# MS4 General Permit Town of Glastonbury, Connecticut 2023 Annual Report

**Existing MS4 Permittee** 

Permit Number GSM 000057

January 1, 2023 - December 31, 2023

**Primary MS4 Contact:** 

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This report documents the Town of Glastonbury, Connecticut's efforts to comply with the conditions of the MS4 General Permit to the maximum extent practicable (MEP) from January 1, 2023 to December 31, 2023.

#### **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	Source Used (If applicable)	Method of Distributio n	Audience / Number of people reached	Measurable Goal	Department / Person Responsible	Additional details
1-1 Implement public education and outreach	Stormwater Pollution Prevention page located on the Town of Glastonbury's Engineering Division web site has been updated as required.     Stormwater Pollution Prevention social media campaign initiated through Town Facebook page.		Website  Social  Media	Website users  500-1,000 viewers per post	Compliance with Section 6(a)(1) of the current General Permit	Engineering Division	Social Media campaign graphics are included in Appendix A.
1-2 Address education/ outreach for pollutants of concern*	Included bacteria related information on Town web site and other public ed.     Materials.     Glastonbury's Health Department has continuously provided information to residents related to septic systems/maintenance located on the web page under Subsurface Sewage/Septic System Basics for Homeowners.		Website	Website users	Compliance with Section 6(a)(1)(C)(iii) of the current General Permit	Engineering Division	

	3. Distributed pet waste brochures with Dog Licenses.		Brochure	3,608 dog tags and 4 kennel tags were issued in 2023	Compliance with Section 6(a)(1)(C)(iii) of the current General Permit	Town Clerk / Engineering Division	Brochures were distributed with new dog licenses.
Additional BMP: 1-3 Public Education and Outreach	Town Staff and Regional Group     participated in the Salmon River Watershed     Partnership	6	Website, email, mailings	Regional Population		Office of Community Development / Environmenta I Planner	The 2023 Salmon River Watershed Partnership Outreach & Monitoring Activities Related to Stormwater & Water Quality Report is attached in Appendix A.

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

- 1-1. Provide additional updates to the Stormwater Pollution Prevention page located on the Town of Glastonbury's Engineering Division web site as necessary.
- **1-2.** Continue distribution of printed pet waste management brochures in conjunction with dog license renewals.
- **1-3.** Continue staff membership and involvement in the Salmon River Watershed Partnership.
- **1-4.** Continue working with communications department to post timely news items in the spring related to stormwater pollution prevention awareness using the Town website and social media accounts.

# 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	Posted	Additional details
2-1 Final Stormwater Management Plan publicly available	Ongoing	No activity.	Compliance with Section 4(d)(2) and Section 6(a)(2)(A) of the General Permit	Engineering Division	July 1, 2017	Website link to SWMP	Stormwater Management Plan was issued for review on May 8, 2017 and Finalized July 1, 2017
2-2 Comply with public notice requirements for Annual Reports (annually by 2/15)	In Progress	Postings on Town website completed.	Compliance with Section 4(d)(2) and Section 6(a)(2)(A) of the General Permit	Engineering Division	January 31, 2024 (Notice on Website) February 15, 2024 (draft report posted) April 1, 2024 (submitted to DEEP)	Town website	
Additional BMP: 2-3 Public Participation	Ongoing /Yearly	See additional details.	Allows residents to properly dispose of Household Hazardous Wastes	Sanitation/Refuse Division	March 18, 2023 April 15, 2023 May 20, 2023 June 17, 2023 July 19, 2023 August 19, 2023 September 16, 2023 October 21, 2023 November 18, 2023	Household Hazardous Waste Collection Town of Manchester (manchesterct.gov)	Participated in the Capitol Region East Operating Committee (CREOC) Household Hazardous Waste Collection days.
Additional BMP: 2-4 Public Participation	Ongoing /Yearly	Town Staff participation	Preserve the integrity of the 96,000 Acre Salmon River Watershed	Office of Community Development and Environmental Department/ Environmental Planner	Yearly Membership and town staff representation	Salmon River Watershed Partnership Website link	The 2023 Salmon River Watershed Partnership Outreach & Monitoring Activities Related to Stormwater & Water Quality Report is attached in Appendix A

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

- **2-3.** Annual participation in the Capitol Region East Operating Committee (CREOC) Household Hazardous Waste Collection days located adjacent to the Manchester Landfill on Olcott Street.
- **2-4.** Continued staff membership and participation in the Salmon River Watershed Partnership.
- **2-5.** The Land Heritage Coalition of Glastonbury, Inc. teamed up with Dr. Michael Dietz, Extension Educator at the University of Connecticut to present a program on ways to protect water quality in and around your home on January 24, 2024 at 7:00pm located at the Glastonbury Riverfront Community Center, 300 Welles Street.

# **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	Additional details
3-1 Develop written IDDE program (Due 7/1/19)	Completed	No activity.	Written plan of IDDE program	Engineering Division	2/1/2019	IDDE Plan has been completed and is now available on the Town web site.
3-2 Develop list and maps of all MS4 stormwater outfalls in priority areas (Due 7/1/20)	Completed	No activity.	Mapped outfalls and drainage system	Engineering Division	7/1/2019	Click here for direct link to outfall mapping
3-3 Implement citizen reporting program (Ongoing)	Ongoing	No activity.	Implement and track citizen reporting of stormwater pollution	Engineering Division	Ongoing throughout the duration of the permit	Citizen reporting is available and can be found at: <a href="https://glastonburyct.qscend.com/311/request/add">https://glastonburyct.qscend.com/311/request/add</a> No pollution related complaints have been received via this system to date.
3-4 Establish legal authority to prohibit illicit discharges	Completed	No activity.	Establish legal authority to prohibit illicit discharges	Engineering Division	2010	Illicit Discharge and Connection Stormwater Ordinance is located in <u>Chapter 19</u> , <u>Article III</u> , <u>Sections 19-251 thru 19-275</u> .
3-5 Develop record keeping system for IDDE tracking	Completed	No activity.	Develop IDDE tracking tool	Engineering Division	7/1/2017	
3-6 Address IDDE in areas with pollutants of concern	Ongoing	See details.	Identify and correct IDDE in areas with pollutants of concern	Engineering Division	Ongoing	

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

The written program has been posted to the Town of Glastonbury's Engineering Division web site.

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

3.3 Provide a record of all citizen reports of suspected illicit discharges occurring during the reporting period and SSO's occurring July 2017 through the 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 and 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)
2687 Main Street/Naubuc Avenue Katz Hardware	Originally a connection to a combined sewer system. Disconnected in 1/2015	Illicit Discharge into MS4 storm drainage system.	Unknown	Old combined sewer system connection which was identified by the Public Works Dept and disconnected in 2015	Single bathroom located at 2687 Main Street that was connected to an old combined sewer system located on Naubuc Avenue that remained connected to the storm sewer as part of a sewer separation incorporated in a reconstruction project of Naubuc Avenue in the 1970's. Illicit discharge was identified by the Town of Glastonbury Public Works and disconnected by the property owner in 2015.	None
104 Benton Lane	03/03/2013 12:30 P.M. to 2:15 P.M.	SSO- surcharged manhole	200-300 Gallons	Blockage from rags in pump station wet well. Cleaned ASAP to relieve surcharge	By Pass system which had been installed during pump station upgrade construction activity removed on 3/4/2013.  Cleaned ASAP to relieve Surcharge. Hand spread Limed area around manhole.	None
116 Oak Street	08/23/2013 2:00 P.M. to 5:00 P.M.	SSO to Hubbard Brook	150-250 Gallons	Concrete at the end of lateral connection	Sewer line will require reconstruction.  Sewer lateral will need to be reconstructed.	None
Tall Timbers Road	09/14/2014 No start time to 10:30 A.M.	SSO-Private force main leaking below grade	21,500 Gallons (Est.)	Broken 1 ¼" private force main lateral	Broken pipe repaired by town highway staff.  Pipe repaired and suggested pressure testing of the line by homeowner (Private system).	None

1909 Main Street	08/09/2014 7:00 A.M. to 9:00 A.M.	SSO- surcharged manhole	500 Gallons	Grease blockage in 8" sewer line	Blockage in sewer line relieved by jet truck, upon release completed jetting. Applied bleach to area around manhole and ground. Added location to Towns routine jetting schedule.	None
2333 Main Street	02/25/2015 11:40 A.M. to 4:30 P.M.	SSO- surcharged manhole in parking lot- Private	Unable to determine	Grease and Root blockage	Property owner arranged with contractor to clear blockage by flushing and root cutting.  Routine flushing and root cutting.	None
2756 Main Street	09/04/2016 12:45 P.M. to 1:40 P.M.	SSO- surcharged manhole- Salmon Brook	5,000 Gallons	Electrical failure at Pump Station	Restored Pump Station Operation quickly.	None
3025 Main Street	08/07/2017 1:00 P.M. to 5:00 P.M.	SSO- surcharged manhole-Pump Station	Unknown	Mechanical equipment failure	Burger King regional manager notified to evaluate and repair the reoccurring problem.  Repairs made to eliminate future overflows.	None
28 Talcott Road	05/04/2017 6:38 P.M. to 7:15 P.M.	sso- surcharged manhole/sewer main overflowed into catch basin	Unknown	Grease blockage in sewer main	Jetted and flushed sewer main.  Frequent inspection of town sewer main.	None
76-78 Hollister Way South Meadow Hill Condominiums	12/18/2018 3:00 PM to 6:00 PM	SSO- sewer backup and overflow discharge in basement of private property	250 Gallons	Blockage in Towns sewer line on Main Street due to pipe joint separation and soil infiltration	Sewer pipe joint was repaired and sewer line was flushed and televised by Highway Dept. staff to relieve blockage.	None
120 Hebron Avenue Eric Town Square	7/30/2019 9:44 PM	Restaurant grease disposal into an on-site catch basin	25 Gallons	Employees dumping grease into a catch basin	Patron notified CTDEEP of incident. CTDEEP Case No. 2019-03568. CTDEEP personnel required property owner to hire a company to clean all effected on-site storm drainage pipes and structures. Notice of violation letter sent to property owner from the WPCA requiring tenants to educate their employees on proper grease disposal.	None
2327-2233 Main Street	Identified in 2021, unknown duration.	Illicit Discharge into MS4 storm drainage system on Naubuc Avenue.	Unknown	Cross connected sewer lateral into former combined system.	Sewer later for this property was disconnected from the drainage system (former combined sewer system) and reconnect to the sanitary sewer in August 2022 under E20-Annual Paving Program- Storm Drainage and Sanitary Sewer Rehabilitation Project 2022.	None

Note: Data listed above is derived from copies of a Sewage By-Pass Notification Report as submitted to State of Connecticut DEEP Bureau of Water Management.

#### 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

#### 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
Health Department Septic	Angus Pond	Within the Angus Pond drainage	Angus Pond	Health Department:
System Repair Records	Residential Septic Systems	basin Health Department	DEEP Basin ID: 4009-00-2-L4	Director of Health
Engineering Division Records	within the drainage basin	records indicate that 0 septic repair or replacement was done		Wendy Mis, MPH, RS
		in 2023.		Engineering Division:
CT DEEP Sewer By-Pass				Assistant Town Engineer
Notification Report				Stephen M. Braun, P.E.
Health Department Septic	Connecticut River	Within the Connecticut River	Connecticut River	Health Department:
System Repair Records	Residential Septic Systems	drainage basin Health	DEEP Basin ID: 4009-00-6-R16	Director of Health
	within the drainage basin	Department records indicate		Wendy Mis, MPH, RS
Engineering Division Records		that 2 septic system repairs or		
		replacements were done in		Engineering Division:
CT DEEP Sewer By-Pass		2023.		Assistant Town Engineer
Notification Report				Stephen M. Braun, P.E.

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

The Engineering Division has a spreadsheet to track illicit discharges that are reported to us and to the CT DEEP via the Sewage Bypass Notification Report process. This data is then included with the MS4 Annual Report. There are not many illicit discharges reported so the spreadsheet is functional for tracking purposes.

Yearly septic repairs are tracked in the Town of Glastonbury GIS webpage under the MS4 Permit Compliance Tab, Town of Glastonbury Data.

#### 3.6 IDDE reporting metrics

Metrics	
Estimated or actual number of MS4 outfalls	Approximately 976± total outfalls
Estimated or actual number of interconnections	<b>28</b> interconnections have been identified with ConnDOT drainage systems.
Outfall mapping complete	100% -Catch Basins/Manholes/ Pipes/Outfalls Mapping can be found on the Town GIS System using the following link: Outfall Mapping
Interconnection mapping complete	100%
System-wide mapping complete (detailed MS4 infrastructure)	100%
Outfall assessment and priority ranking for IDDE Plan	100% - See APPENDIX C
Dry weather screening of all High and Low priority outfalls complete	36 Outfalls were screened in 2023 for bacteria indicator using an ammonia test kit.
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 is it given (minimum once per year).

A review of dry weather screening procedures was conducted with Engineering Inspection Staff at a kick-off meeting held on December 6, 2021 in preparation for dry weather screening of town-wide outfalls in 2022. Staff are familiar with the testing protocol to additional training was not conducted in 2022 or 2023.

# 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 7/1/22)	Completed/Ongoing	All proposed development projects were reviewed for compliance with land use regulations.	Implement, upgrade, and enforce land use regulations or other legal authority to meet requirements of MS4 general permit.	Office of Community Development and Environmental Department  Engineering Division  Building Inspection/Zoning Enforcement	Continued implementation	Existing Land Use regulations related to the control of erosion and sediment from construction sites can be found in Section 19 of the Town Building - Zone Regulations and Section 15 of the Town Subdivision and Resubdivision Regulations.
4-2 Develop/Implement plan for interdepartmental coordination in site plan review and approval (Ongoing)	Completed/Ongoing	All proposed development plans were reviewed by various departments for conformance to the above referenced regulations.	Develop/Implement plan for interdepartmental coordination in site plan review and approval.	Engineering Division  Office of Community Development and Environmental Department  Building Inspection/Zoning Enforcement	Continued implementation	See Stormwater Management Plan for additional details.
4-3 Review site plans for stormwater quality concerns (Ongoing)	Completed/Ongoing	All proposed development plans were reviewed for conformance with stormwater quality best management practices.	Review site plans for stormwater quality concerns.	Engineering Division  Office of Community Development and Environmental Department	Continued implementation	See Stormwater Management Plan for additional details.
4-4 Conduct site inspections (Ongoing)	Completed/Ongoing	E&S inspections and enforcement was conducted by Office of Office of Community Development staff.	Conduct site inspections	Engineering Division  Office of Community Development and Environmental Department	Continued implementation	

4-5 Implement procedure to allow public comment on site development (Ongoing)	Completed/Ongoing	Public input is a regular part of all development application approvals.	Implement procedure to allow public comment on site development	Office of Community Development and Environmental Department	Continued implementation	See Stormwater Management Plan for additional details.
4-6 Implement procedure to notify developers about DEEP construction stormwater permit (Ongoing)	Completed/Ongoing	Notifications to developers were completed as part of conditions of approval for local regulatory permits.	Developers are all notified about DEEP construction stormwater permit	Engineering Division  Office of Community Development and Environmental Department	Continued implementation	
Additional BMP:  4-7 Engineering Division plan review stormwater compliance checklist (Ongoing)	Completed/Ongoing	Reviewed developments for compliance with our checklist.	Standardize plan review related to stormwater compliance	Engineering Division	Continued implementation	Standardized internal plan review checklist for all proposed developments which includes stormwater management compliance parameters.

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

- **4.1.** Continued enforcement of land use regulations to meet requirements of MS4 general permit.
- **4.2.** Continued interdepartmental coordination for the review and approval of all proposed development plans.
- **4.3.** Continued review of all proposed development plans related to stormwater quality concerns.
- **4.4.** Continued site inspections.
- **4.5.** Continued implementation of the current procedure to allow public comment on site development.
- **4.6.** Continued implementation of the current procedure to notify developers about DEEP construction stormwater permit.
- **4.7.** Continued use of the internal plan review stormwater compliance checklist.

# **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)	In progress	No activity.	Establish and/or update legal authority and guidelines regarding LID and runoff reduction in site development planning	Office of Community Development Engineering Division	In Progress.	The Town will review the need for additional legal authority / regulations that may be required to meet the intent of this permit. See Stormwater Management Plan Section 5.1 for additional information.
5-2 Enforce LID/runoff reduction requirements for development and redevelopment projects (Due 7/1/22)	Ongoing/In progress	LID and runoff reduction requirements have been implemented on all approved development projects over the past year.	Enforce LID/runoff reduction requirements for development and redevelopment projects.	Office of Community Development Engineering Division	Ongoing.	Current Town policy requires consideration of LID and runoff reduction measures as well as treatment of the appropriate portion of the Water Quality Volume for all development and redevelopment projects.
5-3 Identify retention and detention ponds in priority areas	Completed	No activity.	Identify retention and detention ponds in priority areas.	Engineering Division	Completed 7/1/2019	121 detention ponds have been mapped and are accessible via the GIS.
5-4 Implement long-term maintenance plan for stormwater basins and treatment structures	In progress	Inspection and maintenance operations were performed on 1 detention pond in 2023.	Implement long-term maintenance plan for stormwater basins and treatment structures.	Physical Services/Highway Division  Parks Department  Engineering Division	Underway, maintenance work is ongoing and is a long-term project.	GIS Pond ID # - Completed 2023: CO72-955 – Winter/ 2023

5-5 DCIA mapping	Completed	No activity.	DCIA mapping / calculation	Engineering Division	7/1/2020	The baseline DCIA for the entire Town was computed to be 1,094 acres out of a total of 2,622 acres of IC (exclusive of DOT Roads). These numbers were derived from DEEP sub-regional drainage basin data with IC values reports from 2012. See Appendix B for details.
5-6 Address post- construction issues in areas with pollutants of concern	In progress	No activity.	Address post- construction issues in areas with pollutants of concern.	Engineering Division	Continuously ongoing throughout the duration of the permit.	The Town of Glastonbury will prioritize problem areas for correction under minimum control measure 6 – Pollution Prevention/Good Housekeeping.

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

- **5-1.** Engineering will develop draft updates to the current Town regulations and policies to meet or exceed those LID and runoff reduction practices required under this permit and in accordance with the CT Stormwater Quality Manual, Glastonbury's land use regulations, guidance or construction project requirements.
- **5-2.** Continued enforcement of LID/runoff reduction/water quality treatment on all approved development and redevelopment project.
- **5-3.** Continue field inspections and maintenance of all municipality owned retention and detention ponds within the priority areas and throughout the entire town.
- **5-4.** Continue Implementation of a long term maintenance plan for all municipally owned stormwater basins and treatment structures.
- **5-6.** Continued inspections to address construction issues in areas with pollutants of concern.

#### **5.3 Post-Construction Stormwater Management reporting metrics**

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

Metrics		
Baseline (2012) Directly Connected Impervious Area (DCIA)	1,067.40 Acres	
	DCIA disconnected (approved projects)	
	Total to Date = 36.14 acres	
	2023- 4.99 acres	
	2022 – 1.25 acres	
	2021 - 3.71 acres	
DCIA disconnected (redevelopment plus retrofits)	2020 -0.96 acres	
	2019 – 3.64 acres	
	2018 – 0.94 acres	
	2017 – 9.41 acres	
	2016 – 0.00 acres	
	2015 to 2011 – 11.24 acres	
	101 acre drainage area (4.04 acres DCIA)	
Retrofits completed	disconnected under Dug Road / Tryon	
	Street Drainage Project, WQC-201206157.	
DCIA disconnected	3.6% total since 2012	
Estimated cost of retrofits	(unknown at this time)	
Detention or retention ponds identified	121 ponds	

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

DCIA for each local drainage basin area within the Town was computed using GIS based IC data provided by CTDEEP through the UCONN CLEAR / NEMO website. Each basin was characterized for the type of land-use contained therein and DCIA was computed using the Sutherland Equations and the basin IC (exclusive of the DOT Roads). See Appendix B for the Town of Glastonbury baseline DCIA calculation spreadsheet.

# **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)	Completed/Ongoing	Highway Department Training: February 7, 2023  Parks Department Training: February 2023	Develop/implement formal employee training program	Physical Services/Highway Division Parks Department	Continuously ongoing throughout the duration of the permit.	Training materials consist of generalized stormwater pollution prevention video, review of facility specific Stormwater Pollution Prevention Plans, and other department specific training related to specific maintenance activities (salt application, fertilizer application, etc).
6-2 Implement MS4 property and operations maintenance (Ongoing)	In progress	Parks Dept. continued to implement guidelines to reduce fertilizer applications at Town Facilities.	Implement MS4 property and operations maintenance	Physical Services/Highway Division Parks Dept. Sanitation Dept. Facilities Dept.	Ongoing/In Progress	See Stormwater Management Plan for additional details.
6-3 Implement coordination with interconnected MS4s (Ongoing)	In progress	No activity in the current reporting period.	Implement coordination with interconnected MS4s	Engineering Division	As needed pending completion of testing and catchment investigations	The Town of Glastonbury will coordinate with operators of interconnected MS4s as necessary if testing / investigation of catchment area determines need.
6-4 Develop/implement program to control other sources of pollutants to the MS4 (Ongoing)	On going	Nitrogen loading computations received for applications in the groundwater protection zones.	Develop/implement program to control other sources of pollutants to the MS4	Engineering Division	On going	Program to control nitrogen in GW protection Zones is in place. No other problematic pollutants identified for specific control at this time.

6-5 Evaluate additional measures for discharges to impaired waters* (Ongoing)	In progress	No activity in the current reporting period.	Evaluate additional measures for discharges to impaired waters*	Engineering Division	In progress	Signage is in place at the dog park and other public parks regarding the need to pick up pet waste. Bags are also provided for use by pet owners. Additional measures will be considered.
6-6 Track projects that disconnect DCIA (Ongoing)	In progress/Ongoing	Tracking spreadsheet updated with developments approved in 2023.	Track projects that disconnect DCIA	Engineering Division	In progress	Based on current tracking statistics approximately 36.1 acres of DCIA will be disconnected as part of an approved project through December 2023.
6-7 Implement infrastructure repair/rehab program (Ongoing)	In progress	No activity in the current reporting period.	Implement infrastructure repair/rehab program	Engineering Division Physical Services/Highway Division	No progress to date. Identification pf problem areas is pending additional stormwater testing	The Town of Glastonbury will continue a program to identify MS4 structures to repair, rehabilitate, or upgrade to reduce or eliminate the discharge of pollutants into water bodies.
6-8 Develop/implement plan to identify/prioritize retrofit projects	On hold.	No activity in the current reporting period.	Develop/implement plan to identify/prioritize retrofit projects	Engineering Division Physical Services/Highway Division	On hold.	2% DCIA reduction has already been achieved within the permit period mostly through redevelopment projects. The Town will monitor this moving forward and assess the need for a retrofit program.
6-9 Implement retrofit projects to disconnect 2% of DCIA	On hold.	No activity in the current reporting period.	Implement retrofit projects to disconnect 2% of DCIA	Engineering Division  Physical Services/Highway Division	On hold.	2% goal has already been met. Implementation of retrofit projects is not necessary at this time.

6-10 Develop/implement street sweeping program (Ongoing)	Ongoing	1,253 curb miles were swept in 2023 and approximately 657 CY of material was collected and disposed of.	Develop/implement street sweeping program	Physical Services/Highway Division	On going	
6-11 Develop/implement catch basin cleaning program (Ongoing)	Ongoing	All catch basins were inspected annually for blocked grates and structural problems.	Develop/implement catch basin cleaning program	Physical Services/Highway Division	Ongoing throughout the duration of the permit	Approximately 6,722 catch basins were inspected and 254 were cleaned as part of the annual paving program and based on locations where routine sediment buildup has been noted. See 6.4 for more information.
6-12 Develop/implement snow management practices (Ongoing)	Ongoing	Approximately 14,522 lane miles were treated with the use of computer controlled spreaders with ground speed control to meter amount of material applied and automatically stops application when truck stops moving.	Develop/implement snow management practices	Physical Services/Highway Division	Ongoing throughout the duration of the permit	Snow and ice management training implemented for every storm event, management directs employee's when to apply salt for pre-treating and during a winter event.  Spreaders are set to apply 350-500 lbs./lane mile. Flat routes set at 350 lbs /lane mile while higher hilly terrain set at 500lbs/lane mile.

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

- **6-1.** Continue training program in 2024.
- **6-2.** Continued implementation of MS4 property and operations maintenance.
- 6-3. Coordinate with interconnected MS4s including ConnDOT as necessary based on outfall testing and catchment investigations.
- **6-4.** Determine the need for control of other sources of pollutants.
- **6-6.** Continued tracking of projects that disconnect DCIA.

#### 6.3 Pollution Prevention/ Good Housekeeping reporting metrics

Metrics	
Employee training provided for key staff	Highway Dept. staff – February 7, 2023 Parks Dept. staff – February, 2023
Street sweeping	
Curb miles swept	1,253 miles
Volume (or mass) of material collected	657 C.Y.
Catch basin cleaning	
Total catch basins in priority areas	6,373 ±
Total catch basins in MS4	6,772 ±
Catch basins inspected	6,722±
Catch basins cleaned	254 (3.7% of MS4 CBs)
Volume (or mass) of material removed from all catch basins	196 C.Y.
Volume removed from catch basins to impaired waters (if known)	Unknown
Snow management	
Type(s) of deicing material used	Treated Salt Blend
Total amount of each deicing material applied	1,674 Tons Highway Dept.  Approx. 75 Tons Parks Dept. (includes 2 tons bagged ice-melt for sidewalks).
Type(s) of deicing equipment used	Computerized Spreaders with ground speed control (Highway Dept. Only)
Lane-miles treated	14,522 lane miles
Snow disposal location (when required)	Riverfront Park-200 Welles Street
Staff training provided on application methods & equipment	Yes-Implemented for every storm event (Parks and Highway Dept.)
Municipal turf management program actions (for permittee properties in basins with N/P impairments)	
Reduction in application of fertilizers (since start of permit)	N/A
Reduction in turf area (since start of permit)	N/A
Lands with high potential to contribute bacteria (dog parks, parks with open water, & sites with failing septic systems)	Glastonbury Riverfront Dog Park-Welles Street
Cost of mitigation actions/retrofits	N/A

#### 6.4 Catch basin cleaning program

Provide any updated or modifications to your catch basin cleaning program.

Catch basins are routinely inspected when debris is removed from top grates before all significant rain events. Thorough full depth inspections/vacuum cleaning conducted on all basins located in annual paving program areas, all repairs/rebuilds noted and completed before paving begins. Basins identified as needing regular maintenance/cleaning are placed on a routine annual or semi-annual cleaning.

The Town investigated using GIS to track the number of catch basins cleaned and quantities of material removed in the field by Highway Department Staff but this was found to not be practical at this time based on current operational methodologies.

#### 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.

At this time we believe that 2% DCIA disconnection goals will be met without the need of a separate Retrofit program due to the pace of redevelopment projects currently underway in Town. The Town will continue to monitor this and will develop a retrofit program if MS4 Permit goals are not being met through redevelopment.

#### Part II: Impaired waters investigation and monitoring

#### 1. Impaired waters investigation and monitoring program

1.1 Indicate which stormwater pollutant(s on the MS4 map viewer: <a href="http://s.uconn.">http://s.uconn.</a>	-		<b>cipality or institution.</b> This data is available				
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.						
Glastonbury has two impaired water bodies in Town, Angus Pond and the CT River, which are both impaired due to bacteria. 25 outfalls were identified that drain directly to these water bodies which were all screened for bacteria using an ammonia test kit in February and March of 2018. Five (5) of these outfalls exceeded 0.5 mg/l of Ammonia and therefore require follow up testing. No additional testing was performed in 2019. In 2020, 25 of the above referenced outfalls to impaired waterbodies were lab tested by state certified Phoenix Environmental Laboratories, Inc. through a consultant contract with Anchor Engineering Services, Inc. Screening data is listed below in Section 2.1-Screening Data.							

#### 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?
NA25-3213		4/13/2020 9:04am	Bacteria	10 MPN/100 mls	Phoenix Environmental Laboratories, Inc.	No
NA25-200		4/13/2020 9:22am	Bacteria	41 MPN/100 mls	Phoenix Environmental Laboratories, Inc.	No
NA25-2919		4/13/2020 9:37am	Bacteria	31 MPN/ 100 mls	Phoenix Environmental Laboratories, Inc.	No

	. / /	I <b>.</b>			
NA25-3425	4/13/2020	Bacteria	4,350 MPN/ 100	Phoenix	Yes
	9:47am		mls	Environmental	
				Laboratories, Inc.	
TR30-	4/13/2020	Bacteria	862 MPN/ 100	Phoenix	Yes
10480	10:46am		mls	Environmental	
				Laboratories, Inc.	
TR30-	4/13/2020	Bacteria	10 MPN/ 100 mls	Phoenix	No
11044	11:04am	24000.14	20 1111 11, 200 11110	Environmental	
11044	11.044111			Laboratories, Inc.	
MA15-8819	4/13/2020	Bacteria	882 MPN/ 100	Phoenix	
IVIA13-0019		Dacteria	· ·		Vaa
	12:16pm		mls	Environmental	Yes
				Laboratories, Inc.	
MA20-1382	4/13/2020	Bacteria	41 MPN/ 100 mls	Phoenix	No
	12:44pm			Environmental	
				Laboratories, Inc.	
SH50-1512	4/13/2020	Bacteria	52 MPN/ 100 mls	Phoenix	No
	13:30pm			Environmental	
	,			Laboratories, Inc.	
RT83-	4/13/2020	Bacteria	107 MPN/ 100	Phoenix	No
19028	13:12pm	Dacteria	mls	Environmental	140
19026	15.12pm		11115		
=00.0.0.0	. / /		04.1.71.14.00	Laboratories, Inc.	
WE20-3484	4/24/2020	Bacteria	31 MPN/ 100 mls	Phoenix	No
	11:18am			Environmental	
				Laboratories, Inc.	
RFBH-010	4/24/2020	Bacteria	10 MPN/ 100 mls	Phoenix	No
	11:38am			Environmental	
				Laboratories, Inc.	
ST35-1046	4/24/2020	Bacteria	145 MPN/ 100	Phoenix	No
	12:04pm		mls	Environmental	112
	12.04μπ		11113	Laboratories, Inc.	
TD20 F200	4/24/2020	Doctorio	912 MPN/ 100		Yes
TR30-5308	4/24/2020	Bacteria	· ·	Phoenix	res
	12:30pm		mls	Environmental	
				Laboratories, Inc.	
TR30-4044	4/24/2020	Bacteria	97 MPN/ 100 mls	Phoenix	No
	12:49am			Environmental	
				Laboratories, Inc.	
Tryon	6/11/2020	Bacteria	>48,400 MPN/	Phoenix	Yes
Street 1	17:00pm		100 mls	Environmental	
	·			Laboratories, Inc.	
Tryon	4/24/2020	Bacteria	10 MPN/ 100 mls	Phoenix	No
Street 2	13:09pm			Environmental	-
5.166.2	13.03pm			Laboratories, Inc.	
WE40 701	4/24/2020	Pactoria	74 MPN/ 100 mls	Phoenix	No
WE40-791	4/24/2020	Bacteria	74 IVIPIN/ 100 MIS		INU
	13:31pm			Environmental	
				Laboratories, Inc.	
MA15-8193	4/24/2020	Bacteria	1,520 MPN/ 100	Phoenix	Yes
	13:50pm		mls	Environmental	
				Laboratories, Inc.	
NA25-4437	4/24/2020	Bacteria	41 MPN/ 100 mls	Phoenix	No
	14:37pm			Environmental	
				Laboratories, Inc.	
NA25-4481	4/24/2020	Ractoria	727 MPN/ 100	Phoenix	Yes
10445-CZWII		Bacteria			163
	15:12pm		mls	Environmental	
				Laboratories, Inc.	-
RFBH-044	6/11/2020	Bacteria	>48,400 MPN/	Phoenix	Yes
	16:37pm		100 mils	Environmental	
				Laboratories, Inc.	

RFPK-018	6/11/2020	Bacteria	9,770 MPN/ 100	Phoenix	Yes
	16:27pm		mils	Environmental	
				Laboratories, Inc.	

<sup>\*</sup>Follow-up investigation required (last column) if the following pollutant thresholds are exceeded:

Note: No wet weather outfall screening to impaired waterbodies was performed in 2021, 2022 and 2023. Currently, a consulting engineering firm is contracted to perform wet weather testing for the 2024 application year.

Pollutant of concern	Pollutant threshold		
Nitrogen	Total N > 2.5 mg/l		
Phosphorus	Total P > 0.3 mg/l		
Bacteria (fresh waterbody)	<ul> <li>E. coli &gt; 235 col/100ml for swimming areas or 410 col/100ml for all others</li> <li>Total Coliform &gt; 500 col/100ml</li> </ul>		
Bacteria (salt waterbody)	<ul> <li>Fecal Coliform &gt; 31 col/100ml for Class SA and &gt; 260 col/100ml for Class SB</li> <li>Enterococci &gt; 104 col/100ml for swimming areas or 500 col/100 for all others</li> </ul>		
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.

The systems listed below that tested above the allowable levels of bacteria were cleaned by the Highway department in November / December of 2021. These systems will be re-tested by a lab in the Spring of 2024 and if they continue to be elevated for bacteria then catchment investigations will be carried out by the Town.

Outfall	Status of drainage area investigation	Control measure implementation to address impairment
NA25-3425	NONE COMPLETED TO DATE.	
TR30-10480	NONE COMPLETED TO DATE.	
MA15-8819	NONE COMPLETED TO DATE.	
TR30-5308	NONE COMPLETED TO DATE.	
Tryon Street 1	NONE COMPLETED TO DATE.	
MA15-8193	NONE COMPLETED TO DATE.	
NA25-4481	NONE COMPLETED TO DATE.	
RFBH-044	NONE COMPLETED TO DATE.	
RFPK-018	NONE COMPLETED TO DATE.	

#### **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.

2021, 2022, and 2023 Testing was not performed at these outfalls. Sampling will be performed in 2024.

Outfall	Sample Date	Parameter(s)	Results	Name of Laboratory (if used)
Tryon Street 1	6/11/2020	Bacteria	> 48,400 MPN/ 100 mls	Phoenix Environmental Laboratories, Inc.
RFBH-044	6/11/2020	Bacteria	> 48,400 MPN/ 100 mls	Phoenix Environmental Laboratories, Inc.
RFPK-018	6/11/2020	Bacteria	9,770 MPN/ 100 mls	Phoenix Environmental Laboratories, Inc.
NA25-3425	4/13/2020	Bacteria	4,350 MPN/ 100 mls	Phoenix Environmental Laboratories, Inc.
TR30-5308	4/24/2020	Bacteria	912 MPN/ 100 mls	Phoenix Environmental Laboratories, Inc.
MA15-8819	4/13/2020	Bacteria	882 MPN/ 100 mls	Phoenix Environmental Laboratories, Inc.

#### 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
SEE ATTACHED TABLE	FROM IDDE PLAN IN	APPENDIX C

#### 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 <a href="https://nemo.uconn.edu/ms4/tasks/monitoring.htm">https://nemo.uconn.edu/ms4/tasks/monitoring.htm</a>. 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
WO25-1642		2/8/2023	0 ppm							Bacteria	Trickle Flow Observed Sample Taken
AC10-335		2/8/2023	0 ppm							Bacteria	Trickle Flow Observed Sample Taken at pool
WO25-2833		2/8/2023	0 ppm							Bacteria	Trickle Flow Observed Sample Taken

BU40-4163	2/13/2023	0 ppm		Bacteria	Flow Observed Sample Taken
BESL-01	2/15/2023	0 ppm		Bacteria	Flow Observed Sample Taken
BESL-11	2/15/2023	0 ppm		Bacteria	Trickle Flow Observed Sample Taken
BU40-4992	2/15/2023	0 ppm		Bacteria	Trickle Flow Observed Sample Taken at pool
CO05-306	2/15/2023	0 ppm		Bacteria	Flow Observed Sample Taken at pool
CA40-266	2/15/2023	0 ppm		Bacteria	Flow Observed Sample Taken at pool
FO20-2629	2/15/2023	0 ppm		Bacteria	Trickle Flow Observed Sample Taken
BE02-1163	2/16/2023	0 ppm		Bacteria	Trickle Flow Observed Sample Taken at pool
TH10-1436	2/17/2023	0 ppm		Bacteria	Trickle Flow Observed Sample Taken
CO72-934	3/3/2023	0 ppm		Bacteria	Trickle Flow Observed Sample Taken
SE10-417	3/22/2023	1.0 ppm		Bacteria	Flow Observed Sample Taken at pool
FO10-6254	4/4/2023	0 ppm		Bacteria	Trickle Flow Observed Sample Taken
FO10-6438	4/4/2023	0 ppm		Bacteria	Trickle Flow Observed Sample Taken
HI10-75	4/4/2023	0 ppm		Bacteria	Flow Observed Sample Taken
WO25-3634	4/4/2023	0 ppm		Bacteria	Trickle Flow Observed Sample Taken at pool
WO25-7215	4/4/2023	0 ppm		Bacteria	Trickle Flow Observed Sample Taken
OV10-1429	4/5/2023	0 ppm		Bacteria	Trickle Flow Observed Sample Taken

#### 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 <a href="https://nemo.uconn.edu/ms4/tasks/monitoring.html">https://nemo.uconn.edu/ms4/tasks/monitoring.html</a>. 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
NONE TO DATE										

#### 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
	SEE ATTACHED TABLE IN	APPENDIX C

#### Where SVFs are:

1. History of SSOs, including, but not limited to, those resulting from wet weather, high water table, or fat/oil/grease blockages.

- 2. Sewer pump/lift stations, siphons, or known sanitary sewer restrictions where power/equipment failures or blockages could readily result in SSOs.
- 3. Inadequate sanitary sewer level of service (LOS) resulting in regular surcharging, customer back-ups, or frequent customer complaints.
- 4. Common or twin-invert manholes serving storm and sanitary sewer alignments.
- 5. Common trench construction serving both storm and sanitary sewer alignments.
- 6. Crossings of storm and sanitary sewer alignments.
- 7. Sanitary sewer alignments known or suspected to have been constructed with an underdrain system;
- 8. Sanitary sewer infrastructure defects such as leaking service laterals, cracked, broken, or offset sanitary infrastructure, directly piped connections between storm drain and sanitary sewer infrastructure, or other vulnerability factors identified through Inflow/Infiltration Analyses, Sanitary Sewer Evaluation Surveys, or other infrastructure investigations.
- 9. Areas formerly served by combined sewer systems.
- 10. Any sanitary sewer and storm drain infrastructure greater than 40 years old in medium and densely developed areas.
- 11. Widespread code-required septic system upgrades required at property transfers (indicative of inadequate soils, water table separation, or other physical constraints of the area rather that poor owner maintenance).
- 12. History of multiple local health department or sanitarian actions addressing widespread septic system failures (indicative of inadequate soils, water table separation, or other physical constraints of the area rather that poor owner maintenance).

#### 3.2 Key junction manhole dry weather screening and sampling data

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
NONE TO DATE						

#### 3.3 Wet weather 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
NONE TO DATE					

#### 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
NONE TO DATE							

#### 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: Jonathan Luiz, Town Manager	Print name: Daniel A. Pennington, P.E., Town Engineer
Signature / Date:	Signature / Date:

## **APPENDIX A**

Town Social Media SWPPP Campaign Information

2023 Salmon River Watershed Partnership Outreach & Monitoring Activities



### 2023 Salmon River Watershed Partnership Outreach & Monitoring Activities Related to Stormwater & Water Quality

(Bolton, Colchester, Columbia, East Haddam, East Hampton, Glastonbury, Haddam, Hebron, Lebanon & Marlborough)

During the 2023 year, SRWP conducted a number of outreach, education, and monitoring activities as reported below.

Activities presented in this format:

**Date**/*Event*/Description/Audience and estimated number of individuals reached and/or participated

**March 2023/Water Quality Monitoring Report**/Release of report, summarizing summer baseline stream monitoring with volunteers/board members, town officials, volunteers, and general public/100+ general public.

March 2023/Spring Fling with Friends of Sunrise and Machimoodus State Parks/Booth setup with display on SRWP activities and live "touch" tank with aquatic bugs to discuss lifecycle impacts from stream pollution. Display showing all water quality monitoring sites and a take home brochure including steps landowners can take to protect water quality/100s+ general public.

March 2023/Annual Newsletter/Annual newsletter covering a variety of SRWP activities and news items related to protecting watershed resources and preserving water quality. The 2023 edition included a map and explanation of Land Cover and articles on the "Challenges for Native Species with Climate Change", "Farming and Water Quality", "Dismal Herring Runs" and land preservation in the watershed. Sent for general distribution to all 10 watershed towns, shared on social media, available on the website, and used as handouts for in-person events/100+ general public.

March 2023/Hebron MapleFest: Guest at Hebron Conservation Commission Booth/Booth setup with display on SRWP activities and sign-up for water quality monitoring, special focus on impacts of water quality to macroinvertebrates, display showing all water quality monitoring sites and a take home brochure including steps landowners can take to protect water quality. Also featured a soil/leaf litter "touch tank" to discuss impacts to the topsoil layers and associated macroinvertebrates/100s+ general public.

#### May-September 2023/Launching and Field Checking HOBO Stream Temperature

Loggers/Field work and intern training: partnering with DEEP Water Quality Monitoring and Fisheries Depts. Documenting summer stream temperatures using HOBO loggers. Loggers take hourly readings and are launched in 10 locations throughout the watershed. Loggers were retrieved and data downloaded in October and November 2023 and will be added to watershed temperature mapping to compare with local land-use. Regional data storage site (<a href="http://db.ecosheds.org/">http://db.ecosheds.org/</a>)/Staff (2), in partnership with town land-use staff and board members.

**June-August 2023**/*Field Monitoring at Local Streams*/Return to two previous routes that were monitored from 2013-2017, after a five-year gap. The two routes include 11 sites throughout the watershed to establish baseline data and track future changes. Volunteers were trained on handheld monitoring equipment and took weekly samples for temperature, pH, dissolved oxygen, conductivity, total dissolved solids, and salinity. A summary report will be generated and forwarded to all 10 watershed towns and shared with DEEP/10 community volunteers and 10 watershed towns.

**June-August 2023**/*Website Update*/Revamping of Salmon River Watershed Partnership website. Website includes results of monitoring, meeting minutes, partnership activities and resources for home, animal, and business owners to protect water resources/100s+ general public.

**July 2023**/SRWP Watershed Tour/Leg two of the watershed tour for board members and other guests focusing on several projects in the watershed including stream passage, bank stabilization, and stormwater concerns/8 board members & guests.

**August 2023**/*SRWP Watershed Tour*/Leg three of the watershed tour for board members and other guests including two presentations. The first presentation focused on stormwater retrofits at Sears Park in East Hampton for lake protection and the second centered on a future dam removal project and river restoration on the Salmon River by CT DEEP Fisheries/15 board members & guests.

**September 2023/Haddam Neck Fair/**Booth set-up for three-day event with display on SRWP activities and sign-up for water quality monitoring. Special focus on impacts of water quality to macroinvertebrates, display showing all water quality monitoring sites and a take home brochure including steps landowners can take to protect water quality/100s+ general public.

**September-November 2023**/Field Stream Assessment with Community Volunteers/Classroom and outdoor field training presentation and 9 Stream Macroinvertebrate Assessments conducted in 2023. Volunteers collected and identified benthic macroinvertebrates as part of CT DEEP protocol for conducting stream assessments to establish whether segments are meeting state water quality goals for aquatic life support/15 community volunteers.

**October 2023/RHAM Middle School Pond Ecology and Water Quality Impacts**/At Gay City State Park, four separate programs were conducted which included benthic macroinvertebrates identification, discussion of impact of pollution to pond ecology, importance of vegetated buffers and features of a watershed/85 students and teachers.

October 2023/Eightmile RiverFest at Devil's Hopyard State Park/Set-up booth with display explaining all the water quality monitoring activities in the watershed and a take home brochure including steps landowners can take to protect water quality/100s+ general public.

October 2023/RHAM High School Stream Assessment at Blackledge and Fawn Brook in Marlborough/Classroom and field program following DEEP protocol for benthic macroinvertebrate assessments. Field portion also included potential impacts to streams, road crossing design and general river terms/25 RHAM High School students in UCONN Environmental Science Class and teachers.

**November 2023**/*East Haddam Middle School Enrichment Stream Program*/Classroom and field program exploring aquatic benthic macroinvertebrates at a local stream along with potential impacts due to pollution and alternatives to reduce impacts/25 students and teachers.

**December 2023**/*Meeting with Town Leaders*/SRWP hosted watershed town leaders to review highlights of the 5-year visioning plan and discuss SRWP contributions to the watershed, including outreach on water quality concerns, and review continued collaboration and support from the watershed towns/15 town leaders & staff.

Year round/Launching and Field Checking HOBO Stream Conductivity Loggers/Partnership project between GZA, Inc. Green Team (funding also received by GZA for 3 of the loggers) and SRWP. SRWP currently manages 8 conductivity loggers and sites are selected for monitoring after consultation with the towns and various state departments for any areas of concern. Data is shared with DEEP and USGS/3 GZA Green Team members, DEEP Fisheries and Water Quality staff and SRWP staff.

**Year round**/*SRWP Outreach and Activities*/SRWP is funded primarily through 7 of the watershed towns. The Watershed Coordinator represents the partnership on statewide issues related to water quality and non-point source pollution. Information is shared with 10 towns for their dispersal and use. Coordinator also comments (as requested) on town activities, regulations or planning projects specific to water quality and stormwater/10 watershed towns.

**Year round**/*SRWP Outreach on Facebook*/(<a href="https://www.facebook.com/10towns/">https://www.facebook.com/10towns/</a>) Salmon River Watershed Partnership information pertaining to watershed monitoring efforts, opportunities to participate, and actions local citizens can do to help protect streams/100s+general public.

**Year round**/*SRWP Outreach on Website*/(<u>www.salmonriverct.org</u>) Website contains reports on water quality and monitoring and offers information and links on issues related to Best Management Practices for homeowners, animal owners, and business owners/100s+ general public.

**Year round**/*SRWP Outreach on Instagram*/(<a href="www.instagram.com/salmonriverct">www.instagram.com/salmonriverct</a>) Salmon River Watershed Partnership initiated an Instagram account for sharing information pertaining to watershed resources and outreach/100s+ general public.

# Stormwater Pollution Prevention Social Media Campaign www.Glastonburyct.gov/stormwater

#### Post 1: Post on 3/25 at 1:06pm

Spring time means spring cleaning! The Town encourages all local business owners to sweep their parking lots and rid them of any debris/substances that could potentially wash away into the town storm drains! Keeping lawn fertilizers, de-icers and other substances OUT of the storm drains helps keep Glastonbury water sources free from pollution!

Business owners are also encouraged to clean parking lot drainage systems (e.g. catch basins, swales, etc.) once per year to rid them of accumulated sediment and debris. Please spread the word and thank you for doing your part to prevent stormwater pollution!

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#stormwaterpollutionprevention #sweep #cleanwater #themoreyouknow #doyourpart SPRING TIME
MEANS SPRING
CLEANING

Sweep your parking lots and driveways to rid them of debris and other substances that can pollute Glastonbury's storm drains and water bodies!

#springcleaning

# Post date: 3/28 at 1:00pm

Storm drains are designed for rain, nothing more! When you take your pet for a walk, always be sure to bring waste bags along and dispose of waste in the nearest trash barrel. NEVER throw pet waste bags, or any item, into the storm drains! These drains feed directly into Glastonbury's local water sources and pollutants like pet waste can be harmful to all of us! Keep our community clean and dispose of pet waste properly.

Visit <u>www.Glastonburyct.gov/stormwater</u> for more information.

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#stormwaterpollutionprevention #cleanwater #themoreyouknow #doyourpart

# Pet waste does NOT belong in our storm drains! Protect Glastonbury's bodies of water and NEVER dispose of pet waste or other items in the community's storm drains. #stormwaterpollutionprevention

## Post date: 4/6 at 10:30 am

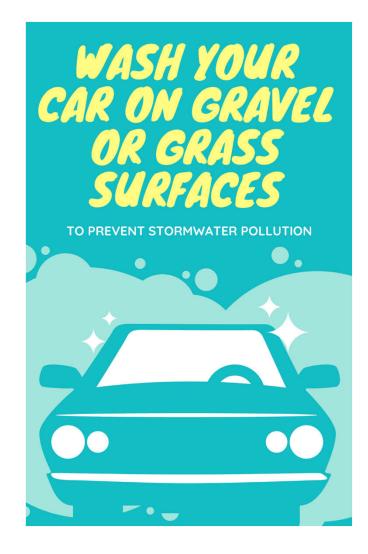
Glastonbury's bodies of water.

When you wash your car in the driveway or any paved surface, the soap and cleaning substances spread down the street and into the storm drains and eventually end up in

By washing your car on gravel or grass surfaces, or in a commercial car wash, you're helping to reduce these pollutants! As the weather gets warmer, keep this in mind and spread the word to your neighbors! Visit <a href="https://www.Glastonburyct.gov/stormwater">www.Glastonburyct.gov/stormwater</a> for more information.

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#cleanwater #stormwaterpollutionprevention #themoreyouknow #doyourpart



### Post 2: Post on 4/15 at 1PM

Storm sewers drain directly into streams, lakes, and other local bodies of water. If you throw pet waste, garbage, or other pollutants down the storm drain, it is passed along uncleaned to other water sources!

If you wouldn't want to drink it or bathe in it, don't put it in the storm drain! Find the nearest trash barrel and do your part to keep our community healthy! Visit <a href="https://www.Glastonburyct.gov/stormwater">www.Glastonburyct.gov/stormwater</a> for more information. .

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#stormwaterpollutionprevention #cleanwater #themoreyouknow #doyourpart



## Post date: 4/24 at 11:00am

Did you know that heavy rain can cause excess fertilizer to pass into storm drains and travel to Glastonbury's local bodies of water? The fertilizer can actually effect oxygen levels for various fish species and pollutes water for town residents. When planning your lawn fertilization, check the weather and be sure to avoid times before heavy rain/severe storms. It's also best practice to sweep up excess fertilizer from paved surfaces to ensure it doesn't end up in our storm drains/water sources. Visit <a href="https://www.Glastonburyct.gov/stormwater">www.Glastonburyct.gov/stormwater</a> for more

information.

#planahead #savethefish #stormwaterpollutionprevention #cleanwater #themoreyouknow #doyourpart



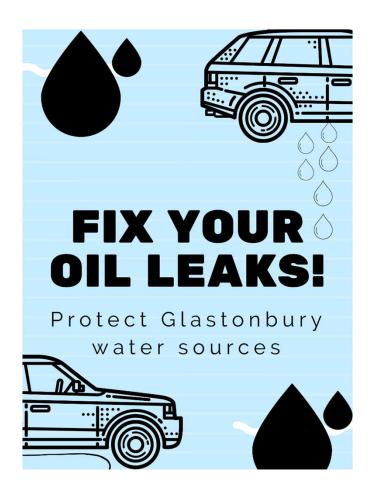
# Post date: 5/17 at 2:30pm

Did you know that oil that leaks from your car and onto town streets can travel into the storm drains and end up in Glastonbury water sources? Eeek! Be sure to fix any oil leaks on your car and NEVER pour motor oil or oily substances into storm drains!

Visit <u>www.Glastonbury-ct.gov/stormwater</u> for more information.

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#fixit #oilspill #stormwaterpollutionprevention #cleanwater #themoreyouknow #doyourpart



## **APPENDIX B**

BASELINE DCIA SPREADSHEET

#### TOWN OF GLASTONBURY DIRECTLY CONNECTED IMPERVIOUS COVER (DCIA) BY DRAINAGE BASIN

4000-00-6+R11 4000-00-6+R12 4000-00-6+R14 4000-00-6+R15 4000-00-6+R15 4000-00-6+R16	198.06 690.50		DOT Roads IC: (Acres)	Total IC Less DOT Roads: (Acres)	Watershed Total IC: (Acres)	Watershed Total IC %:	Connectivity Level:	Watershed Connected IC %:	Total Watershed Connected IC: (Acres)	Watershed Urban Area %	Adjusted Watershed Connected IC: (Acres
4000-00-6+R14 4000-00-6+R13 4000-00-6+R15 4000-00-6+R16		2.62 7.08	2.20 0.00	0.42 7.08	0.42 7.08	0.21% 1.03%	Slightly Connected Slightly Connected	0.00	0.00	100.00% 100.00%	0.00
4000-00-6+R15 4000-00-6+R16	238.00	6.38	1.02	5.36	5.36	2.25%	Sorta Connected	0.16	0.38	100.00%	0.38
4000-00-6+R16	59.30	0.15	0.00	0.15	0.15	0.25%	Slightly Connected	0.00	0.00	100.00%	0.00
	40.06 730.25	0.80 51.69	0.40 1.90	0.40 49.79	0.40 49.79	1.00% 6.82%	Slightly Connected Sorta Connected	0.01 1.05	0.00 7.67	100.00% 100.00%	0.00 7.67
4000-00-6+R17	9.93	0.70	0.00	0.70	0.70	7.05%	Sorta Connected	1.11	0.11	100.00%	0.11
4000-00-6+R18	257.52	21.46	0.00	21.46	21.46	8.33%	Slightly Connected	0.69	1.78	100.00%	1.78
4000-30-1	725.79	47.88	3.41	44.47	44.47	6.13%	Sorta Connected	0.87	6.31	50.00%	3.16
4000-30-1-L1 4000-35-1	49.84 81.72	4.66 8.91	0.00 1.02	4.66 7.89	4.66 7.89	9.35% 9.65%	Sorta Connected Sorta Connected	1.79 1.89	0.89 1.54	100.00% 75.00%	0.89 1.16
4006-00-1	313.79	27.79	1.30	26.49	26.49	8.44%	Sorta Connected	1.50	4.71	50.00%	2.35
4006-00-2-L1	419.09	63.19	0.23	62.96	62.96	15.02%	Sorta Connected	4.00	16.76	100.00%	16.76
4006-00-2-R1	706.33	51.28	0.82	50.46	50.46	7.14%	Sorta Connected	1.13	7.98	100.00%	7.98
4006-00-2-R2 4006-00-2-R3	19.63 43.63	2.19 5.67	0.00	2.19 5.67	2.19 5.67	11.16% 13.00%	Sorta Connected	2.42 3.13	0.48 1.37	100.00% 100.00%	0.48 1.37
4006-00-2-R4	128.46	19.41	1.20	18.21	18.21	14.18%	Sorta Connected Sorta Connected	3.63	4.66	100.00%	4.66
4006-00-2-R5	476.32	138.84	10.55	128.29	128.29	26.93%	Wicked Connected	20.81	99.12	100.00%	99.12
4006-00-2-R6	422.37	143.36	20.95	122.41	122.41	28.98%	Fully Connected	28.98	122.41	100.00%	122.41
4006-00-2-R7 4006-01-1	5.85 152.19	0.00 14.81	0.00 0.44	0.00 14.37	0.00 14.37	0.00% 9.44%	Slightly Connected	0.00 1.82	0.00 2.77	100.00% 75.00%	0.00 2.08
4006-01-1 4006-01-1-L1	283.19	34.04	1.38	32.66	32.66	11.53%	Sorta Connected Sorta Connected	2.55	7.22	100.00%	7.22
4006-02-1	5.70	0.17	0.00	0.17	0.17	2.98%	Sorta Connected	0.26	0.01	100.00%	0.01
4006-02-1-L1	650.06	78.50	10.43	68.07	68.07	10.47%	Moderately Connected	3.39	22.04	100.00%	22.04
4006-03-1	338.35	31.99	0.66	31.33	31.33	9.26%	Moderately Connected	2.82	9.54	100.00%	9.54
4006-04-1 4006-04-1-L1	394.09 56.74	45.60 8.42	1.15 1.29	44.45 7.13	44.45 7.13	11.28% 12.57%	Sorta Connected Sorta Connected	2.46 2.96	9.69 1.68	100.00% 100.00%	9.69 1.68
4006-04-1-11	310.43	23.72	0.00	23.72	23.72	7.64%	Sorta Connected	1.27	3.94	100.00%	3.94
4006-06-1	336.09	57.72	0.00	57.72	57.72	17.17%	Moderately Connected	7.11	23.90	100.00%	23.90
4006-09-2-R3	321.14	103.46	14.94	88.52	88.52	27.56%	Wicked Connected	21.40	68.72	100.00%	68.72
4006-11-1-L1 4006-11-1-L3	167.76 37.12	43.53 7.10	0.00	43.53 7.10	43.53 7.10	25.95%	Moderately Connected	13.22 8.49	22.18 3.15	100.00%	22.18
4006-11-1-13	145.21	30.39	0.00	30.39	30.39	19.13% 20.93%	Moderately Connected  Moderately Connected	9.58	13.91	100.00%	3.15 13.91
4006-13-1	504.34	92.72	17.04	75.68	75.68	15.01%	Fully Connected	15.01	75.68	100.00%	75.68
4007-00-1	673.29	211.48	14.43	197.05	197.05	29.27%	Fully Connected	29.27	197.05	100.00%	197.05
4007-00-1-L1	93.00	9.60	3.60	6.00	6.00	6.45%	Sorta Connected	0.95	0.88	100.00%	0.88
4007-00-1-L2 4007-00-1-L3	1,314.72 61.42	182.74 24.86	24.54 0.31	158.20 24.55	158.20 24.55	12.03% 39.97%	Moderately Connected Wicked Connected	4.17 33.43	54.82 20.53	100.00%	54.82 20.53
4007-00-1-L3 4007-00-2-R1	252.18	22.50	0.00	22.50	22.50	8.92%	Sorta Connected	1.65	4.16	100.00%	4.16
4007-00-3-R1	69.58	12.13	0.00	12.13	12.13	17.43%	Moderately Connected	7.28	5.07	100.00%	5.07
4007-00-3-R2	8.22	0.00	0.00	0.00	0.00	0.00%	Slightly Connected	0.00	0.00	100.00%	0.00
4007-01-1	556.20	93.74	4.34	89.40	89.40	16.07%	Moderately Connected	6.44	35.82	100.00%	35.82
4007-02-1 4007-02-2-R1	573.00 236.22	69.46 42.66	0.00 2.91	69.46 39.75	69.46 39.75	12.12% 16.83%	Moderately Connected  Moderately Connected	4.22 6.90	24.18 16.30	100.00% 100.00%	24.18 16.30
4007-02-2-11	369.62	64.62	0.00	64.62	64.62	17.48%	Moderately Connected	7.31	27.02	100.00%	27.02
4007-04-1	706.53	96.70	5.59	91.11	91.11	12.90%	Sorta Connected	3.09	21.83	100.00%	21.83
4007-04-1-L1	149.65	16.55	0.00	16.55	16.55	11.06%	Sorta Connected	2.38	3.56	100.00%	3.56
4008-00-2-L1	217.52	24.67	4.27	20.40	20.40	9.38%	Sorta Connected	1.80	3.92	100.00%	3.92
4008-00-2-L2 4008-01-2-R1	856.20 648.94	47.59 28.83	3.54 8.76	44.05 20.07	44.05 20.07	5.14% 3.09%	Sorta Connected Sorta Connected	0.65 0.27	5.57 1.75	50.00% 25.00%	2.78 0.44
4008-03-1	818.79	29.45	0.00	29.45	29.45	3.60%	Sorta Connected	0.35	2.87	25.00%	0.72
4009-00-2-L2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4009-00-2-L3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4009-00-2-L4 4009-00-2-R1	345.05 129.44	42.20 5.79	2.32 1.91	39.88 3.88	39.88 3.88	11.56% 3.00%	Sorta Connected Sorta Connected	2.57 0.26	8.87 0.34	100.00% 25.00%	8.87 0.08
4009-00-2-R2	538.97	32.68	1.51	31.17	31.17	5.78%	Sorta Connected	0.79	4.26	50.00%	2.13
4009-00-2-R3	90.34	16.30	1.79	14.51	14.51	16.06%	Sorta Connected	4.49	4.06	100.00%	4.06
4009-00-3-L5	96.94	9.80	0.63	9.17	9.17	9.46%	Sorta Connected	1.82	1.76	100.00%	1.76
4009-00-3-L6 4009-00-3-R1	182.41 50.00	20.37 6.86	0.00 1.73	20.37 5.13	20.37 5.13	11.17% 10.26%	Sorta Connected	2.42 2.09	4.41 1.05	100.00% 100.00%	4.41 1.05
4009-00-3-R1 4009-00-3-R2	491.16	66.19	10.75	55.44	55.44	11.29%	Sorta Connected Sorta Connected	2.46	12.08	100.00%	12.08
4009-00-3-R4	156.81	2.22	0.00	2.22	2.22	1.42%	Slightly Connected	0.02	0.03	50.00%	0.02
4009-00-3-R5	1,471.90	179.77	5.24	174.53	174.53	11.86%	Sorta Connected	2.68	39.45	100.00%	39.45
4009-03-1	997.57	47.72	3.14	44.58	44.58	4.47%	Sorta Connected	0.51	5.09	50.00%	2.54
4009-04-1 4009-05-1	399.52 177.94	46.96 15.46	4.95 0.00	42.01 15.46	42.01 15.46	10.52% 8.69%	Moderately Connected Sorta Connected	3.41 1.58	13.62 2.81	100.00% 75.00%	13.62 2.11
4009-05-2-R1	40.08	4.44	0.00	4.44	4.44	11.08%	Sorta Connected	2.39	0.96	100.00%	0.96
4009-05-2-R2	38.76	4.30	0.00	4.30	4.30	11.09%	Sorta Connected	2.39	0.93	100.00%	0.93
4009-06-1	382.93	14.64	0.00	14.64	14.64	3.82%	Sorta Connected	0.39	1.49	50.00%	0.75
4009-07-1	359.78 370.09	39.53 34.72	0.00	39.53	39.53	10.99%	Sorta Connected	2.35 0.87	8.45	75.00%	6.34
4009-08-1 4009-09-1	479.48	34.72 44.01	12.09 0.00	22.63 44.01	22.63 44.01	6.11% 9.18%	Sorta Connected Sorta Connected	1.73	3.22 8.30	100.00% 75.00%	3.22 6.22
4707-00-2-L3	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
4707-00-2-R4	438.02	12.63	1.80	10.83	10.83	2.47%	Sorta Connected	0.19	0.83	100.00%	0.83
4707-04-1	NA	NA NA	NA NA	NA NA	NA	NA NA	NA NA	NA NA	NA NA	NA	NA NA
											NA NA
											NA 2.42
	100.51	8.66	0.00	8.66	8.66	8.62%	Sorta Connected	1.56	1.57	25.00%	0.39
TOTALS:	24,547.59	2,837.02	214.56	2,622.46	2,622.46				1,094.41		1,067.40
4707-04-1 4707-05-1 4707-06-1 4707-06-1-L1 4707-06-1-L2	NA NA NA 285.96 100.51	NA NA NA 27.96 8.66	NA NA NA 2.08 0.00	NA NA NA 25.88 8.66	NA NA NA 25.88 8.66	NA NA NA 9.05%	NA NA NA Sorta Connected	NA NA NA 1.69	NA NA NA 4.83 1.57	NA NA NA 50.00%	N N N 2.4 0.3

### **Overall Impervious Cover Tracking Spreadsheet**

	PROJECT INF	ORMATIO	N	2	3	4	NEW DEVE	LOPMENT	REDEVELO 7	PMENT 8	RETROFITS	CHANGE 10	11	CUMULATIVE 12.00	TOTALS 13	14.00	15	i	NOTES & REFERENCES
Date Approved	Date of Completion	2012 IC Baseline Coverage	Outfall ID#	Address	Project Name/Owner	4 practice	Total IC added (ac)	Connected IC added (ac)	I otal IC added or subtracted (ac)	Connected IC added or subtracted (ac)	IC disconnected (ac)	Change in Total IC (ac)	Change in Connected IC (ac)	WATERSHED TOTAL IC (ac)	WATERSHED TOTAL IC (%)	WATERSHED CONNECTED IC (ac)	WATERSHED CONNECTED IC (%)	% DCIA REDUCTION	Notes & References
	6/1/2015			WATER	SHED BASELINE									2622.46	10.7%	1067.40	4.3%	0.0%	from 2012 GIS IC Coverage [note: total watershed area is 24.547.59 acres]
12/6/2011	Completed	YES		88 Citizens Drive	Richard Risinger-Proposed Dental Office and related infrastructure-Special Permit 12-04 Sub Region Dranage Basin 4006-00-2-RS	Installation of underground infiltration/retention system with an overflow into the Hebron Avenue drainage system.	0.45	0.00				0.45	0.00	2622.91	10.7%	1067.40	4.3%	0.0%	Construction of a 5,813 S.F. Dental Office Building and 13,865 S.F. of bituminious parking area on 1.00 Acre vacant parcel of land. Project incorporates an internal storm drainage system, connection to the sewer system. Underground infiltration/retention system is made up of 40 Stormtech SC-310 chambers and provides 1,428 S.F. of storage capacity. All internal catch basins have 3' sumps. Pre IC = 0.0 acres, Post IC - 0.45 acres, all disconnected.
3/6/2012	Completed	YES		223 Eastern Boulevard	Nicola Yester-Proposed building addition and expanded parking lot-Special Permit 12-10 Sub Region Dranage Basin 4006-06-1	Installation of an infiltration/retention system for the new roof drainage. Expanded parking area sheet flows into a wetland area at the rear of the parcel.			0.13	0.00		0.13	0.00	2623.04	10.7%	1067.40	4.3%	0.0%	Construction of a 2,400 S.F. Building addition and 5,748 S.F. additional bituminious parking area on 0.99 acre parcel. New roof drainage discharges to an underground infiltration/retention system. Expanded parking area sheet flows to a wetland area located at the rear of the property. Pre Construction IC = 20,922 S.F./0.48 Acres. Post Construction IC = 26,670 S.F./0.61 Acres.
2/21/2012	Completed	YES		2773 Main Street	Gary Rounseville-M&R Liquors building addition- Special Permit 12-11 Sub Region Dranage Basin 4006- 00-2-R6	Proposed 1,236 S.F. addition roof drainage and existing on- site parking lot drainage discharges to a wetland area located at the rear of the property.			0.00	0.00		0.00	0.00	2623.04	10.7%	1067.40	4.3%	0.0%	Construction of a 1,236 S.F. building addition. New roof drainage discharges to a wetland area located at the rear of the property. Pre IC = 21,016 S.F./0.48 Acres. Post IC = 21,016 S.F./0.48 Acres.
8/21/2012	Completed	Partial		252/300 Welles Street	4000-00-6+R12	Construction of a recreational facility which includes a 12,372± S.F. boathouse building, public boat launch, playground, skating pond, and parking facilities. Pre Development IC= 1.22 Acres and Post Development IC=4.08 acres which nets IC=2.86 acres.			2.86	-1.22		2.86	-1.22	2625.90	10.7%	1066.18	4.3%	-0.1%	Construction of a recreational facility which includes a 12,372 ± S.F. boathouse building, public boat launch, playground, skating pond, and parking facilities on a redeveloped 9 acre parcel. All storm water treatment utilized LID (Low Impact Design) techniques and groundwater recharge through the use of water quality basins, groundwater recharge units, deep sump catch basins and hydrodynamic separators prior to discharge. Pre Construction IC = 53,143 S.F./1.22 Acres all connected. Post Construction IC = 177,725 S.F./4.08 Acres all disconnected.
	Completed	Building Addition incorporate d. Additional parking not incorporate d		731 Hebron Avenue	Mulryan Funeral Home-KCP Associates-Special Permit 13- 10 Sub Region Dranage Basin 4006-00-2-R5	Installation of two (2) Water Quality Basins for existing/proposed parking lot stormwater treatment.			0.23	0.00		0.23	0.00	2626.13	10.7%	1066.18	4.3%	-0.1%	Proposed 1,136 S.F. building addition and 9,080 S.F. of additional bituminous parking lot. Project incorporated the implementation of two (2) Water Quality Basins discharging to a wetland area. Pre IC = 32,653 S.F./ 0.75 Acres. Post IC = 42,869 S.F./ 0.98 Acres, new IC all disconnected.
3/19/2013	Completed	YES		2875 Main Street	Permit 13-18 Sub Region Dranage Basin 4006-13-1	Installation of a Water Quality Basin and Oil/Water separator. All proposed catch basins were designed with deep sumps and fitted with hooded outlets. Two catch basins are connected to the Main Street storm drainage system.			0.57	-0.09		0.57	-0.09	2626.70	10.7%	1066.09	4.3%	-0.1%	Project involved the demolition of an existing Cumberland Farms gas station and reconstruction of a new Cumberland Farms gas station. WQV required=2,346.8 C.F. (1" retention) WQV provided=2,852 C.F. Pre Construction IC = 4,062 S.F./0.09 Acres all connected. Post Construction IC = 28,750 S.F./0.66 Acres all disconnected.

5/6/2013	Completed	YES		131 Oak Street	The Bakery Connection- Michael Myers-Special Permit 13-19 Sub Region Dranage Basin 4007-00-1	Overland flow to a catch basin which is tied into the Glastonbury/East Hartford Elementary Magnet School drainage system.			0.08	0.00		0.08	0.00	2626.78	10.7%	1066.09	4.3%	-0.1%	Project was for a parking lot expansion creating 3,495 S.F./0.08 Acres of additional impervious area to the site. Pre Construction IC =17,806 S.F./0.41 Acres. Post Construction IC = 21,301 S.F./0.49 Acres.
5/21/2013	Completed	YES		248 Eastern Boulevard	Gymnastics Express Too-MC & LS Associates-Special Permit 13-23 Sub Region Dranage Basin 4006-06-1	New roof drainage installed in underground infiltration trench. Existing on-site drainage drains to a Water Quality Basin			0.08	0.00		0.08	0.00	2626.86	10.7%	1066.09	4.3%	-0.1%	Project was for a 3,500 S.F./0.08 Acre building expansion. Pre Construction IC =32,004 S.F./0.73 Acres. Post Construction IC = 35,195 S.F./0.81 Acres, new IC all disconnected.
7/16/2013	Completed	YES		911 New London Turnpike	Flanagan's Landing-ARZ- New London Turnpike Apartments Investors, LIC Sub Region Dranage Basin 4007-00-1-L2	Quality Basins, Underground Infiltration Chambers and			6.76	-1.61		6.76	-1.61	2633.62	10.7%	1064.48	4.3%	-0.3%	Commercial development consisting of the construction of (9) multi story commercial resedential rental apartment/townhouse buildings and a Clubhouse/Pool area and associated parking and covered garages. Pre IC = 70,156 S.F./ 1.61 Acres all connected. Post IC = 364,728 S.F./ 8.37 Acres all disconnected.
8/20/2013	Completed	Building G (10,884 S.F./0.25 Acres) is incorporate d into the 2014 IC coverage data only.		289,295,305 Western Boulevard	Gateway 4-Casile Corporation- Special Permit 13-40 Sub Region Dranage Basin 4006- 06-1	Utilization of Two (2) Detention Basins, an Underground Detention System, Six (6) Underground Infiltration Systems and Catch Basins with 4' deep sumps	3.77	0.00				3.77	0.00	2637.39	10.7%	1064.48	4.3%	-0.3%	Project consists of the construction of Three (3) Medical Office buildings with associated parking on a 7-90 acre parcel. Building G (4805)=10,884 S.F./0.25 Acres, Building H (#295)=13,300 S.F./0.31 Acres, Building I (#289)=10,888 S.F./0.25 Acres. totaling 0.81 Acres. Pre IC = 0.0 acres, Post IC = 3.77 Acres, all disconnected.
9/17/2013	Completed	NO	GHSL-160	1086 New London Turnpike	Town of Glastonbury-Parks and Recreation Facility-Ray Purtell-Special Permit 13-41 Sub Region Dranage Basin 4007-01-1	Installation of an In-Line Drywell			0.24	0.00		0.24	0.00	2637.63	10.7%	1064.48	4.3%	-0.3%	Construction of a 3,360 S.F./0.08 Acre storage building and 7,317 S.F./0.17 Acres of additional paved parking/driveway area. The proposed drywell provides 264 C.F. of infiltration capacity.
10/15/2013	Completed	YES	WE30-1573	100 Western Boulevard	Waldemar Realty, LLC-Special Permit 13-37 Sub Region Dranage Basin 4006-00-2-R5	Insignificant change to existing conditions			0.04	0.00		0.04	0.00	2637.67	10.7%	1064.48	4.3%	-0.3%	Project consisted of removal of exiting concrete surface and installing additional pavement parking area of 1,878 S.F./0.04 Acres. Existing IC all disconnected.
10/15/2013	2/18/2014	Building Addition- YES Additional Pavement- NO	Private Outlet to Roaring Brook	840 Main Street	Apple Brook Tavern-Red Apple Glastonbury, LLC- Special Permit 13-42 Sub Region Dranage Basin 4009- 00-3-R5	Installation of Porus Concrete Pavement			0.15	0.00		0.15	0.00	2637.82	10.7%	1064.48	4.3%	-0.3%	Construction of a 1,400 S.F./0.03 Acres building addition with additional 5,141 S.F./0.12 Acres of paved parking incorporating porus concrete gutters and pavement sections to meet WQV requirements for the site. New IC all disconnected.
7/16/2013	Completed	YES		Drive	Flanagan Industries-Special Permit 13-31 Sub Region Dranage Basin 4006-00-2-R5	48 L.F of Cultec Recharger 280 HD Chambers			0.17	0.00		0.17	0.00	2637.99	10.7%	1064.48	4.3%	-0.3%	Construction of a 5,000 S.F./0.11 Acre building addition with 2,340 S.F/0.05 Acres of additional paved parking. WQV calculations retain the first 1" utilizing 48 LF. of underground detention. On site storm drainage ties into National Drive storm drainage system. New IC all disconnected.
10/15/2013	Completed	NO	Roaring Brook	68 Matson Hill Road	Town of Glastonbury-Special Permit 13-47 Sub Region Dranage Basin 4009-00-3-R5	Rain Garden	0.12	0.00				0.12	0.00	2638.11	10.7%	1064.48	4.3%	-0.3%	Construction of a paved 5,340 S.F./0.12 Acre parking lot incorporating a Rain Garden to comply with WQV requirements. Pre. IC = 0 S.F./ 0.00 Acres. Post IC = 5,340 S.F./0.12 Acres
11/19/2013	Completed	NO	Tryon Street XX	Tryon Street/Dug Road	Town of Glastonbury-Dug Road/Tryon Street Drainage Project-Special Permit 14-01 Sub Region Dranage Basin 4000-00-6+R16	Underground detention, Infiltration swales, Off-Line Particle Separator, Deep sump catch basins, drywells			0.00	-4.04	-4.04	0.00	-4.04	2638.11	10.7%	1060.44	4.3%	-0.7%	Project was designed for a total stormwater treatment volume of 25,000 C.F. which is approximately 50% of the computed water quality volume for the 101 acre drainage area. Existing area approx. 20% impervious, 4% connected = 4.04 acres IC disconnected.

7/16/2013	Completed	NO	NE25-7424	36 Kreiger Lane	Lexington Partners, LLC- Special Permit 14-03 <b>Sub</b> <b>Region Dranage Basin 4007-</b> <b>00-1</b>	63' of Underground Infiltration trenches			0.36	-0.89	0.36	-0.89	2638.47	10.7%	1059.55	4.3%	-0.7%	Expansion of existing parking lot which was incorporated into the Flanagans Landing Project. Pre IC = 38,659 S.F./0.89 Acres. Post IC =54,553 S.F./1.25 Acres
4/1/2014	Completed	8,729 S.F./0.20 Acres of old pavement included in 2014 IC		41 Hebron Avenue	Schwartz Real Estate-Special Permit 14-07 <b>Sub Region</b> <b>Dranage Basin 4007-00-1</b>	64' of Stormtech SC-740 Underground Infiltration chambers			0.45	-0.07	0.45	-0.07	2638.92	10.8%	1059.48	4.3%	-0.7%	Construction of a 7,891 S.F./0.18 Acre Restaurant/Retail Building with 14,800 S.F./0.34 Acre parking lot. Project included the demolition of an existing 2,118 S.F./0.05 Acre house and removal of 8,729 S.F./0.20 Acres of pavement. Pre IC = 0.07 Acres. Post IC = 0.52 Acres, all disconnected.
3/4/2014	Completed	NO		2638/2670 Main Street		126' of Stormtech SC-740 Underground Infiltration chambers and Drywells for roof draiange infiltration.			0.07	-0.65	0.07	-0.65	2638.99	10.8%	1058.83	4.3%	-0.8%	Construction of a 3,060 S.F. bank/drive thru building with additional parking lot modifications. Reconstruction of the storm draiange system to comply with current standards. Pre IC = 28,602 S.F./0.65 Acres. Post IC = 31,465 S.F./0.72 Acres. 0.94 Acre drainage area disconnected per WQV computations.
4/1/2014	Completed	NO	MA15-6009	41 Hebron Avenue	Schwartz Real Estate-Special Permit 14-13 <b>Sub Region</b> <b>Dranage Basin 4007-00-1</b>	7' of additional Stormtech SC- 740 Underground Infiltration chambers			0.07	0.00	0.07	0.00	2639.06	10.8%	1058.83	4.3%	-0.8%	Construction of an additional 563 S.F. to and existing building, Pre IC = 22,691 S.F./0.52 Acres. Post IC = 25,855 S.F./ 0.59 Acres.
3/18/2014	Completed	NO	NE25-7714	767 New London Turnpike	Monaco Management, LLC- Special Permit 14-23 Sub Region Dranage Basin 4007- 00-1-L3	42.6' of Cultec T-80 Underground Infiltration Chambers			0.00	-0.04	0.00	-0.04	2639.06	10.8%	1058.79	4.3%	-0.8%	Construction of a 1,600 S.F./0.04 Acre addition. Addition area treated and disconnected with 42.6' of Underground Infiltration chambers. Pre IC = 43,191 S.F./ 0.99 Acres. Post IC = 43,191 S.F./ 0.99 Acres, new IC disconnected.
8/19/2014	Completed	NO	On-Site Infiltration	2109 Main Street	Town of Glastonbury-Facilities Maintenance Barn- Special Permit 14-35 Sub Region Dranage Basin 4007-00-1	Concrete Leaching gallies and a Drywell	0.27	0.00			0.27	0.00	2639.33	10.8%	1058.79	4.3%	-0.8%	Construction of a 4,025 S.F./ 0.09 Acres Facilities Maintenance Barn and 7,587 S.F./ 0.17 Acres of Bituminious Parking Lot. Pre IC = 0.00. Post IC = 11,612 S.F./ 0.27 Acres, all new IC disconnected.
4/21/2015	Completed	NO	Drains to Wetland Area	1672A Diamond Lake Road	Town of Glastonbury- Greyledge Open Space- Special Permit 15-19 Sub Region Dranage Basin 4707- 06-1	Stone Iniltration Trench	0.17	0.00			0.17	0.00	2639.50	10.8%	1058.79	4.3%	-0.8%	Construction of a 7,551 S.F./0.17 Acres paved parking lot. Pre IC = 0,00 Acres. Post IC = 7,551 S.F./ 0.17 Acres new IC disconnected.
4/21/2015	Completed	NO	Drains to Wetland Area	429 Marlboroug h Road	Town of Glastonbury-Arbor Acres Open Space-Special Permit 15-20 Sub Region Dranage Basin 4707-00-2-R4	Overland sheet flow			-0.09	0.00	-0.09	0.00	2639.41	10.8%	1058.79	4.3%	-0.8%	Project consisted of the removal of 0.09 acres of existing impervious pavement and reconstruction of a smaller paved parking area reducing IC. Pre Construction IC = 106,812 S.F./ 2.45 Acres. Post Construction IC = 102,931 S.F./ 2.36 Acres.
12/9/2014	Completed	NO		2915 and Lot W-14 Main Street	McDonald's USA-Special Permit 15-21 Sub Region Dranage Basin 4006-13-1	Vortechs 1000 Hydrodynamic Separator			-0.04	-0.04	-0.04	-0.04	2639.37	10.8%	1058.75	4.3%	-0.8%	Razed and Rebuild a new 6,300 S.F. Restaurant and redesign/reconstruction of new parking lot and storm draiange system. Pre IC = 72,831 S.F./ 1.67 Acres. Post IC = 71,020 S.F./ 1.63 Acres all post IC treated but not disconnected.
6/2/2015	Completed	NO		2520 Main Street	Schwartz Real Estate- Special Permit 15-26 Sub Region Dranage Basin 4006-00-2-R6	Stormtech SC-740 Infiltration chambers			0.24	-0.83	0.24	-0.83	2639.61	10.8%	1057.92	4.3%	-0.9%	Demolition of an existing building and construction of a 8,000 S.F. building and associated parking. Pre IC =36,236 S.F./ 0.83 Acres. Post IC =46,696 S.F./ 1.07 Acres. 1" WQV retained for 0.93 acre draiange area, therefore entire site disconnected.

6/16/2015	Completed	NO		1-10 Glastonbury Place	One Glastonbury Place- Glastonbury Developer's Sub Region Dranage Basin 4007- 00-1	Installation of two (2) Water Quality Basins and Underground Infiltration Chambers			4.23	-0.09	4.23	-0.09	2643.84	10.8%	1057.83	4.3%	-0.9%	Commercial development consisting of the construction of (9) multi story commercial resedential rental apartment/townhouse buildings and a Clubhouse/Pool area and associated parking and covered garages. Pre IC =3,891 S.F./ 0.09 Acres all connected. Post IC = 188,363 S.F./ 4.32 Acres all disconnected.
8/27/2015	Completed	NO	SA22-895	77 New London Turnpike	Town of Glastonbury Housing Authority-Center Village Revitalization Project- Special Permit 17-12 Sub Region Dranage Basin 4006-00-2-R6	Underground Infiltration/Retention Chambers-Stormtech MC- 3500 System			0.56	-1.67	0.56	-1.67	2644.40	10.8%	1056.16	4.3%	-1.1%	Construction of a 38 Unit Building, renovation and expansion of 34 existing units and demolition of 16 units (3 Buildings(3 and Community Hall including redesign of existing parking lot. Pre Construction IC =72,745 S.F./
9/1/2015	Not Completed	NO	Private Outfall to Hubbard Brook	38 Hubbard Street AKA 1906 Main Street	LAC Group, LLC- Special Permit 15-31 Sub Region Dranage Basin 4007-01-1	Pervious Pavement Gutter Sections			0.00	0.00	0.00	0.00	2644.40	10.8%	1056.16	4.3%	-1.1%	Reconstruction/Redesign of parking lot with an outfall to Hubbard Brook. Pre IC = 23,347 S.F./ 0.54 Acres connected. Post IC = 35,921 S.F./ 0.82 Acres disconnected. A APPROVED BUT NOT BUILT
6/7/2016	Completed	NO		295 Hubbard Street	Town of Glastonbury-Youth and Family Services Special Permit 16-27 <b>Sub Region</b> <b>Dranage Basin 4007-00-1-L3</b>	Drywell			0.03	0.00	0.03	0.00	2644.43	10.8%	1056.16	4.3%	-1.1%	Construction of a 1,000 S.F./0.02 Acre building addition and 220 S.F./0.01 Acres of concrete sidewalk. Pre IC = 4,022 S.F./ 0.09 Acres. Post IC = 5,242 S.F./ 0.12 Acres.
6/7/2016	Completed	NO	NA25-4481	2615-2639 Main Street		Infiltration Basin with Level Spreader			0.34	0.00	0.34	0.00	2644.77	10.8%	1056.16	4.3%	-1.1%	infiltration Basin retaining 1" WQV for the proposed 45 space parking lot expansion located in the rear. Pre IC = 60,001 S.F./ 1.38 Acres. Post IC = 75,111 S.F./ 1.72 Acres. New IC Disconnected
9/6/2016	Completed	NO	RT94-6768 & AD10- 7161	1001 Hebron Avenue	Developers Realty-Special Permit 16-35 Sub Region Dranage Basin 4006-00-2-R5	No Treatment Incorporated. Original aproval incorporated Underground Infiltration chambers			0.05	0.00	0.05	0.00	2644.82	10.8%	1056.16	4.3%	-1.1%	Construction of 13 more parking spaces. Pre IC =50,790 S.F./ 1.16 Acres. Post IC = 52,828 S.F./ 1.21 Acres.
11/15/2016	Completed	NO	& OA20-	550 Oakwood Drive	Wendeil's Woods Subdivision- Wendeil Lane-Carrier Enterprises, Inc. Sub Region Dranage Basin 4007-00-1-L2	installation of a Stormwater Management Basin	1.13	0.00			1.13	0.00	2645.95	10.8%	1056.16	4.3%	-1.1%	12 Lot Subdivision on 15.97 acre parcel, new road and storm drainage. Entire project drains to the Stormwater Management Basin which was designed to retain 1" of rainfall with an overflow to the Town's street drainage system. Pre IC = 0, Post IC = 1.13 acres, all disconnected.
1/17/2017	Completed	NO		Street		Quality Swales and (2)Underground Detention Systems			-0.14	-4.22	-0.14	-4.22	2645.81	10.8%	1051.94	4.3%	-1.4%	Project consisted of reconstruction of the driveway entrance and parking lots which included incorporation of water quality features retaining 1" vs required 0.5" resulting in the disconnection of 4.22 acres from the watershed. Pre IC = 4.22 acres, all connected. Post IC = 4.08 acres, all disconnected.
2/17/2017	Completed	NO		239 Commerce Street	Connecticut Galvanizing- Highway Safety Corporation- Special Permit 17-15 Sub Region Dranage Basin 4006- 00-2-RS	Underground Detention System with Installation of an Industrial Wastewater Treatment System discharging into the Sanitary Sewer System			0.00	-4.97	0.00	-4.97	2645.81	10.8%	1046.97	4.3%	-1.9%	Construction of an Underground Detention System with Installation of 1,664 S.F. Metal Building to house an Industrial Wastewater Treatment System discharging into the Sanitary Sewer System. Pre IC =216,524 S.F./ 4.97 Acres. Post IC = 216,524 S.F./ 4.97 Acres.
2/14/2017	Not Completed	NO		South Mill Drive		Installation of three (3) Water Quality Basins controlling discharge to Roaring Brook. Four (4) roofs are designed to discharge to underground groundwater recharge units and the remaining roofs are tied into the on-site storm drainage system.	2.51	0.00			2.51	0.00	2648.32	10.8%	1046.97	4.3%	-1.9%	Proposed privately owned Planned Area Development consisting of 24 single and double condominium units on 11.36 Acres. Project incorporates internal access driveways, storm sewer, snaitary sewer from South Mill Drive extension. Pre IC =0.00 S.F./ 0.00 Acres. Post IC = 109,211 S.F./ 2.51 Acres all disconnected.

3/15/2017	Completed	NO	Entire Site Self Contained	1193 Hebron Avenue	Educational Playcare- Special Permit 17-16 Sub Region Dranage Basin 4006-00-2-L1	Basin with 6 Stormtech SC-			0.53	0.00	0.53	0.00	2648.85	10.8%	1046.97	4.3%	-1.9%	Construction of a 6,760 S.F. addition and additional parking. Pre IC =23,402 S.F./ 0.54 Acres all disconnected. Post IC = 46,677 S.F./ 1.07 Acres all disconnected.
3/21/2017	Completed	NO		149,151 and 153 Natchaug Drive	Forstner Resubdivision- Natchaug Drive Sub Region Dranage Basin 4006-01-1-L1	Installation of (3) Rain Gardens	3.14	0.00			3.14	0.00	2651.99	10.8%	1046.97	4.3%	-1.9%	3 lot resubdivision of 155 Natchaug Drive incorporating 3 rain gardens for treatment of the common driveway areas.
4/19/2017	Completed	NO		2941 Main Street	Shops on Main-Mixed Use Redevelopment of entire site- Carpianato Group-Special Permit 17-27-Phase I Sub Region Dranage Basin 4006- 09-2-R3	Installation of a Water Quality Swale and (2) Hydrodynamic Separators.			0.00	0.00	0.00	0.00	2651.99	10.8%	1046.97	4.3%	-1.9%	Complete redevelopment of the entire 3.72 Acre existing site including demolition of the existing "Pond House Restaurant" site and construction of 3 new commericial buildings. 9,450 S.F./Retail, 9,960 S.F./Retail, 9,158 S.F./Commercial/Restaurant and associated parking. Pre Construction IC = 125,565 S.F./2.88 Acres. Post Construction IC = 125,474 S.F./2.88 Acres. WQV attained for 0.49 Acres. Site plan modified under Phase1/Phase2 Project, tracking performed under that project.
4/26/2017	Completed	NO	MA15-6009	81 Rankin Road	Baribault Realty, LLC-Baribault Jewelers-Special Permit 17-18 Sub Region Dranage Basin 4007-00-1				-0.01	-0.02	-0.01	-0.02	2651.98	10.8%	1046.95	4.3%	-1.9%	Construction of a 627 S.F. addition. Pre Construction IC =25,979 S.F./ 0.60 Acres. Post Construction IC = 25,886 S.F./ 0.59 Acres. New IC disconnected.
6/1/2017	Completed	NO		2855 Main Street-Rear	Edge Fitness- Special Permit 19-10 Sub Region Dranage Basin 4006-13-1	Infiltration Swale and Rain Gradens			3.53	0.00	3.53	0.00	2655.51	10.8%	1046.95	4.3%	-1.9%	Construction of a 38,000 S.F. Commercial Building with associated parking. Pre IC =58,609 S.F./1.34 Acres. Post IC =211,971 S.F./ 4.87 Acres, all disconnected.
10/17/2017	Completed	NO		New London Turnpike	Willow Pond Farm Subdivision New London Turnpike- Nuzzolo Brothers Holding Company, LLC <b>Sub Region</b> <b>Dranage Basin 4007-03-1</b>	installation of (4) Water Quality Basins to treat driveway/roof run off and a Detension Basin w/Forebay to treat Willow Pond Court run off.			1.52	-0.35	1.52	-0.35	2657.03	10.8%	1046.60	4.3%	-1.9%	12 Lot Subdivision on 16.93 acre parcel, new road with storm drainage and a common driveway with water quality basins. Willow Pond Court drains to the Detention Basin w/ Forebay which outlets into an adjacent wetland area. Pre Construction IC = 15,315 S.F./0.35 Acres al connected. Post Construction IC = 81,500 S.F./1.87 Acres, all disconnected.
10/17/2017	Completed	NO		Street	Giastonbury Glen-PAD Sub Region Dranage Basin 4006- 00-2-R5	Installation of a large Water Quality Basin w/Forebay to treat new roadway and driveway/roof run off and utilization of paired 4'x4'x4' Concrete Gallies for underground detention of driveway/roof run off. A portion (0.15 Acres) drains into the Town's storm drainage system located in Orchard Street.	2.02	0.15			2.02	0.15	2659.05	10.8%	1046.75	4.3%	-1.9%	18 Unit private development consisting of a new private road with storm drainage and private sewer system connected to the public sewers. Glen Place drains to a Water Quality Basin w/ Forebay which outlets into an adjacent wetland area. Additional WQV is achieved utilizing paired 4'x4'x4' Concrete Gallies for underground detention of roof and driveway runoff. Pre Construction IC = 0.00 S.F./0.00 Acres. Post Construction IC = 87.556 S.F./2.02 Acres, 0.15 acres of road directly connected.
1/25/2018	Completed	NO		Street	Distefano Dentistry-49 Sycamore, LLC - Special Permit 18-32-Building Expansion <b>Sub Region</b> <b>Dranage Basin 4007-00-1</b>	Installation of a parking lot rain garden island and a water quality basin that discharges to an adjacent wetland.			0.31	0.00	0.31	0.00	2659.36	10.8%	1046.75	4.3%	-1.9%	Commercial development consisting of demolition of an existing house and construction of a commercial building and associated parking. Pre IC = 1,979 S.F./ 0.04 Acres all disconnected. Post IC = 15,371 S.F./ 0.35 Acres all disconnected.

				277-283 Hebron Avenue	4Gatts, LLC- Special Permit 15- 14 Sub Region Dranage Basin 4006-00-2-R6	24" High Infiltration Galleries												Pre IC =19,124 S.F./0.44 Acres. Post IC =21,562 S.F./ 0.50 Acres, all new IC disconnected.
3/15/2018	Completed	NO	MA15-6009						0.06	0.00	0.06	0.00	2659.42	10.8%	1046.75	4.3%	-1.9%	
5/31/2018	Completed	NO	LA25 2110	Lakewood Road Extension- 1098 Main Street	Lakewood Road Extension-Far View Estates Section VI. Sub Region Dranage Basin 4007- 04-1		1.08	0.00			1.08	0.00	2660.50	10.8%	1046.75	4.3%	-1.9%	Extension of Lakewood Road to service 5 new residential building lots. Pre IC =0 S.F./ 0.00 Acres. Post IC =47,236 S.F./ 1.08 Acres, new IC all disconnected.
6/12/2018	Completed	NO		80 Sequin Drive	Special Permit 18-29 Sub	4'x8'x4' Concrete Leaching Galley and Environment 21 V2B1 Model #3 Hydrodynamic Separator	0.70	0.00			0.70	0.00	2661.20	10.8%	1046.75	4.3%	-1.9%	Construction of a 10,092 S.F. Commercial Building with associated parking. Pre Construction IC =0 S.F./. 0.00 Acres. Post Construction IC =29,084 S.F./. 0.70 Acres all new IC disconnected.
10/16/2018	Completed	NO	NA25-4481	25 Naubuc Avenue	Developer- Special Permit 19- 06 Sub Region Dranage Basin 4006-00-2-R6	Drainage pipe.			0.35	-0.05	0.35	-0.05	2661.55	10.8%	1046.70	4.3%	-1.9%	Demolition of an existing residential home and Construction of a 10 unit condominium complex with associated parking. Pre IC = 2,057 S.F./ 0.05 Acres. Post IC =17,565 S.F./ 0.40 Acres. New IC disconnected.
11/13/2018	Completed- 476 Naubuc- xx/xx/xx 480 Naubuc- 02/06/2020	YES	PU15-2009	476 & 480 Naubuc Avenue	Lovely Development- Special Permit 19-07 Sub Region Dranage Basin4006-09-2-R3				0.55	-0.07	0.55	-0.07	2662.10	10.8%	1046.63	4.3%	-1.9%	Demolishing of an existing residential home and subdivide parcel into two commercial development lots. Construction of two medical use buildings. Building #1 = 3,183 S.F. and Building #2 = 3,000 S.F. Pre IC = 3,189 S.F./0.07 Acres connected. Post IC = 26,940 S.F. / 0.62 Acres disconnected.
12/11/2018	Completed	NO	NE25-7402	86 Oak Street	NU Dimensions, Ent. LLC- Special Permit 19-12 Sub Region Dranage Basin 4007- 00-1	Underground Storage-Lane StormKeeper SK75-2,693 C.F. Chamber Storage and Rain Garden			0.68	-0.20	0.68	-0.20	2662.78	10.8%	1046.43	4.3%	-2.0%	Construction of a 10,000 S.F. Daycare Facility with associated parking. Pre IC = 12,021 S.F. / 0.28 Acres (0.2 acres connected). Post IC = 41,891 S.F. / 0.96 Acres all disconnected.
12/11/2018	Completed	YES		400 Hebron Avenue	Glastonbury Commons- Schwartz Realty-Special Permit 19-11 Sub Region Dranage Basin 4007-00-1	3,000 Gallon Storage Tank for capturing roof drainage to be reused for site irrigation and eight (8) Water Quality Basins.			0.68	-0.62	0.68	-0.62	2663.46	10.9%	1045.81	4.3%	-2.0%	Demolition of seven (7) residential/commercial structures and construction of a 19,904 S.F. single story retail/office/restaurant building with associated parking. Pre IC = 0.62 Acres connected. Post IC = 1.3 Acres all disconnected
3/5/2019	Completed	YES			5 Shops on Main-Mixed Use Redevelopment of entire site- Carpianato Group-Special Permit 19-25-Phase I & II Sub Region Dranage Basin 4006- 13-1	Installation of two (2) Water Quality Basins and (3) Hydrodynamic Separators.			0.56	-2.88	0.56	-2.88	2664.02	10.9%	1042.93	4.2%	-2.3%	Phase I (2941 Main Street) and Phase II (2955 Main Street) redevelopment of the entire existing site. Phese I included demolition of the existing "Fond House Restaurant" site and construction of 3 commericial buildings. 6,300 S.F./Retail/Restaurant, 9,158 S.F./Commercial/Restaurant and associated parking. Phese II included the parcel aquisition and demolition of the existing State of Connecticut house (2955 Main Street) and the construction of a 10,766 S.F. Mixed Use Commercial building. The Phase I previously approved Pre IC = 125,474 S.F./2.88 Acres all connected. Phase I & Phase II Post IC = 149,790 S.F./3.44 Acres all disconnected.

6/18/2019	Completed	YES		1199 Hebron Avenue	Educational Playcare- Special Permit 19-37 Sub Region Oranage Basin 4006-00-2-L1	Overland sheet flow to an existing Water Quality Basin located at 1193 Hebron Avenue. Additional WQV was attianed be reuse of the existing abandoned septic leach field.			-0.10	0.00	-0.10	0.00	2663.92	10.9%	1042.93	4.2%	-2.3%	Change of use from a Church to a daycare facility. Pre IC= 21,618 S.F./ 0.50 Acres. Post IC= 17,523 S.F./ 0.40 Acres. WQV required=191.2 CF. WQV by design=586.9 CF
8/30/2019	On Hold Due to Economy- Not completed	NO		75 Glastonbury Boulevard	AC Hotel by Marriott- Special Permit 19-53 Sub Region Dranage Basin 4006-13-1	Installation of two (2) Water Quality Basins, Underground Cultec Recharger 280HD- 4,908 C.F. Storage Infiltration Basin, U.G. Watertight Stromtrap 1,232 C.F Flood Storage Basin	1.95	0.00			1.95	0.00	2665.87	10.9%	1042.93	4.2%	-2.3%	Construction of a 4-Story, 23,506 S.F., 131 Room Hotel with associated parking on a vacant 125,721 S.F./ 2.88 Acre parcel. Pre IC= 0 S.F./ 0 Acres Post IC= 84,849 S.F./ 1.95 Acres disconnected.
5/21/2019	?	NO		108 Sequin Drive	JKS Systems LLC -Special Permit 19-31 <b>Sub Region</b> <b>Dranage Basin 4006-00-2-R5</b>	Water Quality Basin with Forebay	0.45	0.00			0.45	0.00	2666.32	10.9%	1042.93	4.2%	-2.3%	Construction of a 7,500 S.F. Commercial building with associated parking. Pre IC= 0 S.F. Post IC= 19,700 S.F./0.45 Acres
2/19/2019	Completed	NO	Drains to Wetland Area	1000 Chestnut Hill Road	Cox Communications- Special I Permit 19-29 Sub Region Dranage Basin 4009-00-3-R2	Water Quality Basin w/ Outlet Structure			0.12	0.00	0.12	0.00	2666.44	10.9%	1042.93	4.2%	-2.3%	Construction of a single story building and associated parking lot modifications on a 2.11 Acre parcel. Installation of a 1,966 C.F. Water Quality Basin. Pre IC= 0.13 Acres disconnected. Post IC= 0.25 Acres disconnected
7/16/2019	Completed	Yes		467 Naubuc Avenue	JBMAK LLC- Special Permit 19- 56 Sub Region Dranage Basin 4006-09-2-R3				0.04	-0.09	0.04	-0.09	2666.48	10.9%	1042.84	4.2%	-2.3%	Change of use from a residential house to a professional office with expanded parking. Pre IC= 3,870 S,17, 0.09 Acres connected. Post IC= 5,640 S,F./ 0.13 Acres disconnected.
10/15/2019	Not Completed	Yes		Avenue	311 Hebron Avenue LLC- Special Permit 19 - 62 Sub Region Dranage Basin 4007- 00-1	36" Diameter ADS Water Quality Unit with 1,152 S.F. Underground Detention System constructed with 24" x 48" Concrete Galleries encased in 12" of stone. WQV required = 872 C.F. WQV provided = 2,837 C.F.			0.18	-0.13	0.18	-0.13	2666.66	10.9%	1042.71	4.2%	-2.3%	Demolition of a 1,200 S.F. commercial house and 5,999 S.F. bituminous parking lot. Construction of a 2,847 S.F. 3 story mix use commercial building with associated parking. Pre IC = 5,599 S.F. / 0.13 Acres. Post IC = 13,647 S.F. / 0.31 Acres. Pre DCIA = 0.13 Acres. Post DCIA = 0 Acres
11/19/2019	Completed	YES		70 Oak Street	Car Wash Services MD, LLC - Special Permit 19 - 69 Sub Region Dranage Basin 4007- 00-1-L3	Water Quality Swale with outlet structure WQV required = 0.016 Ac/Ft. WQV provided = 0.018 Ac/Ft., Detention Basin with dual sediment forebays. Sediment Forebay #1 WQV required = 0.003 Ac/Ft. WQV provided = 0.015 Ac/Ft. Sediment Forebay #2 WQV required = 0.033 Ac/Ft. WQV provided = 0.033 Ac/Ft. WQV provided = 0.041 Ac/Ft.			0.71	-0.07	0.71	-0.07	2667.37	10.9%	1042.64	4.2%	-2.3%	Demolition of an existing residential home and construction of a 5,167 S.F. Car Wash building with associated parking. Pre IC = 3,220 S.F. / 0.07 Acres. Post IC = 33,845 S.F. / 0.78 Acres. Pre DCIA= 0.07 Acres. Post DCIA= 0 Acres
12/10/2019	Completed	YES			Gottfried & Somberg Wealth Management - Special Permit 20-03 Sub Region Dranage Basin 4007-00-1	36" Diameter ADS Water Quality Unit with Underground Detention System constructed with 12" x 48" Concrete Galleries encased in 12" of stone. WQV required = 2,949 C.F. WQV provided = 13,327 C.F.			0.39	-0.36	0.39	-0.36	2667.76	10.9%	1042.28	4.2%	-2.4%	Demolition of an existing single story building #330 Hebron Avenue and an existing 2 1/2 story commercial building #340 Hebron Avenue and parking lot. Construstion of a 3 story 6,702 S.F. Commercial building with associated parking. Pre IC = 15,871 S.F. / 0.36 Acres. Post IC = 32,474 S.F. / 0.75 Acres. Pre DCIA = 0.36 Acres. Post DCIA = 0 Acres

3/3/2020	Not Completed	YES	TR30-4044	Road		Installation of 56 lf of 48" concrete galleries, Five (5) 6'H x 8' Dia. Drywells, and One (1) 8'h x 8' Dia. Drywell. Total WQV required = 5,060 C.F. WQV provided = 5,688 C.F.	0.95	0.00			0.95	0.00	2668.71	10.9%	1042.28	4.2%	-2.4%	Extension of Dufford's Landing to service 6 new residential building lots know as River Road Subdivision-Phase 3. Pre Construction IC =0 S.F./ 0.00 Acres. Post Construction IC =41,382 S.F./ 0.95 Acres, Pre Development Connected IC = 0.0 S.F. / 0.0 Acres. Post Development Connected IC = 0.0 S.F. / 0.0 Acres.
6/20/2020	Completed	YES		2407 Main Street	Welles Turner Memorial Library Addition-Town of Glastonbury- Special Permit 20 -17 Sub Region Dranage Basin 4007-00-1	Project resulted in no net increase in impervious surfaces			0.00	0.00	0.00	0.00	2667.76	10.9%	1042.28	4.2%	-2.4%	
7/21/2020	Not Completed	YES		181A Main Street	Dorethy's Place I Subdivision- 181A Main Street-Gauranteed Maintenance and Development, LLC (Paul Jacques) Sub Region Dranage Basin 4000-30-1	drains to 22'x3' x 2.5' deep level spreader. WQV required= 684 C.F. WQV	0.38	0.00			0.38	0.00	2668.14	10.9%	1042.28	4.2%	-2.4%	Development of a vacant rear lot parcel to service 2 new residential building lots. Pre IC =0 S.F./ 0.00 Acres. Post IC =16,553 S.F./ 0.38 Acres, new IC all disconnected.
7/21/2020	Completed	YES		180 Main Street	1-11	drains to 23' x 3' x 2' deep level spreader. WQV required= 489 C.F. WQV	0.38	0.00			0.38	0.00	2668.52	10.9%	1042.28	4.2%	-2.4%	Demolition of an existing SFD to create a subdivision to service 4 new residential building lots. Pre IC =4,097 S.F./ 0.11 Acres. Post IC =21,381 S.F./ 0.49 Acres, new IC all disconnected.
7/21/2020	Completed	YES			233 Eastern Blvd Associates LLC-Central Rock Gym Additional Parking Lot- Special Permit 20-14 Sub Region Drainage Basin 4006-06-1	Water Quality Basin with outlet structure. WQV required= 3,185 C.F. WQV provided= 3,828 C.F.	0.44	0.00			0.44	0.00	2668.96	10.9%	1042.28	4.2%	-2.4%	Construction of an additional parking lot with water quality basin to service Central Rock Gym (259 EAstern Boulevard. 233 Eastern Boulevard-Pre Construction IC = 0.00 Acres. Post Construction IC = 19,232 S.F. / 0.44 Acres.

7/21/2020 Completed	i YES	Turnpike	Ferfeld Investments LLC- JP Morgan Chase Bank - Special Permit 20 -12 Sub Region Dranage Basin 4007-00-1	Underground detantion system utilizing 27- STROMTECH MC-3500 D Chambers. Redevelopment WQV required = 1,307 C.F. WQV provided = 1,333 C.F.	0.07	-0.62	0.07	-0.62	2669.03	10.9%	1041.66	4.2%	-2.4%	Demolition of two (2) commercial 2-story condo buildings. 109-111 New London Turnpike = 3,624 S.F. and 115-117 New London Turnpike = 3,672 S.F Construction of a 3,470 S.F. single story Bank building and associated parking on a 0.94 Acre parcel. Pre Construction IC =27,225 S.F. / 0.63 Acres. Post Construction IC = 30,463 S.F. / 0.70 Acres. Pre development Connected IC = 27,225 S.F. / 0.63 Acres. Post development connected IC = 276 S.F. / 0.01 Acres.
8/18/2020 Completed	I YES	103 House Street	Proposed Townhouses- 103 House Street, LLC-Special Permit 21-04 Sub Region Dranage Basin 4006-00-2-R6	4-Underground detantion systems utilizing STROMTECH SC-740 Chambers. Development WQV required = 3,328 C.F. WQV provided = 9,131 C.F.	0.75	-0.19	0.75	-0.19	2669.78	10.9%	1041.47	4.2%	-2.4%	Demolition of an existing single family house and the construction of three (3) Townhouse/Apartment buildings totalling 17 individual units with associated parking on a 1.05 Acre revised parcel area. Pre Construction IC =8,276 S.F. / 0.19 Acres. Post Construction IC = 40,946 S.F. / 0.94 Acres. Pre Development Connected IC = 8,276 S.F. / 0.19 Acres. Post Development Connected IC = 0.0 S.F. / 0.0 Acres.
10/6/2020 Completed	I YES	219 Addison Road	TrueNorth, Inc The Offices at Addison Square-Special Permit 21-11 Sub Region Dranage Basin 4006-06-1	4-Underground detantion systems utilizing STROMTECH SC-740 Chambers and Detention Basin. Development WQV required = 4,786 C.F. WQV provided = 5,800 C.F.	1.19	-0.15	1.19	-0.15	2670.97	10.9%	1041.32	4.2%	-2.4%	Demolition of all existing structure remains and the construction of four (4) Medical/Office buildings totalling 18 individual units with associated parking on a 2.42 Acre parcel area. Pre Construction IC = 6,770 S.F. / 0.15 Acres. Post Construction IC = 58,505 S.F. / 1.34 Acres. Pre Development Connected IC = 6,770 S.F. / 0.15 Acres. Post Development Connected IC = 0.0 S.F. / 0.0 Acres.
11/17/2020 Completed	I YES	330 Hubbard Street	Town of Glastonbury- Glastonbury High School- Proposed Locker Rooms- Special Permit 21 -14 Sub Region Dranage Basin 4007- 01-1	Project resulted in no net increase in impervious surfaces	0.00	0.00	0.00	0.00	2670.97	10.9%	1041.32	4.2%	-2.4%	Project resulted in no net increase in impervious surfaces
11/17/2020 Completed	i NO		Gateway V-Casle Corporation- Special Permit 21 - 27 Sub Region Dranage Basin 4006- 06-1 and 4006-00-2-R5	Stornwater Quality Basins with incorporated Forebays and Outlet Control Structure. Development WQV required = 9,273 C.F. WQV provided = 11,238 C.F.	2.57	0.00	2.57	0.00	2673.54	10.9%	1041.32	4.2%	-2.4%	Construction of Two (2) Medical Office Buildings and associated parking on a 4.83 Acre parcel. Building 1 = 15,000 S.F. Building 2 = 15,250 S.F. Pre Construction IC= 0.00 S.F./ 0.0 Acres. Post Construction IC= 111,949 S.F./ 2.57 Acres. Pre Development Connected IC= 0.00 S.F./ 0.0 Acres. Post Development Connected IC= 0.00 S.F./ 0.0 Acres.
1/19/2021 Completed	I YES	524 Bell Street	Stallion Ridge Subdivision 29 New House Lots Sub Region Dranage Basin 4006-00-2-R1	(2) Stormwater Detention/Water Quality Basins with incorporated Forebays and Outlet Control Structures, Individual House lot level spreaders and bioretention systems, and grass lined water quality swales. Total WQV required = 12,544 C.F. Total WQV provided = 25,700 C.F.	3.54	-0.50	3.54	-0.50	2677.08	10.9%	1040.82	4.2%	-2.5%	29 Lot Subdivision on 34.25 acre parcel, new road with storm drainage, (2) detention/water quality basins, Individual House lot level spreaders and bioretention systems, and grass lined water quality swales. Stallion Drive drains to the (2) Detention/Water Quality Basins w/ Forebays which outlets into an adjacent wetland area. Pre Construction IC = 21,780 S.F./0.50 Acres. Post Construction IC = 175,982 S.F./4.04 Acres.Pre Development Connected IC= 21,780 S.F./0.50 Acres. Post Development Connected IC= 20.00 S.F./0.00 Acres.
3/16/2021 Completed	I YES	2834 Main Street	Michael Cassetta- Dairy Queen - Special Permit 21 - 12 Sub Region Dranage Basin 4006-00-2-R6	Proposal was a special permit modification for re-use of the existing facility. No mdifications to the existing drainage was proposed.	-0.01	-0.01	-0.01	-0.01	2677.07	10.9%	1040.81	4.2%	-2.5%	Proposal was a special permit modification for re-use of the existing facility. No modifications to the existing drainage was proposed. Pre Construction IC = 25,121.5.F./0.577 Acres. Post Construction IC = 24,711.5.F./0.567 Acres. Post Development Connected IC = 20,621.5.F./0.47 Acres. Post Development Connected IC = 20,273 S.F./0.48 Acres.

4/6/2021	Not Completed	YES		256 Knollwood Drive	Michael Pucci- Casella Subdivision- 3 Lot Residential Subdivision- Sub Region Drainage Basin 4009-00-2-R2	Basin with incorporated	0.51	0.06			0.51	0.06	2677.58	10.9%	1040.87	4.2%	-2.5%	3 Lot Subdivision on 11.73 acre parcel, rear lots with common drivewayincluding storm drainage, detention/water quality basin with forebay and outlet structure which outlets into an adjacent wetland area. Pre Construction IC = 249 S.F./0.006 Acres. Post Construction IC = 22,375 S.F./0.51 Acres. Pre Development Connected IC = 249 S.F./0.006 Acres. Post Development Connected IC = 2,526 S.F./0.06 Acres.
5/4/2021	Completed	YES	NA20-796	Boulevard		Installation of Two (2) separate subsurface detention systems. System 1 utilizes ADS Stormtech MC- 3500 chambers consisting of 248 infiltration chambers and 56 isolator row chambers totalling 304 chambers. System 2 utilizes ADS Stormtech SC-740 chambers consisting of 40 infiltration chambers and 8 isolater row chambers totalling 48 chambers. Additional treatment consists of the installation of 102 LF of 24" Perforated HDPE. Total WQV required = 14,876 C.F. Total WQV provided = 15,454 C.F.			3.72	-3.39	3.72	-3.39	2681.30	10.9%	1037.48	4,2%	-2.8%	Redevelopment project consists of the Installation of Two (2) separate subsurface detention systems. System 1 utilizes ADS Stormtech MC-3500 chambers consisting of 248 infiltration chambers and 56 isolator row chambers totalling 304 chambers. System 2 utilizes ADS Stormtech SC-740 chambers consisting of 40 infiltration chambers and 8 isolater row chambers totalling 48 chambers. Additional treatment consits of the installation of 102 LF of 24" Perforated HDPE. Total WQV required = 14,876 C.F. Total WQV provided = 15,454 C.F. Pre Construction IC = 204,325 S.F./4.69 Acres. Post Construction IC = 366,549 S.F./8.41 Acres. Pre Development Connected IC= 204,325 S.F./4.69 Acres. Post Development Connected IC= 56,676 S.F./ 1.30 Acres.
6/15/2021	Not Completed	YES		31 Hopewell Road	Bradley Churchill- Contrail, LLC- Proposed 3 Lot Subdivision- Sub Region Drainage Basin 4009-00-3-R5	Project incorporated three (3) individual rain gardens on each of the proposed building	0.12	0.00			0.12	0.00	2681.42	10.9%	1037.48	4.2%	-2.8%	Project incorporated three (3) individual rain gardens on each of the proposed building lots. Lots 2 and 3 incorporated additional subsurface infiltration for the roof draiange. Lot 1 Rain garden WQV required = 78 C.F. WQY provided = 78 C.F. Lot 2 and 3 Rain Garden WQV required (each) = 102 C.F. WQV provided (each) = 102 C.F. WQV provided (each) = 125 C.F. Pre Construction IC = 1,742 S.F./0.04 Acres. Protection IC = 1,742 S.F./0.04 Acres. Protection IC = 6,970 S.F./0.16 Acres. Protection IC = 1,742 S.F./0.04 Acres. Post Development Connected IC = 1,742 S.F./0.04 Acres. Post Development Connected IC = 0.00 S.F./0.00 Acres.
7/20/2021	Completed	YES		300 Welles Street	Town of Glastonbury- Proposed Pickleball Courts located at the Riverfront Community Center - Special Permit XX-XX Sub Region Drainage Basin 4000-00- 6+R12	Project is for the construction of a 8,750 S.F. Bituminous surface Pickleball Court. Sormwater management incorporated the use of a stone infiltration trench and a water quality rain garden. Total WQV provided = (Rain Garden) 352 C.F. + (Stone Infiltration Trench) 360 C.F. = 712 C.F.	0.20	0.00			0.20	0.00	2681.62	10.9%	1037.48	4.2%	-2.8%	Project is for the construction of a 8,750 S.F. Bituminous surface Pickleball Court. Sormwater management incorporated the use of a stone infiltration trench and a water quality rain garden. Total WQV required = 690 C.F. Total WQV provided = (Rain Garden) 352 C.F. + (Stone Infiltration Trench) 360 C.F. = 712 C.F. Pre Construction IC = Unknown S.F./Unknown Acres. Post Construction IC = Additional 8,750 S.F./0.20 Acres. Pre Development Connected IC= Unknown S.F./ Unknown Acres. Post Development Connected IC= 0.00 S.F./ 0.00 Acres.
8/10/2021	Completed	YES		1040 Main Street	Carrier Construction, Inc- Proposed 7 Lot Subdivision- Sub Region Drainage Basins 4007-04-1 and 4009-003-R5	Stormwater management for this project incorporates a Water Quality Basin w/ Forebay draining to a wetland area in the northeast corner of the property. Individual house lots have incorporated the use of subsurface detention chambers for treatment of rooftop runoff. Total WQV required = 3,468 C.F. Total WQV provided = 6,896 C.F.	1.13	0.13			1.13	0.13	2682.75	10.9%	1037.61	4.2%	-2.8%	Stormwater management for this project incorporates a Water Quality Basin w/ Forebay draining to a wetland area in the northeast corner of the property. Individual house lots have incorporated the use of subsurface detention chambers for treatment of rooftop runoff. Total WQV required = 3,468 C.F. Total WQV provided = 6,896 C.F. Pre Construction IC = 1,742 S.F./0.04 Acres. Post Construction IC = 5,030 S.F./1.16 Acres. Pre Development Connected IC= 1,742 S.F./0.04 Acres. Post Development Connected IC= 5,663 S.F./

01/01/20222	Not mpleted	YES	Street		this project utilizes (2) Rain			0.16	-0.03	0.16	-0.03	2682.91	10.9%	1037.58	4.2%	-2.8%	Reconstruction/Redesign of parking lot with an outfall to Hubbard Brook. Pre IC = 30,056 S.F./ 0.69 Acres connected. Post IC = 37,026 S.F./ 0.85 Acres.
4/19/2022 Cor	mpleted	YES	2756 Main Street	The Car Wash Glastonbury- Redevelopment- Special Permit 22-09 Sub Region Drainage Basin 4006-00-2-R6	(2) Water Quality Basins and underground infiltration utilizing Stormtech SC-740 Chambers. WQV required = 737 C.F. WQV provided = 812 C.F.			-0.02	-0.65	-0.02	-0.65	2682.89	10.9%	1036.93	4.2%	-2.9%	Project involves redevelopment of the existing car wash facility with associated parking. Stormwater management consists of the use of (2) Water Quality Basins (421 CF & 166 CF) and underground infiltration utilizing Stormtech SC_740 chambers (225 CF). Pre Construction IC = 28,314 S.F./0.65 Acres. Post Construction IC = 27,443 S.F./0.63 Acres. Pre Development Connected IC= 8,314 S.F./ 0.65 Acres. Post Development Connected IC= 0 S.F./ 0.0 Acres.
7/5/2022 Cor	mpleted	No	Avenue	00-1	Stormwater management for this addition/modification consists of the installation of two (2) underground detention systems utilizing 12" High concrete leaching galleries discharging to the existing onsite storm dranage system.			0.09	-0.12	0.09	-0.12	2682.98	10.9%	1036.81	4.2%	-2.9%	Project involves an expansion to the existing site to accommodate a building addition and parking area. The addition of two abutting properties was aquired under this project. Pre Construction IC = 5,445 S.F./0.125 Acres. Post Construction IC = 9,409 S.F./0.216 Acres. Pre Development Connected IC= 5,445 S.F./0.125 Acres. Post Development Connected IC= 131 S.F./0.003 Acres.
7/19/2022	Under nstruction	YES	Road	02-L1 and 4009-04-1	Underground infiltration utilizing 36" Perforated CHDPE in conjunction with an in-site Vortechnic Chamber to treating 0.72 CFS of WCF. WQV required (North & East Roof) = 482 C.F. WQV provided = 818 C.F., WQV required (South & West Roof/Parking Lot) = 3,517 C.F. WQV provided = 6,650 C.F. Total WQV required = 3,999 C.F., Total WQV provided = 7,468 C.F.	1.18	0.01			1.18	0.01	2684.15	10.9%	1036.82	4.2%	-2.9%	Project involves the construction of a 5-story residential apartment building with associated parking on the vacant parcel of land. Stormwater management 36" Perforated CHDPE in conjunction with an on-site Vortechnic Chamber to treating 0.72 CFS of WCF. Pre Construction IC = 0 S.F./0 Acres. Post Construction IC = 0 S.F./0 Acres. Pre Development Connected IC= 0 S.F./0 Acres. Post Development Connected IC= 610 S.F./0 0.014 Acres.
8/23/2022 Con:	ot Under nstruction Yet	YES	Lane	General Landscaping LLC- Special Permit 22-20 Sub Region Dranage Basin 4007- 00-1-L3	Stormwater management utilizing a Water Quality Basin. WQV required (100%) = 2,271 C.F. WQV provided = 3,609 C.F.	0.64	0.02			0.64	0.02	2684.79	10.9%	1036.84	4.2%	-2.9%	Project is for the construction of a 27,878 S.F.Bituminous parking lot on a vacant parcel. Stormwater management incorporated the use of an on-site Water Quality Basin. Total WQV required = 2,271 C.F. Total WQV provided = 3,609 C.F. Pre Construction IC = 0 S.F./0 Acres. Post Construction IC = 27,878 S.F./0.64 Acres. Pre Development Connected IC= 0.0 S.F./0.0 Acres. Post Development Connected IC= 653 S.F./0.015 Acres.
10/18/2022 Con:	ot Under estruction Yet	YES	Drive	Permit 22-18 Sub Region Drainage Basin 4006-00-2-R5	drainage discharging to (3) 12" H Conrete galleries			0.03	-0.40	0.03	-0.40	2684.18	10.9%	1036.42	4.2%	-2.9%	Project involves a 3,000 S.F. building addition. Existing and proposed roof drainage discharging to (3) 12" H Conrete galleries embedded in a 2' deep x 13' wide x 130' long stone filled infiltration trench. All site impervious parking lot surface sheet flow to the proposed at grade stone infiltration trench for treatment. Pre Construction IC = 18,295 S.F./0.42 Acres. Post Construction IC = 19,602 S.F./0.45 Acres. Pre Development Connected IC= 18,295 S.F./ 0.42 Acres. Post Development Connected IC= 871 S.F./ 0.02 Acres.

11/6/2022	Under Construction	YES	MA15-3530 & MA15- 3529	2610 Main Street	Jays & Tee LLC- Condominim Complex Redevelopment- Special Permit 22-19 Sub Region Drainage Basin 4006- 00-2-R6	2-Underground detantion systems utilizing 48" Concrete Leaching galleries embedded in 2' of stone around the perimeter and 1' stone top and bottom. System A WQV required = 1,030 C.F. System A WQV provided = 3,928 C.F. System B WQV required = 482 C.F. System B WQV provided = 1,600 C.F.			0.35	-0.08	0.35	-0.08	2684.53	10.9%	1036.34	4.2%	-2.9%	Project involves the redevelopment of the existing house into 5 Townhouse units and the construction of an additional building with 5 Townhouse units for a total of 10 Townhouse units for a total of 10 Townhouse units including the consructionof a parking lot. Stormwater management is achieve by the utilization of two (2) underground detention systems (A & B) collecting all roof and parking lot drainage. Pre Construction IC = 4,835 S.F./0.111 Acres. Post Construction IC = 19,863 S.F./0.456 Acres. Pre Development Connected IC = 4,835 S.F./0.111 Acres. Post Development Connected IC = 1,568 S.F./0.036 Acres.
2/7/2023	Completed	YES	Wetland Area	Lot W-38A	Saints Isidore and Maria Parish Corporation (Formerly St. Paul's Church)- Special Permit XX-XX Sub Region Dranage Basin 4006-00-2-R6 and 4007-00-1	Stornwater Detention/ Water Quality Basin with concrete wier wall structure WQV required (50%) = 5,750 C.F. WQV provided = 5,750 C.F. at Basin Elevation 28.6			0.15	-2.58	0.15	-2.58	2684.68	10.9%	1033.76	4.2%	-3.2%	Project is for the expansion of the existing bituminous parking lot onto an abutting vacant parcel along with a church building addition. Stornwater management incorporated the use of an on-site Water Quality Basin with forebay. Total WQV required (50%) = 5,750 C.F. Total WCV provided = 5,750 C.F. Pre Construction IC = 118,483 S.F./2.72 Acres. Post Construction IC = 125,017 S.F./2.87 Acres. Pre Development Connected IC= 118,483 S.F./2.72 Acres. Post Development Connected IC= 10,483 S.F./2.72 Acres. Post Development Connected IC= 6,098 S.F./0.14 Acres.
2/21/2023	Under Construction	YES	OA15-2627	240 Oakwood Drive	Proposed Material Yard- Mjolnir Construction- Special Permit XX-XX Sub Region Dranage Basin 4007-00-1-L2	Stormwater management utilizing two (2) Water Quality Basins. WQV required (100%) = 3,269 C.F. WQV provided = 3,630 C.F.			-0.21	0.00	-0.21	0.00	2684.47	10.9%	1033.76	4.2%	-3.2%	Project involves redevelopment of the an existing contractors yard into a materials processing/sales yard. Stormwater management consists of the use of (2) Water Quality Basins. Pre Construction IC = 18,295 S.F./0.65 Acres. Post Construction IC = 19,166 S.F./0.44 Acres. Pre Development Connected IC= 300 S.F./ 0.0069 Acres. Post Development Connected IC= 300 S.F./ 0.0069 Acres.
3/21/2023	Not Under Construction Yet	YES	Wetland Area	340 Hubbard Street	Animal Shelter Reconstructior Special Permit XX-XX Sub Region Drainage Basin 4007- 01-1	Stormwater management utilizing two (2) Rain Garden Basins. WQV required (100%) Basin #1= 247 C.F. WQV provided = 1,009 C.F., WQV required (100%) Basin #2= 426 C.F. WQV provided = 675 C.F.			0.08	-0.16	0.08	-0.16	2684.55	10.9%	1033.60	4.2%	-3.2%	Project involves demolition and reconstruction of the existing animal shelter and construction of bituminous parking lot and driveway.  Stormwater management consists of the use of (2) Rain Garden Basins. Pre Construction IC = 6,970 S.F./0.16 Acres. Post Construction IC = 10,454 S.F./0.24 Acres. Pre Development Connected IC= 6,970 S.F./ 0.16 Acres. Post Development Connected IC= 0.0 S.F./ 0.00 Acres
5/16/2023	Under Construction	YES	CR25-370	539 & 551 Manchester Road	Crosby II Subdivision Rejean Jaques- Sub Region Drainage Basin 4009-00-2-R3	Stormwater management utilized the existing Phase I (Pre MS4 Permit) detention pond with modifications to the existing outlet structure to achieve WQV and attenuation of Phase II roadway extension. Phase I & II WQV required (100%) = 8,410 C.F. Phase I & II WQV provided = 8,410 C.F. at elevation 364.7.	0.38	0.00			0.38	-1.50	2684.93	10.9%	1032.10	4.2%	-3.3%	Project involves a 200'± roadway extension of Crosby Road to service 6 new residential building lots and 1 existing house lot.  Stormwater management utilized the existing Phase I (Pre MS4 Permit) detention pond with modifications to the existing outlet structure to achieve WQV and attenuation of Phase II roadway extension.Computations reflect DCIA of Phase I & II. Phase I & II Pre Construction IC = 0 S.F./0.0 Acres. Phase I & II Post Construction IC = 81,893 S.F./1.88 Acres. Pre Development Connected IC= 0.S.F./0.0 Acres. Post Development Connected IC= 0.S.F./0.0 Acres
11/21/2023	Not Under Construction Yet	YES	NY10-708 and On-Site Infiltration Basin	55 Nye Road	Town of Glastonbury Housing Authority- Nye Road Affordable Housing Project PAD- Sub Region Drainage Basin 4006-00-2-R6 and 4006 06-1	treatment train consists of the utilization of pervious pavers in portions of the			1.61	-1.92	1.61	-1.50	2686.54	10.9%	1030.60	4.2%	-3.4%	Project involves demolition of the existing medical office building located on the 11.3 acre parcel and construction of 20 buildings consisting of 2, 4, and 6 unit residential housing totalling 64 units and a 2,200 s.f. community building. Stormwater management treatment train consists of the utilization of pervious pavers in portions of the parking areas, installation of an Infiltration Basin, and Installation of (2) Hydrodynamic Separators (Model # CDS 3020-6-C and CDS 2015-4-C). Pre Construction IC = 83,635 S.F./1.92 Acres. Post Development Connected IC = 83,635 S.F./1.92 Acres. Post Development Connected IC = 83,635 S.F./1.93 Acres. Post Development Connected IC= 0.0 S.F./0.00 Acres.

11/21/2023	Not Under Construction Yet	YES	Street	Special Permit XX-XX Sub Region Drainage Basin 4006- 00-2-R6	Stormwater management treatment consists of the utilization of a Compensitory Storage Basin with Sediment Forebay sized to hold WQV. Total Site WQV required (100%) = 1,532 C.F., Total Site WQV provided (100%) = 2,260 C.F.		0.08	-0.33	0.08	-1.50	2686.62	10.9%	1029.10	4.2%	-3.6%	Project involves the construction of a 2,000 S.F. single story bank building and associated parking located on the 1.10 acre parcel. Stormwater management treatment consists of the utilization of a Compensitory Storage Basin with Sediment Forebay sized to hold WQV. Pre Construction (C = 14,375 S.F./0.33 Acres. Post Construction IC = 17,860 S.F./0.41 Acres. Pre Development Connected IC= 14,375 S.F./ 0.33 Acres. Post Development Connected IC= 0.0 S.F./0.00 Acres.
			55 Parker	Jie Wang- Lot Split Residential	Tun (2) Britistoli ourod											2 Lot Subdivision on 0.62 acre parcel, Two (2)
	Pending	YES	Terrace	Subdivision- <b>Sub Region Drainage Basin 4006-00-2-R6</b>	Stormwater Detention/Water		0.11	-0.02								water quality basins utilizing 100% infiltration due to well draining soils. Pre Construction IC = 2,431 S.F./0.056 Acres. Post Construction IC = 7,440 S.F./0.171 Acres. Pre Development Connected IC= 1,459 S.F./0.034 Acres. Post Development Connected IC= 1,951 S.F./0.011 Acres.

## **APPENDIX C**

IDDE PROGRAM PLAN CATCHMENT EVALUATION

Table 6-1. Catchment Assessment and Priority Ranking Matrix

Catchment ID (CTDEEP Local Basin ID#)	Receiving Water	Previous Screening Results Indicate Likely Sewer Input? 1	Discharging to Area of Concern to Public Health? <sup>2</sup>	Frequency of Past Discharge Complaints	Receiving Water Quality <sup>3</sup>	Density of Generating Sites <sup>4</sup>	Age of Development/ Infrastructure 5	Historic Combined Sewers or Septic? <sup>6</sup>	Aging Septic? <sup>7</sup>	Culverted Streams? <sup>8</sup>	Additional Characteristics		
Inform	nation Source	Catchment inspections and sample results	GIS Maps	Municipal Staff	Impaired Waters List	Land Use/GIS Maps, Aerial Photography	Land Use Information, Visual Observation	Municipal Staff, GIS Maps	Land Use, Municipal Staff	GIS and Storm System Maps	Other	Score	Priority Ranking
Scor	ring Criteria	Yes = 3 (Problem Catchment) No = 0	Yes = 3 No = 0	Frequent = 3 Occasional = 2 None = 0	Poor = 3 Fair = 2 Good = 0	High = 3 Medium = 2 Low = 1	High = 3 Medium = 2 Low = 1	Yes = 3 No = 0	Yes = 3 No = 0	Yes = 3 No = 0	TBD		
4000-00- 6+R11	Connecticut River	0	0	0	3	0	0	0	0	0	Urbanized Area IC = >11 to 84% TMDL	3	Low Priority
4006-00-2- R7	Salmon Brook	0	0	0	3	0	0	0	0	0	Urbanized Area	3	Low Priority
4006-13-1	Salmon Brook	0	0	0	0	2	1	0	0	0	Urbanized Area IC = >11 to 84%	3	Low Priority
1006-09-2- R3	Salmon Brook	3	0	0	0	2	2	1	0	3	Urbanized Area IC = >11 to 84%	11	Problem
1006-12-1	Salmon Brook	0	0	0	0	1	2	0	0	0	Urbanized Area IC = >11 to 84%	3	Low Priority
1006-11-1- .3	Salmon Brook	0	0	0	0	1	2	0	0	0	Urbanized Area IC = >11 to 84%	3	Low Priority
1006-11-1- .1	Salmon Brook	0	0	0	0	1	2	0	0	0	Urbanized Area IC = >11 to 84%	3	Low Priority
1006-00-2- R6	Salmon Brook	3	0	0	0	2	2	3	0	3	Urbanized Area IC = >11 to 84%	13	Problem
1006-06-1	Salmon Brook	0	0	0	0	1	2	0	0	0	Urbanized Area IC = >11 to 84%	3	Low Priority
1006-00-2- .1	Salmon Brook	0	0	0	0	1	2	0	0	0	Urbanized Area IC = >11 to 84%	3	Low Priority
1000-00- 5+R12	Connecticut River	3	0	0	3	3	2	3	0	0	Urbanized Area TMDL	11	Problem
1007-00-1	Hubbard Brook	0	0	0	0	3	2	3	0	0	Urbanized Area IC = >11 to 84%	8	Medium Priority
4006-00-2- R5	Salmon Brook	0	0	0	0	2	2	0	0	0	Urbanized Area IC = >11 to 84%	4	Low Priority
1006-00-2- R4	Salmon Brook	0	0	0	0	1	2	0	3	0	Urbanized Area IC = >11 to 84%	6	Medium Priority
1006-00-2- R3	Salmon Brook	0	0	0	0	1	2	0	0	0	Urbanized Area IC = >11 to 84%	3	Low Priority
4006-00-2- R2	Salmon Brook	0	0	0	0	1	2	0	0	0	Urbanized Area IC = >11 to 84%	3	Low Priority
4006-02-1- .1	Salmon Brook	0	0	0	0	1	2	0	3	0	Urbanized Area IC = >11 to 84%	6	Medium Priority

Catchment ID (CTDEEP Local Basin ID#)	Receiving Water	Previous Screening Results Indicate Likely Sewer Input? 1	Discharging to Area of Concern to Public Health? 2	Frequency of Past Discharge Complaints	Receiving Water Quality <sup>3</sup>	Density of Generating Sites <sup>4</sup>	Age of Development/Infrastructure 5	Historic Combined Sewers or Septic? <sup>6</sup>	Aging Septic? <sup>7</sup>	Culverted Streams? 8	Additional Characteristics		
Inform	ation Source	Catchment inspections and sample results	GIS Maps	Municipal Staff	Impaired Waters List	Land Use/GIS Maps, Aerial Photography	Land Use Information, Visual Observation	Municipal Staff, GIS Maps	Land Use, Municipal Staff	GIS and Storm System Maps	Other	Score	Priority Ranking
Scori	ing Criteria	Yes = 3 (Problem Catchment) No = 0	Yes = 3 No = 0	Frequent = 3 Occasional = 2 None = 0	Poor = 3 Fair = 2 Good = 0	High = 3 Medium = 2 Low = 1	High = 3 Medium = 2 Low = 1	Yes = 3 No = 0	Yes = 3 No = 0	Yes = 3 No = 0	TBD		
4006-01-1-	Salmon Brook	0	0	0	0	1	2	0	3	0	Urbanized Area	6	Medium
L1											IC = >11 to 84%		Priority
4009-04-1	Roaring Brook	0	0	0	0	0	2	0	3	0	Urbanized Area IC = >11 to 84%	5	Low Priority
4007-00-1- L3	Hubbard Brook	0	0	0	0	2	2	0	0	0	Urbanized Area IC = >11 to 84%	4	Low Priority
4007-00-1- L2	Hubbard Brook	0	0	0	0	2	2	3	1	0	Urbanized Area IC = >11 to 84%	8	Medium Priority
4007-01-1	Hubbard Brook	0	0	0	0	0	2	3	0	0	Urbanized Area IC = >11 to 84%	5	Low Priority
4006-04-1	Salmon Brook	0	0	0	0	0	2	0	3	0	Urbanized Area IC = >11 to 84%	5	Low Priority
4006-04-1- L1	Salmon Brook	0	0	0	0	0	2	0	3	0	Urbanized Area IC = >11 to 84%	5	Low Priority
4007-00-2- R1	Hubbard Brook	0	0	0	0	0	2	3	0	0	Urbanized Area	5	Low Priority
4007-00-3- R1	Hubbard Brook	0	0	0	0	0	2	3	0	0	Urbanized Area IC = >11 to 84%	5	Low Priority
4007-00-3- R2	Hubbard Brook	0	0	0	0	0	0	0	0	0	Urbanized Area	0	Low Priority
4007-02-2- R1	Hubbard Brook	0	0	0	0	1	2	3	0	0	Urbanized Area IC = >11 to 84%	6	Medium Priority
4007-03-1	Hubbard Brook	0	0	0	0	0	2	3	0	0	Urbanized Area IC = >11 to 84%	5	Low Priority
4007-04-1	Hubbard Brook	0	0	0	0	0	2	0	3	0	Urbanized Area IC = >11 to 84%	5	Low Priority
4007-02-1	Hubbard Brook	0	0	0	0	0	2	0	3	0	Urbanized Area IC = >11 to 84%	5	Low Priority
4007-04-1- L1	Hubbard Brook	0	0	0	0	0	2	0	3	0	Urbanized Area IC = >11 to 84%	5	Low Priority
4009-00-3- R5	Roaring Brook	0	0	0	0	1	2	3	3	0	Urbanized Area IC = >11 to 84%	9	Problem
4009-00-3- L6	Roaring Brook	0	0	0	0	0	2	0	3	0	Urbanized Area IC = >11 to 84%	5	Low Priority
4000-00- 6+R12	Connecticut River	0	3	0	3	0	0	0	0	0	Urbanized Area TMDL	6	Medium Priority

Catchment ID (CTDEEP Local Basin ID#)	Receiving Water	Previous Screening Results Indicate Likely Sewer Input? 1	Discharging to Area of Concern to Public Health? <sup>2</sup>	Frequency of Past Discharge Complaints	Receiving Water Quality <sup>3</sup>	Density of Generating Sites <sup>4</sup>	Age of Development/ Infrastructure 5	Historic Combined Sewers or Septic? <sup>6</sup>	Aging Septic? <sup>7</sup>	Culverted Streams? 8	Additional Characteristics		
Inform	ation Source	Catchment inspections and sample results	GIS Maps	Municipal Staff	Impaired Waters List	Land Use/GIS Maps, Aerial Photography	Land Use Information, Visual Observation	Municipal Staff, GIS Maps	Land Use, Municipal Staff	GIS and Storm System Maps	Other	Score	Priority Ranking
Scor	ing Criteria	Yes = 3 (Problem Catchment) No = 0	Yes = 3 No = 0	Frequent = 3 Occasional = 2 None = 0	Poor = 3 Fair = 2 Good = 0	High = 3 Medium = 2 Low = 1	High = 3 Medium = 2 Low = 1	Yes = 3 No = 0	Yes = 3 No = 0	Yes = 3 No = 0	TBD		
4000-00- 6+R13	Connecticut River	0	3	0	3	0	0	0	0	0	Urbanized Area TMDL	6	Medium Priority
4000-00- 6+R15	Connecticut River	0	3	0	3	0	0	0	0	0	Urbanized Area IC = >11 to 84% TMDL	6	Medium Priority
4000-00- 6+R16	Connecticut River	0	3	0	3	0	2	0	3	0	Urbanized Area TMDL	5	Low Priority
4009-00-2- L4	Roaring Brook	3	3	2	0	1	2	0	3	0	Urbanized Area IC = >11 to 84% TMDL	14	Problem Angus Pond
4009-00-2- R3	Roaring Brook	0	0	0	0	1	2	0	3	0	Urbanized Area IC = >11 to 84%	6	Medium Priority
4009-00-2- R2	Roaring Brook	0	3	0	0	1	2	0	0	0	Urbanized Area	6	Medium Priority
4009-05-2- R2	Roaring Brook	0	0	0	0	0	2	0	0	0	Urbanized Area IC = >11 to 84%	2	Low Priority
4009-05-2- R1	Roaring Brook	0	0	0	0	0	2	0	0	0	Urbanized Area IC = >11 to 84%	2	Low Priority
4009-00-3- R1	Roaring Brook	0	0	0	0	0	2	0	3	0	Urbanized Area IC = >11 to 84%	5	Low Priority
4009-00-3- R2	Roaring Brook	0	0	0	0	2	2	0	3	0	Urbanized Area IC = >11 to 84%	7	Medium Priority
4008-00-2- L1	Cold Brook	0	0	0	0	0	2	0	0	0	Urbanized Area IC = >11 to 84%	2	Low Priority
4000-00- 6+R14	Connecticut River	0	0	2	3	0	2	0	0	0	Urbanized Area TMDL	4	Low Priority
4000-00- 6+R16	Connecticut River	3	0	2	3	1	2	0	3	0	Urbanized Area TMDL	11	Problem
4000-00- 6+R17	Connecticut River	0	0	0	3	0	2	0	0	0	Urbanized Area TMDL	5	Low Priority
4000-00- 6+R18	Connecticut River	0	0	0	3	1	2	0	0	0	Urbanized Area TMDL	6	Medium Priority
4000-30-1	Connecticut River	0	0	0	3	0	2	0	3	0	Urbanized Area TMDL	8	Medium Priority

Catchment ID (CTDEEP Local Basin ID#)	Receiving Water	Previous Screening Results Indicate Likely Sewer Input? 1	Discharging to Area of Concern to Public Health? <sup>2</sup>	Frequency of Past Discharge Complaints	Receiving Water Quality <sup>3</sup>	Density of Generating Sites <sup>4</sup>	Age of Development/ Infrastructure 5	Historic Combined Sewers or Septic? <sup>6</sup>	Aging Septic? <sup>7</sup>	Culverted Streams? 8	Additional Characteristics		
Inform	nation Source	Catchment inspections and sample results	GIS Maps	Municipal Staff	Impaired Waters List	Land Use/GIS Maps, Aerial Photography	Land Use Information, Visual Observation	Municipal Staff, GIS Maps	Land Use, Municipal Staff	GIS and Storm System Maps	Other	Score	Priority Ranking
Scor	ing Criteria	Yes = 3 (Problem Catchment) No = 0	Yes = 3 No = 0	Frequent = 3 Occasional = 2 None = 0	Poor = 3 Fair = 2 Good = 0	High = 3 Medium = 2 Low = 1	High = 3 Medium = 2 Low = 1	Yes = 3 No = 0	Yes = 3 No = 0	Yes = 3 No = 0	TBD		
4000-30-1- L1	Connecticut River	0	0	0	3	0	2	0	0	0	Urbanized Area TMDL	5	Low Priority
4000-35-1	Connecticut River	0	0	0	3	0	2	0	0	0	Urbanized Area TMDL	5	Low Priority
4006-02-1	Salmon Brook	0	0	0	0	0	0	0	0	0	Urbanized Area	0	Low Priority
4006-03-1	Salmon Brook	0	0	0	0	0	2	0	3	0	Urbanized Area	5	Low Priority
4007-00-1- L1	Hubbard Brook	0	0	0	0	0	2	0	0	0	Urbanized Area	2	Low Priority
4009-08-1	Roaring Brook	0	0	0	0	0	2	0	3	0	Urbanized Area	5	Low Priority
4009-00-2- R2	Roaring Brook	0	0	0	0	0	2	0	3	0	Urbanized Area	5	Low Priority
4009-00-2- R1	Roaring Brook	0	0	0	0	0	2	0	0	0	Urbanized Area	2	Low Priority
4009-03-1	Roaring Brook	0	0	0	0	0	2	0	0	0	Urbanized Area	2	Low Priority
4009-09-1	Roaring Brook	0	0	0	0	1	2	0	3	0	Urbanized Area	6	Medium Priority
4009-00-3- L5	Roaring Brook	0	0	0	0	0	2	0	3	0	Urbanized Area	5	Low Priority
4009-07-1	Roaring Brook	0	0	0	0	0	2	0	3	0	Urbanized Area	5	Low Priority
4009-05-1	Roaring Brook	0	0	0	0	0	2	0	3	0	Urbanized Area	5	Low Priority
4009-06-1	Roaring Brook	0	0	0	0	0	2	0	0	0	Urbanized Area	2	Low Priority
4009-00-3- R4	Roaring Brook	0	0	0	0	0	0	0	0	0	Urbanized Area	0	Low Priority
4009-00-2- L3	Roaring Brook	0	0	0	0	0	0	0	0	0	Urbanized Area	0	Low Priority
4009-00-2- L2	Roaring Brook	0	0	0	0	0	0	0	0	0	Urbanized Area	0	Low Priority
4008-00-2- L2	Cold Brook	0	0	0	0	0	2	0	3	0	Urbanized Area	5	Low Priority
4008-03-1	Cold Brook	0	0	0	0	0	2	0	0	0	Urbanized Area	2	Low Priority
4008-01-2- R1	Cold Brook	0	0	0	0	0	2	0	0	0	Urbanized Area	2	Low Priority
4707-06-1- L1	Blackledge River	0	0	0	0	0	2	0	0	0	Urbanized Area	2	Low Priority
4707-04-1	Blackledge River	0	0	0	0	0	2	0	0	0	Urbanized Area	2	Low Priority

Table 8-1. Outfall Catchment System Vulnerability Factor (SVF) Inventory

Catchment		1	2	3	4	5	6	7	8	9	10	11	12
ID (CTDEEP Local Basin ID #)	Receiving Water	History of SSOs	Common or Twin Invert Manholes	Common Trench Construction	Storm/Sanitary Crossings (Sanitary Above)	Sanitary Lines with Underdrains	Inadequate Sanitary Level of Service	Areas Formerly Served by Combined Sewers	Sanitary Infrastructure Defects	SSO Potential In Event of System Failures	Sanitary and Storm Drain Infrastructure >40 years Old	Septic with Poor Soils or Water Table Separation	History of BOH Actions Addressing Septic Failure
4000-00- 6+R11	Connecticut River	No	No	No	No	No	No	No	No	No	No	No	No
4006-00-2- R7	Salmon Brook	No	No	No	No	No	No	No	No	No	No	No	No
4006-13-1	Salmon Brook	No	No	No	No	No	No	No	No	No	Yes	No	No
4006-09-2- R3	Salmon Brook	No	No	No	No	No	No	No	No	No	Yes	No	No
4006-12-1	Salmon Brook	No	No	No	No	No	No	No	No	No	No	No	No
4006-11-1- L3	Salmon Brook	No	No	No	No	No	No	No	No	No	No	No	No
4006-11-1- L1	Salmon Brook	No	No	No	No	No	No	No	No	No	Yes	No	No
4006-00-2- R6	Salmon Brook	No	No	No	No	No	No	Yes	No	Yes	Yes	No	No
4006-06-1	Salmon Brook	No	No	No	No	No	No	No	No	No	Yes	No	No
4006-00-2- L1	Salmon Brook	No	No	No	No	No	No	No	No	Yes	Yes	No	No
4000-00- 6+R12	Connecticut River	No	No	No	No	No	No	Yes	No	No	Yes	No	No
4007-00-1	Hubbard Brook	No	No	No	No	No	No	Yes	No	Yes	Yes	No	No
4006-00-2- R5	Salmon Brook	No	No	No	No	No	No	No	No	Yes	Yes	No	No
4006-00-2- R4	Salmon Brook	No	No	No	No	No	No	No	No	Yes	Yes	No	Yes
4006-00-2- R3	Salmon Brook	No	No	No	No	No	No	No	No	Yes	Yes	No	Yes
4006-00-2- R2	Salmon Brook	No	No	No	No	No	No	No	No	Yes	Yes	No	No
4006-02-1- L1	Salmon Brook	No	No	No	No	No	No	No	No	No	No	Yes	Yes
4006-01-1- L1	Salmon Brook	No	No	No	No	No	No	No	No	No	No	Yes	Yes
4009-04-1	Roaring Brook	No	No	No	No	No	No	No	No	No	No	Yes	Yes
4007-00-1- L3	Hubbard Brook	No	No	No	No	No	No	No	No	Yes	Yes	No	No
4007-00-1- L2	Hubbard Brook	No	No	No	No	No	No	Yes	No	Yes	No	Yes	No

Catchment		1	2	3	4	5	6	7	8	9	10	11	12
ID (CTDEEP Local Basin ID #)	Receiving Water	History of SSOs	Common or Twin Invert Manholes	Common Trench Construction	Storm/Sanitary Crossings (Sanitary Above)	Sanitary Lines with Underdrains	Inadequate Sanitary Level of Service	Areas Formerly Served by Combined Sewers	Sanitary Infrastructure Defects	SSO Potential In Event of System Failures	Sanitary and Storm Drain Infrastructure >40 years Old	Septic with Poor Soils or Water Table Separation	History of BOH Actions Addressing Septic Failure
4007-01-1	Hubbard Brook	Yes	No	No	No	No	No	Yes	No	Yes	Yes	No	No
4006-04-1	Salmon Brook	No	No	No	No	No	No	No	No	No	No	No	Yes
4006-04-1- L1	Salmon Brook	No	No	No	No	No	No	No	No	No	No	No	Yes
4007-00-2- R1	Hubbard Brook	No	No	No	No	No	No	No	No	Yes	Yes	No	No
4007-00-3- R1	Hubbard Brook	No	No	No	No	No	No	No	No	No	Yes	No	No
4007-00-3- R2	Hubbard Brook	No	No	No	No	No	No	No	No	No	No	No	No
4007-02-2- R1	Hubbard Brook	No	No	No	No	No	No	Yes	No	Yes	Yes	No	No
4007-03-1	Hubbard Brook	No	No	No	No	No	No	Yes	No	Yes	No	No	No
4007-04-1	Hubbard Brook	No	No	No	No	No	No	No	No	No	No	No	Yes
4007-02-1	Hubbard Brook	No	No	No	No	No	No	No	No	Yes	No	No	Yes
4007-04-1- L1	Hubbard Brook	No	No	No	No	No	No	No	No	Yes	No	No	Yes
4009-00-3- R5	Roaring Brook	No	No	No	No	No	No	Yes	No	Yes	Yes	No	Yes
4009-00-3- L6	Roaring Brook	No	No	No	No	No	No	No	No	No	No	No	Yes
4000-00- 6+R12	Connecticut River	No	No	No	No	No	No	No	No	No	No	No	No
4000-00- 6+R13	Connecticut River	No	No	No	No	No	No	No	No	No	No	No	No
4000-00- 6+R15	Connecticut River	No	No	No	No	No	No	No	No	No	No	No	No
4000-00- 6+R16	Connecticut River	No	No	No	No	No	No	No	No	No	No	No	Yes
4009-00-2- L4	Roaring Brook	No	No	No	No	No	No	No	No	No	Yes	Yes	Yes
4009-00-2- R3	Roaring Brook	No	No	No	No	No	No	No	No	Yes	Yes	No	Yes
4009-00-2- R2	Roaring Brook	No	No	No	No	No	No	No	No	No	Yes	No	No
4009-05-2- R2	Roaring Brook	No	No	No	No	No	No	No	No	No	No	No	Yes
4009-05-2- R1	Roaring Brook	No	No	No	No	No	No	No	No	No	No	No	No

Catchment		1	2	3	4	5	6	7	8	9	10	11	12
ID (CTDEEP Local Basin ID #)	Receiving Water	History of SSOs	Common or Twin Invert Manholes	Common Trench Construction	Storm/Sanitary Crossings (Sanitary Above)	Sanitary Lines with Underdrains	Inadequate Sanitary Level of Service	Areas Formerly Served by Combined Sewers	Sanitary Infrastructure Defects	SSO Potential In Event of System Failures	Sanitary and Storm Drain Infrastructure >40 years Old	Septic with Poor Soils or Water Table Separation	History of BOH Actions Addressing Septic Failure
4009-00-3- R1	Roaring Brook	No	No	No	No	No	No	No	No	No	No	No	Yes
4009-00-3- R2	Cold Brook	No	No	No	No	No	No	No	No	No	Yes	No	Yes
4008-00-2- L1	Cold Brook	No	No	No	No	No	No	No	No	No	Yes	No	Yes
4000-00- 6+R14	Connecticut River	No	No	No	No	No	No	No	No	No	No	No	No
4000-00- 6+R16	Connecticut River	No	No	No	No	No	No	No	No	No	No	No	Yes
4000-00- 6+R17	Connecticut River	No	No	No	No	No	No	No	No	No	No	No	No
4000-00- 6+R18	Connecticut River	No	No	No	No	No	No	No	No	No	No	No	No
4000-30-1	Connecticut River	No	No	No	No	No	No	No	No	No	No	No	Yes
4000-30-1- L1	Connecticut River	No	No	No	No	No	No	No	No	No	No	No	No
4000-35-1	Connecticut River	No	No	No	No	No	No	No	No	No	No	No	No
4006-02-1	Salmon Brook	No	No	No	No	No	No	No	No	No	No	No	No
4006-03-1	Salmon Brook	No	No	No	No	No	No	No	No	Yes	No	No	Yes
4007-00-1- L1	Hubbard Brook	No	No	No	No	No	No	No	No	No	No	No	No
4009-08-1	Roaring Brook	No	No	No	No	No	No	No	No	No	No	No	Yes
4009-00-2- R2	Roaring Brook	No	No	No	No	No	No	No	No	No	No	No	Yes
4009-00-2- R1	Roaring Brook	No	No	No	No	No	No	No	No	No	No	No	No
4009-03-1	Roaring Brook	No	No	No	No	No	No	No	No	No	No	No	No
4009-09-1	Roaring Brook	No	No	No	No	No	No	No	No	No	No	No	Yes
4009-00-3- L5	Roaring Brook	No	No	No	No	No	No	No	No	No	No	No	Yes
4009-07-1	Roaring Brook	No	No	No	No	No	No	No	No	No	No	No	Yes
4009-05-1	Roaring Brook	No	No	No	No	No	No	No	No	No	No	No	Yes
4009-06-1	Roaring Brook	No	No	No	No	No	No	No	No	No	No	No	No

Catchment ID (CTDEEP Local Basin ID #)	Receiving Water	1 History of SSOs	2 Common or Twin Invert Manholes	3 Common Trench Construction	4 Storm/Sanitary Crossings (Sanitary Above)	5 Sanitary Lines with Underdrains	6 Inadequate Sanitary Level of Service	7 Areas Formerly Served by Combined Sewers	8 Sanitary Infrastructure Defects	9 SSO Potential In Event of System Failures	10 Sanitary and Storm Drain Infrastructure >40 years Old	11 Septic with Poor Soils or Water Table Separation	12 History of BOH Actions Addressing Septic Failure
4009-00-3-	Roaring	No	No	No	No	No	No	No	No	No	No	No	Yes
R4	Brook												
4009-00-2- L3	Roaring Brook	No	No	No	No	No	No	No	No	No	No	No	No
4009-00-2- L2	Roaring Brook	No	No	No	No	No	No	No	No	No	No	No	No
4008-00-2- L2	Cold Brook	No	No	No	No	No	No	No	No	No	No	No	Yes
4008-03-1	Cold Brook	No	No	No	No	No	No	No	No	No	No	No	No
4008-01-2- R1	Cold Brook	No	No	No	No	No	No	No	No	No	No	No	No
4707-06-1- L1	Blackledge River	No	No	No	No	No	No	No	No	No	No	No	No
4707-04-1	Blackledge River	No	No	No	No	No	No	No	No	No	No	No	No
4707-00-2- L3	Blackledge River	No	No	No	No	No	No	No	No	No	No	No	No
4707-00-2- R4	Blackledge River	No	No	No	No	No	No	No	No	No	No	No	No
4707-06-1	Blackledge River	No	No	No	No	No	No	No	No	No	No	No	No
4707-06-1- L2	Blackledge River	No	No	No	No	No	No	No	No	No	No	No	No

#### **Presence/Absence Evaluation Criteria:**

- 1. History of SSOs, including, but not limited to, those resulting from wet weather, high water table, or fat/oil/grease blockages
- 2. Common or twin-invert manholes serving storm and sanitary sewer alignments
- 3. Common trench construction serving both storm and sanitary sewer alignments
- 4. Crossings of storm and sanitary sewer alignments where the sanitary system is shallower than the storm drain system
- 5. Sanitary sewer alignments known or suspected to have been constructed with an underdrain system
- 6. Inadequate sanitary sewer level of service (LOS) resulting in regular surcharging, customer back-ups, or frequent customer complaints
- 7. Areas formerly served by combined sewer systems
- 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. Sewer pump/lift stations, siphons, or known sanitary sewer restrictions where power/equipment failures or blockages could readily result in SSOs
- 10. Any sanitary sewer and storm drain infrastructure greater than 40 years old
- 11. Widespread code-required septic system upgrades required at property transfers (indicative of inadequate soils, water table separation, or other physical constraints of the area rather that poor owner maintenance)
- 12. History of multiple health department 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)