open Space Management.** The Town optimizes fertilizer use on its parks properties. Grass clippings are left in place, and leaves are collected and composted.	Continue implementing procedures for fertilizer application and disposal of grass clippings and leaves for lands that are the legal responsibility of the Town.	Parks and Recreation Department	07/01/18	12/31/17	

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
		Pestcide use is limited to select application for grub control.					
6-14 Pet waste management	Complete	**6.14 Pet waste management.** Receptacles and collection bags are located in Town parks along the Pequonnock River. The Pequonnock River is impaired for bacteria, and therefore the receptacles and collection bags have been placed in parks along the river.	Identify locations with the town where pet waste threatens receiving water quality.	Parks and Recreation Department	07/01/18	07/01/17	
6.14 Waterfowl management	Complete	**6.14 Waterfowl Management.** Waterfowl congregation areas were identified at Old Mine Park and signage was posted warning about feeding of waterfowl.	Identify waterfowl congregation areas.	Parks and Recreation Department	07/01/18	07/01/17	
6.15 Mitigate Stormwater Quality Impacts of Town-Owned Vehicles and Equipment	Complete	**6.15 Town vehicle maintenance and washing.** There is a wash area at the DPW garage that includes a permitted separator.	Review existing operations and maintenance procedures for Town facilities, and update if the vehicle fueling/washing provisions have not been included.	Highway Department	07/01/18	07/01/17	
6-16 Leaf management	Ongoing, Complete for 2019	**6.16. Leaf management.** Trumbull has conducted a Town-wide leaf collection program for many years. Leaves are picked up curbside by the Town every fall and composted at the Town's Public Works facility. The Town posts requirements online, and	Continue to implement Town-wide leaf collection program, collecting leaves curbside at least once each fall.	Highway Department	07/01/22	07/01/22	

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
		requires leaves to be in paper biodegradable bags. The 2019 leaf pickup began November 11, 2019. The Town advises residents to not place leaves in the roadway, and has the authority to fine the property owner $90 for the first violation.					

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

Activities proposed for 2020 include:

1. Continue employee training programs.
2. Continue to institute requirements of the Industrial general Permit SWPPP.
3. Identify interconnected MS4s.
4. Identify potential contributors from General Permit non-registrants.
5. Track DCIA disconnection.
6. Continue existing infrastructure repair policies.
7. Perform infrastructure repairs as needed and as funding is available.
8. Continue street sweeping program.
9. Continue catch basin cleaning program.
10. Continue snow management practices.
11. Continue to optimize fertilizers on town properties.
12. Continue prohibition on dogs from town parks.
13. Continue to maintain and wash Town vehicles in accordance with the Industrial General Permit.
14. Continue leaf management policy.

6.3 Pollution Prevention/ Good Housekeeping reporting metrics

Metrics	
Employee training provided for key staff	Yes, 04/26/19
Street sweeping	
Curb miles swept	50 curb-miles
Volume (or mass) of material collected	Unknown
Catch basin cleaning	
Total catch basins in priority areas	8,900
Total catch basins in MS4	8,900
Catch basins inspected	813
Catch basins cleaned	813
Volume (or mass) of material removed from all catch basins	264 tons
Volume removed from catch basins to impaired waters (if known)	unknown
Snow management	
Type(s) of deicing material used	Magnesium chloride
Total amount of each deicing material applied	3,889 tons
Type(s) of deicing equipment used	Trucks and spreaders
Lane-miles treated	400 miles
Snow disposal location	In-situ, no hauling
Staff training provided on application methods & equipment	Yes, November 2019
Municipal turf management program actions (for permittee properties in basins with N/P impairments)	
Reduction in application of fertilizers (since start of permit)	0 lbs.
Reduction in turf area (since start of permit)	0 acres
Lands with high potential to contribute bacteria (dog parks, parks with open water, & sites with failing septic systems)	
Cost of mitigation actions/retrofits	$0

6.4 Catch Basin Cleaning Program

Briefly describe the method used to optimize your catch basin inspection and cleaning schedule.
The Town has developed a catch basin maintenance program that consists of inspecting and cleaning catch basins in critical areas on a yearly basis. Additional catch basins in other areas are cleaned as manpower/funds permit, with a goal of cleaning all catch basins in the system at least once per year.

6.5 Retrofit Program

Briefly describe the Retrofit Program identification and prioritization process, the projects selected for implementation, the rationale for the selection of those projects and the total DCIA to be disconnected upon completion of each project. [Provide information if available in 2017 report. Section to be completed for the 2019 Annual Report.]

1. Projects are identified on an as-needed basis, and implemented based upon perceived benefit or potential impact to water quality. In 2017, no projects were undertaken to improve storm drainage quality.
2. The retrofit program will continue to proceed on an as-needed basis, as funding is made available. The Town is evaluating its properties to identify potential disconnection opportunities, and looks for disconnection opportunities in site plan applications by default since the Town requires conformance with the 2011 LID Supplement to the 2004 Stormwater Quality Manual.
3. The Town will continue with its existing process for implementing its own projects, and also for reviewing Town projects and site applications as they come in for review to help achieve the DCIA reduction goal.

Describe plans for continuing the Retrofit program and how to achieve a goal of 1% DCIA disconnection in future years. [Provide information if available in 2017 report. Section to be completed for the 2019 Annual Report.]

The retrofit program will continue to proceed on an as-needed basis, as funding is made available. The Town is evaluating its properties to identify potential disconnection opportunities, and looks for disconnection opportunities in site plan applications by default since the Town utilizes an undeveloped site as the basis of comparison for site development projects.

Describe plans for continuing the Retrofit program beyond this permit term with the goal to disconnect 1% DCIA annually over the next 5 years. [Provide information if available in 2017 report. Section to be completed for the 2019 Annual Report.]

The Town will continue with its existing process for implementing its own projects, and also for reviewing Town projects and site applications as they come in for review to help achieve the DCIA reduction goal.

Part II: Impaired Waters Investigation and Monitoring

1. Impaired Waters Investigation and Monitoring Program

1.1 Indicate which stormwater pollutant(s) of concern occur(s) in your municipality or institution.

This data is available on the MS4 map viewer: http://s.uconn.edu/ctms4map.

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

1.2 Describe program status

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

Impaired waters monitoring to begin in 2020.

2. Screening Data for Outfalls to Impaired Waterbodies

Reference: (Section 6(i)(1) / page 41)

2.1 Screening data collected under 2017 permit

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

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

3. Follow-up Investigations

Reference: 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

4. Prioritized Outfall Monitoring

Reference: Section 6(i)(1)(D) / page 43

Once outfall screening has been completed for at least 50% of outfalls to impaired waters, identify 6 of the highest contributors of any pollutants of concern. Begin monitoring these outfalls on an annual basis by July 1, 2021.

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

Part III: Additional IDDE Program Data

1. Assessment and Priority Ranking of Catchments data

Reference: 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
7105-00-2-R3	High Priority	1
7108-04-1	High Priority	2
7108-00-2-L2	High Priority	3
7105-00-2-R6	High Priority	4
7105-00-2-L2	High Priority	5
7105-00-2-R8	High Priority	6
7105-05-1	High Priority	7
7105-08-1	High Priority	8
7108-07-1	High Priority	9
7105-00-2-R5	High Priority	10
7105-00-2-R7	High Priority	11
7108-00-2-R2	High Priority	12
7105-07-1	High Priority	13
7104-00-1-L1	High Priority	14
7105-06-1	High Priority	15
7105-00-2-R4	High Priority	16
7106-02-1-L1	High Priority	17
7105-00-2-R3	High Priority	18
7108-04-1	High Priority	19
7108-00-2-L2	High Priority	20
7105-00-2-R6	High Priority	21
7105-00-2-L2	High Priority	22
7105-00-2-R8	High Priority	23

(1) Catchment ID (DEEP Basin ID)	(2) Category	(3) Rank
7105-05-1	High Priority	24
7105-08-1	High Priority	25
7108-07-1	High Priority	26
7105-00-2-R5	High Priority	27
7105-00-2-R7	High Priority	28
7108-00-2-R2	High Priority	29
7105-07-1	High Priority	30
7104-00-1-L1	High Priority	31
7105-06-1	High Priority	32
7105-00-2-R4	High Priority	33
7106-02-1-L1	High Priority	34
7103-01-1	Low Priority	35
7103-00-1	Low Priority	36
7105-04-1	Low Priority	37
7105-01-2-R1	Low Priority	38
7105-06-1-L1	Low Priority	39
6025-00-2-R1	Low Priority	40
7104-01-1	Low Priority	41
6025-00-2-L1	Low Priority	42
7104-01-1-L1	Low Priority	43
7106-02-1*	Low Priority	44
7106-02-1-L3	Low Priority	45
7108-00-2-L1	Low Priority	46
7108-04-1-L1	Low Priority	47
6025-02-1	Low Priority	48
7105-03-1	Low Priority	49
7105-00-2-R1	Low Priority	50
7105-00-2-R2	Low Priority	51
7105-10-1-L2	Low Priority	52
7105-10-1-L3	Low Priority	53

(1) Catchment ID (DEEP Basin ID)	(2) Category	(3) Rank
6026-01-1	Low Priority	54
6026-02-1	Low Priority	55
7104-02-1	Low Priority	56
7104-04-1	Low Priority	57
7105-09-1	Low Priority	58
7106-01-1	Low Priority	59
6026-00-1*	Low Priority	60
6026-00-1-L1	Low Priority	61
6026-00-1-L2	Low Priority	62
7104-00-1*	Low Priority	63
7104-00-1-L2	Low Priority	64
7104-00-1-L5	Low Priority	65
7104-01-2-R1	Low Priority	66
7105-09-1-L2	Low Priority	67
7105-10-1-L1	Low Priority	68
7106-02-1-L1	Low Priority	69
7104-03-1	Low Priority	70
6025-00-3-L2	Low Priority	71
7104-00-1-L3	Excluded	
7104-00-1-L4	Excluded	
7105-09-1-L1	Excluded	

2. Outfall and Interconnection Screening and Sampling Data

Reference: 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, col/ 100 mL	Surfactants	Water Temp	Pollutant of concern	If required, follow-up actions taken
7108-04-1 Autumn Ridge	07/31/2018	ND	ND			1	ND			
7108-04-1 Madison/Brittany	08/06/2018	ND	ND			65	ND			
7108-00-2-L2 End of Saxony	08/07/2018	ND	ND			179	ND			
7108-04-1-L1 End of Cold Spring	08/08/2018	ND	ND			185	ND			
7108-00-2-L2 Essex/Sturbridge	08/08/2018	ND	ND			2,420	ND			
7105-04-1 Coventry & Tashua	08/13/2018	ND	ND			34	ND			
7105-04-1 Red Barn Road, North of Pond	08/15/2018	ND	ND			228	ND			
7105-00-2-L2 Beardsley Parkway / White Plains Rd.	11/28/2018	ND	ND			45	ND			
7105-00-2-L2 Beardsley Parkway / Hillcrest Rd.	11/28/2018	ND	ND			980	ND			Wet weather testing, review of septic failures in area. This area is under consideration for sewer expansion.
7103-00-1 Knollcrest Drive	11/28/2018	ND	ND			308	ND			
7103-00-1 Juniper Ridge	11/28/2018	ND	ND			128	0.14			
7103-00-1 Juniper Circle	11/28/2018	ND	ND			5	0.025			

Outfall / Interconnection ID	Screening / sample date	Ammonia	Chlorine	Conductivity	Salinity	E. coli or enterococcus, col/ 100 mL	Surfactants	Water Temp	Pollutant of concern	If required, follow-up actions taken
7103-00-1 Beardsley Parkway / Huntington Turnpike	11/28/2018	ND	ND			173	ND			
7103-00-1 8 Round Hill Road	11/28/2018	ND	ND			1	ND			
7103-00-1 34 Round Hill Road	11/28/2018	ND	ND			866	0.17			Wet weather testing, review of septic failures in area. This area is under consideration for sewer expansion.
7103-00-1 Huntington Turnpike	11/28/2018	ND	ND			23	ND			
7103-01-1 Stella Street	11/28/2018	ND	ND			28	ND			
7103-01-1 Vazzano Place	11/28/2018	ND	ND			31	ND			
7103-01-1 Intervale Road	11/28/2018	ND	ND			150	ND			
2019-002 72 Westfield	06/17/2019	ND	ND	8.6	0	172	ND	73		
2019-001 32 Westfield	06/17/2019	ND	ND	9.0	0	13	ND	73		
2019-003 Wendover Culvert	06/24/2019	0.25	ND	50.7	0.03	56	ND	76		
2019-004 North of Wendover	06/24/2019	ND	ND	57.5	0.03	63	ND	76		
2019-005 Madison Culvert	06/24/2019	ND	ND	0	0	4	ND	79		
2019-006 Dead End of Saxony	06/24/2019	ND	ND	56.1	0.03	6	ND	84	\	
2019-007 Kent and Tashua	06/26/2019	ND	ND	50.1	0.02	6	ND	76		
2019-008 Tudor	06/26/2019	ND	ND	53.9	0.03	488	ND	76		

Outfall / Interconnection ID	Screening / sample date	Ammonia	Chlorine	Conductivity	Salinity	E. coli or enterococcus, col/ 100 mL	Surfactants	Water Temp	Pollutant of concern	If required, follow-up actions taken
2019-009 Main Street and Cedar Hill	06/26/2019	ND	ND	52.5	0.03	10	ND	84		
2019-010 Across from 70 20 Main Street	06/26/2019	ND	ND	55.5	0.03	-	ND	84		
2019-011 Pomona Culvert	06/27/2019	ND	ND	50.0	0.02	99	ND	82		
2019-012 Pomona & Misty Wood	06/27/2019	ND	ND	73.2	0.03	178	ND	85		
2019-013 Main Street & Spring Hill	06/27/2019	ND	ND	51.2	0.03	77	ND	86		
2019-014 Mallett Drive	07/01/2019	ND	ND	33.7	0.02	192	ND	70		
2019-0155 Middle of Tashua Lane	07/01/2019	.25	ND	40.0	0.02	326	ND	76		
2019-016 Old Village Culvert	07/02/2019	ND	ND	34.4	0.02	214	ND	76		
2019-017 Cottonon Trial	07/02/2019	ND	ND	37.9	0.02	46	ND	77		
2019-018 Seeley Road	07/02/2019	ND	ND	38.5	0.02	11	ND	79		
2019-019 Saranee Circle	07/03/2019	ND	ND	29.5	0.01	24	ND	78		
2019-020 Pond Lane	07/03/2019	.25	ND	31.5	0.02	8	ND	80		
2019-021 Beechwood Avenue	07/03/2019	ND	ND	31.7	0.0	194	ND	82		
2019-022 Solar Ridge Road	07/03/2019	ND	ND	29.4	0.01	59	ND	82		
2019-023 Meadow Road W1	07/09/2019	ND	ND	19.7	0.01	2420	ND	69		
2019-024 North Lynwood	07/09/2019	ND	ND	20.4	0.01	1414	ND	79		
2019-025 Oakland	07/09/2019	ND	ND	20.0	0.01	52	0.23	81		

Outfall / Interconnection ID	Screening / sample date	Ammonia	Chlorine	Conductivity	Salinity	E. coli or enterococcus, col/ 100 mL	Surfactants	Water Temp	Pollutant of concern	If required, follow-up actions taken
2019-026 Dayton Road 7	07/09/2019	ND	ND	25.1	0.01	1553	0.23	83		
2019-027 Dayton Road 8	07/09/2019	ND	ND	22.9	0.01	365	0.21	82		
2019-028 Pemberton Drive	07/10/2019	ND	ND	20.4	0.01	42	ND	78		
2019-029 Lake Avenue 1	07/10/2019	ND	ND	21.3	0.01	387	ND	81		
2019-030 Madison Middle	07/11/2019	ND	ND	12.4	0.01	5	ND	78		
2019-031 Spring Street	07/11/2019	ND	ND	22.3	0.01	2420	ND	82		
2019-032 Canoe Brook Road 7	07/15/2019	ND	ND	11.6	0.01	34	ND	77		
2019-033 Twisted Oak Circle	07/15/2019	ND	ND	10.3	0.01	461	ND	76		
2019-034 Garwood Road	07/15/2019	ND	ND	10.1	0.01	99	ND	81		
2019-035 Bittersweet Lane	07/16/2019	ND	ND	13.6	0.01	261	ND	80		
2019-036 Walker Road 1	07/16/2019	ND	ND	17.1	0.01	816	ND	82		
2019-037 Walker Road 3	07/16/2019	ND	ND	18.4	0.01	866	ND	83		
2019-038 Wood Avenue	07/16/2019	ND	ND	22.7	0.01	194	ND	86		
2019-039 Lull Water Road Culvert	07/22/2019	ND	ND	10.7	0.00	135	ND	77		
2019-040 Mayfield Drive 1	07/22/2019	ND	ND	13.0	0.01	41	ND	77		
2019-041 Mayfield Drive 2	07/22/2019	ND	ND	14.1	0.01	56	ND	78		
2019-042 Park Lane 4	07/22/2019	ND	ND	14.2	0.01	184	ND	79		
2019-043 Cottage Street 5	07/24/2019	ND	ND	8.1	0.00	364	ND	79		

Outfall / Interconnection ID	Screening / sample date	Ammonia	Chlorine	Conductivity	Salinity	E. coli or enterococcus, col/ 100 mL	Surfactants	Water Temp	Pollutant of concern	If required, follow-up actions taken
2019-044 Pondview Avenue 2	07/24/2019	ND	ND	13.2	0.01	816	ND	77		
2019-045 Glenbrook Road	07/24/2019	ND	ND	13.2	0.01	135	0.24	77		
2019-046 Revere Lane 3	07/24/2019	ND	ND	14.4	0.01	435	ND	82		
2019-047 Revere Lane 4	07/25/2019	ND	ND	6.9	0.00	72	ND	79		
2019-048 Revere Lane 2	07/25/2019	ND	ND	11.6	0.01	308	ND	76		
2019-049 Lafayette Drive 3	07/25/2019	ND	ND	13.1	0.01	71	ND	79		
2019-050 Lafayette Drive 2	07/25/2019	ND	ND	15.7	0.01	387	ND	81		
2019-051 Colony Avenue 2	07/29/2019	ND	ND	10.9	0.00	75	ND	82		
2019-052 Fairview Avenue	07/29/2019	ND	ND	12.0	0.01	3	ND	80		
2019-053 Harvester Road	07/29/2019	ND	ND	15.5	0.00	517	ND	91		
2019-054 Blackhouse Road 4	07/30/2019	ND	ND	9.6	0.00	201	ND	82		
2019-055 Machalowski 2	07/30/2019	ND	ND	15.3	0.01	276	ND	94		
2019-056 Frenchtown Road	07/31/2019	ND	ND	12.4	0.00	488	ND	78		
2019-057 Lindeman Drive 2	07/31/2019	ND	ND	17.1	0.01	14	ND	82		
2019-058 Woodside Avenue 1	07/31/2019	ND	ND	18.5	0.01	687	ND	90		
2019-058 Trefoil Drive 2	08/01/2019	ND	ND	15.8	0.01	157	ND	81		
2019-059 Technology Drive 2	08/01/2019	0.25	ND	18.4	0.01	4880	ND	83		
2019-060 Corporate Drive 3	08/01/2019	ND	ND	15.4	0.01	365	ND	83		

Outfall / Interconnection ID	Screening / sample date	Ammonia	Chlorine	Conductivity	Salinity	E. coli or enterococcus, col/ 100 mL	Surfactants	Water Temp	Pollutant of concern	If required, follow-up actions taken
2019-062 Williams Road	08/05/2019	ND	ND	5.6	0.00	291	ND	71		
2019-063 Sutton Place	08/05/2019	ND	ND	6.9	0.00	282	ND	77		
2019-0643 Island Brook Park 3	08/05/2019	ND	ND	12.8	0.01	299	ND	80		
2019-065 Grove Street	08/06/2019	ND	ND	9.6	0.01	1046	ND	73		
2019-066 Highway Department 6	08/06/2019	ND	ND	16.1	0.01	921	ND	73		
2019-067 Island Brook Park 5	08/06/2019	ND	ND	12.9	0.01	54	ND	74		
2019-068 Tashua and Main Street	08/06/2019	ND	ND	13.9	0.01	17	ND	77		
2019-069 Indian Ledge Park 1	08/07/2019	0.5	ND	14.8	0.01	45	ND	78		
2019-070 Broadway Road	08/07/2019	ND	ND	15.2	0.01	38	ND	81		
2019-073 Blackhouse Road 10	08/12/2019	ND	ND	8.5	0.01	261	ND	80		
2019-074 Norwood Terrace	08/12/2019	ND	ND	5.4	0.01	150	ND	77		
2019-075 Unity Park 6	08/13/2019	ND	ND	9.7	0.01	1,986	ND	77		
2019-076 Unity Park 10	08/13/2019	ND	ND	12.2	0.01	2,420	ND	75		
2019-077 Juniper Ridge Road	08/14/2019	ND	ND	7.6	0.00	649	ND	75		
2019-078 Caldron Drive	12/19/2019	ND	ND	12.2	0.01	19	ND	75		
2019-079 Indian Ledge Drive	12/19/2019	ND	ND	7.6	0.00	109	ND	75		

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
7105-00-2-L2 Beardsley Parkway / White Plains Rd.	12/17/2018	ND	ND			11	ND		
7105-00-2-L2 Beardsley Parkway / Hillcrest Rd.	12/17/2018	ND	ND			9	ND		
7103-00-1 Knollcrest Drive	12/17/2018	ND	ND			121	ND		
7103-00-1 Juniper Ridge	12/17/2018	ND	ND			22	ND		
7103-00-1 Juniper Circle	12/17/2018	ND	ND			50	0.025		
7103-00-1 Beardsley Parkway / Huntington Turnpike	12/17/2018	ND	ND			53	ND		
7103-00-1 8 Round Hill Road	12/17/2018	ND	ND			2	ND		
7103-00-1 34 Round Hill Road	12/17/2018	ND	ND			10	ND		
7103-00-1 Huntington Turnpike	12/17/2018	ND	ND			57	0.075		
7103-01-1 Stella Street	12/17/2018	ND	ND			25	ND		
7103-01-1 Vazzano Place	12/17/2018	ND	ND			38	0.030		

3. Catchment Investigation Data

Reference: 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

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 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

3.3 Wet weather investigation outfall sampling data

Outfall ID	Sample date	Ammonia	Chlorine	Surfactants

3.4 Data for each illicit discharge source confirmed through the catchment investigation procedure

Discharge location	Source location	Discharge description	Method of discovery	Date of discovery	Date of elimination	Mitigation or enforcement action	Estimated volume of flow removed

Part IV: Certification

"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that a false statement made in this document or its attachments may be punishable as a criminal offense, in accordance with Section 22a-6 of the Connecticut General Statutes, pursuant to Section 53a-157b of the Connecticut General Statutes, and in accordance with any other applicable statute."

Chief Elected Official or Principal Executive Officer

Print name:
Vicki Tesoro
First Selectman

Signature / Date:
Vicki A. Tesoro 3/17/2020

Document Prepared by

Print name:
Joseph Canas, PE, LEED AP, CFM
Principal Engineer

Signature / Date:
03/11/2020

Tighe&Bond

APPENDIX A

Additional landscaping tips for cleaner water

- Plant native vegetative buffers along streams and drainage pathways
- Compost or mulch leaves and yard debris rather than hauling it away
- Direct downspouts away from driveways or storm drains, or install rain barrels to collect roof runoff
- Maintain septic systems to prevent failure and inspect every 3 years
- Sweep up litter and debris from driveways rather than hosing debris into storm drains
- Mow your lawn so no more than one third of the length of the grass is removed.
- Consider using bricks, flagstone, gravel, and other porous materials instead of pavement or concrete

Find out more about Trumbull's Stormwater Management Program

http://www.trumbull-ct.gov/filestorage/7112/7168/Trumbull_2017_Annual_Report-Storm-water_from_Small_Municipal_Separate_Storm_Sewer_

Town of Trumbull, Connecticut
Department of Public Works
5866 Main Street
Trumbull, CT 06611

Clean Water Begins

with YOU!

Nutrient Management for a Healthier Lawn and Environment

Why Stormwater Pollution Matters

What is Stormwater?

Stormwater is water from rain or melting snow that does not soak into the ground. It flows from rooftops, over paved areas, bare soil, and sloped lawns. As it flows, stormwater runoff collects and transports soil, pet waste, salt, pesticides, fertilizers, oil and grease, debris and other potential pollutants.

What is the Problem?

Rain and snowmelt wash pollutants from streets, construction sites, and land into storm sewers and ditches. Eventually, the storm sewers and ditches empty the polluted stormwater directly into streams and rivers with no treatment. This is known as stormwater pollution. Polluted stormwater degrades our lakes, rivers, wetlands and other waterways. Nutrients such as phosphorous and nitrogen, which are present in lawn fertilizers, can cause the overgrowth of algae resulting in oxygen depletion in waterways.

Lawn Care Best Management Practices

Cover and contain topsoil and mulch during installation. Wind and rain can transport this material from your yard into nearby lakes and streams, where it reduces aquatic habitat and promotes unwanted weed and algae growth.

Never apply fertilize before a rainstorm. Heavy rainfall can cause excess fertilizer to flow into the storm sewer system and end up in local lakes and streams. Save time and money by applying a slow release fertilizer in the early spring and allowing time for gradual soil infiltration. Plant vegetated filter areas or swales to trap pollutants along streets and driveways

Leave the clippings on the lawn after mowing. This will save time and money and will promote a healthy turf. Grass clippings return organic matter, nitrogen, phosphorus, and other nutrients to your lawn, thereby reducing the need for fertilizer applications throughout the summer. Studies have shown that grass recycling reduces the need for fertilizer by 25%. If the grass gets too high, then mow over the clippings to shred and scatter them.

Limit your use of pesticides. Inappropriate use of pesticides can harm humans, pets, and the environment. Use alternatives (biological controls) whenever possible to tackle problems with weeds and insects. If pesticides are used, carefully follow the recommended timing, frequency, and application rates found on the container.

Lawn fertilizer: Less is more

Lawns require nutrients in fertilizer to stay green and healthy. When too much fertilizer is applied, it can wash off during rain events. The nutrients then flow into storm drains, and into watercourses where they become an energy source for algae and aquatic weeds.

Anything applied to the lawn can potentially contaminate surface and ground waters. However, you can minimize the risk posed to our wetlands and watercourses by following these Best Management Practices:

- Save the environment and money! Measure the surface area of your lawn to determine how much product to apply.
- Don't overload your lawn with nutrients. Apply only in amounts prescribed by the manufacturer. Anything more will damage your lawn and waste your money.
- Use proper spray notification signage and comply with neighbor notification regulations.
- Avoid using chemicals near waterways or storm drains
- Dispose of unused or excess pesticides in accordance with CTDEEP and US EPA regulations
- Clean up spills immediately and properly dispose of cleanup materials
- Avoid spraying in windy conditions or when rain is forecast

Consider using spreaders equipped with edge guards to provide additional control and avoid casting fertilizers onto paved surfaces

Reducing turfed areas in favor of native plantings will reduce fertilizer and pesticide demands and improve stormwater quality.

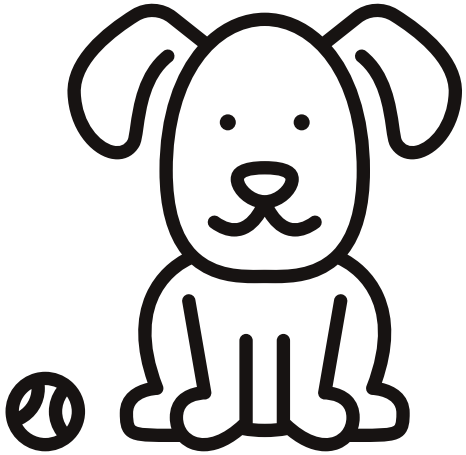
WHAT'S THE PROBLEM?

Picking up after your pet isn't just a courtesy for those walking behind you; it is also the healthy and environmentally sound thing to do. Pet waste can be a significant source of water pollution. When pet waste is not properly disposed, it can be carried by rain or snow runoff directly into nearby waterbodies or into storm drains. Storm drains in streets and neighborhoods usually flow directly to a stream, river, or estuary without any treatment. Untreated animal fecal matter and wastes can become a source of harmful bacteria and nutrients in water. Just as we don't want human sewage in our water, it is important to prevent pet waste from being carried into our waterways because of negligence.

Learn more about Trumbull's Stormwater Management Program

Town of Trumbull, Connecticut
5866 Main Street
Trumbull, CT 06611

DON'T LET OUR WATER QUALITY GO TO THE DOGS



A PET OWNER'S GUIDE TO MANAGING PET WASTE

FACTS ABOUT PET WASTE

When you fail to clean up after your pet, the poop left on sidewalks and lawns is both unpleasant and a nuisance. But it can become an even bigger problem when it rains. Stormwater carries pet waste into nearby rivers, lakes and streams, creating a health hazard for people and doing a lot of damage to the environment:

- A single gram of pet waste contains an average of 23 million fecal coliform bacteria, some of which cause diseases in humans.
- Waters that contain high levels of bacteria and other pathogens from animal waste are unfit for human contact.
- As pet waste decays, it uses up oxygen that fish and aquatic life need.
- Pet waste contains nutrients that can cause excessive algae growth in a river or lake, upsetting the natural balance.

WHAT CAN YOU DO?

Pet waste should never enter storm drains and surface water. Pet owners are required to pick up after pets when away from their property, and to pick up waste from their property if it attracts flies and can pose a health risk. Fortunately, there are actions pet owners can take to help keep our water clean:

Pick up pet waste from your yard. It is not a fertilizer.

Bring It. Carry disposable bags while walking your dog to pick up and dispose of waste properly.

Bag It. Use the disposable bag as a glove to pick up the waste. Scoop it up and then turn the bag inside out around the waste.

Toss It. If you dispose of pet waste in the trash, wrap it care- fully to avoid spillage during collection. You can also flush your pet's unbagged waste down the toilet, so it can be treated at a sewage treatment plant. If your yard is large enough, you can bury the pet waste in your yard, at least 12 inches deep and cover with at least eight inches of soil to let it decompose slowly. Bury the waste in several different locations and keep it away from vegetable gardens.

DO NOT place the bagged or un-bagged pet waste in a storm drain or hose the pet waste towards storm drains as they drain directly to a stream, river, lake or other waterbody.

HANDY TIPS

Put bags in the car or tie them to the leash, so you'll be prepared when you travel with your pet.

Place bags by the door so you don't forget them.

Talk to your family and friends about stormwater pollution and picking up after their pets!

Make use of "pet waste stations" in your neighborhood or local park.

DON'T LET OUR WATER QUALITY GO TO THE DOGS

MERCURY AND STORMWATER

Mercury, when disposed improperly is washed off by stormwater into our lakes and streams. When mercury is deposited in lakes or waterways, bacteria convert it to methylmercury. Methylmercury contaminates the food chain and builds up in the tissue of fish and wildlife and humans who eat the fish.

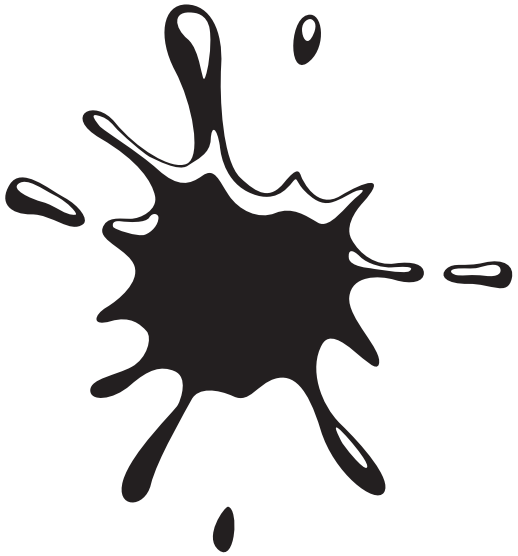
USE CAUTION AROUND MERCURY

- Never break open products that contain mercury.
- Do not pour mercury down the drain.
- Never burn mercury-containing products.
- Do not put mercury-containing products in the trash.
- Always properly recycle mercury-containing products at a household hazardous waste collection.

Learn more about Trumbull's Stormwater Management Program

Town of Trumbull, Connecticut
5866 Main Street
Trumbull, CT 06611

KEEPING THE Hg OUT OF OUR H_2O



A GUIDE TO PREVENTING MERCURY POLLUTION IN OUR WATER

MERCURY AND HOW IT GETS INTO THE ENVIRONMENT

Mercury (Chemical Symbol Hg) is a silver colored liquid metal that has many industrial applications. Mercury is also toxic, and becomes dangerous when it comes in contact with the air and vaporizes.

WHY IS MERCURY A HEALTH PROBLEM?

- You can't see or smell mercury vapor from a spill, but it can still poison you.
- Children under the age of 6 and women who are pregnant or planning to get pregnant are most at risk to the health effects of mercury exposure.
- Eating fish contaminated by mercury can be dangerous to your health.
- Short-term high levels of exposure can cause headaches, lung damage, nausea, vomiting, skin rashes, diarrhea, increases in blood pressure and heart rate.
- Long-term high levels of exposure can lead to permanent damage to the brain, kidneys, and developing fetus.

HOUSEHOLD ITEMS THAT MAY CONTAIN MERCURY

Thermometers - *typically contain about ½ gram of this silver colored liquid (non-mercury alternatives are available)*.

Thermostats - *inside the sealed glass "tilt switch" (not the newer electronic kind).*

Gauges - *barometers, manometers, blood pressure and vacuum gauges ONLY with silver colored liquid*

Electrical switches and relays - *typically contain about 3.5 grams of mercury in SOME chest freezers, pre-1972 washing machines, sump pumps, electric space heaters, clothes irons, silent light switches and automatic car hood & trunk lights.*

Some athletic shoes (made before 1997 ONLY) *with flashing lights in soles*.

Vintage toys & games - *toy drawing screens and mercury maze games.*

Fluorescent bulbs and other mercury vapor lighting - *HID (high intensity discharge), metal halide, high pressure sodium and neon bulbs*.

These items may be accepted at the Town's Household Hazardous Waste Collection Day.

In 2013, mercury thermostat collection legislation was passed in Connecticut requiring thermostat manufacturers to establish collection programs for contractor and consumer-generated mercury thermostats. The legislation also requires all HVAC wholesale distributors with facilities in Connecticut to act as a collection point for waste mercury thermostats.

IT IS ILLEGAL TO DISPOSE MERCURY THERMOSTATS IN SOLID WASTE IN CONNECTICUT. HVAC CONTRACTORS MUST RECYCLE ALL MERCURY THERMOSTATS THEY REMOVE FROM SERVICE. IT IS ILLEGAL TO LEAVE THEM AT THE CUSTOMER'S PREMISE. TRC IS THE EASIEST AND CHEAPEST WAY TO COMPLY WITH CONNECTICUT LAW.

Bring your mercury-containing thermostat to any authorized collection location for proper disposal. To locate a collection point, please use the search tool on the website: http://thermostat-recycle.org.

KEEPING THE Hg OUT OF OUR H_2O

Tighe&Bond

APPENDIX B

Tighe&Bond
Engineers | Environmental Specialists

Town of Trumbull DCIA Computations							
Subbasin ID Number	Total Area acres	Total IC Acres	Base IC %	Categorization	Adjusted DCIA %	Adjusted DCIA, acres	Rationale
6025-02-1	316	14.78	4.68%	4	0.55	1.74	Low Density Residential
6026-01-1	365.48	51.27	14.03%	3	5.25	19.20	Moderate residential
6026-02-1	255.37	74.93	29.34%	2	23.07	58.91	Commercial
7103-01-1	384.55	66.89	17.39%	2	12.32	47.37	Commercial
7104-1-1	131.31	19.9	15.15%	3	5.90	7.75	Moderate residential
7104-02-1	104.92	14.92	14.22%	3	5.36	5.63	Moderate residential
7104-03-1	1017.7	159.71	15.69%	3	6.22	63.27	Moderate residential
7104-04-1	474.58	71.65	15.10%	3	5.87	27.84	Moderate residential
7105-03-1	159.28	61.47	38.59%	2	32.05	51.05	Commercial
7105-04-1	261.07	48.46	18.56%	4	5.74	14.98	Low density residential
7105-05-1	397.48	93.62	23.55%	3	11.43	45.44	Moderate residential
7105-06-1	31.75	2.02	6.36%	1	2.02	0.64	Highway junction
7105-07-1	365.73	68.56	18.75%	3	8.12	29.68	Moderate residential
7105-08-1	433.07	78.41	18.11%	3	7.70	33.36	Moderate residential
7105-09-1	247.75	44.77	18.07%	3	7.68	19.03	Moderate residential
7106-01-1	517.94	130.2	25.14%	3	12.60	65.28	Moderate residential
7108-04-1	497.74	46.63	9.37%	4	1.79	8.93	Low density residential
7108-07-1	124.09	26.7	21.52%	3	9.98	12.39	Moderate residential
6025-00-2-L1	63.43	7.49	11.81%	3	4.06	2.57	Moderate residential
6025-00-2-R1	9.89	1.83	18.50%	3	7.96	0.79	Moderate residential
6025-00-3-L2	17.4	1.85	10.63%	3	3.47	0.60	Moderate residential
6026-00-1*	100.19	24.08	24.03%	2	18.16	18.19	Commercial
6026-00-1-L1	7.59	1.56	20.55%	3	9.32	0.71	Moderate residential
6026-01-1-L2	17.26	2.64	15.30%	2	10.56	1.82	Commercial
7103-00-1	390.78	54.28	13.89%	3	5.18	20.23	Moderate residential
7104-00-1*	5.95	1.73	29.08%	4	12.30	0.73	Low density residential
7104-00-1-L1	213.77	26.65	12.47%	3	4.40	9.41	Moderate residential
7104-00-1-L2	522.31	58.04	11.11%	3	3.70	19.35	Moderate residential
7104-00-1-L3	38.98	0.38	0.97%	5	0.01	0.00	Very limited development
7104-00-1-L4	20.24	1.51	7.46%	5	0.56	0.11	Very limited development
7104-00-1-L5	39.17	6.14	15.68%	5	2.46	0.96	Very limited development
7104-01-1-L1	5.63	0.53	9.41%	3	2.89	0.16	Moderate residential
7104-01-2-R1	25.71	4.22	16.41%	3	6.65	1.71	Moderate residential
7105-00-2-L2	371.91	73.43	19.74%	3	8.77	32.63	Moderate residential
7105-00-2-R1	45.05	11.67	25.90%	2	19.87	8.95	Commercial
7105-00-2-R3	749.51	119.26	15.91%	3	6.35	47.57	Moderate residential
7105-00-2-R4	75.61	12.58	16.64%	3	6.79	5.13	Moderate residential
7105-00-2-R5	172.19	10	5.81%	4	0.80	1.37	Low density residential
7105-00-2-R6	1015.69	151.84	14.95%	3	5.78	58.71	Moderate residential
7105-00-2-R7	598.64	116.72	19.50%	3	8.61	51.54	Moderate residential
7105-00-2-R8	497.43	94.26	18.95%	2	13.65	67.91	Commercial
7105-06-1-L1	287.69	45.62	15.86%	3	6.31	18.17	Moderate residential
7105-09-1-L1	9.75	0	0.00%	5	0.00	0.00	Very limited development
7105-09-1-L2	184.26	30.24	16.41%	3	6.65	12.25	Moderate residential
7105-01-2-R1	2.78	0.78	28.06%	3	14.86	0.41	Moderate residential
7105-10-1-L1	27.2	6.83	25.11%	3	12.58	3.42	Moderate residential
7105-10-1-L2	26.34	9.1	34.55%	2	28.07	7.39	Dense residential
7105-10-1-L3	565.74	125.41	22.17%	2	16.48	93.23	Dense residential
7106-02-1*	88.63	23.46	26.47%	2	20.39	18.07	Dense residential
7106-02-1-L1	1174.28	203.21	17.31%	3	7.20	84.53	Moderate residential
7106-02-1-L2	394.26	90.36	22.92%	3	10.97	43.26	Moderate residential
7106-02-1-L3	315.36	117.6	37.29%	1	117.60	370.86	Dense residential/mall
7108-00-2-L1	14.85	1.96	13.20%	3	4.80	0.71	Moderate residential
7108-00-2-L2	670.27	66.94	9.99%	5	1.00	6.69	Very limited development
7108-00-2-R2	180.01	36.2	20.11%	3	9.02	16.23	Moderate residential

Town of Trumbull DCIA Computations							
Subbasin ID Number	Total Area acres	Total IC Acres	Base IC %	Categorization	Adjusted DCIA %	Adjusted DCIA, acres	Rationale
7108-04-1-L1	62.78	11.33	18.05%	3	7.67	4.81	Moderate residential
		2626.62				1543.69	

Connectivity Level	Description of Contributing Area	Land use type	Equation	Example for a watershed with 20% impervious cover (IC)
1. Fully Connected (default)	100% storm sewered with all IC	High density mixed use, commercial	None. DCIA% = IC%	20% DCIA
2. Wicked Connected	Mostly storm sewered with curb and gutter, residential rooftops connected to MS4	High density residential, commercial, industrial, institutional	DCIA%=0.4(%IC)^1.2	0.4(20)^1.2 = 14.6% DCIA
3. Moderately Connection	Mostly storm sewered with curb and gutter, residential rooftops NOT connected to MS4	Medium density residential, commercial, industrial, institutional, open land	DCIA%=0.1(%IC)^1.5	0.1(20)^1.5 = 8.9% DCIA
4. Sorta Connected	50% storm sewered with some infiltration and residential rooftops not connected to MS4	Low density residential, open land	DCIA%=0.04(%IC)^1.7	0.04(20)^1.7 = 6.5% DCIA
5. Slightly Connected	Small % of urban area storm sewered or mostly infiltration	Agricultural, forested, natural areas	DCIA%=0.01(%IC)^2	0.01(20)^2 = 4% DCIA