

2024 MS4 ANNUAL REPORT

Town of Canton, Connecticut



CONTENTS

TOWN OF CANTON 2024 ANNUAL REPORT......1

ATTACHMENTS

Attachment I Figures, MS4 System Maps Attachment II Septic System Repair and Replacement 2021 to 2024 Attachment III Wet Weather Screening and Priority Outfall Sampling 2021 to 2024 Attachment IV Catchment Assessment and Priority Rankings Attachment V Dry Weather Inspections

MS4 General Permit Town of Canton 2024 Annual Report Permit Number GSM 000091 January 1, 2024 – December 31, 2024 Primary MS4 Contact: Glenn Cusano, Superintendent of Buildings and Grounds 860-693-7863 ext. 2406, <u>GCusano@TownofCantonCT.org</u>

This report documents Canton's efforts to comply with the conditions of the MS4 General Permit to the maximum extent practicable (MEP) from January 1, 2024, to December 31, 2024.

Part I: Summary of Minimum Control Measure Activities

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

1.1 BMP Summary

ВМР	Activities in current reporting period	Sources Used (if applicable)	Method of Distribution	Audience (and number of people reached)	Measurable Goal	Department / Person Responsible	Additional details
1-1 Implement public education and outreach	The Town continually updates its Public Works webpage to provide educational materials about the sources and impacts of stormwater discharges on waterbodies.	Town Website	Electronically	Ongoing ~ 10,100	A general overview of the permit and steps the public can take to reduce pollutants in stormwater runoff.	Department of Public Works and Parks and Recreation Department.	The Stormwater Management Plan and various Educational Materials can be found here; <u>https://www.townofcantonct.org/content</u>
1-2 Address education/ outreach for pollutants of concern	The Town continually updates its Stormwater Education Materials webpage to provide materials about the sources and impacts of stormwater discharges on water bodies.	Town Website	Electronic	Ongoing ~ 10,100	Educate and provide stormwater quality management policies and practices.	Director of Public Works, Land Use, Farmington River Watershed Association	The education materials include information on illicit discharges, managing household chemicals, lawn care, good horse keeping, and caring for your septic system, which are tailored to Canton residents.

ВМР	Activities in current reporting period	Sources Used (if applicable)	Method of Distribution	Audience (and number of people reached)	Measurable Goal	Department / Person Responsible	Additional details
1-3 Factsheet of Water Quality and Stormwater Summary	Provide the public access to the CTDEEP factsheet regarding Canton Water Quality	Town Website	Electronically	Ongoing ~ 10,100	Provide the public with information regarding water quality, specifically regarding bacteria.	Combined effort with CTDEEP and the Department of Public Works	Town of Canton MS4 Factsheet can be found here; <u>https://portal.ct.gov/-</u> / <u>media/deep/water/ic/cantonms4factsheetpdf.pdf</u>
Additional BMP: 1-4 Earth Day Celebration	Earth Day Celebration	DPW – New Girls Softball Field	Planting two (2) white fir trees.	~ 50	Celebrate Earth Day in Canton and provide access to stormwater literature.	Department of Public Works and Parks and Recreation Department.	Earth Day celebration on April 22, 2024.

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

 The Town of Canton will continue to encourage public comment and review for the 2024 MS4 Annual Report in 2025. In 2024, the town openly displayed the 2023 MS4 Annual Report during the comment period. Although no questions or comments arose, the Town actively encouraged public participation. Information regarding outreach programs, including the Canton Land Conservation Trust and the Farmington River Watershed Association (FRWA), was also provided through the webpage.
 The Town of Canton continues to receive public input on development projects through various avenues, including public hearings, online permitting processes, citizen comment periods, planning and zoning (P&Z) recorded meetings, posted agendas and minutes, notifications of all public hearings, decisions, and agendas, or phone communications.

3. Earth day celebrations are planned every year, with specific dates to be determined in 2025.

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

2.1 BMP Summary

ВМР	Status (Complete, Ongoing, In Progress, or Not started)	Activities in current reporting period	Measurable Goal	Department / Person Responsible	Date completed or projected completion date (Include the start date for anything that is 'in progress')	Location Posted	Additional details
2-1 Final Stormwater Management Plan publicly available	Completed, 2017	The Stormwater Management Plan is available electronically.	Provide public notice and access to the Town's Stormwater Management Plan.	Town Engineer/Town Planner	April 1, 2017	<u>Final_Cant</u> on 2017 S tormwater <u>Manageme</u> nt_Plan	The Town has a Stormwater Management Plan that was developed for the MS4 Permit that was issued for the period 2017 to 2022.
2-2 Comply with public notice requirements for Annual Reports (annually by 2/15)	Completed, Annually since 2017.	The 2023 MS4 Annual Report was made available to the public for comment and review.	Provide public access to the MS4 Annual Report	Department of Public Works.	January 31, 2024	Town_of_ Canton_An nual_Repor t_2023	Public comment and outreach were encouraged on the Town of Canton's website during the comment period for the 2023 MS4 Annual Report. Although no questions or comments arose, the Town actively encouraged public participation.
Additional BMP: 2-3 Hazardous Waste Collection	Completed (April 20, 2024, June 8, 2024, and October 19, 2024).	In partnership with Farmington, Granby, and Simsbury. Collection days are provided per year.	Provide a safe way for the residents of Burlington to dispose of hazardous materials that can accumulate in homes preventing improper disposal that can pollute environmental resources.	Department of Public Works.	Annually	2024 Disposal Days	Collections area held three times a year. Dates for 2025 are still being determined.

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

- 1. Earth Day Celebration. Date for 2025 Celebration is still being determined.
- 2. Brochures to be distributed on the Stormwater Retrofit Program.
- 3. Annual posting of the MS4 Annual Report.
- 4. The Hazardous Waste collection is held twice a year. Dates for 2025 are still being determined.

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

3.1 BMP Summary

ВМР	Status (Complete, Ongoing, In Progress, or Not started)	Activities in current reporting period	Measurable Goal	Department / Person Responsible	Date completed or projected completion date (Include the start date for anything that is 'in progress')	Additional details
3-1 Develop written IDDE program (Due 7/1/19)	Complete, 2018	The Town of Canton developed a written Illicit Discharge Detection and Elimination Ordinance, which was adopted in 2018.	Implement a written IDDE program.	Chief Administrative Officer/Town Engineer/ Town Planner	October 24 th , 2018	The Town completed a written IDDE Program, which can be located through the <u>Town's website</u> .
3-2 Develop list and maps of all MS4 stormwater outfalls in priority areas (Due 7/1/20)	Complete	All outfalls that are connected to various Prioirty Areas have been listed and mapped.	Listing and mapping of outfalls.	Town Engineer/Atlas	Fall 2021	Mapping and data will be continually maintained as outfalls are tested, repaired, etc.
3-3 Implement citizen reporting program (Ongoing)	Complete	Citizens are encouraged to report suspected or potential illicit discharge by calling the Canton Department of Public Works.	Record and Investigate citizen reported illicit discharges	Chief Administrative Office, Town Engineer, Town Planner	Ongoing - started in Nov. 2018.	Citizens may report illicit discharges by contacting the Canton Department of Public Works.
3-4 Establish legal authority to prohibit illicit discharges (Due 7/1/19)	Complete	The IDDE Ordinance established legal authority to prohibit illicit discharges.	Establish legal authority to prohibit illicit discharges.	Chief Administrative Officer, Town Engineer, Town Planner.	October 24 th , 2018	Illicit Discharge and Stormwater Connection Ordinance
3-5 Develop record keeping system for IDDE tracking (Due 7/1/17)	Ongoing	The Town continues to maintain a list of reports that include the IDDE.	Record and investigate reported illicit discharges.	Chief Administrative Officer, Town Engineer, Town Planner	October 24 th , 2018 Continually Updated	Records of reported IDDEs are maintained by the Town Department of Public Works.
3-6 Address IDDE in areas with pollutants of concern	Ongoing	Address IDDE's with pollutants of concern (i.e.) septic system failures	Compile and investigate all IDDE's with pollutants of concern.	Town Engineer, Atlas	Ongoing- Started in 2021 Continually Updated	

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

1. Continue wet weather testing and dry weather screening as a part of catchment and IDDE investigations.

2. Respond to any illicit discharge complaints

3. Ensure all employees involved in IDDE Program understand the logging process.

3.3 Provide a record of all citizen reports of suspected illicit discharges and other illicit discharges occurring during the reporting period and SSOs occurring July 2021 through end of reporting period using the following table.

Illicit discharges are any unpermitted discharge to waters of the state that do not consist entirely of stormwater or uncontaminated groundwater except those discharges identified in Section 3(a)(2) of the MS4 general permit when such non-stormwater discharges are not significant contributors of pollution to a discharge from an identified MS4.

Location (Lat long/ street crossing /address and receiving water)	Date and duration of occurrence	Discharge to MS4 or surface water	Estimated volume discharged	Known or suspected cause / Responsible party	Corrective measures planned and completed (include dates)	Sampling data (if applicable)
OF-105	4/13/2021	Yes	Unknown	Unknown	Investigation was inconclusive.	
OF-107	4/13/2021	Yes	Unknown	None	Based on analytical results, this discharge is groundwater influence.	
50 Bristol Drive	7/22/2021	Unnamed Brook	Unknown	Breakout of septic system	Evaluation by FVHD showed a breakout of the septic system. A replacement 1,250-gallon septic tank and 538 sq. ft leach field was installed and approved by FVHD in October 2021.	None.
				2022		
35 Trailsend Drive	4/8/2022	Unnamed Brook	Unknown	The septic tank was reported in poor condition.	The septic system was evaluated by the FVHD, and a permit for tank replacement was granted. An engineering plan is shown for the installation of a new 1,000-gallon septic tank.	None.
9 Noja Trail	5/10/2022	Unnamed Brook	Unknown	Out-of-level and cracked at outlet side.	A 1,250-gallon septic tank was installed, and the existing tank was abandoned. Other corrective measures were listed as the installation of a 6-hole D-Box.	None.
21 Bristol Drive	5/8/2022	Unnamed Brook	Unknown	Not stated.	Installation of a new septic system, including sewer-piping, septic tank, and leaching area was completed for the real estate sale of the property. The original septic tank was reported as abandoned.	None.
24 Bristol Drive	6/10/2022	None.	Unknown	Not stated.	An application for a site evaluation of the septic system was requested in May 2022. The site was evaluated, and the evaluation found that the system could be repaired; however, system failures were not listed. Recommendations listed included the proper abandonment of the old	None.

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)
					septic tank and other hollow structures, installation of a new septic tank with an outlet baffle filter, and to provide a total of 495 square feet of leaching area.	
50 Bristol Drive	7/22/2022	None.	Unknown	Breakout	A site evaluation was completed due to septic breakout at this property (See 2021). Subsequently, a new septic tank was installed. The leaching system was found non-compliant relative to the MLSS requirements, however, an exception was granted, as it was unlikely to result in a health hazard.	None.
				2023		
	The Toy	vn of Canton did	not have any r	eports of illicit disch	narges during the 2023 Annual Report period.	
				2024		
	The Town of	f Canton did not	have any repor	ts of illicit discharge	s or SSOs during the 2024 Annual Report period.	

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

Method used to track illicit discharge reports	Location and nature of structure with failing septic systems	Actions taken to respond to and address the failures	Impacted waterbody or watershed, if known	Dept. / Person responsible				
See Attachment II								

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

Residents of the Town of Canton can report illicit discharges directly to the Land Use Department or through the Q-Notify System. Staff then perform investigations on the illicit discharges. Digital Records on the Town server are used for tracking illicit discharges. While illicit discharge reporting from the public has remained low, the current system in place is adequate to meet the requirements of the MS4 Permit. Illicit discharges relating to septic systems are reported/documented by the Farmington Valley Health District (FVHD).

3.6 IDDE reporting metrics

Metrics	
Estimated or actual number of MS4 outfalls	~225
Estimated or actual number of interconnections	~9

Metrics	
Outfall mapping complete	97% (ongoing)
Interconnection mapping complete	90%
System-wide mapping complete (detailed MS4 infrastructure)	70%
Outfall assessment and priority ranking	100%
Dry weather screening of all High and Low priority outfalls complete	100%
Catchment investigations complete	1
Estimated percentage of MS4 catchment area investigated	100%

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

In October of 2024, key staff in the Town of Canton received training to comply with the provisions of the Municipal Separate Storm Sewer (MS4) General Permit. Annual training sessions will be conducted to reinforce best practices for identifying and reporting illicit discharges and improper disposal, as well as spill response protocols. These sessions will also reiterate the Town's general goals and objectives outlined in the Stormwater Management Plan (SMP).

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

4.1 BMP Summary

ВМР	Status (Complete, Ongoing, In Progress, or Not started)	Activities in current reporting period	Measurable Goal	Department / Person Responsible	Date completed or projected completion date (Include the start date for anything that is 'in progress')	Additional details
4-1 Implement, upgrade, and enforce land use regulations or other legal authority to meet requirements of MS4 general permit (Due 7/1/20)	Completed	The ZEO maintains records of identifiable complaints, inspections, and notices of violations served, orders issued, or any other actions taken in relation to Section 7.13 of the Zoning Regulations.	Revise land-use regulations.	Town Planner, Zoning Enforcement Officer, Wetlands Agents	Canton Zoning Regulations, effective 2014, revised October 29, 2021.	These regulations include maintenance of detention basins, separators, and/or embankments used to manage stormwater and any associated pollutants.
4-2 Develop/Implement plan for interdepartmental coordination in site plan review and approval (Ongoing)	Completed-Ongoing for permit term.	A Stormwater Management Plan is to be included as part of site plans for all applicable developments. All site plans are submitted to a commission for review.	Develop/ implement plan for interdepartmental coordination in site plan review and approval.	Town Engineer	Town municipal departments have coordinated since the beginning of the MS4 Permit in 2017. In 2019, the WPCF and DPW redeveloped their facilities in compliance with MS4 construction requirements and retain stormwater drainage on-site.	In 2019, the WPCF and DPW redeveloped their facilities in compliance with MS4 construction requirements and retain stormwater
4-3 Review site plans for stormwater quality concerns (Ongoing)	Completed-Ongoing for permit term.	The Town continues to utilize zoning regulations and processes as a way of reviewing site plans for stormwater quality concerns. Fourteen (14) Planning and Zoning meetings held in 2024.	Issue review comments and review revised plans for compliance.	Zoning Enforcement Officer, Wetlands Agents, Town Engineer	Completed in June 2018. This process is continued to present.	
4-4 Conduct site inspections (Ongoing)	Ongoing throughout permit term.	Active sites are monitored throughout the year by the Zoning Enforcement Officer and/or Wetlands Agents.	Document Inspections and Actions	Zoning Enforcement Officer, Wetlands Agents	Completed in 2018-Continued throughout permit lifetime.	

ВМР	Status (Complete, Ongoing, In Progress, or Not started)	Activities in current reporting period	Measurable Goal	Department / Person Responsible	Date completed or projected completion date (Include the start date for anything that is 'in progress')	Additional details
4-5 Implement procedure to allow public comment on site development (Ongoing)	Completed	Fourteen (14) Planning and Zoning meetings held in 2024.	Allow the public to comment on site development projects.	Town Planner	2018 The procedure that allows for public comment on site development is as follows; dependent on zoning area type or regulations, a public hearing may be posted through newspaper or by public hearing signs. During this public hearing, comments or concerns may be voiced on site development.	<u>Planning and</u> <u>Zoning Commission</u>
4-6 Implement procedure to notify developers about DEEP construction stormwater permit (Ongoing)	Completed	Compliance with the DEEP construction stormwater permit is required through the Town and is a standard condition of local land use approval. The DEEP permitting requirements are supplied to applicants in a pre- empted application checklist.	Notify developers about DEEP permitting obligations.	Town Planner/Tow n Engineer	Completed-continued throughout permit lifetime.	

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

1. Continue to conduct site inspections to ensure best management practices are being utilized to minimize erosion.

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

5.1 BMP Summary

BMP	Status (Complete, Ongoing, In Progress, or Not started)	Activities in current reporting period	Measurable Goal	Department / Person Responsible	Date completed or projected completion date. (Include the start date for anything that is 'in progress')	Additional details
5-1 Establish and/or update legal authority and guidelines regarding LID and runoff reduction in site development planning (Due 7/1/22)	Complete	At the December 20th, 2023, meeting the Planning and Zoning Commission held a public hearing on stormwater management requirements, and adopted a comprehensive rewrite of its stormwater management regulations in anticipation of the release of the new state stormwater quality manual.	Adopt updated Reference Standards for any activity, operation, or facility which may cause or contribute to the pollution or contamination of stormwater, the storm drain system, or waters of the U.S.	Planning and Zoning Commission	December 20 th , 2023	The Town of Canton's Zoning Regulations can be found here: <u>Zoning Regulations</u> <u>Stormwater</u> <u>Management</u> <u>Regulations</u>
5-2 Enforce LID/runoff reduction requirements for development and redevelopment projects (Due 7/1/22)	Ongoing	Adopted Zoning Regulations and current Subdivision Regulations incorporate provisions for narrow travel-way widths, alternative cul-de-sac configurations, permeable pavers, and utilizing ditches for stormwater conveyance. These regulations also allow for the permanent reduction of required parking.	Enforce regulations and guidelines of LID and runoff reductions.	Town Planner	In Progress - Adopted 2023.	The Town of Canton's Planning and Zoning page can be found here: <u>Planning and Zoning</u> <u>Commission</u>
5-3 Identify retention and detention ponds in priority areas (Due 7/1/20)	Ongoing	The Town is currently compiling a complete list of retention and detention basins, as well as dry wells. This information will be converted into a GIS stormwater mapping software.	Compile a list and complete mapping of Town-owned detention basins.	Town Engineer/Director of Public Works	In Progress-	
5-4 Implement long- term maintenance plan for stormwater basins and treatment structures (Ongoing)	Ongoing	At the December 20th, 2023, meeting the Planning and Zoning Commission held a public hearing on stormwater management requirements, and adopted a comprehensive rewrite of its stormwater management regulations in anticipation of the release of the new state stormwater quality manual.	Inspect and maintain facilities.	Town Engineer/Director of Public Works	In progress- Started July 1 st , 2019.	

BMP	Status (Complete, Ongoing, In Progress, or Not started)	Activities in current reporting period	Measurable Goal	Department / Person Responsible	Date completed or projected completion date. (Include the start date for anything that is 'in progress')	Additional details
5-5 DCIA mapping (Due 7/1/20)	Complete	DCIA for the Town was calculated with the assistance of Nathan L. Jacobson & Associates. Atlas has mapped the DCIA areas.	Provide an understanding of the Town's overall DCIA as related to the MS4 system.	Town Engineer, Director of Public Works, Town Planner, Atlas	Completed in December 2021	
5-6 Address post- construction issues in areas with pollutants of concern	Ongoing through life of permit	It is planned to implement that in post- construction areas, if erosion or high accumulation of sedimentation are found during annual inspections conducted under the long-term post-construction maintenance plan, the Town will prioritize these areas for DCIA retrofit projects.	Address post- construction areas where erosion or high accumulation of sedimentation are found during annual inspections.	Town Engineer, Director of Public Works, Town Planner	Ongoing Started in 2018	The Stormwater Retrofit Program was drafted in late 2021 and is continuously updated as information is gathered/retrofits are put in place. This Retrofit Program will help the Town address areas with pollutants of concern.

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

1. Develop and implement the monitoring, cleaning, and repairing of settling/silt basins, catch basins, outfalls, swales, etc.

5.3 Post-Construction Stormwater Management reporting metrics

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

Metrics							
Baseline (2021) Directly Connected Impervious Area (DCIA)	32.14						
DCIA disconnected (redevelopment plus retrofits)	TBD						
Retrofit projects completed	TBD						
DCIA disconnected	TBD						
Estimated cost of retrofits	TBD						
Detention or retention ponds identified	7 /~7 total (TBD)						

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

The DCIA Mapping was conducted in substantial accordance with the methodologies presented in the October 25, 2017 UConn CLEAR Webinar, entitled "CT MS4 Mapping Details, Clarifications and Tools", the October 19, 2018 UConn CLEAR Workshop entitled "CT MS4 Mapping Workshop", as well as information contained in the EPA reference entitled "Estimating Change in Impervious Area (IA) and Directly Connected Impervious Area (DCIA) for Massachusetts Small MS4 Permit utilizing Sutherland equations". The DCIA computations were prepared utilizing Connecticut Environmental Conditions Online MS4 base mapping prepared by UConn CLEAR.

Impaired waters were determined from the report entitled "2018 Integrated Water Quality Report", dated August 01, 2019, prepared by the State of Connecticut Department of Energy and Environmental Protection.

The method to determine the 2012 baseline DCIA was to first compile the CT DEEP drainage basin characteristics in a Microsoft Excel spreadsheet. Information on the Connecticut Environmental Conditions Online MS4 Mapping was used to determine the impervious area breakdown as Buildings, Roads, and Other. For CT DEEP drainage basins that fell in two (2) or more municipalities, the advanced mapping tab of Connecticut Environmental Conditions Online was used to determine the applicable town CT DEEP basin area. It was assumed that the entire drainage basin characteristics were directly proportional to the applicable town CT DEEP drainage basin area.

In that ConnDOT has a MS4 Stormwater Program which applies to state owned roads and facilities of which the town has no control over, it was decided that the impervious state road area would be determined and deducted from the total impervious road area for each CT DEEP drainage basin, as the impervious road areas associated with state highways and facilities constitutes a considerable portion of the total town impervious road area.

The ConnDOT state highway, parking lot, and facility impervious road areas were then determined for each CT DEEP drainage basin. The ConnDOT state highway, parking lot, and facility impervious road areas were then deducted from the total town impervious road area to determine a town-owned impervious road area for each CT DEEP drainage basin. Subsequent to the above deduction, the total impervious area in acres and percentage was then recomputed for each CT DEEP drainage basin.

The DCIA formula for each of four development types was then utilized to compute the DCIA. The impervious area in acres was assigned to each of the four Sutherland equations, which were modified for the northeastern United States. The Sutherland equation to be utilized was determined using the following methodology:

For impervious percentage less than 6%: 100% of the impervious area was assigned to the slight connectivity Sutherland Equation where DCIA% = 0.01*(IA%)2.0

For an impervious area between 6% and 12 %:

50% of the area was assigned to the partial connectivity Sutherland Equation where DCIA% = 0.04*(IA%)1.7

and

50% was assigned to the average connectivity Sutherland Equation where DCIA% = 0.10*(IA%)1.5

For an impervious area between 12% and 18 %:

50% of the area was assigned to the average connectivity Sutherland Equation where DCIA% = 0.10*(IA%)1.5

and

50% was assigned to the high connectivity Sutherland Equation where DCIA% = 0.40*(IA%)1.2

For an impervious area of greater than 18 %:

100% of the area was assigned to the high connectivity Sutherland Equation where DCIA% = 0.40*(IA%)1.2

The DCIA for each CT DEEP drainage basin was then summed to determine the entire town DCIA. Subsequent to completion of 2012 Baseline DCIA computations, UConn CLEAR Mapping, available on Connecticut Environmental Conditions Online (CT ECO), was revised to separate road impervious area into State Road Impervious Area (Acres) and Town Road Impervious Area (Acres).

The original 2012 Baseline DCIA computations were revised utilizing the UConn CLEAR State Road Impervious Area (Acres) and Town Road Impervious Area (Acres).

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

6.1 BMP Summary

BMP	Status (Complete, Ongoing, In Progress, or Not started)	Activities in current reporting period	Measurable Goal	Department / Person Responsible	Date completed or projected completion date (Include the start date for anything that is 'in progress')	Additional details
6-1 Develop/implement formal employee training program (Ongoing)	Completed Annually	MS4 Stormwater Pollution Prevention training and IDDE application provided to key staff annually.	Annual Training Provided.	Director of Public Works, Town Planner, Town Engineer, Fire Marshall	Completed Annually.	In October 2024, Atlas completed SWPPP and MS4 Permit training for the Town DPW.
6-2 Implement MS4 property and operations maintenance (Ongoing)	Ongoing through life of permit.	The Public Works maintains outdoor maintenance at the Town's parks, school grounds, and all other Town-owned land.	Eliminates/minimizes spills and/or pollutant releases to the environment and navigable waterways.	Director of Public Works	Ongoing Started in 2018.	Dog waste stations have been installed in parks, along trails, and public places throughout the Town. Maintenance staff regularly empties and maintains the pet waste cans. Signs related to pet waste and waterfowl have been erected in parks, playgrounds, and along trails.
6-3 Implement coordination with interconnected MS4s	Ongoing	Nine (9) interconnections with the CTDOT have been identified and mapped.	Update GIS system with interconnected locations.	Town Engineer/Atlas	Ongoing	
6-4 Develop/implement program to control other sources of pollutants to the MS4	Ongoing	None		Director of Public Works		
6-5 Evaluate additional measures for discharges to impaired waters*	Ongoing through life of permit.	The Town of Canton prioritizes the maintenance of catch basins that discharge to impaired waterbodies.	Catch basins repaired/cleaned	Director of Public Works, Town Engineer	Ongoing	

ВМР	Status (Complete, Ongoing, In Progress, or Not started)	Activities in current reporting period	Measurable Goal	Department / Person Responsible	Date completed or projected completion date (Include the start date for anything that is 'in progress')	Additional details
6-6 Track projects that disconnect DCIA (Ongoing)	Ongoing	A Stormwater Retrofit Program has been implemented and will be utilized as a method of tracking future DCIA disconnects.	Track DCIA disconnects.	Director of Public Works, Town Engineer	Ongoing- Started in 2021	The Town will utilize the Impervious Cover Tracking Sheet created by NEMO. This will allow the Town to track Project information, new developments, redevelopment, retrofits, changes in impervious cover, and cumulative totals.
6-7 Implement infrastructure repair/rehab program (Due 7/1/21)	Ongoing through life of permit.	Repair and rehabilitate its MS4 infrastructure in a timely manner to reduce or eliminate the discharge of pollutants into waterbodies from the MS4 system.	Actively cleaning out catch basins throughout the Town to minimize sediment from entering waterbodies.	Director of Public Works	Ongoing	The Town has pursued funding for storm drainage improvements that may need to be completed.
6-8 Develop/implement plan to identify/prioritize retrofit projects (Due 7/1/20)	Ongoing	A Stormwater Retrofit Program has been drafted. Prioritized areas and/or sites were identified based off DCIA calculations, impaired waterbodies, current stormwater infrastructure, and the MEP of the Town.	Develop retrofit projects.	Director of Public Works.	Ongoing	
6-9 Implement retrofit projects to disconnect 2% of DCIA (Due 7/1/22)	Ongoing	As Retrofit Projects are identified, the Town will utilize the Impervious Cover Tracking Sheet to track and work towards disconnecting 2% of DCIA, or the MEP of the Town.	Track and reduce DCIA impacts.	Director of Public Works	Ongoing	
6-10 Develop/implement street sweeping program (Ongoing)	Completed	Implement procedures for sweeping permittee-owned or operated streets and parking lots.	Track swept lane miles and reduce pollutants to the MS4 system.	Director of Public Works.	Ongoing	

ВМР	Status (Complete, Ongoing, In Progress, or Not started)	Activities in current reporting period	Measurable Goal	Department / Person Responsible	Date completed or projected completion date (Include the start date for anything that is 'in progress')	Additional details
6-11 Develop/implement catch basin cleaning program (Ongoing)	Completed	The Town's basin cleaning program is as follows: A yearly bid is put forth to contractors, providing a list of catch basins to be cleaned. A daily account of the total basins cleaned, as well as the weight of the material removed from the basins is required. All collected material is tested, and then disposed of at Canton Village Construction Company.	Track material usage, and update plan as needed.	Director of Public Works	Ongoing	Approximately 25% of the Town's catch basins are cleaned annually.
6-12 Develop/implement snow management practices (Due 7/1/18)	Completed	The Town maintains records of applications of sand, anti-icing, or deicing chemicals utilized on an annual basis.	Track material usage and update plan as needed.	Director of Public Works	Completed Annually.	The Town has ceased to utilize road sand during winter road applications. Roadway de-icing and anti-icing procedures are utilized to minimize discharge.

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

Training to applicable employees will be completed.
 Street sweeping, and basin cleanings will continue in 2025.

6.3 Pollution Prevention/ Good Housekeeping reporting metrics

Metrics					
Employee training provided for key staff	October 2024				
Street sweeping					
Curb miles swept	144				
Volume (or mass) of material collected	285 tons				
Catch basin cleaning					
Total catch basins in priority areas (value will be less than or equal to total catch basins town or institution-wide)	714				
Total catch basins town- (or institution-) wide	1,648				
Catch basins inspected	340				
Catch basins cleaned	310				
Volume (or mass) of material removed from all catch basins	70 tons				
Volume removed from catch basins to impaired waters (if known)	Unknown				
Snow management					
Type(s) of deicing material used	MeltMore+– Treated Salt Enhanced Deicer				
Total amount of each deicing material applied	1,400 tons				
Type(s) of deicing equipment used	Truck Spreaders				
Lane-miles treated (A lane-mile is a mile of roadway in a single driving lane)	144 miles				
Snow disposal location	Mills Pond Park – Parking Area				
Staff training provided on application methods & equipment	Yes / dates: October 2024				
Municipal turf management program actions (for permittee properties in basins with N/P	impairments)				
Reduction in application of fertilizers (since start of permit)	500 lbs.				
Reduction in turf area (since start of permit)	1 acre				
Lands with high potential to contribute bacteria (dog parks, parks with open water, & sites with f	ailing septic systems)				
Cost of mitigation actions/retrofits	\$0				

6.4 Catch basin cleaning program

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

The Town of Canton has found that the current catch basin cleaning program to be adequate. Documentation of basins cleaned, amount of material removed, and laboratorytesting parameters is well organized, and provides the Town with a clear focus on priority basins.

6.5 Retrofit program

Briefly describe the Retrofit Program identification and prioritization process, the projects selected for implementation, the rationale for the selection of those projects and the total DCIA to be disconnected upon completion of each project. (Due 7/1/20)

The Stormwater Retrofit Program was drafted by the Town and Atlas in 2021. The Program was designed to provide guidance on implementing LID, runoff reduction measures, or other means to disconnect or improve stormwater quality. To meet the 2% MEP disconnection goal, DCIA calculations, Urbanized areas, Impaired Waterbodies, and Catchment Rankings were utilized in identifying and prioritizing areas and/or projects to be selected for retrofits.

DCIA by Catchment was identified utilizing the following formulas:

High Connectivity DCIA%=0.4*(IA %) ^1.2 Directly Connected Area= (DCIA) (IC Acres)

Average Connectivity DCIA%=0.1*(IA%) ^1.5 Directly Connected Area= (DCIA) (IC Acres)

Partial Connectivity DCIA%=0.04*(IA%) ^1.7 Directly Connected Area= (DCIA) (IC Acres)

Slight Connectivity DCIA%=0.01*(IA%) ^2.0 Directly Connected Area= (DCIA)(IC Acres)

The Average Connectivity calculation was utilized in assessing the Town's DCIA connectivity, based on the majority of land use defined as agricultural and/or rural, minor residential communities, and minor-to-moderate commercial or industrialized areas. Based on the Average Connectivity calculations for each catchment, no catchments were identified with a connectivity of 11% or greater.

Catchments were then prioritized utilizing the total urbanized area per catchment. Atlas was provided with a shapefile of the 2010 Urbanized Areas for the Town from the 2010 Census or Urban Classifications, which was imported into ArcGIS for calculation purposes. Utilizing the Overlay-Intersect Tool, Atlas was able to extract the total Urbanized Area acreage per catchment, and then calculate the Urbanized area per catchment utilizing the following formula:

Urbanized Area (Ac.)/Basin Total Acreage*100

Based on these calculations, 25 catchments were identified with Urbanized Areas.

Four (4) catchments containing impaired waterbodies were identified for the Town.

Catchment Priority Rankings were conducted for all Sub-Basins in the Town. Multiple factors were taken into consideration when scoring each catchment, including but not limited to DCIA calculations, previous screening results, age of development/structures, density of generating sites, nearby sewer repairs, urbanized areas, and impaired waterbodies. 30 catchments were identified as Problem or High Priority.

Specific criteria were utilizing in defining priority areas for the implementation of non-municipal retrofit projects. The criteria utilized in defining priority areas of nonmunicipal retrofit projects included High or Problem catchment priority rankings, catchments containing an impaired waterbody, and catchments identified with an urbanized area. Utilizing ArcGIS, Atlas extracted catchments where two (2) or more of the aforementioned criteria were found. Community outreach or project redevelopment is encouraged in these defined catchments.

Municipal-owned retrofit projects were identified for several schools, and other municipal-owned sites such as the Fire Department, Town Hall, etc. These locations were selected based on location and plausibility of future disconnects. Refer to the Stormwater Retrofit Program for further information on these projects.

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

The Stormwater Retrofit Program is designed to comply with *Section (6) (B) (ii)* of the CTDEEP 2023-2025 MS4 Permit. The Town of Canton will work towards disconnecting existing DCIA. The initial focus of the Stormwater Retrofit Program will first be applied to Town-owned properties, parks, and other facilities, followed by a focus of nonmunicipal facilities, parks, communities, or other redevelopments. Progress towards the DCIA disconnects will be tracked and continuously updated, with a goal to disconnect one percent (1%) of DCIA or to the MEP each year following the fifth year of the MS4 permit.

Part II: Impaired waters investigation and monitoring

1. Impaired waters investigation and monitoring program

For details on this requirement, visit <u>https://nemo.uconn.edu/2020/02/26/monitoring-requirement-for-bacteria-impaired-waters/</u>. Refer to the yellow column of the Monitoring comparison chart and the Impaired waters monitoring flowchart.

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

Nitrogen/ Phosphorus	Bacteria 🖂	Mercury	Other Pollutant of Concern	

1.2 Describe program status

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

Wet weather sampling at outfalls that discharge to impaired waterbodies was completed in 2021 and six priority outfalls have been sampled each year between 2022 and 2024. Wet weather samples were analyzed for E. coli and total coliform. All samples collected indicated bacteria results above established criteria. Sample results were reported at levels higher than the previous year for E. Coli at all priority outfalls. Refer to **Attachment III** for the documented priority outfall results. See **Attachment I** for associated GIS maps related to monitoring.

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

2.1 Screening data

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

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

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

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

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

Provide the following information for outfalls exceeding the pollutant threshold.

Outfall ID	Status of drainage area investigation	Control measure to address impairment
OF-206	Initial investigation was completed on	Additional investigation will focus on system vulnerability factors as well
	12/17/2024	as a nearby farm.

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

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

Part III: Additional IDDE Program Data

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

Provide a list of all catchments with ranking results (DEEP basins may be used instead of manual catchment delineations). Ranking methodology is provided as **Attachment IV**.

1. Catchment ID (DEEP Basin ID)	2. Category	3. Rank
4309-00-1	Low Priority	4
4319-11-1	Low Priority	4
4309-01-1	Problem	7
4309-02-1	Problem	8
4309-00-2-R1	Low Priority	5
4309-00-2-R2	Problem	6
4308-19-2-R1	Low Priority	2
4308-18-1	Low Priority	5
4309-03-1	Problem	6
4318-00-1	Low Priority	4
4308-18-2-R1	Low Priority	1
4309-05-1	Problem	6
4318-04-1-L1	Problem	9
4309-04-1	High Priority	11
4300-14-1	Problem	7
4309-00-2-R4	High Priority	14
4318-04-1	Low Priority	1
4308-00-2-R1	Exempt	0
4309-00-2-R3	Low Priority	4
4300-00-4+R6	Low Priority	2
4317-00-1	Problem	6
4300-15-1	High Priority	12
4312-01-1	High Priority	10
4300-00-4+R7	Exempt	0
4309-00-2-R5	High Priority	16
4300-16-1	Problem	8
4300-00-4+R8	Low Priority	5
4312-00-1	Problem	11
4300-00-4+R9	Problem	7
4300-00-4+R10	High Priority	10
4300-18-1-L1	High Priority	14
4310-00-3-L2	Problem	9
4310-00-3-R5	Low Priority	4
4312-00-2-L2	High Priority	14
4300-17-1	High Priority	11
4300-00-4+R11	High Priority	14

1. Catchment ID (DEEP Basin ID)	2. Category	3. Rank
4300-18-1	High Priority	10
4312-00-2-L1	Problem	7
4317-01-1	Problem	7
4300-16-2-R1	High Priority	12
4300-00-4+R12	High Priority	11
4312-02-1	Problem	8

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

For details on this requirement, visit <u>https://nemo.uconn.edu/2020/02/26/monitoring-requirement-for-bacteria-impaired-waters/v</u>. Refer to the blue column of the Monitoring comparison chart and the IDDE baseline-monitoring flowchart.

Provide sample data for outfalls where flow is observed. Only include Pollutant of concern data for outfalls that discharge into stormwater impaired waterbodies. You may also attach an excel spreadsheet with the same data rather than copying it to this table. If you do attach a spreadsheet, please write "See Attachment" below.

Outfall / Interconnection ID	Latitude / Longitude	Screening / sample date	Ammonia	Chlorine	Conductivity	Salinity	E. coli or enterococcus	Surfactants	Water Temp	Pollutant of concern	If required, follow-up actions taken
The Town of Can condition of the or ranked with the for implementation of	utfalls, erosion llowing descri	control, materi ptors: Excellent	al, subtype, ar , Good, Fair,	nd diameter o and Poor. Ou	of the outfalls. Thutfalls found with	ne condition poor to fai	and erosion cont r conditions and/	rol of these out	falls and/o	or surrounding	g areas were
-					2021						
OF-105	41.864327/ -72.911845	4/13/2021	<0.05 mg/L	<0.02 mg/L	54 umhos/cm	<0.5 ppt	E. coli- 845 col/100ml	0.06 mg/L	-	Bacteria	Further investigation needed
OF-107	41.856826/ -72.915981	4/13/2021	<0.05 mg/L	<0.02 mg/L	203 umhos/cm	<0.5 ppt	E. coli- 10 col/100ml	<0.06mg/L	-	Bacteria	Groundwater influence
					2022						
OF-26	41.820792/ -72.889877	6/20/2022	<0.05 mg/L	<0.02 mg/L	378 umhos/cm	<0.5 ppt	<10 MPN/100mls	<0.05 mg/L	-	Bacteria	Groundwater influence
OF-192	41.85974/ - 72.890135	6/20/2022	<0.05 mg/L	<0.02 mg/L	240 umhos/cm	<0.5 ppt	309 MPN/100mls	<0.05 mg/L	-	Bacteria	Further investigation needed

Outfall / Interconnection ID	Latitude / Longitude	Screening / sample date	Ammonia	Chlorine	Conductivity	Salinity	E. coli or enterococcus	Surfactants	Water Temp	Pollutant of concern	If required, follow-up actions taken
					2023						
	Atlas did not observe any instances of illicit discharge and/or flow in outfalls during dry weather inspection activities in 2023.										
	2024										
	Atlas did not observe any instances of illicit discharge and/or flow in outfalls during dry weather inspection activities in 2024.										

2.2 Wet weather sample and inspection data

For details on this requirement, visit <u>https://nemo.uconn.edu/2020/02/26/monitoring-requirement-for-bacteria-impaired-waters/</u>. Refer to the green column of the Monitoring comparison chart and the IDDE catchment investigation flowchart.

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

Outfall / Interconnection ID	Latitude / Longitude	Sample date	Ammonia	Chlorine	Conductivity	Salinity	E. coli or Enterococcus	Surfactants	Water Temp	Pollutant of concern
OF-206	41.865117/- 72.902721	9/1/2021			213.9 uS/cm		-E. coli 369 col/100ml		20.2°C	Bacteria
OF-206	41.865117/- 72.902721	8/26/2022			3.2 uS/cm		> 24,200 MPN/100mL		23.7°C	Bacteria
OF-40	41.840474/- 72.924501	6/14/2021			179.8 uS/cm		4,110 MPN/100mL		18°C	Bacteria

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

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

3.1 System Vulnerability Factor Summary

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

Outfall	Descision Weter	Sandara Vichanakilida Fardara
ID	Receiving Water	System Vulnerability Factors

The Town of Canton's sanitary sewer is currently managed by the Town of Canton's Water Pollution Control Facility (WPCF). The storm sewer and sanitary sewer have historically been separated and remain so in the present day. Therefore, SVFs 4, 5, 6, 7, 8, and 9 are not applicable to the Town. Other SVFs are currently under investigation and will be updated in the next annual report. These investigations include coordination between the WPCF, as well as the Farmington Valley Health District.

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

You may also attach an excel spreadsheet with the same data rather than copying it to this table. If you do attach a spreadsheet, please write "See Attachment" below.

Key Junction Manhole ID	Latitude / Longitude	Screening / Sample date	Visual/ olfactory evidence of illicit discharge	Ammonia	Chlorine	Surfactants

The identification of key junction manholes that may narrow the location of suspected illicit discharges or SSOs to an isolated pipe segment between two manholes, or key junction manholes that may be located or show evidence of illicit discharges or SSOs that may not be evident at the outfall under all circumstances, or to confirm or identify potential system vulnerability factors is underway. Once identified, these key junction manholes will be inspected during dry weather events for evidence of illicit discharges or SSOs.

3.3 Wet weather investigation outfall sampling data

You may also attach an excel spreadsheet with the same data rather than copying it to this table. If you do attach a spreadsheet, please write "See Attachment" below.

Outfall ID	Latitude / Longitude	Sample date	Ammonia	Chlorine	Surfactants		
Following the identification of key junction manholes during dry weather inspections, follow-up wet weather sampling will be completed where inspections indicate the presence of one or more SVF, SSO, or illicit discharge.							

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

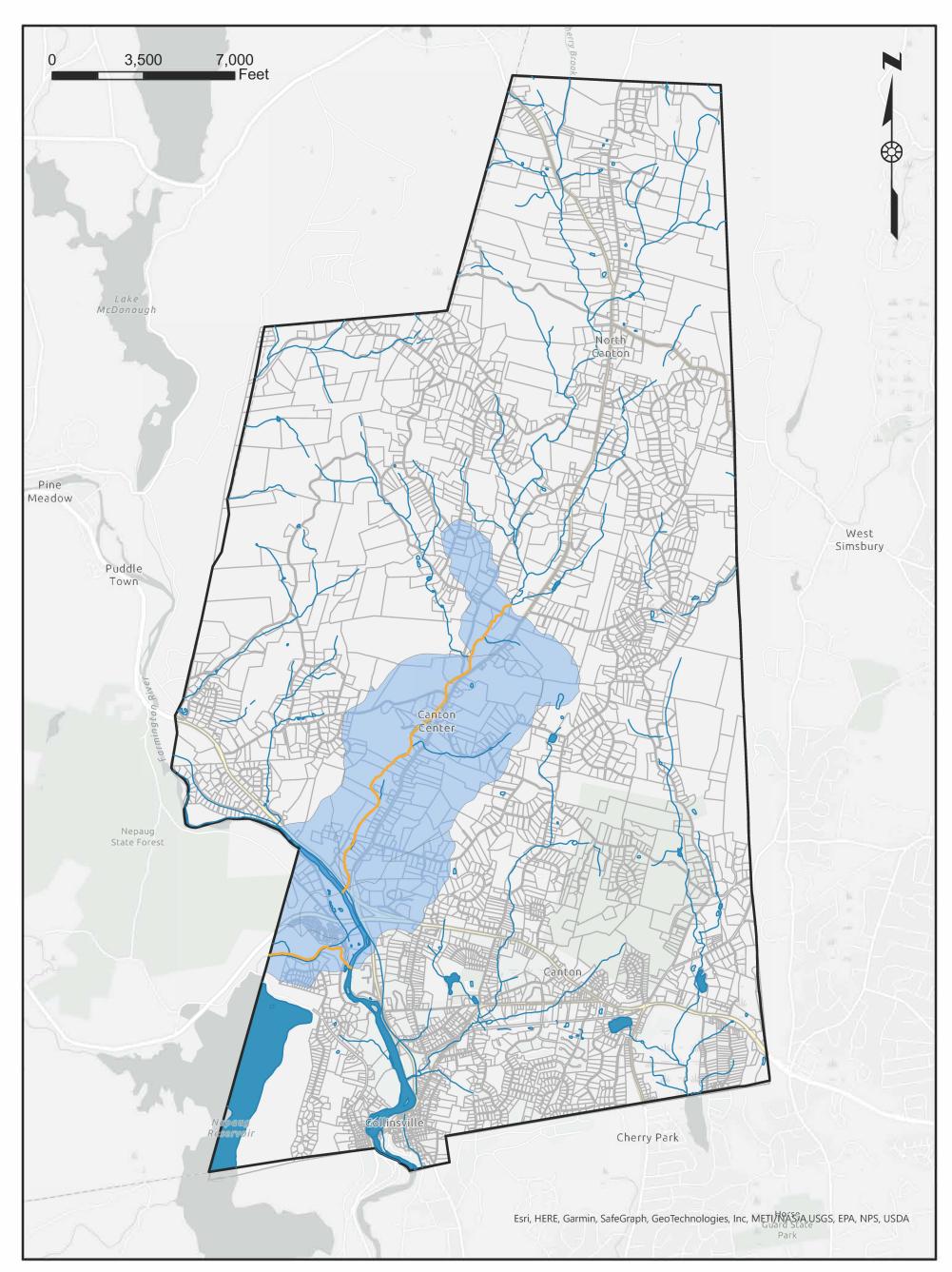
Discharge location	Source location	Discharge description	Method of discovery	Date of discovery	Date of elimination	Mitigation or enforcement action	Estimated volume of flow removed
N/A							

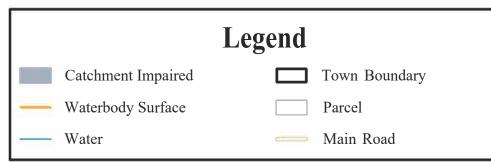
Part IV: Certification

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

Chief Elected Official or Principal Executive Officer	Document Prepared by
Print name: Kevin Witkos	Print name: RosaLinda Sibilio
Signature / Date:	Signature / Date:
Email: <u>kwitkos@townofcantonct.org</u>	Email: rosie.sibilio@oneatlas.com

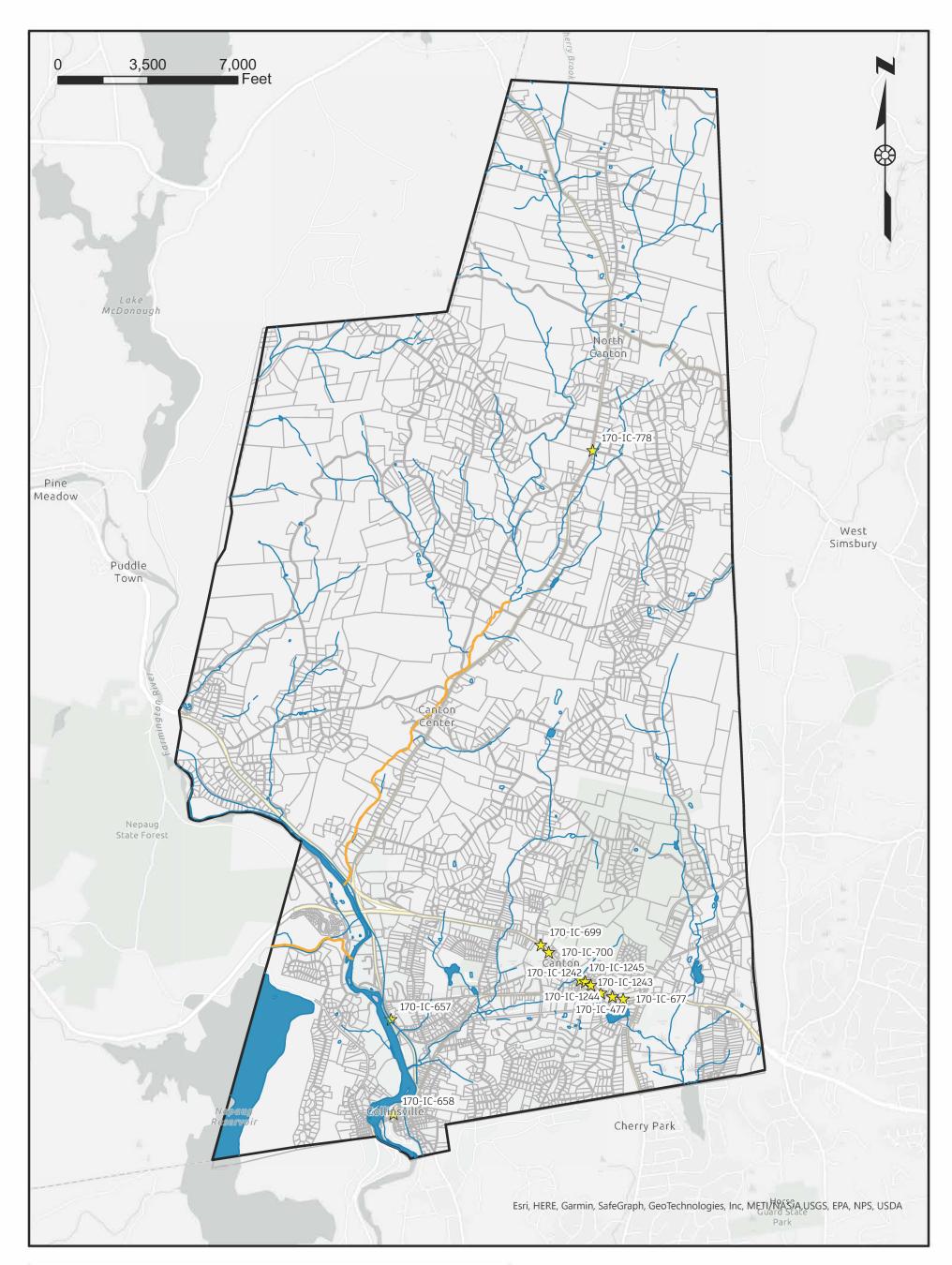
ATTACHMENT I FIGURES, MS4 SYSTEM MAPS





Town of Canton 2024 Annual Report Impaired Water by Catchment

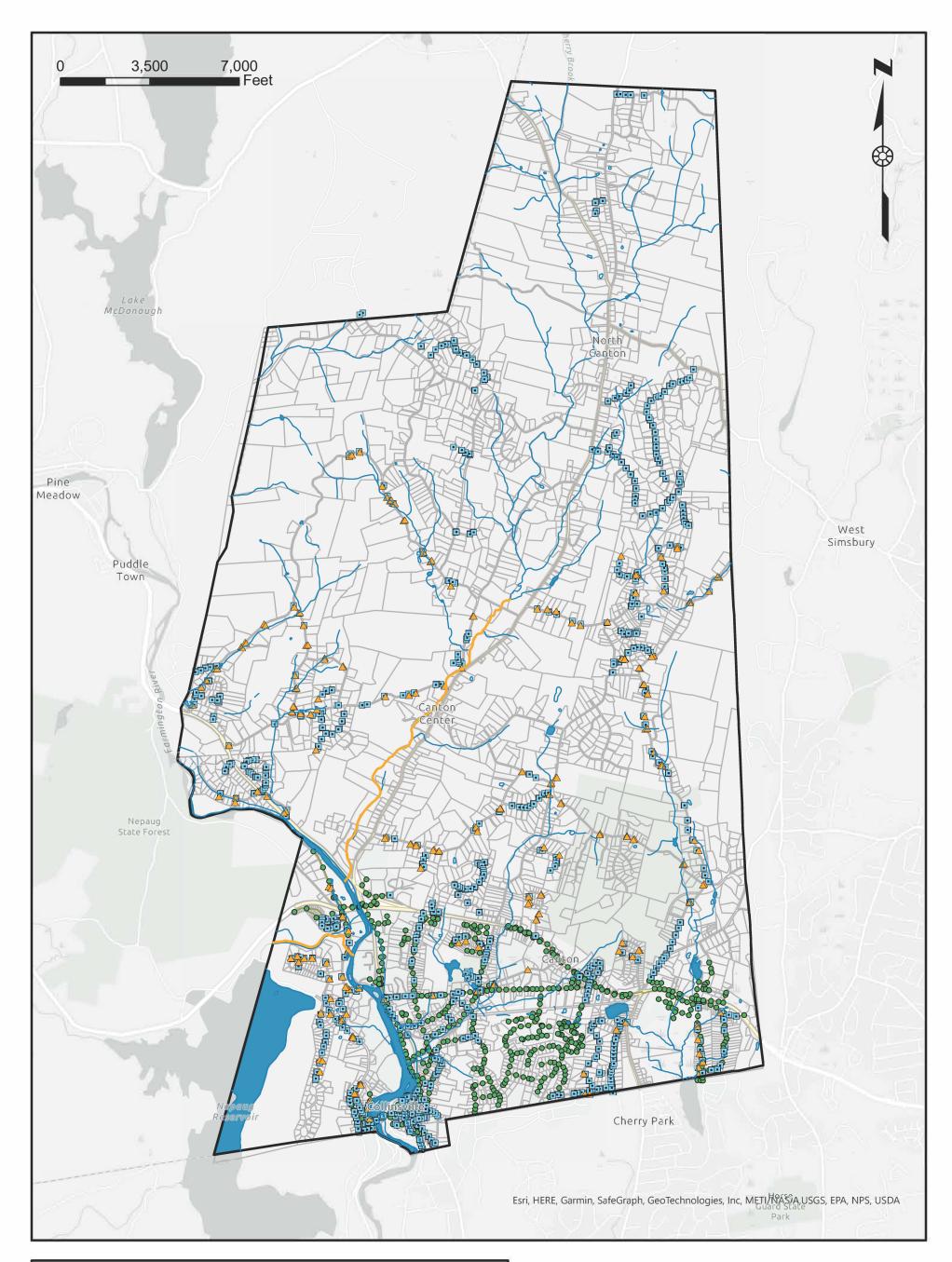






Town of Canton 2024 Annual Report CTDOT Interconnections

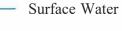


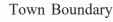


Legend

- Outfall
- Catch Basin
- Sewer Manhole Sewer
- Main Impaired

- Waterbody



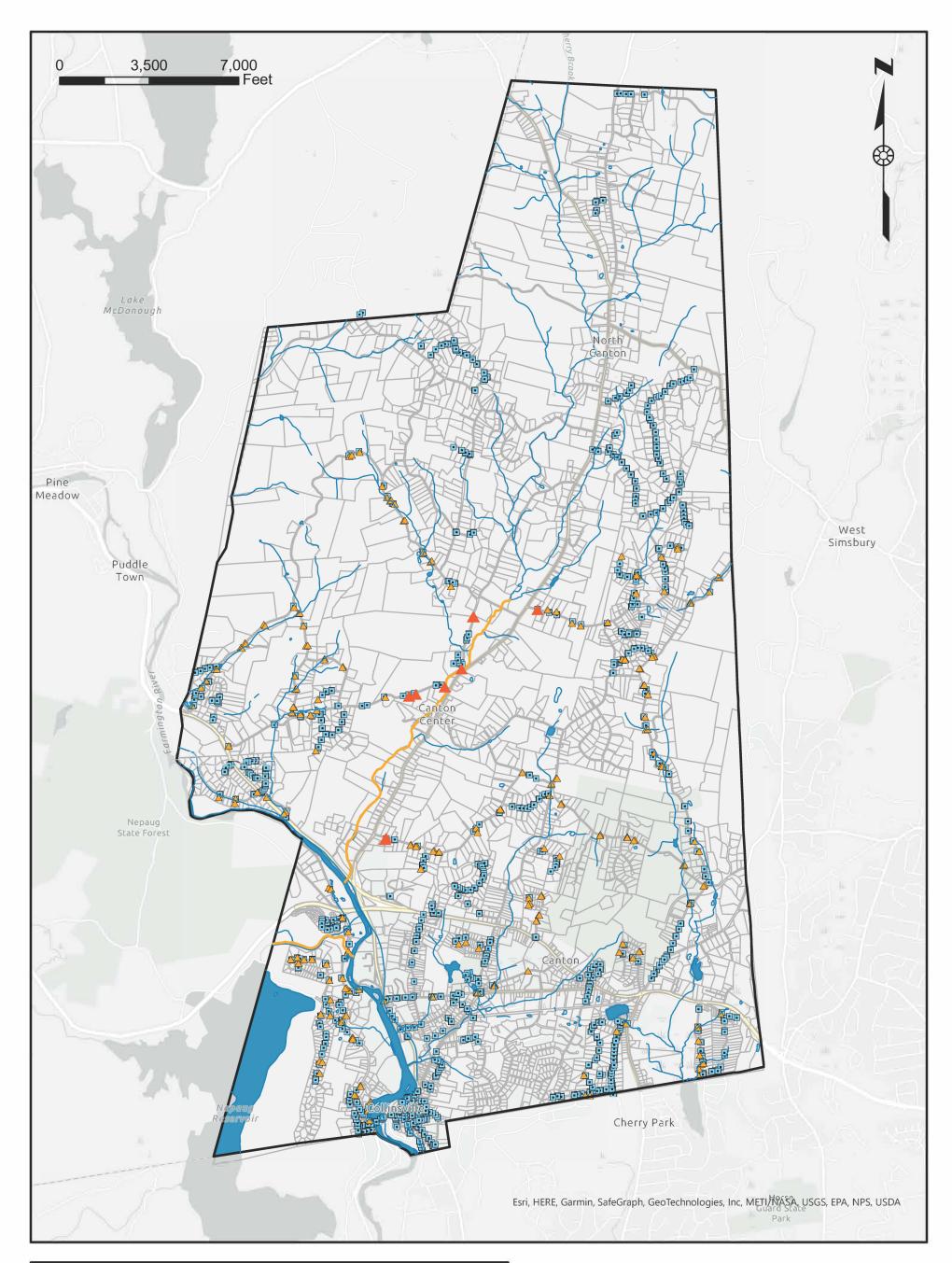


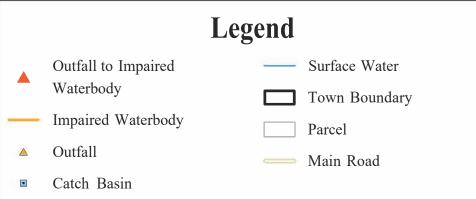
- Parcel
- 🛑 Main Road

Town of Canton

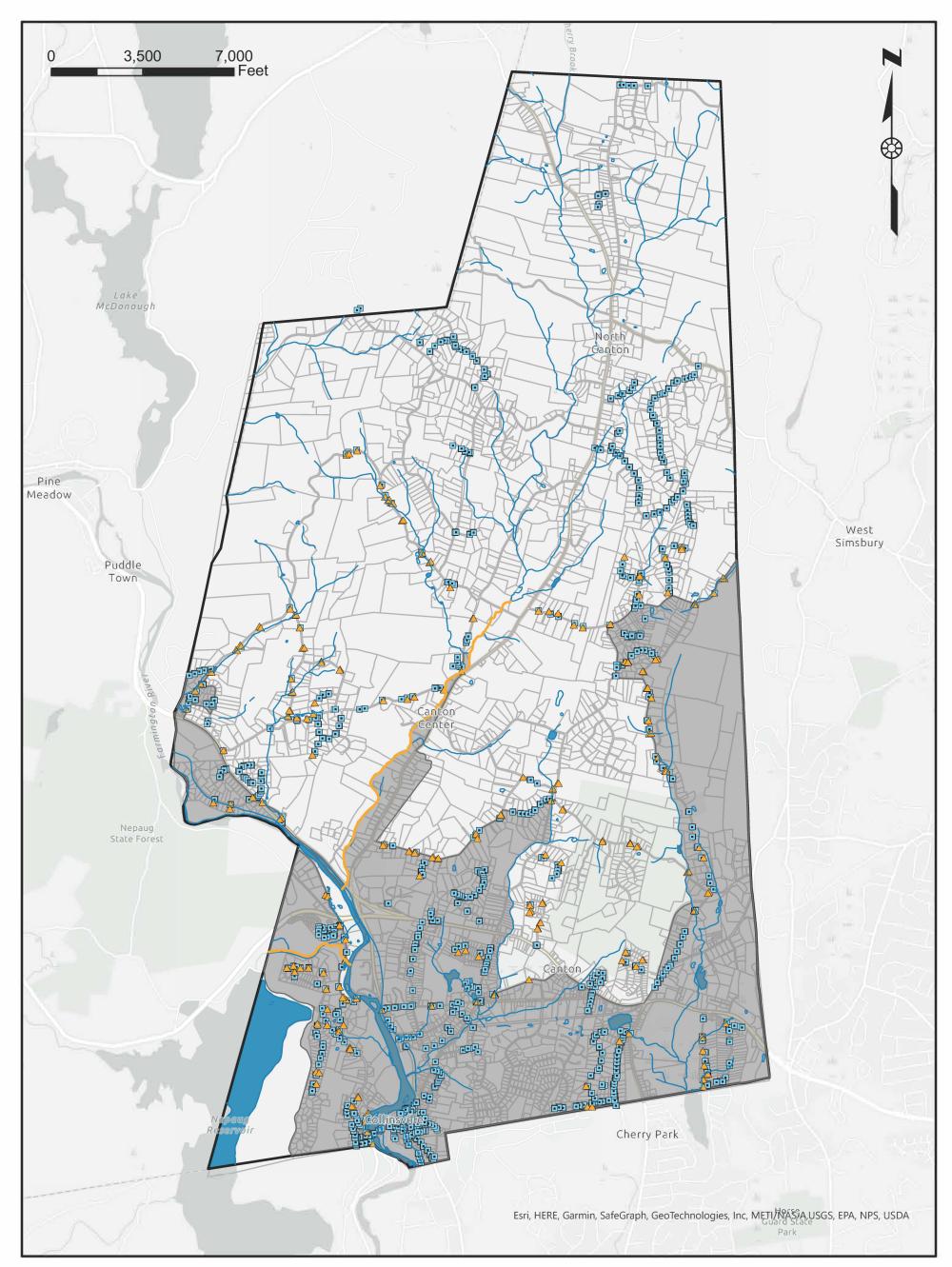
2024 Annual Report MS4 System

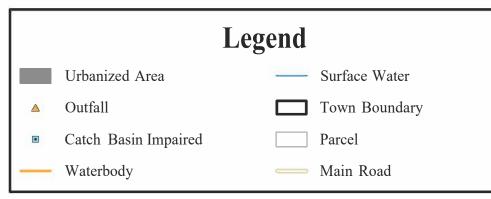






Town of Canton 2024 Annual Report Priority Outfalls & Outfalls to Impaired Waters





Town of Canton 2024 Annual Report Urbanized Area by Catchment



ATTACHMENT II SEPTIC SYSTEM REPAIR AND REPLACEMENT 2021 TO 2024

Town of Canton Septic Repair and Replacement 2021 - 2024

Method used to track illicit discharge reports	Location and nature of structure with failing septic systems	Actions taken to respond to and address the failures	Impacted waterbody or watershed, if known	Dept. / Person responsible
		Septic Failures		
Farmington Valley Health District	14 Sweetheart Mountain-Septic tanks in poor condition	New tank installed	Unknown	FVHD
(FVHD)	52 Country Lane-no failure	New tank & fields installed	None.	FVHD
	12B Freedom-Truck damaged septic tank	New tank installed	Unknown	FVHD
	32 E Mountain-Unknown nature	Site evaluation, and new tank installed	Unknown	FVHD
	13 Sweetheart Mountain- Pool installation	New tank installed	None.	FVHD
	17 Pond Rd Real Estate Inspection	New tank & fields installed	Unknown	FVHD
	19 Deer Run- House sale	New tank and fields installed	Unknown	FVHD
	57 Sterling- Addition	New building sewer line installed	Unknown	FVHD
	17 Mohawk- Deteriorated septic tank	New tank and d-box installed	Unknown	FVHD
	50 Bunker Hill- "old"	Site evaluation completed no repair work.	Unknown	FVHD
	23 Pine Acres- "leach field is full"	New tank and fields installed	Unknown	FVHD
	144 Indian Hill- fields failing	New tank and fields installed	Unknown	FVHD
	620 Albany- "tank needs replacement"	New tank installed	Unknown	FVHD
	6 Erickson- septic tank in poor condition	New tank installed	Unknown	FVHD
	111 Wright- tank collapse	New tank installed	Unknown	FVHD
	51 Breezy Hill- Addition request	No action	Unknown	FVHD
	8 Silver Mine Acres- septic tank in poor condition	New tank installed	Unknown	FVHD
	17 Woodland- tank in poor condition	New tank and d-box installed	Unknown	FVHD
	50 Bristol- "breakout"	PE required to design repair	Unknown	FVHD
	82 Washburn- new barn	Building sewer pipe installed	None.	FVHD
	25 Old Canton- failure	New tank and fields installed	Unknown	FVHD
	70 Trailsend- failure	New tank and fields installed	Unknown	FVHD
	11 Country- cracked tank	New tank installed	Unknown	FVHD
	50 Cherry Brook- tank in poor condition	New tank installed	Unknown	FVHD
	5 Uplands- tank in poor condition	New tank and d-box installed	Unknown	FVHD
	7 Woodridge Circle- failed inspection	New tank and fields installed	Unknown	FVHD
	6 West View- aged	New tank and fields installed	Unknown	FVHD
	21 Birch Knoll- addition	New building sewer line installed	Unknown	FVHD
	81 Morgan- failure	New fields installed	Unknown	FVHD
	139 Indian Hill- tank in poor condition	New tank and d-box installed	Unknown	FVHD
	10 Shagbark- septic tank in poor condition	New tank and d-box installed	Unknown	FVHD
	308 East Hill- leach fields wet	Site evaluation complete-no repair work	Unknown	FVHD

Town of Canton Septic Repair and Replacement 2021 - 2024

Method used to track illicit discharge reports	Location and nature of structure with failing septic systems	Actions taken to respond to and address the failures	Impacted waterbody or watershed, if known	Dept. / Person responsible
	30 Morgan- septic breakout	Effluent pipe and fields installed	Unknown	FVHD
	5 Shagbark- system saturated	New tank and fields installed	Unknown	FVHD
	9 Erickson- leaching fields not working	New fields installed	Unknown	FVHD
	4 Noja- septic tank in poor condition	New tank installed	Unknown	FVHD
	115 Indian Hill- clog in grey water	Pipe replaced	Unknown	FVHD
	121 Indian Hill- needs new leach field	No action yet	Unknown	FVHD
	50 Dry Bridge- old	Site evaluation completed-no repair work	Unknown	FVHD
	41 Country- unknown	New tank installed	Unknown	FVHD
	760 Cherry Brook- addition	New tank installed.	Unknown	FVHD
	2022 :	Septic Failures		
Farmington Valley Health District (FVHD)	35 Trailsend Drive- The septic tank was reported in poor condition.	The septic system was evaluated by the FVHD, and a permit for tank replacement was granted. An engineering plan is shown for the installation of a new 1,000- gallon septic tank.	Unnamed brook and wetlands area nearby with potential for impact.	FVHD
Farmington Valley Health District (FVHD)	9 Noja Trail- Out-of-level and cracked at outlet side.	A 1,250-gallon septic tank was installed, and the existing tank was abandoned. Other corrective measures were listed as the installation of a 6-hole D-Box.	Unnamed brook and wetlands area susceptible to impact.	FVHD
Farmington Valley Health District (FVHD)	21 Bristol Drive- Not stated.	Installation of a new septic system, including sewer-piping, septic tank, and leaching area was completed for the real estate sale of the property. The original septic tank was reported as abandoned.	Potential impact to unnamed brook.	FVHD
Farmington Valley Health District (FVHD)	24 Bristol Drive- Not stated.	An application for a site evaluation of the septic system was requested in May 2022. The site was evaluated, and the evaluation found that the system could be repaired; however, system failures were not listed. Recommendations listed included the proper abandonment of the old septic tank and other hollow structures, installation of a new septic tank with an outlet baffle filter, and to provide a total of 495 square feet of leaching area.	None.	FVHD
Farmington Valley Health District (FVHD)	50 Bristol Drive- Breakout	A site evaluation was completed due to septic breakout at this property. Subsequently, a new septic tank was installed. The leaching	None.	FVHD

Town of Canton Septic Repair and Replacement 2021 - 2024

Method used to track illicit discharge reports	Location and nature of structure with failing septic systems	Actions taken to respond to and address the failures	Impacted waterbody or watershed, if known	Dept. / Person responsible
		system was found non- compliant relative to the MLSS requirements, however, an exception was granted, as it was unlikely to result in a health hazard.		
	2023 \$	Septic Failures		
	35 Bahre Corner – Slow drainage	A full evaluation was done by the FVHD, and no replacements were made.	Potential impact to Jim Brook.	FVHD
	11 Freedom Drive – Sewage overflow	A new tank and leach field was installed.	Potential impact to the Nepaug Reservoir.	FVHD
Farmington Valley	65 Cherry Brook Road – Sewage overflow	A new leaching field was installed.	Potential impact to Cherry Brook.	FVHD
Health District (FVHD)	42 Country Lane – End of life	A new tank and leaching field were installed.	Potential impact to the Nepaug River.	FVHD
(2 · 112)	148 Gracey Road – Cracked tank	A new tank was installed.	Potential impact to Jim Brook.	FVHD
	115 North Mountain – Slow drainage	A full evaluation was done by the FVHD, and no replacements were made.	None.	FVHD
	650 Albany Turnpike – Old age	A full evaluation was done by the FVHD, and no replacements were made.	Potential impact to Farmington River.	FVHD
		2024	1	1
	105 East Hill Rd – high water	Full repair – new tank and leaching field		FVHD
	19 Town Bridge Rd – sewer pipe collapsed	Section of pipe replaced		FVHD
	33 Old Canton Rd – cracked tank and dbox	New tank and dbox installed		FVHD
	45 Gracey Rd – at capacity	New tank and dbox installed		FVHD
	98 North Mountain - overflow	Pump chamber and leaching field installed		FVHD
	100 Torrington Ave – high water	New tank and leaching field installed		FVHD
	12 Gracey Rd – cracked tank	New tank and dbox installed		FVHD
Farmington Valley Health District	21 Spaulding Rd – new addition	2 nd building sewer pipe installed		FVHD
(FVHD)	9 Silver Mine Acres – bent pipe	Small portion of building sewer pipe replaced		FVHD
	8 Mohawk Dr – old tank	New septic tank installed		FVHD
	13 Orchard Hill Rd – cracked tank	New septic tank installed		FVHD
	24 Sweetheart Mountain – pool installation	New septic tank installed		FVHD
	650 Cherry Brook Rd	Full evaluation w/PE plan – no installation yet		FVHD
	54 Breezy Hill Rd – tank collapse	New septic tank installed		FVHD
	31 Country Lane – house addition	Full evaluation – no installation yet		FVHD
	40 North Mountain Rd – tank corrosion	New septic tank installed		FVHD

Town of Canton Septic Repair and Replacement 2021 - 2024

Method used to track illicit discharge reports	Location and nature of structure with failing septic systems	Actions taken to respond to and address the failures	Impacted waterbody or watershed, if known	Dept. / Person responsible
	191 Wright Rd – tank in poor condition	New septic tank installed		FVHD
	4 Breezy Hill Road – cracked tank	New septic tank installed		FVHD
	40 Bristol Dr – inspection noted issue	Full evaluation - no installation yet		FVHD
	21 High Hill – cracked tank	New tank and dbox installed		FVHD

ATTACHMENT III WET WEATHER SCREENING AND PRIORITY OUTFALL SAMPLING 2021 TO 2024

Town of Canton Wet Weather Sampling Outfalls to Impaired Waterbodies 2021-2024

		Pollutant Parameter								
Outfall ID	Inspection Date	(Nitrogen, Phosphorous, Bacteria, Other)	E. Coli (MPN/100mL)	Total Coliform (MPN/100mL)	Turbidity (NTU)	Chlordie (mV)	Laboratory	Follow-Up Required?	Longitude	Latitude
	<u> </u>	Other)	()	202	21	()				
OF-206	06/14/21	Bacteria	5,480	>24200			Phoenix Environmental Laboratories	Yes	-72.902721	41.865117
OF-105	06/14/21	Bacteria	2,280	>24200		1	Phoenix Environmental Laboratories	Yes	-72.911845	41.864327
OF-103	06/14/21	Bacteria		No Discha	rge		Phoenix Environmental Laboratories	Yes	-72.911968	41.864326
OF-104	06/14/21	Bacteria	15,500	>24200			Phoenix Environmental Laboratories	Yes	-72.911845	41.864327
OF-108	06/14/21	Bacteria	1,970	>24200		1	Phoenix Environmental Laboratories	Yes	-72.915978	41.856804
OF-107	06/14/21	Bacteria	2,060	>24200		-	Phoenix Environmental Laboratories	Yes	-72.915981	41.856826
OF-109	06/14/21	Bacteria	275	>24200			Phoenix Environmental Laboratories	Yes	-72.921108	41.855805
OF-110	06/14/21	Bacteria	988	>24200			Phoenix Environmental Laboratories	Yes	-72.920136	41.856027
OF-40	06/14/21	Bacteria	24,110	>24200			Phoenix Environmental Laboratories	Yes	-72.924501	41.840474
OF-39	06/14/21	Bacteria	933	>24200			Phoenix Environmental Laboratories	Yes	-72.924348	41.840631
OF-104	09/01/21	Bacteria	3,080	>24200			Phoenix Environmental Laboratories	Yes	-72.911845	41.864327
OF-206	09/01/21	Bacteria	369	>24200			Phoenix Environmental Laboratories	Yes	-72.902721	41.865117
OF-40	09/01/21	Bacteria	120	>24200			Phoenix Environmental Laboratories	Yes	-72.924501	41.840474
OF-105	09/01/21	Bacteria	602	>24200			Phoenix Environmental Laboratories	Yes	-72.911845	41.864327
OF-107	09/01/21	Bacteria	556	>24200			Phoenix Environmental Laboratories	Yes	-72.915981	41.856826
OF-108	09/01/21	Bacteria	905	>24200			Phoenix Environmental Laboratories	Yes	-72.915978	41.856804
OF-40	08/26/22	Bacteria	5,170	20: >24200			Phoenix Environmental Laboratories	Yes	-72.924501	41.840474
OF-104	08/26/22	Bacteria	15,500	>24200			Phoenix Environmental Laboratories	Yes	-72.911845	41.864327
OF-105	08/26/22	Bacteria	3,450	>24200			Phoenix Environmental Laboratories	Yes	-72.911845	41.864327
OF-107	09/22/22	Bacteria	10,500	>24200			Phoenix Environmental Laboratories	Yes	-72.915981	41.856826
OF-108	09/22/22	Bacteria	7,270	>24200			Phoenix Environmental Laboratories	Yes	-72.915978	41.856804
OF-206	08/26/22	Bacteria	>24200	>24200		-	Phoenix Environmental Laboratories	Yes	-72.902721	41.865117

Town of Canton Wet Weather Sampling Outfalls to Impaired Waterbodies 2021-2024

		Pollutant Parameter		Results	5					
Outfall ID	Inspection Date	(Nitrogen, Phosphorous, Bacteria, Other)	E. Coli (MPN/100mL)	Total Coliform (MPN/100mL)	Turbidity (NTU)	Chlordie (mV)	Laboratory	Follow-Up Required?	Longitude	Latitude
				202	23					
OF-40	09/18/23	Bacteria	106	>24200			Phoenix Environmental Laboratories	Yes	-72.924501	41.840474
OF-104	09/18/23	Bacteria	8,660	>24200			Phoenix Environmental Laboratories	Yes	-72.911845	41.864327
OF-105	08/25/23	Bacteria	185	>24200			Phoenix Environmental Laboratories	Yes	-72.911845	41.864327
OF-107	08/25/23	Bacteria	1,350	>24200			Phoenix Environmental Laboratories	Yes	-72.915981	41.856826
OF-108	09/18/23	Bacteria	199	>24200			Phoenix Environmental Laboratories	Yes	-72.915978	41.856804
OF-206	09/18/23	Bacteria	1,160	>24200			Phoenix Environmental Laboratories	Yes	-72.902721	41.865117
	1			202	24				1	
OF-40	11/21/24	Bacteria	697	>24,200			Phoenix Environmental Laboratories	Yes	-72.924501	41.840474
OF-104	11/21/24	Bacteria	>24,200	>24,200			Phoenix Environmental Laboratories	Yes	-72.911845	41.864327
OF-105	11/21/24	Bacteria	52	>24,200			Phoenix Environmental Laboratories	Yes	-72.911845	41.864327
OF-107	11/21/24	Bacteria	>24,200	>24,200			Phoenix Environmental Laboratories	Yes	-72.915981	41.856826
OF-108	11/21/24	Bacteria	7,700	>24,200			Phoenix Environmental Laboratories	Yes	-72.915978	41.856804
OF-206	11/21/24	Bacteria	933	>24,200			Phoenix Environmental Laboratories	Yes	-72.902721	41.865117

Notes:

* All highlighted bacterial concentrations are required for follow-up investigations.
*Highlighting is based on the following criteria;
1. E. Coli >235/100mL for Swimming Areas, and >410 col/100mL for all others.
2. Total Coliform > 500 col/100mL

ATTACHMENT IV CATCHMENT ASSESSMENT AND PRIORITY RANKINGS

Town of Canton Catchment Assessment and Priority Ranking Matrix

			Previous	Discharging to					Historic									
Catchment ID	Number of Outfalls Included	Receiving Water(s)	Screening Results Indicate Likely Sewer Input? ¹	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	Combined Sewers or Septic? ⁶	Aging Septic? ⁷	Culverted Streams? ⁸	Additional Characteristics	Sewer Repair/Failure Nearby?	Urbanized Area	DCIA >11% 9	Impaired Waterbody		
Info	formation Source	2	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	Municipal Staff, GIS Maps	CLEAR	CLEAR	CLEAR	Score	Priority Ranking Low Priority: 0-5 Problem: 6-9 High Priority: ≥10
s			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	Description	Yes=2 No=0		Yes =1 No = 0	Yes =1 No = 0		
4309-00-1	None	Cherry Brook	0	0	0	0	1	3	0	0	0	Cleared Agricultural farmland with some residential housing	0	0	0	0	4	Low Priority
4319-11-1 4309-01-1	None	Unnamed stream Cherry Brook,	0	3	0	0	0	1	0	0	0	Wooded Cleared agricultural land, some wooded areas with	0	0	0	0	4	Low Priority Problem
4309-02-1	None	unnamed streams Cherry Brook, Titan's Pond	3	3	0	0	1	1	0	0	3	light residential Wooded with light residential housing	0	0	0	0	11	High Priority
4309-00-2-R1	None	Cherry Brook,unnamed streams	3	0	0	0	1	1	0	0	3	Wooded with residential housing	0	0	0	0	8	Problem
4309-00-2-R2	None	Cherry Brook, unnamed streams	3	0	0	0	2	1	0	1	3	Mainly residential housing with wooded areas.	0	0	0	0	10	High Priority
4308-19-2-R1	None	Unnamed stream	0	0	0	0	1	1	0	0	0	Wooded area with light residential housing	0	0	0	0	2	Low Priority
4308-18-1	None	Spruce Brook, unnamed streams	0	0	0	0	1	1	0	0	3	Wooded with light residential housing	0	0	0	0	5	Low Priority
4309-03-1	None	Unnamed streams	3	0	0	0	2	1	0	0	3	Residential housing with light cleared agricultural farmland and lightly wooded areas	0	0	0	0	9	Problem
4318-00-1	None	Towards Hop Brook River in Simsbury	0	0	0	0	3	1	0	0	0	Mainly residential housing with wooded areas.	0	0	0	0	4	Low Priority
4308-18-2-R1	None	Spruce Brook, unnamed streams	0	0	0	0	0	1	0	0	0	Wooded area with Ski mountain	0	0	o	0	1	Low Priority
4309-05-1	17	Barbour Brook	0	0	0	0	2	1	0	0	3	Residential housing with light cleared agricultural farmland and lightly wooded areas	0	0	0	0	6	Problem
4318-04-1-L1	15	Unnamed streams	0	0	0	0	3	2	0	1	3	Mainly residential housing with lightly wooded areas	0	1	0	0	10	High Priority
4309-04-1	6	Unnamed streams	3	0	0	0	3	2	0	0	3	Mainly residential housing with lightly wooded areas	2	0	0	0	13	High Priority
4300-14-1	16	Unnamed streams	0	0	0	0	2	1	0	0	3	A mixture of cleared agriculutural farmland and residential housing, as well as lightly wooded areas	0	1	0	0	7	Problem
4309-00-2-R4	2	Cherry Brook, unnamed streams	3	0	0	3	1	1	0	0	3	Mainly cleared agricultural farmland with light residential housing and wooded areas	0	0	0	3	14	High Priority
4318-04-1	None	Towards Od Reservoir in Simsbury	0	0	0	0	0	0	0	0	0	Wooded	0	1	0	0	1	Low Priority
4308-00-2-R1	None	Towards Hallman Pond Cherry Brook,	0	0	0	0	0	0	0	0	0	Wooded Cleared agricultural	0	0	0	0	0	Exempt
4309-00-2-R3 4300-00-4+R6	None	unnamed streams Towards Chase Pond	3	0	0	0	1	0	0	0	0	farmland Wooded with light	0	0	0	0	4	Low Priority
4317-00-1	None	Towards Jim Brook	0	3	0	0	1	1	0	0	0	residential housing Wooded with light residential housing	0	1	0	0	6	Problem
4300-15-1	20	Cherry Brook, Humphrey Pond	0	3	0	0	3	3	0	0	3	Mainly residential housing with lightly wooded areas	0	0	0	0	12	High Priority
4312-01-1	23	Jim Brook	0	3	0	0	2	1	0	2	3	A mixture of residential housing and lightly wooded	0	1	0	0	12	High Priority
4300-00-4+R7	None	Chase Pond	0	0	0	0	0	0	0	0	0	Wooded	0	0	0	0	0	Exempt
4309-00-2-R5	9	Cherry Brook	3	0	0	3	2	1	0	4	3	Mainly residential with wooded areas	0	1	0	3	20	High Priority
4300-16-1	29	Cherry Brook, Bahre Pond	0	0	0	0	2	2	0	0	3	Mainly residential with wooded and cleared agricultural farmland areas	2	1	0	0	10	High Priority
4300-00-4+R8	5	Chase Pond	0	0	0	0	2	2	0	0	0	Mainly residental housing with wooded areas and lightly cleared agricultural farmland	0	1	0	0	5	Low Priority
4312-00-1	4	Werner Woods Dam, Burke Pond	0	3	0	0	2	2	0	0	3	Mainly residential housing with wooded areas.	0	1	0	0	11	Problem
4300-00-4+R9	None	Farmington River	3	0	0	0	3	2	0	0	0	Cleared agriculutral farmland and/or industrial/commercial sites	0	1	1	0	10	Problem
4300-00-4+R10	13	Nepaug River, Holkfelder Pond	0	0	0	0	3	2	0	0	3	Cleared agricultural farmland and/or	0	1	1	0	10	High Priority
4300-18-1-L1	3	Unnamed Stream, Upper Mills Pond	0	3	0	0	3	3	0	0	3	industrial/commercial sites Residential housing with lightly wooded areas, as well industrial/commercial sites	0	1	1	0	14	High Priority
4310-00-3-L2	None	Nepaug Reservoir	0	3	0	0	3	2	0	0	0	Residential with wooded areas, as well as a reservoir	0	1	0	0	9	Problem
4310-00-3-R5	7	Nepaug River,	0	0	0	0	2	1	0	1	3	Residential housing with	0	1	0	1	9	Problem
4312-00-2-L2	14	Holkfelder Pond	3	3	0	0	3	3	0	0	3	wooded areas A mixture of residential housing and	0	1	1	0	17	High Priority
		Roaring Brook										industrial/commercial sites, as well as wooded areas Mainly residential housing						
4300-17-1	3	Unnamed streams Rattlesnake Hill	0	3	0	0	2	1	0	0	3	A mixture of resiential	0	1	1	0	11	High Priority
4300-00-4+R11	23	Brook, Farmington River	0	3	0	0	3	3	0	2	3	housing and industrial/commercial sites	0	1	1	0	16	High Priority
4300-18-1	2	Unnamed Streams, Lower Mills Pond	0	3	0	0	1	1	0	0	3	Mainly open parks with light residential housing	0	1	1	0	10	High Priority
4312-00-2-L1	None	Bond Pond	0	3	0	0	1	1	0	0	0	Residential housing with lightly wooded areas	2	1	1	o	9	Problem
4317-01-1	None	Unnamed Pond	0	0	0	0	3	3	0	o	0	Industrial/commercial site(s) with wooded areas	0	1	0	0	7	Problem
4300-16-2-R1	None	Unnamed Stream, Rattlesnake Hill Brook	0	3	0	0	2	2	0	0	3	Residential housing with wooded areas	0	1	1	0	12	High Priority
4300-00-4+R12	9	Spring Brook	0	0	0	0	3	3	0	0	3	Highly populated area with residential housing	0	1	1	0	11	High Priority
4312-02-1	2	Towards Secret lake and Cherry Park Pond in Avon	0	0	0	0	3	3	0	0	0	Residential housing	0	1	1	0	8	Problem

Scoring Criteria:
Previous screening results indicate likely sewer input if any of the following are true:
Olfactory or visual evidence of sewage,
• Ammonia ≥ 0.5 mg/L, surfactants ≥ 0.25 mg/L, and bacteria levels greater than the water quality criteria applicable to the receiving water, or
 Ammonia ≥ 0.5 mg/L, surfactants ≥ 0.25 mg/L, and detectable levels of chlorine
² Catchments that discharge to or in the vicinity of any of the following areas: public beaches, recreational areas, drinking water supplies, or shellfish beds
³ Receiving water quality based on latest version of State of Connecticut Integrated Water Quality Report.
Poor = Waters with approved TMDLs (Category 4a Waters) where illicit discharges have the potential to contain the pollutant identified as the cause of the impairment
Fair = Water quality limited waterbodies that receive a discharge from the MS4 (Category 5 Waters)
Good = No water quality impairments
⁴ Generating sites are institutional, municipal, commercial, or industrial sites with a potential to contribute to illicit discharges (e.g., car dealers, car washes, gas stations, garden centers, industrial manufacturing, etc.)
s Age of development and infrastructure:
High = Industrial areas greater than 40 years old and areas where the sanitary sewer system is more than 40 years old
Medium = Developments 20-40 years old
Low = Developments less than 20 years old
Areas once served by combined sewers and but have been separated, or areas once served by septic systems but have been converted to sanitary sewers.
² Aging septic systems are septic systems 30 years or older in residential areas.
⁸ Any river or stream that is culverted for distance greater than a simple roadway crossing.
⁹ Based off of CT NEMO DCIA Calculations
Pending investigation



ATTACHMENT V DRY WEATHER INSPECTIONS 2021 TO 2024

Number	Outfall ID	Inspection Date	Material	Subtype	Diameter (Inches)	Conditio n	Erosion Control	Notes	Illicit Discharge	Illicit Discharge Flow Type	Illicit Discharge Description	Sample Collection	Longitude	Latitude
								2021						
1	OF-105	04/13/21	Concrete	Flared End	18	Good	Good	OF Is directly next to outfall 106. This outfall is discharging, connected to school zone. High algae at discharge location.	Yes	Steady	Slight oily sheen, some suspended solids, algae at discharge mouth. Mostly clear, no odor.	Yes	-72.913584	41.8587546
2	OF-206	04/13/21	Concrete	Other	18	Poor	Poor	OF is mostly silted in. Needs to be cleared. Channel is mostly blocked by leaf litter and dirt.	No				-72.902728	41.8651254
3	OF-107	04/13/21	Concrete	Endwall	18	Good	Good	OF discharge area filled with leaf litter.	Yes	Low	Upon further investigation, a cb uphill from OF had a clay pipe discharging heavily onto cb from residence .	Yes	-72.915984	41.8568364
4	OF-110	04/13/21	Concrete	Endwall	24	Fair	Fair	Endwall and part of outfall is slightly broken. Part of outfall is slited in.	No				-72.920132	41.8560382
5	OF-109	04/13/21	Concrete	Endwall	12	Good	Good	Part of OF pipe silted in.	No				-72.921116	41.8558186
6	OF-39	04/13/21	Concrete	Other	18	Good	Fair	This outfall takes runoff directly from road, discharges next to OF 40.	No					41.8406396
7	OF-40 OF-104	04/13/21	Concrete	Other	18	Good Fair	Good Fair	Next to OF 39. OF is mostly silted in. Discharges to farm/wetland area. Receives discharge from	No					41.8404798
	01-104	0415/21	Thiste	ould	12	Tun	Tun	Connecting OF/culvert 103, which comes from a ditch.	110				-72.511040	41.0045551
9	OF-103	04/13/21	Plastic	Other	12	Poor	Fair	Cb to small ditch on side of road, leads to OF 104.	No				-72.911966	41.8643331
10	OF-108	04/13/21	Concrete	Endwall	18	Good	Fair	Next to OF 108. Discharge area filled with leaf litter. Some silt and sediment in pipe.	No				-72.915984	41.856814
11	OF-106	04/13/21	Concrete	Flared End	12	Good	Good	Directly next to OF 106. No discharge, in good condition.	No				-72.913548	41.8587613
12	Catch Basin (ID 1181)	04/13/21	Concrete	Other	6	Fair	Excellent	This is possibly from a residence. ATC has no indication of where this pipe comes from.	Yes	Heavy	Discharging from clay pipe. Pipe comes from direction of residence.	No	-72.917114	41.8570017
13	Catch Basin (ID 1330)	04/13/21	Concrete	Endwall		Poor	Excellent	Endwall is deteriorated enough where suspected groundwater is entering catch basin.	Yes			No	-72.924678	41.8557037
								2022						
14	OF-5	06/20/22	Concrete	Endwall	18	Good	Good	Culverted stream 3 18- inch metal corrugated pipes steady flow	No				-72.879555	41.8204329
15	OF-6	06/20/22		Endwall	18	Good	Fair	This is a culvert not illicit discharge. Material is three corrugated steal, concrete Endwall	Yes				-72.879708	41.8203994
16	OF-9	06/20/22	Concrete	Endwall	18	Fair	Fair	Concrete head wall clear groundwater flow concrete block head wall	Yes				-72.878819	41.8165566
17	OF-26	06/20/22	Concrete	Endwall	36	Good	Fair	Iron stain on discharge, clear flow no odor	Yes	Steady	Clear flow, iron staining	Yes	-72.889877	41.8208011
18	OF-27	06/20/22	Concrete	Flared End	24	Poor	Poor	Sediment 8-10 inches at end. Located heavy over growth no erosion control	No				-72.891243	41.8199911
19	OF-29	06/20/22	Concrete	Flared End	18	Good	Good	Concrete flare end 18 inch diameter. Some riprap no discharge. Detritus around around Outfall	No				-72.895078	41.8130751

Number	Outfall ID	Inspection Date	Material	Subtype	Diameter (Inches)	Conditio n	Erosion Control	Notes	Illicit Discharge	Illicit Discharge Flow Type	Illicit Discharge Description	Sample Collection	Longitude	Latitude
								2022						
20	OF-28	06/20/22	Concrete	Flared End	18	Poor	Poor	Concrete Flared End 18 inch diameter. Depressed area set in soil. Standing water in pipe and depression	No				-72.895743	41.8130952
21	OF-30	06/20/22	Concrete	Flared End	18	Fair	Poor	Concrete Flared End 18 inches. Next to drainage pipe 24 inch flare to 18 inch pipe concrete Flared End. Discharges into wetland standing water.	Yes				-72.895941	41.8152645
22	OF-14	06/20/22	Concrete	Other	18	Fair	Fair	Concrete pipe, stone/boulder erosion control, dry , 6- inches of sediment inside pipe	No				-72.88791	41.8285195
23	OF-60	06/20/22						No outfall or culvert	No				-72.888045	41.8285195
24	OF-24	06/20/22	Concrete	Endwall	18	Good	Fair	found 18 inch concrete pipe dry no sediment, discharge adjacent to OF23 . Drainage swale side wood covered stone box drain	No				-72.902373	41.8323883
25	OF-50	06/20/22	Concrete	Endwall	18	Good	Poor	Stone Endwall with	No				-72.902804	41.8317658
26	OF-25	06/20/22	HDPE	Other	18	Good	Excellent	concrete pipe 18 inch. Discharge to catch basin. Receive from catch basin upflow that receives discharge from 4 inch corrugated pipe	No					41.8317591
27	OF-19	06/20/22	Concrete	Endwall	18	Good	Fair	Stone Endwall with 18 inch concrete pipe set back in Endwall. Natural rounded boulders channel cut by erosion	No				-72.90213	41.8344365
28	OF-18	06/20/22	Concrete	Endwall	18	Good	Fair	18 inch concrete pipe dry no sediment, discharge adjacent to OF23. Drainage swale side wood covered stone box drain discharge to pool outfall to OF19	No				-72.902049	41.8345034
29	OF-20	06/20/22	Concrete	Other	18	Fair	Poor	18 inch concrete pipe, 1/2 filled with sediment and sediment channel cut by erosion	No				-72.903873	41.8342156
30	OF-22	06/20/22	Concrete	Endwall	24	Good	Good	24 inch st flow received from catch basin on road clear water flow groundwater	No				-72.903927	41.8334793
31	OF-21	06/20/22	Concrete	Other		Fair	Poor	Surface discharge to 18- inch culvert stream clear flow discharge to of-23	No				-72.903738	41.8336266
32	OF-160	06/20/22				Poor	Poor	Covered pipe not visible, surface water would flow in sediment channel along road	No				-72.878846	41.835514
33	OF-162	06/20/22						Bridge over top of stream no culvert or outfall.	No				-72.881568	41.8377896
34	OF-161	06/20/22						Bridge over top of stream no culvert or outfall.	No				-72.881774	41.8376959
35	OF-159	06/20/22		Endwall	18	Fair	Poor	18 inch corrugated steel pipe with mortared stone end wall dry, receives surface runoff from road	No				-72.878693	41.8356613
36	OF-166	06/20/22	Concrete	Endwall	18	Poor	Poor	18 inch corrugated steel pipe with mortared stone end wall dry, receives surface runoff from road filled with sediment dry	No				-72.888835	41.840373

Number	Outfall ID	Inspection Date	Material	Subtype	Diameter (Inches)	Conditio n	Erosion Control	Notes	Illicit Discharge	Illicit Discharge Flow Type	Illicit Discharge Description	Sample Collection	Longitude	Latitude
								2022						
37	OF-165	06/20/22	Concrete	Endwall	18	Fair	Poor	Culvert, Stone Endwall with 18 inch concrete pipe, half filled with sediment	No				-72.888691	41.84046
38	OF-163	06/20/22	Precast	Endwall	24	Poor	Fair	18 inch corrugated steel pipe with mortared stone end wall dry, receives surface runoff from road, crosses road to location of-164	No				-72.889787	41.8407879
39	OF-164	06/20/22			24	Poor	Poor	From stone Endwall now filled in with soil a clay pip extends approximately 5 feet out from end wall into standing water	No				-72.889778	41.8407009
40	OF-167	06/20/22	Concrete	Endwall	18	Poor	Fair	Stone headwall with concrete pipe half filled with soil, Chanel contains wood chips	No				-72.893641	41.8410355
41	OF-169	06/20/22	Precast	Endwall	18	Fair	Fair	18 inch corrugated steel pipe with mortared stone end wall dry, receives surface runoff from road filled with sediment clear gw flow entering pipe headwall crosses road to of-70	No				-72.899238	41.8443281
42	OF-170	06/20/22	Concrete	Endwall	18	Good	Fair	Stone Endwall with 18 inch concrete pipe, some natural rounded boulders below pipe discharge, standing water puddle and sediment croded channel. Heavily overgrown around Endwall	No				-72.8993	41.8442545
43	OF-56	06/20/22		Other	48	Good	Good	Entrance of Stream flowing through Culvert corrugated steal 48 inches, some riprap	No				-72.900693	41.8464629
44	OF-33	06/20/22	Precast	Flared End	30	Excellent	Good	30 inch precast with Flared End. Flowing clear water ~3 inches deep at end of pipe	No				-72.900926	41.8451847
45	OF-38	06/20/22		Other	24	Good	Good	Exit of stream flowing through 24 inch corrugated steel Culvert, some riprap. Steady flowing steam	No				-72.90072	41.8463759
46	OF-172	06/20/22	HDPE	Other	24	Good	Good	Corrugated HDPE pipe entrance to surface water flowing under road. Downward sloping stream with riprap leading into pipe	No				-72.899866	41.8470451
47	OF-171	06/20/22	HDPE	Flared End	24	Excellent	Good	24 hdpe receive water from catch basins 6-inch inner pipe clear water discharge no staining or odors	No				-72.900019	41.8470517
48	OF-192	06/20/22	Precast	Endwall	48	Excellent	Good	Concrete discharge continuous flow, foam on surface, no odor, large boulder below plunge po	Yes	Steady	Clear, foam on surface, no odor, steady flow 3-5 gpa	lry weather p	-72.890138	41.8597515
49	OF-191	06/20/22	Precast	Endwall	36	Excellent	Good	Inflow pipe concrete, clear water, steady flow no odor staining observed	No				-72.890515	41.8598051
50	OF-190	06/20/22						No outfall observed/not located	No				-72.890102	41.8597917
51	OF-23	06/20/22	Concrete	Endwall	18	Good	Fair	Endwall concrete 18 inch pipe parallel to OF-24.	No				-72.902471	41.832395

Number	Outfall ID	Inspection Date	Material	Subtype	Diameter (Inches)	Conditio n	Erosion Control	Notes	Illicit Discharge	Illicit Discharge Flow Type	Illicit Discharge Description	Sample Collection	Longitude	Latitude
								2022						
52	OF-187	06/21/22	Concrete	Endwall	18	Good	Good	Concrete block Endwall, 18 inch concrete pipe, discharging into a steam	No	-			-72.884766	41.8483098
53	OF-186	06/21/22	Concrete	Endwall	18	Good	Good	18 concrete adjacent to stream culvert, clear steady flow, no odors	No				-72.884891	41.8483901
54	OF-184	06/21/22	Precast	Endwall	60	Good	Good	60 inch corrugated steel stream culvert with masonry boulder end wall constant flow 10percent of pipe	No				-72.884703	41.8484503
55	OF-185	06/21/22		Other	72	Good	Good	Culvert under a road in stone Endwall, 72 inch corrugated metal pipe,	No				-72.884847	41.8483098
56	OF-183	06/21/22	HDPE	Flared End	16	Good	Good	Flared End HDPE pipe 16 inch exterior 14 inch interior. sticking out from an embankment. There is riprap down embankment	No				-72.885871	41.849802
57	OF-180	06/21/22	Plastic	Endwall	18	Good	Good	In concrete block and wall, 18 inch concrete pipe discharges into Stream. Riprap and natural steam rocks are present.	No				-72.886877	41.8522979
58	OF-179	06/21/22	Concrete	Endwall	30	Good	Good	30 inch concrete end wall stream culvert, clear water flow no odors or foam , end wall concrete block mortared	No				-72.887142	41.8522587
59	Catch Basin (ID 1384)	06/21/22	HDPE		16	Good	Fair	HDPE pipe discharge from catch basin onto dried up shallow ditch. Previously flaredend (cut on angle) no cut straight. Scrap Flared End piece still located near pipe	No				-72.887556	41.8535567
60	OF-178	06/21/22	Concrete	Flared End	18	Good	Good	18 inch clear water	No				-72.886841	41.8560048
61	OF-176	06/21/22	HDPE	Flared End	16		Good	continuous flow, HDPE 16 inch pipe runs under road, protruding from sloping terrain down from the road. Discharging into a rift raft partially dried up channel	Yes					41.8570485
62	OF-175	06/21/22	HDPE	Flared End	16	Good	Good	16 inch hdpe pipe , culvert for stream, clear water flow, trickle, no observed odors, stain or foam	No				-72.887515	41.856995
63	OF-174	06/21/22	Concrete	Endwall	18	Good	Good	Concrete head wall culvert for clear water stream flow continuous, no observed staining, odors, foam	No				-72.888071	41.8588149
64	OF-189	06/21/22	Concrete	Endwall	18	Fair	Fair	18 inch concrete pipe , cast in place end wall, dry, 1/4 full with debris, detritus	No				-72.886266	41.8600258
65	OF-188	06/21/22	Concrete	Endwall	24	Good		Concrete block and wall with 24 inch concrete pipe, discharging into pond	No				-72.885969	41.8600794
66	OF-196	06/21/22	Concrete	Flared End	30	Good	Good	30 inch concrete culvert, mortared stone end wall, continuous flow stream, clear, no odors, staining, foam	No				-72.880777	41.8659533
67	OF-197	06/21/22	Concrete	Endwall	30	Good	Good	Headwall to culvert, stream runs under Road. 30 inch concrete pipe entrance to steam water	No				-72.880822	41.8658061

Number	Outfall ID	Inspection Date	Material	Subtype	Diameter (Inches)	Conditio n	Erosion Control	Notes	Illicit Discharge	Illicit Discharge Flow Type	Illicit Discharge Description	Sample Collection	Longitude	Latitude
							1	2022						
68	OF-194	06/21/22	Precast	Endwall	60	Good	Good	Mortared stone end wall, Corrugated metal pipe stream culvert, clear water continuous flow. No odor,staining, foam	No				-72.876816	41.8686426
69	OF-193	06/21/22		Endwall	60	Good	Good	Culvert, Stone and wall, approximately 60 inch corrugated metal pipe, discharging into Stream	No				-72.876582	41.8685623
70	OF-195	06/21/22	Concrete			Fair	Good	Stone lined square ditch with concrete pipe (of uncertain size) mostly covered by detritus	No				-72.878118	41.8670839
71	OF-200	06/21/22	Concrete	Flared End	18	Good	Fair	Concrete flared and pipe at bottom of sloping terrain down from road the road.	No				-72.884936	41.8707698
72	OF-201	06/21/22		Other		Poor		Discharge end covered not observed	No				-72.884541	41.8670839
73	OF-198	06/21/22	Concrete	Flared End	30	Good	Good	Concrete stream culvert, continuous clear water flow no odor staining, foam	No				-72.882601	41.8718802
74	OF-199	06/21/22	Concrete	Flared End	30	Good	Good	Concrete Flared End 30 inch pipe that runs under road, stream discharge that runs under road	No				-72.88261	41.8716528
75	OF-203	06/21/22	Concrete	Flared End	24	Good	Good	24 inch concrete Flared End dry	No				-72.888521	41.8688031
76	OF-202	06/21/22	Concrete	Flared End	24	Poor	Good	Half filled in, Concrete Flared End 24 inch Flared End pipe that runs under road. Rip rap present and discharges into Stream, that is currently standing water.	No		-		-72.888332	41.8687764
77	OF-204	06/21/22	Concrete	Flared End	16	Good	Good	Concrete Flared End dry, deadens road discharge to wooded area	No	-			-72.890659	41.8708501
78	OF-205	06/21/22						Could not locate	No				-72.888584	41.8668631
79	OF-211	06/21/22		Endwall	12	Poor	Poor	12 inch clay pipe cracked, half full of sediment, dry, stone stack dry headwall	No				-72.892617	41.8637456
80	OF-210	06/21/22	Concrete	Other		Poor	Poor	95% sediment filled concrete pipe	No				-72.896516	41.8633576
81	OF-209	06/21/22	Concrete	Other	14	Poor	Poor	Concrete 100% filled with leaves and sediment, dry,	No				-72.897773	41.8636453
82	OF-135	06/21/22		Endwall	23	Fair	Fair	23 inch clay pipe in stone end wall, (6 inch pvc pipe entering catch basin leading to OF). Discharges into stream that leads to Collinsville dam	Yes				-72.926852	41.8114548
83	OF-139	06/21/22		Endwall		Good	Good	Stone Culvert, stream runs under Road, no pipe	No				-72.926385	41.8123252
84	OF-138	06/21/22		Other	30	Fair	Good	30 by 36 stone box culvert, stream crossing clear water. No staining odor or foam	No				-72.926546	41.8123922
85	OF-134	06/21/22	Concrete	Endwall		Poor	Poor	Concrete end wall stream culvert clear steady flow pipe filled 80%	Yes				-72.932287	41.8216178
86	OF-221	06/21/22	Concrete	Endwall		Poor		Pipe in headwall, stream flows into pipe to cross under road. 70% Filled with debris and leaves.	No	-			-72.932296	41.8216178
87	OF-219	06/21/22	Concrete	Endwall	30	Fair	Fair	30 inch concrete pipe culvert, Stream enters here and flows under Road. Water that enters is reddish with iron	No				-72.930688	41.8210354

Number	Outfall ID	Inspection Date	Material	Subtype	Diameter (Inches)	Conditio n	Erosion Control	Notes	Illicit Discharge	Illicit Discharge Flow Type	Illicit Discharge Description	Sample Collection	Longitude	Latitude
								2022						
88	OF-220	06/21/22	Concrete	Endwall	24	Good	Good	Stream culvert, steady flow clear, slight foam at pipe end	Yes	Trickle	Foam at pipe end		-72.930607	41.8209417
89	OF-212	06/21/22	Concrete	Endwall	16	Fair	Good	16 inch Concrete pipe at head wall surface water enters here and runs under road. Rocks partly block the pipe and bottom is filled with approximately 20% of center	No				-72.930131	41.8245232
90	OF-128	06/21/22	HDPE	Flared End	10	Excellent	Good	18 inch pipe discharge to rocky drainage swale dry	No				-72.929628	41.824309
91	OF-130	06/21/22	HDPE	Flared End	16	Good	Good	HDPE angularly cut pipe discharges off slope onto boulders	No				-72.930553	41.825621
92	OF-124	06/21/22	Concrete	Flared End	30	Good	Fair	Concrete Flared End 30	No				-72.930571	41.8320804
93	OF-123	06/21/22	Concrete	Flared End	18	Good	Good	inch pipe Dry 18 inch concrete pipe receive storm water from road basins discharge to wet area	No				-72.929717	41.8305476
94	OF-122	06/21/22	Concrete		16	Fair	Fair	16 inch concrete pipe. Standing water in front of pipe	No				-72.932197	41.8350991
95	OF-121	06/21/22	Concrete	Flared End	16	Good	Good	Dry low area yard drain, discharge to low area wet at of-122	No				-72.932556	41.8352463
96	OF-127	06/21/22		Endwall	16	Good	Good	Corrugated metal pipe exiting concrete bridge wall	No				-72.928217	41.8244027
97	OF-223	06/21/22	Concrete		20	Good	Good	20 inch concrete pipe on steeply sloping terrain down form road, riprap present.	No		-		-72.932412	41.82538
98	OF-131	06/21/22	Concrete	Other	18	Fair	Poor	Dry End section dislodged due to erosion . Receive storm water from 4 basins	No				-72.932826	41.8271204
99	OF-133	06/21/22	Concrete	Endwall	18	Good	Good	18 inch concrete outfall cement block Endwall trickle clear water, no odor, staining, foam	Yes				-72.933661	41.8217383
100	OF-214	06/21/22	HDPE		12	Good	Good	12 Inch HDPE pipe where surface water enters (form residential pvc pipes) to go under the road	No				-72.933814	41.8167106
101	OF-215	06/21/22	Concrete	Other	18	Poor	Poor	Pipe extend 50 feet behind house dry, 2 sections disconnected	No				-72.933409	41.8166102
102	OF-142	06/21/22	Plastic	Endwall	16	Good	Good	Corrugated plastic pipe, set in concrete box drain	No				-72.927975	41.8141397
103	OF-143	06/21/22	Concrete		20	Good	Good	Concrete drain cast in place headwall, trickle clear water flow receive from box drain from across road	Yes				-72.927912	41.8140259
104	OF-140	06/21/22	Concrete	Endwall	18	Good	Good	Concrete Endwall with concrete 18 inch pipe, natural cobble sized rocks leading down slope	No				-72.928585	41.813035
105	OF-137	06/21/22	Concrete	Endwall	18	Good	Good	18 inch concrete Endwall dry discharge to Farmington river	No				-72.925783	41.8091783
								2023 Concrete/ stone outfall						
106	OF-57	04/07/23	Concrete	Other	24	Good	Good	that runs under the street to a swale on the Other side, in good condition	No				-72.916746	41.8391415
107	OF-45	04/07/23	Concrete	Endwall	24	Good	Good	Concrete/stone Endwall outfall that flows into a swale on the side of the road, in good condition	No				-72.916871	41.8390545

Number	Outfall ID	Inspection Date	Material	Subtype	Diameter (Inches)	Conditio n	Erosion Control	Notes	Illicit Discharge	Illicit Discharge Flow Type	Illicit Discharge Description	Sample Collection	Longitude	Latitude
								2023						
108	OF-46	04/07/23	Concrete	Endwall	24	Good	Fair	Concrete/stone outfall on side of the road that runs under the street to the Other side where there's a swale. Some dead leaves and brush inside outfall	No				-72.917491	41.8392888
109	OF-47	04/07/23	Concrete	Endwall	24	Good	Fair	Stone/concrete Endwall on side of the road that flows into a swale in residential neighborhood	No				-72.91759	41.8392018
110	OF-43	04/07/23	Concrete	Endwall	24	Good	Good	Concrete/ stone Endwall outfall that flows under the street in residential neighborhood. Some riprap erosion control	No				-72.919926	41.8397573
111	OF-58	04/07/23				1		Unable to locate OF-58, likely in residential backyard	No				-72.920051	41.8396903
112	OF-41	04/07/23	Concrete	Endwall	24	Good	Fair	Concrete/stone Endwall outfall that flows under road in residential neighborhood, some garbage and brush in outfall, needs to be cleaned out.	No				-72.920797	41.8399179
113	OF-42	04/07/23	Precast	Other	12	Good	Fair	Outfall on the side of road in residential neighborhood, flows into a swale	No				-72.920868	41.8398446
114	OF-44	04/07/23				-		Unable to locate OF-44, in between residential houses on private property	No				-72.919368	41.8373053
115	OF-35	04/07/23	Precast	Other	12	Fair	Poor	Outfall on side of road next to a field in residential neighborhood. Filled with dead leaves and brush, needs to be cleaned out. No erosion control	No				-72.911446	41.8417048
116	OF-36	04/07/23						Unable to locate outfall,	No				72.011259	41.8412161
117	OF-36	04/07/23	Concrete	 Flared End	36	Good	Good	on residential property Flared End outfall on side of road that flows into a rip rap swale between residential houses. In good condition						41.8436388
118	OF-136	08/23/23	Concrete	Endwall		-		actual outfall covered by vegetation but based on nearby stormwater manhole, should discharge into reservoir from Endwall.	No				-72.926609	41.8103768
119	OF-182	08/23/23	Precast	Endwall	12	Fair	Fair	12 inch steel pipe discharges into wooded swale	No				-72.879475	41.8392285
120	OF-181	08/23/23						could not locate. discharges into steeply inclined wooded area.	No				-72.88005	41.8403462
121	OF-208	08/23/23						Could not locate. Located on private property and homeowner did not want ATLAS employee on land.	No				-72.899992	41.8648762
122	OF-207	08/23/23						Outfall likely located behind home. Homeowners not present	No				-72.90125	41.8650636
123	OF-96	08/23/23	Plastic	Endwall	12	Excellent	Good	12" plastic pipe discharges into wooded swale which leads to a stream/brook.	No	-			-72.918057	41.8701678

Number	Outfall ID	Inspection Date	Material	Subtype	Diameter (Inches)	Conditio n	Erosion Control	Notes	Illicit Discharge	Illicit Discharge Flow Type	Illicit Discharge Description	Sample Collection	Longitude	Latitude
								2023						
124	OF-89	08/23/23	Concrete	Endwall	18	Good	Good	18"" concrete pipe discharges into wooded area.	No				-72.925001	41.8782681
125	OF-90	08/23/23	Concrete	Endwall	12	Excellent	Excellent	12"" concrete pipe discharging into Brook.	No				-72.924327	41.8770909
126	OF-92	08/23/23	Plastic	Endwall	40	Excellent	Excellent	40-48"" plastic pipe culvert brings the Brook across the street.	No				-72.923708	41.87681
127	OF-91	08/23/23	Plastic	Endwall	40	Excellent	Excellent	40-48"" plastic Endwall culvert brings Brook across the street. No stormwater outfall present	No				-72.923887	41.8767096
128	OF-100	08/23/23						Located behind fenced area	No				-72.919171	41.8710775
129	OF-99	08/23/23						No linked catch basin on street. Located in area with steep terrain and also possible private property. Likely discharges into nearby stream/brook.	No				-72.919063	41.8711979
130	OF-94	08/23/23	Precast	Endwall	12	Poor	Fair	12"" metal pipe discharges into grassy/vegetated area. Pipe is rusting and falling apart and also misshapen.	No				-72.921749	41.8746562
131	OF-93	08/23/23	Precast	Endwall	12	Poor	Fair	12"" metal pipe discharges to outfall on Other side of street. Currently transporting a stream/brook. Metal is severely rusted and falling apart.	No				-72.921929	41.8745893
132	OF-88	08/23/23	Concrete	Endwall	12	Excellent	Poor	12"" concrete pipe discharges into wooded area. No visible erosion control present.	No				-72.928244	41.8819266
133	OF-95	08/23/23	Concrete	Endwall	18	Fair	Excellent	18"" concrete pipe discharges into Brook.	No				-72.923196	41.8764087
134	OF-98	08/23/23	Concrete	Endwall	12			12"" concrete pipe discharges from catch basin to behind fenced private propertt.	No				-72.919135	41.8710574
135	OF-101	08/23/23	Concrete		12			12"" concrete pipe discharges from catch basin to behind private property / home	No				-72.919099	41.871218
136	OF-87	08/23/23	Concrete	Endwall	12	Good	Poor	12"" concrete pipe discharges into wooded area. Outfall is clogged with dirt and leaf litter.	No	-			-72.929367	41.881619
137	OF-86	08/23/23	Concrete	Endwall	12	Excellent	Fair	12"" concrete pipe discharges into wooded area from roadside catch basin.	No				-72.929717	41.8814785
138	OF-102	08/23/23	Concrete		12			12"" concrete pipe discharges from catch basin to behind home with fenced yard.	No				-72.91512	41.8675655
139	OF-113	08/23/23	Concrete		12			12"" concrete pipe discharges from catch basin to wooded swale alongside home	No				-72.934317	41.8542383
140	OF-62	08/23/23						Discharges into heavily wooded/vegetated area from catch basin. Could not locate.	No				-72.935215	41.8537566
141	OF-61	08/23/23	Concrete	Flared End	12	Good	Fair	12"" concrete Flared End discharges into wooded swale from catch basin.	No				-72.936652	41.8538302
142	OF-63	08/23/23	Plastic	Flared End	24	Excellent	Excellent	24"" plastic Flared End discharging to stream in wooded area from roadside catch basin.	No				-72.937775	41.8539774

Number	Outfall ID	Inspection Date	Material	Subtype	Diameter (Inches)	Conditio n	Erosion Control	Notes	Illicit Discharge	Illicit Discharge Flow Type	Illicit Discharge Description	Sample Collection	Longitude	Latitude
		-						2023					-	
143	OF-64	08/23/23	Plastic	Flared End	24	Excellent	Excellent	wooded area.	No				-72.937892	41.8540108
144	OF-65	08/23/23	Plastic	Flared End	18	Excellent	Excellent	18"" plastic Flared End discharges into wooded swale	No				-72.937551	41.8545595
145	OF-66	08/23/23	Plastic	Flared End	18	Excellent	Excellent	18"" plastic Flared End discharges into wooded swale	No				-72.937694	41.8545863
146	OF-68	08/23/23	Concrete	Flared End	48	Excellent	Excellent	48"" concrete Flared End culvert	No				-72.937236	41.8565802
147	OF-67	08/23/23	Concrete	Flared End	48	Excellent	Excellent	48"" concrete Flared End culvert	No				-72.93738	41.8564999
148	OF-114	08/23/23	Plastic	Flared End	24	Excellent	Good	24"" plastic Flared End discharging into wooded swale from catch basin.	No				-72.937488	41.8579183
149	OF-115	08/23/23	Concrete	Endwall	36	Good	Good	36"" concrete culvert discharging into wooded stream	No				-72.933221	41.8598051
150	OF-116	08/23/23	Concrete	Endwall	36	Excellent	Good	36"" concrete culvert discharging into wooded stream	No		-		-72.933266	41.8596779
151	OF-118	08/23/23						No outfall located. No catch basins in the area either. Possibly a hidden culvert connected to the Other side of the road.	No				-72.930652	41.8588751
152	OF-117	08/23/23	-					No outfall located. No catch basins in the area either. Possibly a hidden culvert connected to the Other side of the road.	No				-72.930589	41.8589554
153	OF-120	08/23/23	Plastic	Flared End	18	Excellent	Good	18"" plastic Flared End discharging to wooded swale	No				-72.935628	41.8611967
154	OF-119	08/23/23	Plastic	Flared End	18	Excellent	Excellent	18"" plastic Flared End discharging to wooded pond area	No				-72.93588	41.8611498
155	OF-83	08/23/23	Concrete	Endwall	48	Excellent	Excellent	48"" concrete culvert discharging to stream	No				-72.936958	41.8646375
156	OF-84	08/23/23	Concrete	Endwall	48	Excellent	Excellent	48"" concrete culvert discharging to stream	No				-72.936778	41.8646688
157	OF-85	08/23/23	Concrete	Endwall	18	Excellent	Good	18"" concrete Endwall discharges to wooded swale	No				-72.936257	41.8633041
158	OF-69	08/23/23						Located along busy, fast main road. Did not locate. Likely connected to curb inlet picture	No				-72.946893	41.8504176
159	OF-59	08/23/23						Located on private farmland (owner present and asked atlas employee to not go on farmland)	No				-72.907987	41.8437258
160	OF-31	08/23/23						Located behind fenced area of home.	No				-72.90169	41.8395297
161	OF-32	08/23/23						Located behind home, possibly in fenced area	No				-72.899498	41.8386998
162	OF-37	08/23/23	Concrete	Endwall	18	Excellent	Fair	18"" concrete Flared End discharges into swale along the side of the road. Linked to catch basin and curb inlet.	No				-72.904834	41.847654
163	OF-112	08/23/23	-		-			Located on private property (behind home and no one is home)	No				-72.934137	41.855416
164	OF-4	08/23/23	Concrete					Located on private property	No				-72.934425	41.8499359
165	OF-82	08/23/23						Could not locate due to dense vegetation (poison ivy present). Likely located between two wooden posts as Canton tends to mark some outfalls this way.	No				-72.937596	41.8652776

Number	Outfall ID	Inspection Date	Material	Subtype	Diameter (Inches)	Conditio n	Erosion Control	Notes	Illicit Discharge	Illicit Discharge Flow Type	Illicit Discharge Description	Sample Collection	Longitude	Latitude
						1		2023						
166	OF-80	08/23/23	Concrete	Flared End	8	Good	Fair	8"" concrete Flared End pipe discharges into seale alongside road. Some cracking observed in the concrete pipe.	No				-72.941899	41.8634446
167		08/23/23	Precast	Endwall	24	Fair	Good	OF-80. 24"" steel pipe culvert discharges into stream in wooded area. Rust observed.	No				-72.94171	41.863284
168	OF-78	08/23/23	Concrete	Endwall	30	Good	Fair	Concrete culvert leading to Other side of the road	No				-72.944602	41.8614643
169	OF-79	08/23/23	Concrete	Endwall	30	Excellent	Poor	30"" concrete end wall discharges into wooded area. No erosion control observed.	No				-72.944477	41.8613438
170	OF-77	08/23/23	Concrete	Endwall	30	Excellent	Excellent	30"" concrete Endwall pipe discharges into wooded swale and subsequent stream.	No				-72.945052	41.8608889
171	OF-76	08/23/23	Concrete	Endwall	30		Excellent	Roadside drainage swale and stream discharge from OF-76 to OF-77.	No					41.8609893
172	OF-74	08/23/23	Concrete	Endwall	30	Good		Concrete Endwall	No				-72.948627	41.8586275
173	OF-72	08/23/23	Concrete	Endwall	30	Good	Excellent	culvert. Transports stream across the street. Culvert transporting	No					41.8586208
174	OF-73	08/23/23	Concrete	Endwall	30	Good	Excellent	stream across the street.	No				-72.948923	41.8586075
175	OF-75	08/23/23	Concrete		12		-	Outfall itself is located on private property. Catch basins pictured discharge to outfall.	No				-72.950163	41.8573964
176	OF-71	08/23/23	Concrete	Endwall	18	Good	Excellent	18"" concrete pipe leads from catch basin to stream with two culverts.	No				-72.9509	41.8566672
177	OF-70	08/23/23	Concrete	Flared End	24	Excellent	Excellent	Pipe discharges from catch basin to swale that leads to a retention pond.	No				-72.952157	41.8547201
178	OF-49	08/24/23	Precast	Endwall	12	Good		Can't locate outfall itself, pipe condition and characteristics taken from pipe inside catch basin.	No				-72.938988	41.8432105
179	OF-48	08/24/23	Concrete	Endwall	24	Excellent	Excellent	24"" concrete Endwall discharges to wooded stream.	No				-72.938718	41.8433778
180	OF-50	08/24/23	-	-			-	This portion of Swimming Pool Rd looks like it has been closed for some time for unknown reason. Do not wish to drive or walk in there without knowing the reason. Other side of street is a 50mph road that outfall isn't accessible from.	No		-		-72.941422	41.8449438
181	OF-54	08/24/23	Concrete	Endwall	18	Good	Good	18"" concrete Endwall discharges into grassy drainage pit.	No				-72.942788	41.8454925
182	OF-51	08/24/23	Concrete		18	Good		18"" concrete pipe discharges to grassy area with a catch basin.	No				-72.945887	41.8447698
183	OF-52	08/24/23	Concrete		24	Good		24"" concrete pipe discharges behind home.	No				-72.945995	41.8442813
184	OF-53	08/24/23	Concrete		18	Excellent		18"" concrete pipe discharges behind home into wooded area.	No				-72.948312	41.844897
185	OF-125	08/24/23	Concrete	Endwall	24	Excellent	Fair	Estimated 24"" concrete pipe discharges into Nepaug River.	No				-72.929726	41.8285328
186	OF-126	08/24/23	Concrete	Endwall	24	Excellent	Good	24"" concrete Endwall discharges into the Nepaug River.	No					41.8283521
187	OF-222	08/24/23						Behind fenced home.	No				-72.930005	41.8216178

Number	Outfall ID	Inspection Date	Material	Subtype	Diameter (Inches)	Conditio n	Erosion Control	Notes	Illicit Discharge	Illicit Discharge Flow Type	Illicit Discharge Description	Sample Collection	Longitude	Latitude
								2023						
188	OF-132	08/24/23						Located behind fenced	N-				-72.932278	41 922279
188	OF-132	08/24/23						area	No				-12.932218	41.823278
189	OF-0	08/24/23	Concrete	Flared End	12	Excellent	Good	12"" concrete Flared End discharges into wooded area.	No				-72.93491	41.8276225
								12"" concrete pipe						
190	OF-1	08/24/23	Concrete	Endwall	12	Excellent	Good	discharges into wooded area.	No				-72.936068	41.8275957
191	OF-2	08/24/23	Plastic	Endwall	18	Excellent	Excellent	18"" plastic pipe discharges into rip rap swale	No				-72.93703	41.82783
192	OF-3	08/24/23	Concrete		18			Located behind home	No				-72.937955	41.8276225
								Located in backyard of a						
193	OF-224	08/24/23						home.	No				-72.936859	41.8271807
194	OF-217	08/24/23						Located in highly vegetated area, could not locate. Not catch basin to	No				-72.929062	41.8192881
195	OF-216	08/24/23						reference. Located in highly vegetated area, could not locate. Not catch basin to	No				-72.929151	41.8192145
196	OF-218	08/24/23						reference. Located in highly vegetated area, could not locate. Not catch basin to	No				-72.929053	41.8191141
105	05.145	00/24/22			10			reference. 18"" concrete pipe likely	X				50.015505	41.0226506
197	OF-145	08/24/23	Concrete		18	Good		discharges into adjacent wetlands area. 18"" concrete pipe likely	No				-72.917707	41.8236596
198	OF-147	08/24/23	Concrete		18	Good		discharges into adjacent wetlands area. 12"" concrete Endwall	No				-72.917662	41.8236596
199	OF-149	08/24/23	Concrete	Endwall	12	Good	Excellent	that discharges into wetland area.	No				-72.911212	41.8241081
200	OF-148	08/24/23	Concrete	Endwall	12	Good	Excellent	12"" concrete Endwall that discharges into wetland area.	No				-72.911266	41.8241081
201	OF-156	08/24/23	Plastic	Endwall	6	Good	Good	Possible house pipe (no catch basin in area) discharges into stream.	No				-72.908796	41.8248244
202	OF-155	08/24/23						No outfall seen. Could possibly be the culvert that is being called an outfall.	No				-72.908778	41.8248913
203	OF-154	08/24/23						No outfall seen. Could possibly be the culvert that is being called an outfall	No				-72.908805	41.8249851
204	OF-153	08/24/23						Likely locates behind	No				-72.903972	41.826431
204	OF-153	08/24/23	Concrete		12	Good		fence. Cannot locate outfall, behind home. 12" concrete pipe discharges	No					41.8288474
								from catch basin to behind home. Cannot locate outfall,						
206	OF-152	08/24/23	Concrete		12			behind home. 12" concrete pipe discharges from catch basin to behind home.	No				-72.912883	41.8294833
207	OF-150	08/24/23	Concrete		18	Good		Cannot locate outfall, behind home. 18" concrete pipe discharges from catch basin to behind home.	No				-72.913907	41.8292825
208	OF-15	08/24/23						Located behind home.	No				-72.89038	41.8293495
209	OF-16	08/24/23	Concrete		18	Excellent		Located behind home. 18"" concrete pipe	No					41.8284458
210	OF-7	08/24/23	Concrete		18			discharges from catch basin to behind home. Located behind home.	No					41.8189668
210	OF-8	08/24/23						Located behind home.	No					41.8174203
211	OF-9	08/24/23						Located behind home.	No					41.8164495
212	OF-11	08/24/23						Located behind home.	No					41.8159407
213														
214	OF-12	08/24/23						Located behind home.	No				-72.879484	41.8152042
215	OF-13	08/24/23						Located behind fenced area behind vegetation in photo.	No				-72.876393	41.8219057
216	OF-144	08/24/23						Cannot access due to being located on a busy road.	No	-			-72.924615	41.8232178

Number	Outfall ID	Inspection Date	Material	Subtype	Diameter (Inches)	Conditio n	Erosion Control	Notes	Illicit Discharge	Illicit Discharge Flow Type	Illicit Discharge Description	Sample Collection	Longitude	Latitude
								2024 two 30"" concrete pipes						
217	OF-13	12/16/24	Concrete	Endwall	30	Good	Fair	discharge to a swale. Three 18"" corrugated	No				-72.876393	41.8219057
218	OF-6	12/16/24	Precast	Endwall	18	Fair	Fair	steel pipes culvert a stream across the road. discharges into a wooded area.	No				-72.879708	41.8203994
219	OF-5	12/16/24	Precast	Endwall	18	Fair	Good	Three 18"" corrugated steel pipes receive water from a stream and culvert it to the outfall across the street.	No				-72.879555	41.8204329
220	OF-30	12/16/24	-	Flared End	18	Fair	Fair	Two 18"" concrete Flared Ends discharge to a wooded swale. pipes are partially filled with leaf litter and debris.	No		-		-72.895941	41.8152645
221	OF-29	12/16/24	Concrete	Flared End	18	Good	Poor	18"" concrete Flared End discharges to wooded area. Pipe is free of debris and in good condition.	No				-72.895078	41.8130751
222	OF-28	12/16/24	Concrete	Flared End	18	Fair	Good	18"" concrete Flared End discharges to a wooded wetland area. Pipe is partially blocked by leaf litter.	No				-72.895743	41.8130952
223	OF-39	12/16/24	Concrete	Endwall	12	Good	Good	12"" concrete pipe discharges to wooded swale. pipe is built until a stone wall.	No	-			-72.924503	41.8404822
224	OF-41	12/16/24	Concrete	Endwall	18	Good	Fair	18"" concrete pipe set it a stone wall. receives water from a swale and discharges to outfall across the street.	No				-72.920797	41.8399179
225	OF-42	12/16/24	Concrete	Endwall	18	Good	Poor	18"" concrete pipe set in a stone wall discharges to a wooded swale. Significant rill erosion observed.	No				-72.920868	41.8398446
226	OF-46	12/16/24	Concrete	Endwall	18	Good	Good	18"" concrete pipe set in a stone wall receives water from catch basin and wooded swale and discharges to outfall across the street.	No				-72.917491	41.8392888
227	OF-47	12/16/24	Concrete	Endwall	18	Good	Fair	18"" concrete pipe set in a stone wall discharges to a wooded swale. Some rill erosion observed in the swale.	No				-72.91759	41.8392018
228	OF-45	12/16/24	Concrete	Endwall	24	Good	Fair	24 ^{***} concrete pipe set in a stone wall discharges to a wooded swale. Minor rill erosion observed in swale.	No				-72.916871	41.8390545
229	OF-57	12/16/24	Concrete	Endwall	24	Fair	Good	24"" concrete pipe set in an old-style catch basin discharges to outfall across the street.	No	-			-72.916746	41.8391415
230	OF-34	12/16/24	Concrete	Flared End	42	Good	Good	~42"" concrete Flared End discharges to wooded swale with great erosion controls (riprap).	No				-72.90787	41.8436388
231	OF-59	12/16/24	Concrete	Endwall	36	Good	Good	36"" concrete pipe receives water from wooded stream and discharges it across the road to anOther outfall.	No				-72.907987	41.8437258
232	OF-168	12/16/24	Concrete	Endwall	18	Good	Poor	18"" concrete pipe discharges to wooded area with no visible erosion controls.	No				-72.893695	41.8409017
233	OF-167	12/16/24	Concrete	Endwall	18	Good	Fair	18"" concrete pipe receives water from roadside swale and discharges to outfall across the street.	No				-72.893641	41.8410355

Number	Outfall ID	Inspection Date	Material	Subtype	Diameter (Inches)	Conditio n	Erosion Control	Notes	Illicit Discharge	Illicit Discharge Flow Type	Illicit Discharge Description	Sample Collection	Longitude	Latitude
				-	-	-	-	2024				•		1
234	OF-10	12/16/24	Concrete	Endwall	18	Fair	Fair	18"" concrete pipe discharges to wooded area. Pipe is set in a stone wall.	No				-72.878819	41.8165566
235	OF-193	12/16/24	Precast	Endwall	36	Fair	Good	36"" corrugated steel pipe discharges to wooded stream area. Pipe is set in stone wall.	No				-72.876582	41.8685623
236	OF-194	12/16/24	Precast	Endwall	36	Fair	Good	36"" corrugated steel pipe is set in stone wall. Pipe receives water from a stream and discharges it to the outfall across the street.	No				-72.876816	41.8686426
237	OF-195	12/16/24	Concrete	Endwall	12	Poor	Fair	12"" concrete pipe receives water from old style catch basin and discharges to outfall not mapped across the street. Pipe is partially blocked by leaf litter and detritus.	No				-72.878118	41.8670839
238	OF-89	12/16/24	Concrete	Endwall	18	Good	Good	18"" concrete pipe receives water from old style catch basin and discharges to outfall not mapped across the street.	No				-72.925001	41.8782681
239	OF-94	12/16/24	Precast	Endwall	12	Poor	Fair	12"" corrugated metal pipe discharges into wooded area. Pipe is in poor condition and rusting.	No				-72.921749	41.8746562
240	OF-93	12/16/24	Precast	Endwall	12	Poor	Poor	12"" corrugated metal pipe receives water from a stream and discharges it to the outfall across the street. Pipe is severely damaged.	No				-72.921929	41.8745893
241	OF-104	12/16/24	HDPE	Endwall	12	Fair	Poor	12"" HDPE pipe discharges to wetland area. Pipe is partially buried by sediment.	No				-72.91185	41.8643343
242	OF-103	12/16/24	HDPE	Endwall	12	Fair	Poor	12"" HDPE pipe receives discharge from catch basin and discharges to OF-104 across the street.	No				-72.911966	41.8643331
243	OF-214	12/16/24	HDPE	Endwall	12	Good	Fair	12"" HDPE pipe receives discharge from roadside and discharges to outfall across the street.	No				-72.933814	41.8167106
244	OF-137	12/16/24	Concrete	Endwall	18	Good	Good	18"" concrete pipe discharges to the Farmington river.	No				-72.925783	41.8091783
245	OF-139	12/16/24	-	Endwall	30	Fair	Good	30"" stone culvert transports water across the street to OF-138.	No				-72.926385	41.8123252
246	OF-138	12/16/24		Endwall	30	Fair	Good	30"" stone culvert discharges to wooded area. Receives stream from OF-139.	No				-72.926546	41.8123922

Notes 1. Outfalls were sampled for potential Illicit Discharges 2. Outfalls inspected multiple times throughout permit (30)

Town of Canton Dry Weather Inspections Illicit Discharge Sampling Results

						S	creening Indicat	ors		
Outfall ID	Inspection Date	Condition	Discharge Description	Chlorine Residual	Ammonia as Nitrogen	MBAS	Conductivitiy	Salinity	Escherichia Coli	Total Coliforms
					mg/L		umhos/cm	ppt	MPN/1	l00mL
			2	021						
OF-105	4/13/21	Good	Slight oily sheen, some suspended solids, algae at discharge mouth. Mostly clear, no odor.	<0.02	<0.05	0.06	54	<0.5	845	24,200
OF-107	4/13/21	Fair	Clear, no odor, no foam.	< 0.02	< 0.05	< 0.05	203	< 0.5	10	272
			2	022						
OF-26	6/20/22	Good	Clear flow, iron staining	< 0.02	< 0.05	< 0.05	378	<0.5	<10	529
OF-192	6/20/22	Excellent	Clear, foam on surface, no odor, steady flow 3-5 gpa	< 0.02	< 0.05	< 0.05	240	<0.5	309	5,790
			2	023						
		Atlas did	l not observe any Illicit Discharges	while dry wea	ther inspecting o	utfalls in 2023.				
			2	024						
		Atlas dic	l not observe any Illicit Discharges	ther inspecting o	utfalls in 2024					

Notes:

* All highlighted bacterial concentrations are required for follow-up investigations.

*Highlighting is based on the following criteria;

1. E. Coli >235/100mL for Swimming Areas, and >410 col/100mL for all others.

2. Total Coliform > 500 col/100mL

3. Fecal Coliform >31 col/100 mL for Class SA and >260 col/100mL for Class SB

4. Enterococci >104 col/100mL for Swimming Areas and >500 col/100mL for all others.

5. Ammonia >0.5 mg/L

6. Surfactants (MBAS) > 0.25 mg/L

7. Chlorine: detectable level

8. Conductivity >1,500 uS

9. Salinity ≥ 0.5 ppt