MS4 General Permit
Town of Glastonbury, Connecticut 2020 Annual Report
Existing MS4 Permittee
Permit Number GSM 000057
January 1, 2020 – December 31, 2020

Primary MS4 Contact:
Daniel A. Pennington, P.E., Town Engineer/ Manager of Physical Services (860)652-7736
Email: daniel.pennington@glastonbury-ct.gov

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, 2020 to December 31, 2020.

Part I: Summary of Minimum Control Measure Activities

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

1.1 BMP Summary

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
1-1 Implement public education and outreach	Ongoing/In Progress	1. Continued updates to Stormwater Pollution Prevention page located on the Town of Glastonbury's Engineering Division web site as required. 2. "Long Island Sound Study" brochures displayed at various departments at Town Hall and Welles Turner Memorial Library.	Compliance with Section 6(a)(1) of the current General Permit	Engineering Division	July 1, 2018	1. Continuously ongoing throughout the duration of the permit. 2. Continuously ongoing throughout the duration of the permit.	1. Web page has been updated to provide residents/business owners/developers with Stormwater Pollution Awareness and links to various brochures related to contributing bacteria pollutants. https://www.glastonbury-ct.gov/departments/department-directory-a-h/engineering/stormwater-pollution-prevention

1-2 Address education/ outreach for pollutants of concern*	Currently/In Progress	1. Included bacteria related information on Town web site and other public ed. Materials. 2. 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. 3. Distributed pet waste brochures with Dog Licenses.	Compliance with Section 6(a)(1)(C)(iii) of the current General Permit	Engineering Division	July 1, 2018	1. Continuously ongoing throughout the duration of the permit.	1. Added links to pet waste management and septic system maintenance to website. https://www.glastonbury-ct.gov/departments/department-directory-a-h/engineering/stormwater-pollution-prevention/stormwater-pollution-prevention-for-residents-pet-owners https://www.glastonbury-ct.gov/departments/department-directory-a-h/health/subsurface-sewage/septic-system-basics-for-homeowners
Additional BMP: **1-3 Public Education and Outreach**	Ongoing/Yearly	1. Town Staff and Regional Group participated in the Salmon River Watershed Partnership	Non-profit group consisting of 10 towns preserving the integrity of the 96,000 Acre Salmon River Watershed through education and outreach	Community Development and Environmental Department/ Tom Mocko-Environmental Planner	N/A	1. Yearly Membership and town staff representation	The 2020 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, provide tracking of the number of brochures distributed at town facilities for incorporation into annual reports.
1-2. Continue distribution of printed pet waste management brochures in conjunction with dog license renewals. Continue Health Department information to homeowners related to septic systems/maintenance in the year 2020.
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.

1.3 Details of activities implemented to educate the community on stormwater

Program Element/Activity	Audience (and number of people reached)	Topic(s) covered	Pollutant of Concern addressed (if applicable)	Responsible dept. or partner org.
Stormwater Pollution Prevention page located on the Town of Glastonbury's Engineering Division web site	Residents/Business Owners/Developers	Web page contains stormwater pollution prevention awareness information and web brochures	Phosphorus, Nitrogen, and Bacteria	Engineering Division
"Long Island Sound Study" brochures available at various town departments at Town Hall and Welles Turner Memorial Library	Town Hall and Library were generally closed to the public in 2020 due to COVID, therefore little to no people were reached through this mechanism this year.	Vehicle washing, pet waste, fertilizing, and leaking oil.	Phosphorus, Nitrogen, and Bacteria	Engineering Division, Building Department, Library
Pet waste brochure distributed with new Dog Licenses by Town Clerks Office	Approximately 281 brochures distributed in 2020 by mail with new dog licenses.	Pet Waste	Bacteria	Engineering Division / Town Clerk
Continued staff membership and involvement in the Salmon Brook Watershed Partnership	Students, Watershed Community	Watershed protection, Clean-ups, Student groups/Membership collaborative studies	Watershed Protection	Town of Glastonbury Environmental Planner and the Salmon River Watershed Partnership

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

2.1 BMP Summary

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
2-1 Continue availability of the Final Stormwater Management Plan to the Public.	Ongoing	No activity.	Compliance with Section 4(d)(2) and Section 6(a)(2)(A) of the General Permit	Engineering Division	Apr 3, 2017	May 8, 2017	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	In Progress	This Annual Report was publicly noticed and posted to the website as per current DEEP requirements.	Compliance with Section 4(d)(2) and Section 6(a)(2)(A) of the General Permit	Engineering Division	April 1, 2021	February 3, 2021 (Notice on Website) February 15, 2021 (draft report posted) April 1, 2021 (submitted to DEEP)	The draft 2020 Annual Report was posted on the Town of Glastonbury's website on February 15, 2021.
Additional BMP: **2-3 Public Participation**	Ongoing/Yearly	Participated in the Capitol Region East Operating Committee (CREOC) Household Hazardous Waste Collection days.	Allows residents to properly dispose of Household Hazardous Wastes	Sanitation/Refuse Division	N/A	August 22, 2020 September 19, 2020 October 31, 2020 November 14, 2020	
Additional BMP: **2-4 Public Participation**	Ongoing/Yearly	Town Staff participated in the Salmon River Watershed Partnership.	Preserve the integrity of the 96,000 Acre Salmon River Watershed	Community Development and Environmental Department/ Tom Mocko-Environmental Planner	N/A	Yearly Membership and town staff representation	The 2020 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.

2-7. Continued staff membership and participation in the Salmon River Watershed Partnership.

2.3 Public Involvement/Participation reporting metrics

Metrics	Implemented	Date	Posted
Availability of the Stormwater Management Plan to the public	Yes	May 8, 2017	https://www.glastonbury-ct.gov/departments/department-directory-a-h/engineering/stormwater-management-plan
Availability of this Annual Report announced to public Draft Annual Report published to Town Website Final Annual Report published to Town Website	Yes Yes Yes	February 3, 2021 February 15, 2021 April 1, 2021	https://www.glastonbury-ct.gov/departments/department-directory-a-h/engineering/stormwater-management-plan
Town Staff and Regional Group participation in the Salmon River Watershed Partnership	Yes	Yearly membership and participation	http://www.salmonriverct.org/

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

3.1 BMP Summary

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
3-1 Develop written IDDE program	Completed	No activity.	Develop written plan of IDDE program	Engineering Division	July 1, 2018	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	In Progress	No activity.	Develop an updated the GIS Datasets and maps of all MS4 stormwater outfalls located within the priority areas.	Engineering Division	July 1, 2019	Completed	
3-3 Implement citizen reporting program	Completed	No activity.	Implement and track citizen reporting of stormwater pollution	Engineering Division	Currently Active	Previously Completed	Citizen reporting is available and can be found at: https://glastonburyct.qscend.com/311/request/add No pollution related complaints have been received via this system to date.
3-4 Establish legal authority to prohibit illicit discharges	Completed in 2010	No activity.	Establish legal authority to prohibit illicit discharges	Engineering Division	Currently Active	Previously Completed	Illicit Discharge and Connection Stormwater Ordinance is located in Chapter 19, Article III, Sections 19-251 thru 19-275. https://www.glastonbury-ct.gov/departments/department-directory-i-z/town-clerk/glastonbury-town-charter-code-of-ordinances
3-5 Develop record keeping system for IDDE tracking	In Progress	IDDE's have been tracked using a spreadsheet.	Develop record keeping system for IDDE tracking	Engineering Division	July 1, 2017	Ongoing throughout the permit duration	No IDDE's reported or identified within this reporting year.

3-6 Address IDDE in areas with pollutants of concern	In Progress	No IDDE's reported or identified within this reporting year.	Address IDDE in areas with pollutants of concern	Engineering Division	Not specified	Ongoing throughout the permit duration	No IDDE's reported or identified within this reporting year.

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

Date of Report	Location / suspected source	Response taken
No Citizen Reports in 2017, 2018, 2019 or 2020.	N/A	N/A

3.4 Provide a record of illicit discharges occurring during the reporting period and SSOs occurring July 2012 through end of reporting period using the following table.

Location (Lat long/ street crossing /address and receiving water)	**Date and duration of occurrence**	**Discharge to MS4 or surface water**	**Estimated volume discharged**	**Known or suspected cause / Responsible party**	**Corrective measures planned and completed** (include dates)	**Sampling data** (if applicable)
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

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.

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

Over the term of the General Permit since its inception in 2004, One (1) report of and illicit connection was logged from our Public Works department. The illicit connection was removed and reconnected to the sanitary sewer system by the property owner in a timely fashion. The Town of Glastonbury Engineering Division is responsible for maintaining a spreadsheet to track illicit detection and connections as part of this permit.

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

Location and nature of structure with failing septic systems	Actions taken to respond to and address the failures	Impacted waterbody or watershed, if known
Angus Pond Residential Septic Systems within the drainage basin	Within the Angus Pond drainage basin Health Department records indicate that 0 septic system repairs or replacements were done in 2020. 3 septic system repairs or replacements were done in 2019, 2 septic system repairs or replacements were done in 2018 and 11 repairs and or replacements were done between 2012 to 2017. A total of 53 repairs or replacements occurred between 1988 to 2017 with 3 properties having 2 repairs.	Angus Pond DEEP Basin ID: 4009-00-2-L4
Connecticut River Residential Septic Systems within the drainage basin	Within the Connecticut River drainage basin Health Department records indicate that 3 septic system repairs or replacements were done in 2020. 1 repair or replacement of an existing septic system was made in 2019, 0 repairs or replacements of existing septic systems were made in 2018 and 12 repairs and or replacement were done between 2012 to 2017. A Total of 45 repairs occurred between 1988 to 2017 with 5 properties having 2 repairs.	Connecticut River DEEP Basin ID: 4009-00-6-R16

3.7 IDDE reporting metrics

Metrics	
Estimated or actual number of MS4 outfalls	Approximately **976±** total outfalls
Estimated or actual number of interconnections	**28** 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**

Dry weather screening of all High and Low priority outfalls complete	23 outfalls to bacteria impaired waters (Angus Pond and CT River) were screened and tested by a state certified laboratory for bacteria on April 13, 2020, April 24, 2020, and June 11, 2020.
Catchment investigations complete	0
Estimated percentage of MS4 catchment area investigated	0

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

Training for Engineering staff conducting IDDE inspections was conducted on December 4, 2017 in preparation for dry weather screening of priority outfalls to impaired waters. Staff reviewed relevant portions of the IDDE Guidance Manual developed by the Center for Watershed Protection. Additional training for outfall inspections will be performed prior to the next round of testing and inspections. Additional training was provided on 3/2/2018 for kick-off of detention pond inspection work. No additional IDDE training provided in 2019 or 2020 as active IDDE work was not underway.

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

4.1 BMP Summary

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
4-1 Implement, upgrade, and enforce land use regulations or other legal authority to meet requirements of MS4 general permit	Completed/Ongoing	All proposed development projects have been 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.	Community Development and Environmental Department Engineering Division Building Inspection/Zoning Enforcement	July 1, 2019	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. These regulations are consistent with the requirements of the MS4 general permit.
4-2 Develop/Implement plan for interdepartmental coordination in site plan review and approval	Completed/Ongoing	All proposed development plans have been reviewed by various departments for conformance to the above referenced regulations.	Develop/Implement plan for interdepartmental coordination in site plan review and approval.	Community Development and Environmental Planning Engineering Division Building Inspection/Zoning Enforcement Health Department Police Department Fire Department	July 1, 2017	Continued implementation	See Stormwater Management Plan for additional details.
4-3 Review site plans for stormwater quality concerns	Completed/Ongoing	All proposed development plans have been reviewed for conformance with stormwater quality best management practices.	Review site plans for stormwater quality concerns.	Engineering Division Environmental Planning	July 1, 2017	Continued implementation	See Stormwater Management Plan for additional details.

4-4 Conduct site inspections	Completed/Ongoing	E&S inspections and enforcement performed by Office of Community Development staff.	Conduct site inspections	Community Development and Environmental Planning	July 1, 2017	Continued implementation	The Town of Glastonbury Office of Community Development (OCD) has performed construction site inspections and enforcement actions as required to ensure the adequacy of the installation, maintenance, operation, and repair of all soil erosion and sediment control measures during construction.
4-5 Implement procedure to allow public comment on site development	Completed/Ongoing	Public input is a regular part of all development application approvals.	Implement procedure to allow public comment on site development	Community Development and Environmental Planning	July 1, 2017	Continued implementation	See Stormwater Management Plan for additional details.
4-6 Implement procedure to notify developers about DEEP construction stormwater permit	Completed/Ongoing	Notifications to developers have been completed as part of conditions of approval for local regulatory permits.	Implement procedure to notify developers about DEEP construction stormwater permit	Community Development and Environmental Planning Engineering Division	July 1, 2017	Continued implementation	
Additional BMP: **4-7 Engineering Division plan review stormwater compliance checklist**	Completed/Ongoing	Reviewed developments for compliance with our checklist.	Standardize plan review related to stormwater compliance	Engineering Division	2015	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

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
5-1 Establish and/or update legal authority and guidelines regarding LID and runoff reduction in site development planning	In progress	No activity.	Establish and/or update legal authority and guidelines regarding LID and runoff reduction in site development planning	Community Development and Environmental Planning Engineering Division	July 1, 2021	In progress to meet due date of July 1, 2021.	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	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	Community Development and Environmental Planning Engineering Division	July 1, 2019	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	July 1, 2019	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 11 detention ponds in 2020 to restore proper function.	Implement long-term maintenance plan for stormwater basins and treatment structures	Physical Services/Highway Division Parks Department Engineering Division	July 1, 2019	Underway, maintenance work is ongoing and is a long-term project.	

5-5 DCIA mapping	In progress	The Town of Glastonbury computed the DCIA for each sub-regional drainage basin area using data provided by DEEP along with the Sutherland Equations	DCIA mapping / calculation	Engineering Division	July 1, 2020	Completed.	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.
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	Not specified	Continuously ongoing throughout the duration of the permit.	For areas contributing to the Connecticut River and Angus Park Pond where bacteria is a Stormwater Pollutant of Concern and erosion or sedimentation problems are found during the annual inspections conducted under the long-term maintenance plan described in BMP 5.2, The Town of Glastonbury will prioritize those areas for the DCIA retrofit program 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. Continued review of legal authority and/ or other updates to the current 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

Metrics	
Baseline (2012) Directly Connected Impervious Area (DCIA)	1,067.40 Acres
DCIA disconnected (redevelopment plus retrofits)	DCIA disconnected (approved projects) Total to Date = 26.19 acres 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
Retrofits completed	101 acre drainage area (4.04 acres DCIA) disconnected under Dug Road / Tryon Street Drainage Project, WQC-201206157.
DCIA disconnected	2.5% 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 C for the Town of Glastonbury baseline DCIA calculation spreadsheet.

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

6.1 BMP Summary

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
6-1 Develop/implement formal employee training program	Completed/Ongoing	Parks Dept. help annual training on 2/14/2020. The Highway Department was unable to hold group training this year due to COVID19.	Develop/implement formal employee training program	Physical Services/Highway Division Parks Department	July 1, 2017	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	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.	July 1, 2018	Ongoing/In Progress	See Stormwater Management Plan for additional details.
6-3 Implement coordination with interconnected MS4s	In progress	No activity in the current reporting period.	Implement coordination with interconnected MS4s	Engineering Division	Not specified	In progress	The Town of Glastonbury will coordinate with operators of interconnected MS4s
6-4 Develop/implement program to control other sources of pollutants to the MS4	On going/In progress	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	Not specified	On going/In progress	Additional measures will be considered.

6-5 Evaluate additional measures for discharges to impaired waters*	In progress	No activity in the current reporting period.	Evaluate additional measures for discharges to impaired waters*	Engineering Division	Not specified	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	In progress/Ongoing	Tracking spreadsheet updated with developments approved in 2020.	Track projects that disconnect DCIA	Engineering Division	July 1, 2017	In progress	Based on current tracking statistics approximately 26 acres of DCIA will be disconnected as part of an approved project.
6-7 Implement infrastructure repair/rehab program	In progress	No activity in the current reporting period.	Implement infrastructure repair/rehab program	Engineering Division Physical Services/Highway Division	July 1, 2021	In progress to meet due date of July 1, 2021.	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	July 1, 2020	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	July 1, 2022	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	969 curb miles were swept n in 2020 and approximately 665 CY of material was collected and disposed of.	Develop/implement street sweeping program	Physical Services/Highway Division	July 1, 2017		

6-11 Develop/implement catch basin cleaning program	Ongoing	All catch basins were inspected annually for blocked grates and structural problems. Approximately 309 were cleaned as part of the annual paving program and based on locations where routine sediment buildup has been noted.	Develop/implement catch basin cleaning program	Physical Services/Highway Division	July 1, 2020	In progress to meet due date of July 1, 2020.	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 semiannual cleaning.
6-12 Develop/implement snow management practices	Ongoing	Approximately 8,514 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	July 1, 2018	In progress to meet due date of July 1, 2018.	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.

Extra space for describing above BMP activities, if needed:

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

6-1. Continued refinement and updates to the existing annual formal employee training program.
6-2. Continued implementation of MS4 property and operations maintenance.
6-3. Begin coordination with interconnected MS4s including ConnDOT.
6-4. Begin development and implementation of a program to control other sources of pollutants to the MS4.
6-5. Continue evaluation of additional measures for discharges to impaired waters*.
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 – No training due to COVID19. Parks Dept. staff – Training held on 2/14/2020
Street sweeping	
Curb miles swept	969 miles
Volume (or mass) of material collected	665 C.Y.
Catch basin cleaning	
Total catch basins in priority areas	6,373 ±
Total catch basins in MS4	6,772 ±
Catch basins inspected	6,772±
Catch basins cleaned	309
Volume (or mass) of material removed from all catch basins	160 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	2765 Tons Highway Dept. 194 Tons Parks Dept. (includes 4 tons bagged ice-melt for sidewalks).
Type(s) of deicing equipment used	Computerized Spreaders with ground speed control (Highway Dept. Only)
Lane-miles treated	8,514 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 of Glastonbury is in the process of refining its existing annual catch basin cleaning program to implement better ways of tracking the number of catch basins cleaned and quantities of material removed through the use of GIS software and field tablets.

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.

Describe plans for continuing the Retrofit program and how to achieve a goal of 1% DCIA disconnection in future years
As described above, a retrofit program has not been created at this time due to the fact that the town has met the goals of the MS4 permit through redevelopment projects. The need for a retrofit program will be evaluated each year based on progress toward DCIA disconnection goals and a program will be developed if the Town is not able to continue to achieve the goals of the program through redevelopment.

Part II: Impaired waters investigation and monitoring

1. Impaired waters investigation and monitoring program

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

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

1.2 Describe program status.

Discuss 1) the status of monitoring work completed, 2) a summary of the results and any notable findings, and 3) any changes to the Stormwater Management Plan based on monitoring results.
The only impacted waterways in Glastonbury are 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, 23 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. No follow up action has been taken on these additional lab test samples to date.

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

2.1 Screening data

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

Outfall ID	**Sample date**	**Parameter** (Nitrogen, Phosphorus, Bacteria, or Other pollutant of concern)	**Results**	**Name of Laboratory (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
NA25-3425	4/13/2020 9:47am	Bacteria	4,350 MPN/ 100 mls	Phoenix Environmental Laboratories, Inc.	Yes
TR30-10480	4/13/2020 10:46am	Bacteria	862 MPN/ 100 mls	Phoenix Environmental Laboratories, Inc.	Yes

TR30-11044	4/13/2020 11:04am	Bacteria	10 MPN/ 100 mls	Phoenix Environmental Laboratories, Inc.	No
MA15-8819	4/13/2020 12:16pm	Bacteria	882 MPN/ 100 mls	Phoenix Environmental Laboratories, Inc.	Yes
MA20-1382	4/13/2020 12:44pm	Bacteria	41 MPN/ 100 mls	Phoenix Environmental Laboratories, Inc.	No
SH50-1512	4/13/2020 13:30pm	Bacteria	52 MPN/ 100 mls	Phoenix Environmental Laboratories, Inc.	No
RT83-19028	4/13/2020 13:12pm	Bacteria	107 MPN/ 100 mls	Phoenix Environmental Laboratories, Inc.	No
WE20-3484	4/24/2020 11:18am	Bacteria	31 MPN/ 100 mls	Phoenix Environmental Laboratories, Inc.	No
RFBH-010	4/24/2020 11:38am	Bacteria	10 MPN/ 100 mls	Phoenix Environmental Laboratories, Inc.	No
ST35-1046	4/24/2020 12:04pm	Bacteria	145 MPN/ 100 mls	Phoenix Environmental Laboratories, Inc.	No
TR30-5308	4/24/2020 12:30pm	Bacteria	912 MPN/ 100 mls	Phoenix Environmental Laboratories, Inc.	Yes
TR30-4044	4/24/2020 12:49am	Bacteria	97 MPN/ 100 mls	Phoenix Environmental Laboratories, Inc.	No
Tryon Street 1	6/11/2020 17:00pm	Bacteria	>48,400 MPN/ 100 mls	Phoenix Environmental Laboratories, Inc.	Yes
Tryon Street 2	4/24/2020 13:09pm	Bacteria	10 MPN/ 100 mls	Phoenix Environmental Laboratories, Inc.	No
WE40-791	4/24/2020 13:31pm	Bacteria	74 MPN/ 100 mls	Phoenix Environmental Laboratories, Inc.	No
MA15-8193	4/24/2020 13:50pm	Bacteria	1,520 MPN/ 100 mls	Phoenix Environmental Laboratories, Inc.	Yes
NA25-4437	4/24/2020 14:37pm	Bacteria	41 MPN/ 100 mls	Phoenix Environmental Laboratories, Inc.	No
NA25-4481	4/24/2020 15:12pm	Bacteria	727 MPN/ 100 mls	Phoenix Environmental Laboratories, Inc.	Yes
RFBH-044	6/11/2020 16:37pm	Bacteria	>48,400 MPN/ 100 mils	Phoenix Environmental Laboratories, Inc.	Yes
RFPK-018	6/11/2020 16:27pm	Bacteria	9,770 MPN/ 100 mils	Phoenix Environmental Laboratories, Inc.	Yes

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

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

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

Provide the following information for outfalls exceeding the pollutant threshold.

Outfall	Status of drainage area investigation	Control measure implementation to address impairment
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 screening has been completed for at least 50% of outfalls to impaired waters, identify 6 of the highest contributors of any pollutants of concern. Begin monitoring these outfalls on an annual basis by July 1, 2020.

Outfall	Sample Date	Parameter(s)	Results	Name of Laboratory (if used)
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 [This section required beginning with 2018 Annual Report]

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

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

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

Provide sample data for outfalls where flow is observed. Only include Pollutant of concern data for outfalls that discharge into stormwater impaired waterbodies.

Outfall / Interconnection ID	Screening / sample date	Ammonia	Chlorine	Conductivity	Salinity	E. coli or enterococcus	Surfactants	Water Temp	Pollutant of concern	If required, follow-up actions taken
SEE ATTACHED	*TABLE IN*	*APPENDIX*	*B*							

2.2 Wet weather sample and inspection data

Provide sample data for outfalls and key junction manholes of any catchment area with at least one System Vulnerability Factor.

Outfall / Interconnection ID	Sample date	Ammonia	Chlorine	Conductivity	Salinity	E. coli or Enterococcus	Surfactants	Water Temp	Pollutant of concern
NONE TO DATE									

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

3.1 System Vulnerability Factor Summary

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

Outfall ID	Receiving Water	System Vulnerability Factors
	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

Key Junction Manhole ID	Screening / Sample date	Visual/ olfactory evidence of illicit discharge	Ammonia	Chlorine	Surfactants
NONE TO DATE					

3.3 Wet weather investigation outfall sampling data

Outfall ID	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: Richard J. Johnson, Town Manager	Print name: Daniel A. Pennington, P.E., Town Engineer
Signature / Date: 4-23-2021	Signature / Date: Daniel A. Pennington 4/6/2021

APPENDIX A

2020 Salmon River Watershed Partnership
Outreach & Monitoring Activities Related to
Stormwater & Water Quality Annual Report

2020- Salmon River Watershed Partnership Outreach & Monitoring Activities Related to Stormwater & Water Quality

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

As with many other organizations the Covid-19 pandemic had a significant impact on SRWP's activities, especially as it related to working with volunteers and community members, attending events and conducting education programs. SRWP was able, through program modifications, continue its field monitoring and work in small group format with social distancing protocol in place.

Activities presented in this format:

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

March 2020: *Annual Newsletter*/Annual newsletter covers a variety of SRWP activities and news items related to protecting watershed resources and preserving water quality. The 2020 edition featured a *"Be a Watershed Steward"* article featuring action items for community members /Sent for general distribution to all 10 watershed towns and on social media-general public 100s.

May-September 2020: *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 Sept. 2020 and will be added to watershed temperature mapping to compare with local land-use. Regional data storage site (http://db.ecosheds.org/) /2 college student interns, in partnership with town land-use staff and boards.

June-August 2020: *Field Monitoring at local streams/Summer Interns*/Third year for two new routes established in 2018. Baseline water quality monitoring at 11 stream segments through the watershed to establish baseline data and track future changes. Previous monitoring had led to a second project of logging conductivity as a means to track chloride (salt) intrusion. Due to Covid-19, volunteers were not involved in the summer 2020 monitoring session. Summer interns were trained on hand-held 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/2 summer interns and 10 watershed towns.

September 2020: ***Samplepalooza with CT River Conservancy/***Submitted a grab sample for nutrient monitoring as part of CT River Conservancy's annual Samplepalooza 4-state CT River tributary monitoring effort-results to be reported by CT River Conservancy/staff.

September-November 2020: ***Field Stream Assessment with Community Volunteers /***8 Stream Macroinvertebrate Assessments Conducted in 2020 with volunteers using CT DEEP protocol. Due to Covid-19 volunteer groups were limited to a total of 6 per field assessment with social distancing protocol. 2 new sites were added in 2020—Elbow Brook and Pine Brook in East Hampton. Volunteers collect and identify 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. 10 individuals in total participated.

November 2020: ***East Haddam Middle School (8th graders)-Education Program-Stream Aquatic Life as Indicators of Water Quality***/Partnership program with Eightmile River Watershed-Presentation, field netting, identification and discussion on impacts of water quality to stream-life/80 East Haddam 8th Graders (both in person and virtual classroom small group programs).

Year round: ***Field Monitoring: Conductivity Logger Launching and hourly sampling for conductivity and temperature***/Partnership project with GZA, Inc. Green Team (funding also received by GZA for 3 of the loggers in 2015) and SRWP. In 2020, due to rising concerns with chloride showing up in local streams, SRWP purchased 6 new HOBO conductivity loggers and refurbished 4 older loggers. After consultation with local municipalities and DEEP, 10 new sites were selected, with concentration in areas where there may be higher levels of chlorides present, ie downstream of larger transportation infrastructure. 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. SRWP-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: Facebook/*** (**https://www.facebook.com/10towns/**) Salmon River Watershed Partnership Information pertaining to watershed monitoring efforts, opportunities to participate and actions local citizens can do to help protect streams. In 2020 SRWP initiated a 6 week: *"Watershed Challenge"* series aimed at addressing common water concerns and protection./ general public-100s

Year round: ***SRWP Outreach: Website – www.salmonriverct.org*** /Website posts reports on water quality and monitoring and also offers information and links on issues related to Best Management Practices for Homeowners, Animal Owners and Business Owners/general public-100s

Year round: ***SRWP Outreach: Instagram/*** Salmon River Watershed Partnership initiated a Instagram Account (**www.instagram.com/salmonriverct**) Information pertaining to watershed resources and outreach In 2020 SRWP initiated a 6 week: *"Watershed Challenge"* series aimed at addressing common water concerns and protection. /general public-100s

APPENDIX B

OUTFALL SCREENING RESULTS SUMMARY TABLE
2018 - 2020

Town of Glastonbury MS4 Sampling
Table 1
Summary of MS4 Monitoring Results

MS4 Outfall ID	Upstream Sample	Initial	Date	Time Sampled	E. Coli (MPN/100 mls)	Comments
NA25-3213	no	PJM	4/13/20	9:04	10	est. 15" RCP in headwall
NA25-200	no	PJM	4/13/20	9:22	41	est. 48" RCP in headwall
NA25-2919	no	PJM	4/13/20	9:37	31	initial map showed two outfalls in one location, appeared to describe as one discharge, limited info. Est. 24" RCP left side headwall and est. 12" RCP on right, sample collected from plunge pool for both- see field notes
NA25-3425	no	PJM	4/13/20	9:47	4,350	Concrete flared end, est. 15" RCP
TR30-10480	no	PJM	4/13/20	10:46	862	extremely steep/difficult terrain, outfall buried under leaf bags/brush preventing direct observation
TR30-11044	no	PJM	4/13/20	11:04	10	extremely steep/difficult terrain, had to approach from boat launch down the street. Est. 18" ACCMP at bottom of slope
MA15-8819	yes	PJM	4/13/20	12:16	882	Couldn't find outfall, possibly underwater, sampled upgradient CB @ Willow Green Way
MA20-1382	yes	PJM	4/13/20	12:44	41	rough/steep terrain, heavy vegetation, beavers dropping trees flooding area. Sampled upgradient CB @ Mallard Drive
SH50-1512	no	PJM	4/13/20	13:30	52	CMP
RT83-19028	no	PJM	4/13/20	13:12	107	flared end est. 15" CPP
WE20-3484	no	PJM	4/24/20	11:18	31	Concrete flared end, est. 36" RCP, rip rap slopes/vines - dangerous
RFBH 010	no	PJM	4/24/20	11:38	10	Outfall below high water mark, steep/slick slope, manhole configuration on map near outfall appears incorrect
ST35-1046	no	PJM	4/24/20	12:04	145	Dangerous, steep vertical drop off
TR30-5308	yes	PJM	4/24/20	12:30	912	Could not find outfall, possibly underwater, sampled upgradient CB on Tryon Street
TR30-4044	yes	PJM	4/24/20	12:49	97	Outfall inundated by CT River, sample collected from CB in Tryon Street
TRYON STREET 1	no	PJM	6/11/20	17:00	>48400	
TRYON STREET 2	no	PJM	4/24/20	13:09	10	noted outfall is well below high water mark in CT River
WE40-791	no	PJM	4/24/20	13:31	74	outfall near rear detached garage under construction
MA15-8193	yes	PJM	4/24/20	13:50	1,520	Oufall observed underwater, sampled upgradient CB near corner of chain link fence
NA25-4437	yes	PJM	4/24/20	14:37	41	Could not find outfall- possibly underwater, sampled upgradient CB in Naubuc Ave
NA25-4481	yes	PJM	4/24/20	15:12	727	Could not find outfall- possibly underwater, sampled upgradient MH in Naubuc Ave
RFBH 044	no	PJM	6/11/20	16:37	>48400	outfall observed close to WE-20-3484
RFPK 018	no	PJM	6/11/20	16:27	9,770	

General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer System
Town of Glastonbury, Connecticut
Outfall Testing to Impaired Waterbodies 2018

NO TESTING PERFORMED IN 2019

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	**Outfall ID No.**	**Test Date**	**Test Results**	**Test Date**	**Test Results**	**Street**	**Diameter**	**Material**	**Outlet Style**	**Outlet Protection**	**Waterbody Name**	**Waterbody ID**	**Impairment**
2	NA25-200	2/16/2018	0 PPM			Naubuc Avenue	72"	RCP	Headwall	Minimal Rip Rap	Keeney Cove	Connecticut River	Bacteria
3	NA25-2913	2/16/2018	0 PPM			Naubuc Avenue	21"	VCP	Headwall	None	Keeney Cove	Connecticut River	Bacteria
4	NA25-2919	2/28/2018	0.25 PPM			Naubuc Avenue	15"	RCP	Headwall	None	Keeney Cove	Connecticut River	Bacteria
5	NA25-3213	2/16/2018	0 PPM			Naubuc Avenue	15"	RCP	Headwall	None	Keeney Cove	Connecticut River	Bacteria
6	NA25-3425	2/16/2018	0 PPM			Naubuc Avenue	15"	RCP	Flared End	Rip Rap	Keeney Cove	Connecticut River	Bacteria
7	NA25-4437	2/22/2018	0.25 PPM			Naubuc Avenue	15"	RCP	Headwall	Submerged	Keeney Cove	Connecticut River	Bacteria
8	NA25-4481	2/22/2018	0.25 PPM			Naubuc Avenue	30"	RCP	Headwall	Submerged	Keeney Cove	Connecticut River	Bacteria
9	RFBH-044	2/22/2018	0.25 PPM			Welles Street	12"	CHDPE	Flared End	Rip Rap	Connecticut River	Connecticut River	Bacteria
10	WE20-3484	2/9/2018	0 PPM			Welles Street	36"	RCP	Flared End	Rip Rap	Connecticut River	Connecticut River	Bacteria
11	RFBH-010	2/22/2018	0.25 PPM			Welles Street	15"	CHDPE	Flared End	Rip Rap	Connecticut River	Connecticut River	Bacteria
12	RPPK-018	2/22/2018	0.25 PPM			Welles Street	24"	HDPE	In Culvert	None	Connecticut River	Connecticut River	Bacteria
13	MA15-8193	2/14/2018	0.25 PPM			Main Street	24"	RCP	End of Pipe	?	Connecticut River	Connecticut River	Bacteria
14	MA15-8819	2/14/2018	0 PPM			Main Street	24"	RCP	Flared End	None	Connecticut River	Connecticut River	Bacteria
15	WE40-791	2/14/2018	System Dry			Westview Lane	18"	RCP	Open End	None	Meadow Drain Brook	Connecticut River	Bacteria
16	MA20-1382	2/14/2018	0.50 PPM			Main Street	18"	RCP	Flared End	Minimal Rip Rap	Holland Brook	Connecticut River	Bacteria
17	ST35-1046	2/14/2018	0.15 PPM			Stockade Road	15"	RCP	Open End	None	Roaring Brook	Connecticut River	Bacteria
18	Tryon Street Outfall #1	1/31/2018	0 PPM			Tyron Street	Twin 36"	CHDPE	Flared End	Rip Rap	Wetland Area	Connecticut River	Bacteria
19	Tryon Street Outfall #2	2/14/2018	0.05 PPM			Tyron Street	36"	RCP	Flared End ?	Rip Rap ?	Connecticut River	Connecticut River	Bacteria
20	TR30-4044	1/31/2018	6 PPM	2/28/2018	0.25 PPM	Tryon Street	54"	RCP	Flared End	Rip Rap	Connecticut River	Connecticut River	Bacteria
21	TR30-5308	1/31/2018	6 PPM			Tryon Street	15"	RCP	End of Pipe	?	Connecticut River	Connecticut River	Bacteria
22	TR30-10480	1/31/2018	8 PPM	2/28/2018	0.25 PPM	Tryon Street	15"	RCP	?	?	Connecticut River	Connecticut River	Bacteria
23	TR30-11044	1/31/2018	1 PPM	2/28/2018	0.25 PPM	Tryon Street	18"	CMP	End of Pipe	None	Connecticut River	Connecticut River	Bacteria
24	RT83-19028	2/16/2018	0.05 PPM			Manchester Road	18"	CMP	Flared End	Rip Rap	Angus Pond	Angus Pond	Bacteria
25	BU20-2077	2/16/2018	System Dry			Butler Drive	18"	RCP	Flared End	Rip Rap	Angus Pond	Angus Pond	Bacteria
26	SH50-1512	2/16/2018	0 PPM			Shoddy Mill Road	36"	CMP	Flared End	None	Roaring Brook	Angus Pond	Bacteria
27													
28	**Data References:**												
29	Outfall ID"s and description were obtained from the Town of Glastonbury GIS Data located at https://gis.glastonbury-ct.gov/Html5/Index.html?viewer=public.												
30	Watershed Data was obtained from http://cteco.uconn.edu/viewer/index.html?viewer=simple.												
31													
32													

General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer System
Town of Glastonbury, Connecticut
Outfall Testing to Impaired Waterbodies 2018

	A	N	O	P	Q	R	S	T	U	V
1	**Outfall ID No.**	**Classification**	**Watershed Name**	**Watershed No.**	**Regional Drainage Basin**	**Regional Drainage Basin No.**	**Subregional Drainage Basin Name**	**Subregional Drainage Basin No.**	**Local Basin No.**	**Basin No.**
2	NA25-200	SB	Connecticut	4	Connecticut Main Stem	40	Salmon Brook	4006	4006-13	4006-13-1
3	NA25-2913	SB	Connecticut	4	Connecticut Main Stem	40	Salmon Brook	4006	4006-13	4006-13-1
4	NA25-2919	SB	Connecticut	4	Connecticut Main Stem	40	Salmon Brook	4006	4006-13	4006-13-1
5	NA25-3213	SB	Connecticut	4	Connecticut Main Stem	40	Salmon Brook	4006	4006-13	4006-13-1
6	NA25-3425	SB	Connecticut	4	Connecticut Main Stem	40	Salmon Brook	4006	4006-13	4006-13-1
7	NA25-4437	SB	Connecticut	4	Connecticut Main Stem	40	Salmon Brook	4006	4006-00	4006-00-2-R6
8	NA25-4481	SB	Connecticut	4	Connecticut Main Stem	40	Salmon Brook	4006	4006-00	4006-00-2-R6
9	RFBH-044	SB	Connecticut	4	Connecticut Main Stem	40				
10	WE20-3484	SB	Connecticut	4	Connecticut Main Stem	40	Connecticut River	4000	4000-00	4006-00-2-R12
11	RFBH-010	SB	Connecticut	4	Connecticut Main Stem	40				
12	RPPK-018	SB	Connecticut	4	Connecticut Main Stem	40				
13	MA15-8193	SB	Connecticut	4	Connecticut Main Stem	40	Hubbard Brook	4007	4007-00	4007-00-1
14	MA15-8819	SB	Connecticut	4	Connecticut Main Stem	40	Hubbard Brook	4007	4007-00	4007-00-1
15	WE40-791	SB	Connecticut	4	Connecticut Main Stem	40	Hubbard Brook	4007	4007-00	4007-00-3-R1
16	MA20-1382	SB	Connecticut	4	Connecticut Main Stem	40	Hubbard Brook	4007	4007-04	4007-00-1
17	ST35-1046	SB	Connecticut	4	Connecticut Main Stem	40	Roaring Brook	4009	4009-00	4009-00-3-R5
18	Tryon Street Outfall #1	SB	Connecticut	4	Connecticut Main Stem	40	Connecticut River	4000	4000-00	4000-00-6+R16
19	Tryon Street Outfall #2	SB	Connecticut	4	Connecticut Main Stem	40	Connecticut River	4000	4000-00	4000-00-6+R16
20	TR30-4044	SB	Connecticut	4	Connecticut Main Stem	40	Connecticut River	4000	4000-00	4000-00-6+R16
21	TR30-5308	SB	Connecticut	4	Connecticut Main Stem	40				
22	TR30-10480	SB	Connecticut	4	Connecticut Main Stem	40	Connecticut River	4000	4000-00	4000-00-6+R18
23	TR30-11044	SB	Connecticut	4	Connecticut Main Stem	40	Connecticut River	4000	4000-00	4000-00-6+R18
24	RT83-19028	A	Connecticut	4	Connecticut Main Stem	40	Roaring Brook	4009	4009-00	4009-00-2-L4
25	BU20-2077	A	Connecticut	4	Connecticut Main Stem	40	Roaring Brook	4009	4009-00	4009-00-2-L4
26	SH50-1512	A	Connecticut	4	Connecticut Main Stem	40	Roaring Brook	4009	4009-00	4009-00-2-L4
27										
28	**Data References:**									
29	Outfall ID"s and descripti									
30	Watershed Data was obt									
31										
32										

APPENDIX C

ADDITIONAL INFORMATION
BASELINE DCIA SPREADSHEET
AND
IDDE PROGRAM PLAN
CATCHMENT EVALUATION

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

Basin Number:	Basin Area: (Acres)	Total Impervious Cover: (Acres)	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+R11	198.06	2.62	2.20	0.42	0.42	0.21%	Slightly Connected	0.00	0.00	100.00%	0.00
4000-00-6+R12	690.50	7.08	0.00	7.08	7.08	1.03%	Slightly Connected	0.01	0.07	100.00%	0.07
4000-00-6+R14	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+R13	59.30	0.15	0.00	0.15	0.15	0.25%	Slightly Connected	0.00	0.00	100.00%	0.00
4000-00-6+R15	40.06	0.80	0.40	0.40	0.40	1.00%	Slightly Connected	0.01	0.00	100.00%	0.00
4000-00-6+R16	730.25	51.69	1.90	49.79	49.79	6.82%	Sorta Connected	1.05	7.67	100.00%	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	49.84	4.66	0.00	4.66	4.66	9.35%	Sorta Connected	1.79	0.89	100.00%	0.89
4000-35-1	81.72	8.91	1.02	7.89	7.89	9.65%	Sorta Connected	1.89	1.54	75.00%	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	19.63	2.19	0.00	2.19	2.19	11.16%	Sorta Connected	2.42	0.48	100.00%	0.48
4006-00-2-R3	43.63	5.67	0.00	5.67	5.67	13.00%	Sorta Connected	3.13	1.37	100.00%	1.37
4006-00-2-R4	128.46	19.41	1.20	18.21	18.21	14.18%	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	5.85	0.00	0.00	0.00	0.00	0.00%	Slightly Connected	0.00	0.00	100.00%	0.00
4006-01-1	152.19	14.81	0.44	14.37	14.37	9.44%	Sorta Connected	1.82	2.77	75.00%	2.08
4006-01-1-L1	283.19	34.04	1.38	32.66	32.66	11.53%	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	394.09	45.60	1.15	44.45	44.45	11.28%	Sorta Connected	2.46	9.69	100.00%	9.69
4006-04-1-L1	56.74	8.42	1.29	7.13	7.13	12.57%	Sorta Connected	2.96	1.68	100.00%	1.68
4006-05-1	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	167.76	43.53	0.00	43.53	43.53	25.95%	Moderately Connected	13.22	22.18	100.00%	22.18
4006-11-1-L3	37.12	7.10	0.00	7.10	7.10	19.13%	Moderately Connected	8.49	3.15	100.00%	3.15
4006-12-1	145.21	30.39	0.00	30.39	30.39	20.93%	Moderately Connected	9.58	13.91	100.00%	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	1,314.72	182.74	24.54	158.20	158.20	12.03%	Moderately Connected	4.17	54.82	100.00%	54.82
4007-00-1-L3	61.42	24.86	0.31	24.55	24.55	39.97%	Wicked Connected	33.43	20.53	100.00%	20.53
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	573.00	69.46	0.00	69.46	69.46	12.12%	Moderately Connected	4.22	24.18	100.00%	24.18
4007-02-2-R1	236.22	42.66	2.91	39.75	39.75	16.83%	Moderately Connected	6.90	16.30	100.00%	16.30
4007-03-1	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	856.20	47.59	3.54	44.05	44.05	5.14%	Sorta Connected	0.65	5.57	50.00%	2.78
4008-01-2-R1	648.94	28.83	8.76	20.07	20.07	3.09%	Sorta Connected	0.27	1.75	25.00%	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	345.05	42.20	2.32	39.88	39.88	11.56%	Sorta Connected	2.57	8.87	100.00%	8.87
4009-00-2-R1	129.44	5.79	1.91	3.88	3.88	3.00%	Sorta Connected	0.26	0.34	25.00%	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	182.41	20.37	0.00	20.37	20.37	11.17%	Sorta Connected	2.42	4.41	100.00%	4.41
4009-00-3-R1	50.00	6.86	1.73	5.13	5.13	10.26%	Sorta Connected	2.09	1.05	100.00%	1.05
4009-00-3-R2	491.16	66.19	10.75	55.44	55.44	11.29%	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	399.52	46.96	4.95	42.01	42.01	10.52%	Moderately Connected	3.41	13.62	100.00%	13.62
4009-05-1	177.94	15.46	0.00	15.46	15.46	8.69%	Sorta Connected	1.58	2.81	75.00%	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	39.53	0.00	39.53	39.53	10.99%	Sorta Connected	2.35	8.45	75.00%	6.34
4009-08-1	370.09	34.72	12.09	22.63	22.63	6.11%	Sorta Connected	0.87	3.22	100.00%	3.22
4009-09-1	479.48	44.01	0.00	44.01	44.01	9.18%	Sorta Connected	1.73	8.30	75.00%	6.22
4707-00-2-L3	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
4707-05-1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4707-06-1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4707-06-1-L1	285.96	27.96	2.08	25.88	25.88	9.05%	Sorta Connected	1.69	4.83	50.00%	2.42
4707-06-1-L2	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**

Note:

1. Watershed data depicted is derived from CTDEEP 2012 Impervious Cover by Watershed Basin (clipped) datasets from https://cteco.uconn.edu/viewers/ctms4/

2. Basin Areas shown depict acerages and Impervious Cover clipped at the Town line residing in Glastonbury

3. Total impervious cover acreage for each watershed utilized the sum of the Total Watershed Impervious Cover less ConnDOT Roads acerage.

Watersheds with a proportional Urban Area

Watersheds with Urban Area too small

Connectivity Level Formulas:

Fully Connected: DCIA% = IC% (High density mixed use, commercial)

Wicked Connected: DCIA% = 0.4(%IC)^1.2 (High density residential, commercial, industrial, institutional)

Moderately Connected: DCIA% = 0.1(%IC)^1.5 (Medium density residential, commercial, industrial, institutional, open land)

Sorta Connected: DCIA% = 0.04(%IC)^1.7 (Low density residential, open land)

Slightly Connected: DCIA% = 0.01(%IC)^2.0 (Agricultural, forested, natural areas)

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? [2]	Frequency of Past Discharge Complaints	Receiving Water Quality [3]	Density of Generating Sites [4]	Age of Development/ Infrastructure [5]	Historic Combined Sewers or Septic? [6]	Aging Septic? [7]	Culverted Streams? [8]	Additional Characteristics	Score	Priority Ranking
Information 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		
Scoring 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
4006-09-2-R3	Salmon Brook	3	0	0	0	2	2	1	0	3	Urbanized Area IC = >11 to 84%	11	Problem
4006-12-1	Salmon Brook	0	0	0	0	1	2	0	0	0	Urbanized Area IC = >11 to 84%	3	Low Priority
4006-11-1-L3	Salmon Brook	0	0	0	0	1	2	0	0	0	Urbanized Area IC = >11 to 84%	3	Low Priority
4006-11-1-L1	Salmon Brook	0	0	0	0	1	2	0	0	0	Urbanized Area IC = >11 to 84%	3	Low Priority
4006-00-2-R6	Salmon Brook	3	0	0	0	2	2	3	0	3	Urbanized Area IC = >11 to 84%	13	Problem
4006-06-1	Salmon Brook	0	0	0	0	1	2	0	0	0	Urbanized Area IC = >11 to 84%	3	Low Priority
4006-00-2-L1	Salmon Brook	0	0	0	0	1	2	0	0	0	Urbanized Area IC = >11 to 84%	3	Low Priority
4000-00-6+R12	Connecticut River	3	0	0	3	3	2	3	0	0	Urbanized Area TMDL	11	Problem
4007-00-1	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
4006-00-2-R4	Salmon Brook	0	0	0	0	1	2	0	3	0	Urbanized Area IC = >11 to 84%	6	Medium Priority
4006-00-2-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-L1	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 [3]	Density of Generating Sites [4]	Age of Development/ Infrastructure [5]	Historic Combined Sewers or Septic? [6]	Aging Septic? [7]	Culverted Streams? [8]	Additional Characteristics	Score	Priority Ranking
Information 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		
Scoring 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-L1	Salmon Brook	0	0	0	0	1	2	0	3	0	Urbanized Area IC = >11 to 84%	6	Medium 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? [2]	Frequency of Past Discharge Complaints	Receiving Water Quality [3]	Density of Generating Sites [4]	Age of Development/ Infrastructure [5]	Historic Combined Sewers or Septic? [6]	Aging Septic? [7]	Culverted Streams? [8]	Additional Characteristics	Score	Priority Ranking
Information 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		
Scoring 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? [2]	Frequency of Past Discharge Complaints	Receiving Water Quality [3]	Density of Generating Sites [4]	Age of Development/ Infrastructure [5]	Historic Combined Sewers or Septic? [6]	Aging Septic? [7]	Culverted Streams? [8]	Additional Characteristics	Score	Priority Ranking
Information 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		
Scoring 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 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
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 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
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 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-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-R4	Roaring Brook	No	No	No	No	No	No	No	No	No	No	No	Yes
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)