



2023 MS4 ANNUAL REPORT

Town of Burlington, Connecticut



FINAL ANNUAL REPORT

TOWN OF BURLINGTON

JANUARY 1, 2023 – DECEMBER 31, 2023

PREPARED BY:

Atlas
290 Roberts Street-Suite 301
East Hartford, Connecticut 06108

March 22, 2024



CONTENTS

TOWN OF BURLINGTON 2023 ANNUAL REPORT.....1

FIGURES

Figure 1 – MS4 System Map

Figure 2 – Outfalls to Impaired Waters Map

Figure 3 – Priority Outfalls Map

Figure 4 – Farmington River Watershed Association Sampling Locations Map

Figure 5 – Impaired Waters by Catchment Map

Figure 6 - Urbanized Areas by Catchment Map

APPENDICES

Appendix I 2023 Wet Weather Sampling Results

Appendix II 2023 Dry Weather Inspections and Sampling Results

Appendix III 2023 Farmington River Watershed Association Sampling Results

Appendix IV Laboratory Analytical Reports

MS4 General Permit
Town of Burlington 2023 Annual Report
 Permit Number GSM 000049
 January 1, 2023 – December 31, 2023
 Primary MS4 Contact: Scott Tharau, Director of Public Works

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

Part I: Summary of Minimum Control Measure Activities

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

1.1 BMP Summary

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
1-1 Implement public education and outreach	Ongoing	The Town utilizes its website to post information related to the public’s role in Stormwater Management.	Provide public access to stormwater literature.	Department of Public Works Scott Tharau	August 13, 2023	August 10,2023	Public Outreach and Education Stormwater and You
1-2 Address education/ outreach for pollutants of concern	Ongoing	The Town utilizes its website to post information related to the pollutants of concern for the Town of Burlington.	Provide public access to stormwater literature.	Department of Public Works	August 13, 2023	August 10,2023	Public Outreach and Education
1-3 Hazardous Waste Collection	Ongoing	In partnership with Berlin, Bristol, New Britain, Plainville, Plymouth, Prospect, Southington and Wolcott Hazardous Waste Collection days are provided annually.	Hazardous Waste Collection Days	Department of Public Works	NA	May 19, 2023; November 18, 2023	

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

1. Continue with Hazardous Waste collection days with the neighboring towns.
2. All of the above-mentioned activities (1-1, 1-2) are planned for 2024, with specific dates to be determined.

1.3 Details of activities implemented to educate the community on stormwater

Program Element/Activity	Audience (and number of people reached)	Topic(s) covered	Pollutant of Concern addressed (if applicable)	Responsible dept. or partner org.
Burlington MS4 Summary with e-Coli Overview pamphlet on Town website	Unknown	Impervious Cover Pollution Reduction Monitoring	Bacteria, Total Suspended Solids, Nitrogen, Phosphorus, Turbidity	Public Works Department
Virtual Film Festival	120 attendees	Stormwater literature	--	Farmington River Watershed Association (FRWA)
Farmington River Clean Up (9/23/2023)	15 attendees	River cleanliness	Refuse / physical waste	FRWA / Volunteers
Riffle Bioassessment for Volunteers	15 students	Macroinvertebrate sampling	--	FRWA / Lewis Mill High School
Burlington Fish Hatchery Outreach	150 attendees	Fish hatchery	--	FRWA

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

2.1 BMP Summary

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
2-1 Final Stormwater Management Plan publically available	Completed	The Stormwater Management Plan is available on the Town's website.	Provide access to the Stormwater Management Plan	Department of Public Works	Completed	April 30, 2023	Stormwater Management Plan
2-2 Comply with public notice requirements for Annual Reports	Ongoing	Annual Report posted on Town's website	Publish notice	Department of Public Works	Annually February 15th	February 15, 2023	
2-3 Hazardous Waste Collection Days	Ongoing	In partnership with Berlin, Bristol, New Britain, Plainville, Plymouth, Prospect, Southington and Wolcott Hazardous Waste Collection days are provided annually.	Annually	Department of Public Works	Ongoing	May 19, 2023, November 18, 2023	
2-4 Day of Caring sponsored by United Way – River Clean Up	Annual Event	Farmington River Clean Up Event	Annually	Public Works Department / Volunteers	Annually	May each year	
2-5 Coliform Bacterial Monitoring	Annual	Coliform Bacterial Monitoring	Research	Farmington River Watershed Association	Annually	Throughout the year depending on weather	Partner with CT DEEP
2-6 River Clean Up Event	Ongoing	Cleanup of the Farmington River	Public Involvement	Farmington River Watershed Association / Volunteers	Annually	September 23, 2023	

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

Quarterly stormwater committee meetings to review the SMP implementation progress are planned for 2024.

2.3 Public Involvement/Participation reporting metrics

Metrics	Implemented	Date	Posted
Availability of the Stormwater Management Plan to public	Yes	April 30, 2023	Stormwater Management Plan
Availability of Annual Report announced to public	Yes	February 15, 2023	Annual Reports

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

3.1 BMP Summary

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
3-1 Develop written IDDE program	<i>Complete</i>	<i>Town developed a written IDDE program</i>	<i>Develop written plan of IDDE program</i>	<i>Department of Public Works</i>	August 13, 2023	<i>Adopted: June 3, 2023 Effective: June 28, 2023</i>	
3-2 Develop list and maps of all MS4 stormwater outfalls in priority areas	<i>Complete</i>	<i>Atlas has completed mapping of all priority outfalls and priority area mapping. The Town, with the assistance of Atlas, will continue mapping outfalls until they are all mapped</i>	<i>Outfalls mapped</i>	<i>Department of Public Works, Atlas</i>	Jul 1, 2024	<i>Anticipate completing by the deadline by July 1, 2024.</i>	<i>Mapping and data will be continually maintained as outfalls are tested, repaired, etc.</i>
3-3 Implement citizen reporting program	<i>Complete</i>	<i>Citizen Reporting is maintained electronically by the Burlington Town Planner.</i>	<i>Provide a reporting mechanism and log.</i>	<i>Department of Public Works, Asst. Town Clerk</i>	August 13, 2023	<i>June 6, 2023</i>	<i>Citizens may report illicit discharges by contacting the Land Use</i>

							<i>Department or reporting dry weather discharges on the Town's website.</i>
3-4 Establish legal authority to prohibit illicit discharges	<i>Complete</i>	<i>The Town has written and adopted a Stormwater Connection Ordinance</i>	<i>Establish legal authority to prohibit illicit discharges.</i>	<i>BOS/Engineering</i>	<i>November 11, 2023</i>	<i>June 6, 2023</i>	<i>Stormwater Management Ammendment 256</i>
3-5 Develop record keeping system for IDDE tracking	<i>In Progress</i>	<i>Spreadsheets will be developed when first IDDE is reported.</i>	<i>Create spreadsheet</i>	<i>Department of Public Works</i>	<i>TBD</i>		<i>Public Works will keep logs with issue and resolution available for inspection upon request.</i>
3-6 Address IDDE in areas with pollutants of concern	<i>In Progress</i>	<i>Public Works / Engineering works continues IDDE sampling</i>	<i>Address IDDEs with pollutants of concern.</i>	<i>Department of Public Works / Engineering</i>	<i>TBD</i>		
3-7 Consolidate IDDE tracking spreadsheets	<i>Not started</i>	<i>Compile all the IDDE tracking requirements into one spreadsheet</i>		<i>Department of Public works / M. Scott</i>	<i>TBD</i>		<i>Reason for addition: Make it easier to track all IDDE activities</i>
3-8 Detailed MS4 infrastructure mapping	<i>In Progress</i>	<i>MS4 mapping.</i>	<i>All MS4 mapping will be completed in 2023.</i>	<i>Public Works / Engineer / Atlas</i>	<i>2023</i>	<i>October 2023</i>	<i>Town will make available on website and keep detailed records.</i>
3-9 Complete list and maps of all outfalls	<i>In Progress</i>	<i>MS4 mapping.</i>	<i>Develop a map and list. Survey outfalls not on Town provided maps.</i>	<i>Department of Public Works / Engineer / Atlas</i>	<i>July 14, 2024</i>	<i>July 14, 2024</i>	<i>All outfalls will be on Town's website and will update as needed.</i>

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

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

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

Date of Report	Location / suspected source	Response taken

Notes: There have been zero (0) citizen reports of illicit discharges during the year of 2023.

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

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

Notes: There have been zero (0) records of illicit discharges occurring during the year of 2023 and zero (0) records of SSO's occurring since July 2012.

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

The Department of Public Works tracks illicit discharge reports and responses. An online form is available to the general public for reporting illicit discharges on the Department of Public Works ["Illicit Discharge Detection and Elimination"](#) page.

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

Location and nature of structure with failing septic systems	Actions taken to respond to and address the failures	Impacted waterbody or watershed, if known
2023		
At the time of this report, the Burlington-Bristol Health District has not provided this information.		

3.7 IDDE reporting metrics

Metrics	
Estimated or actual number of MS4 outfalls	TBD
Estimated or actual number of interconnections	TBD
Outfall mapping complete	66%
Interconnection mapping complete	0% (DOT has not mapped interconnections in Burlington)
System-wide mapping complete (detailed MS4 infrastructure)	66%
Outfall assessment and priority ranking	20%
Dry weather screening of all High and Low priority outfalls complete	112
Catchment investigations complete	0
Estimated percentage of MS4 catchment area investigated	0%

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

2023 training was provided by Atlas on 8/10/2023. The Town will continue to train staff on IDDE with MS4 and industrial stormwater permit training sessions on annual basis.

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

4.1 BMP Summary

BMP	Status (Complete, Ongoing, In Progress, or Not started)	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	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	<i>Ongoing</i>	Public Works / Engineer have met to discuss permit requirements.	Upgrade regulations	Planning & Zoning Commission, Engineer	November 11, 2023	<i>June 28, 2023</i>	
4-2 Develop/Implement plan for interdepartmental coordination in site plan review and approval	<i>Ongoing</i>	Forward plans and applications to various department heads for review.	<i>Review applications</i>	<i>Department of Public Works, Engineer, Building Official</i>	August 23, 2023	August 23, 2023	
4-3 Review site plans for stormwater quality concerns	<i>Ongoing</i>	<i>Site plan applications are reviewed by Public Works / Engineer</i>	<i>Review all new/revision applications</i>	<i>Engineering</i>	August 23, 2023	<i>Ongoing</i>	
4-4 Conduct site inspections	<i>Ongoing</i>	<i>Conduct multiple inspections at regular intervals</i>	<i>Inspect all activities multiple times</i>	<i>Department of Public Works, Engineer</i>	August 23, 2023	<i>Ongoing</i>	
4-5 Implement procedure to allow public comment on site development	<i>Complete</i>	<i>Allow public comment on site development projects</i>	<i>Public comment is allowed at all Planning & Zoning and Wetland Meetings</i>	<i>Planning & Zoning Commission, Engineer</i>	August 23, 2023	<i>August 8, 2023</i>	<i>Public comment is on every Planning & Zoning and Wetland agenda. Public hearings also allow for application specific comment.</i>
4-6 Implement procedure to notify developers about DEEP construction stormwater permit	<i>Complete</i>	<i>Notify developers of DEEP permit requirements</i>	<i>Dedicated webpage will show before any Land Use Permit can be pulled online (Zoning, Special Permit, Subdivision, etc.)</i>	<i>Asst. Town Clerk</i>	August 23, 2023	<i>August 8, 2023</i>	<i>The user will have to check they have read and understand this Notice before proceeding.</i>

4-7 Implement stormwater compliance checklist	In progress	Developing checklist to provide developers on stormwater management compliance requirements	Standardize plan review	Planning / G. Lewis	NA	Jul 1, 2018	Reason for addition: Make it easier to ensure compliance with stormwater regulations. <u>Construction Site Stormwater Inspection Report</u>
---	-------------	---	-------------------------	---------------------	----	-------------	---

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

Integrate stormwater compliance checklist into review process. Continue to follow present standard operating procedures.

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

5.1 BMP Summary

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
5-1 Establish and/or update legal authority and guidelines regarding LID and runoff reduction in site development planning	Complete	Code of Ordinance and Zoning Regulations were updated	Update zoning regulations and Town website.	P&Z Commission/ZEO/Asst. Town Clerk	November 11, 2023	March 23, 2023	
5-2 Enforce LID/runoff reduction requirements for development and redevelopment projects	Complete	Site inspection SOP required no water run-off pre- or post construction when doing Zoning or Building Official site inspections.	Continue to inspect sites and keep track of said inspections use MS4 suggested forms	ZEO/Building Official	NA	Ongoing beginning July 1, 2022	This is ongoing, but new forms to be created to complement new website information.
5-3 Identify retention and detention ponds in priority areas	On going	Department of Public Works has a list of above ground and underground structures. This list is for entire Town	Inspect/maintain All retention/detention ponds	Department of Public Works	NA	Ongoing	This will be updated as new development occurs.

5-4 Implement long-term maintenance plan for stormwater basins and treatment structures	In Progress	A list on spread sheet for above and belowground structures was created	Maintain annually	Department of Public Works	September 12, 2023	<i>Ongoing</i>	The Town cleans all retention ponds annually as weather permits
5-5 DCIA mapping	Completed	DCIA mapping completed	Map DCIA	Town Engineer	November 11, 2023	July 20, 2023	
5-6 Address post-construction issues in areas with pollutants of concern	<i>Ongoing</i>	<i>No post-construction issues in 2023 in areas with pollutants of concern.</i>			Not specified	<i>Ongoing</i>	

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

5.3 Post-Construction Stormwater Management reporting metrics

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

Metrics	
Baseline (2012) Directly Connected Impervious Area (DCIA)	10.86 acres
DCIA disconnected (redevelopment plus retrofits)	0 acres
Retrofit projects completed	0
DCIA disconnected	0% this year / 0% total since 2012
Estimated cost of retrofits	\$0
Detention or retention ponds identified	All

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

Use CLEAR IC% data and modified Sutherland equations.

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

6.1 BMP Summary

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
6-1 Develop/implement formal employee training program	Ongoing	MS4 Stormwater Pollution Prevention training provided to Department of Public Works Staff.	Annual training	Department of Public Works	Ongoing	8/10/2023	Training completed by Atlas.
6-2 Implement MS4 property and operations maintenance	Ongoing	A binder with all maintenance activities in detention structures is available.		Department of Public Works	Ongoing	2022	
6-3 Implement coordination with interconnected MS4s	Not started			Department of Public Works	Not specified		
6-4 Develop/implement program to control other sources of pollutants to the MS4	Not started			Department of Public Works	Not specified		
6-5 Evaluate additional measures for discharges to impaired waters*	Not started			Department of Public Works	Not specified		
6-6 Track projects that disconnect DCIA	Ongoing	Partnered with UConn Stormwater Corp to identify and prioritize retrofit project.	Maintain list and track progress	Department of Public Works / Engineer	Ongoing		

6-7 Implement infrastructure repair/rehab program	Ongoing	Repaired sewage line on Stafford Rd	Reduce water infiltration on sanitary sewer line	WPCA	Jul 1, 2021	8/1/2022	
6-8 Develop/implement plan to identify/prioritize retrofit projects	In Progress	Partnered with UConn Stormwater Corp to identify and prioritize retrofit project.	Disconnect impervious surfaces	Department of Public Works / Engineer	Jul 14, 2024		
6-9 Implement retrofit projects to disconnect 2% of DCIA	In Progress	Partnered with UConn Stormwater Corp to identify and prioritize retrofit project.	Disconnect impervious surfaces	Department of Public Works / Engineer	Jul 14, 2024		
6-10 Develop/implement street sweeping program	Completed	The Town sweeps in May. 85 miles are swept annually	Annual sweeping	Department of Public Works	Annually in May	Ongoing	The Town utilizes their own sweeper
6-11 Develop/implement catch basin cleaning program	Completed	The Town cleans at least a third of basins annually on a rotating basis, and keeps track of the spots that need more attention	Approximately 650 catch basins cleaned annually	Department of Public Works	Annually	Ongoing	The Town has done this since 2004
6-12 Develop/implement snow management practices	Completed	The Town uses a treated salt to maintain roads in the winter.	The Town trains Staff and tracks the amount applied yearly	Department of Public Works	Annually	Ongoing	Snow relocation not required – rural town with onsite storage locations

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

The Town will continue to implement SOP activities, street sweeping, catch basin cleaning and storm water treatment infrastructure maintenance.

6.3 Pollution Prevention/ Good Housekeeping reporting metrics

At the time of this report, the Town has not provided this information.

Metrics	
Employee training provided for key staff	Annually (August 10, 2023)
Street sweeping	
Curb miles swept	~393 yards
Volume (or mass) of material collected	~45 yards
Catch basin cleaning	
Total catch basins in priority areas (value will be less than or equal to total catch basins town or institution-wide)	~650
Total catch basins town- (or institution-) wide	1,957
Catch basins inspected	~500
Catch basins cleaned	508
Volume (or mass) of material removed from all catch basins	~23 yards
Volume removed from catch basins to impaired waters (if known)	TBD
Snow management	
Type(s) of deicing material used	Treated salt
Total amount of each deicing material applied	1160 tons
Type(s) of deicing equipment used	TBD
Lane-miles treated (A lane-mile is a mile of roadway in a single driving lane)	92
Snow disposal location	None
Staff training provided on application methods & equipment	Ongoing
Municipal turf management program actions (for permittee properties in basins with N/P impairments)	
Reduction in application of fertilizers (since start of permit)	TBD
Reduction in turf area (since start of permit)	TBD
Lands with high potential to contribute bacteria (dog parks, parks with open water, & sites with failing septic systems)	
Cost of mitigation actions/retrofits	TBD

6.4 Catch Basin cleaning Program

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

The Town owns its own catch basin cleaning truck and will clean basins that are known to fill up fast on a regular basis. The town sweeps all roads once a year and most of the sweepings is vegetative debris. The Town also has a good resurfacing program and 75 to 80 basins a year are rebuilt and cleaned.

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.

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

$$\text{DCIA\%} = 0.4 * (\text{IA \%})^{1.2}$$

$$\text{Directly Connected Area} = (\text{DCIA})(\text{IC Acres})$$

Average Connectivity

$$\text{DCIA\%} = 0.1 * (\text{IA\%})^{1.5}$$

$$\text{Directly Connected Area} = (\text{DCIA})(\text{IC Acres})$$

Partial Connectivity

$$\text{DCIA\%} = 0.04 * (\text{IA\%})^{1.7}$$

$$\text{Directly Connected Area} = (\text{DCIA})(\text{IC Acres})$$

Slight Connectivity

$$\text{DCIA\%} = 0.01 * (\text{IA\%})^{2.0}$$

$$\text{Directly Connected Area} = (\text{DCIA})(\text{IC Acres})$$

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.

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

Atlas will assess and recommend Retrofit Projects for the Town's municipal sites. The following projects have been chosen to be implemented by 2026, and will disconnect approximately 23% DCIA.

- The Burlington Town Hall's roofing drains will be disconnected and drain to a potential bioswale.
- The Lewis S. Mills High School will have impervious pavement near bus roundabout directed to a grass area with tree box filters, impervious pavement from the parking lot directed to a potential rain garden, and impervious pavement parking areas changed to pervious pavement in select locations.
- The Har-Bur Middle School will have impervious pavement from parking lot directed to a potential rain garden.
- The Burlington Public Library will have impervious pavement near the cul-de-sac directed to a potential rain garden and roofing drains disconnected and directed toward a potential rain garden.
- The Lake Garada Elementary School will have impervious pavement from parking lot directed to a potential rain garden and roofing drains from multiple buildings disconnected and redirected to potential rain gardens in the courtyard area.

Describe plans for continuing the Retrofit program beyond this permit term with the goal to disconnect 1% DCIA annually over the next 5 years.

Atlas will continue to assess and recommend Retrofit Projects for the Town's municipal sites.

Part II: Impaired waters investigation and monitoring

1. Impaired waters investigation and monitoring program

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

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

Nitrogen/ Phosphorus

Bacteria

Mercury

Other Pollutant of Concern

1.2 Describe program status

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

*The Town of Burlington, with the assistance of Atlas, has completed all dry weather inspections and wet weather sampling at outfalls to impaired waterbodies. Dry weather screening of 112 outfalls throughout the Town were completed in 2023. These screenings documented the condition of the outfalls, erosion control, material, subtype, and diameter of the outfalls. The condition and erosion control of these outfalls and/or surrounding areas were ranked with the following descriptors: Excellent, Good, Fair, and Poor. Outfalls found with poor to fair conditions and erosion controls were recommended for repair or implementation of additional erosion controls. Refer to **Attachment II** for the documented dry weather screenings.*

Dry weather inspections throughout the entirety of the Town will continue into the following year, to be conducted again in the spring and summer. Further investigations into SSOs is necessary to make determinations on whether the bacterial impairments are the results of IDDE or natural background conditions for outfalls to impaired waterbodies. Changes to the Stormwater Management Plan are not recommended at this time.

*Wet weather sampling was conducted at eleven (11) priority outfalls, and analyzed for *E. coli*. All samples collected indicated bacteria results above criteria. Samples were also collected by the Farmington River Watershed Association at 2 outfalls. Of these 2 outfalls, two (2) were identified as discharging to an impaired waterbody. The 2 outfalls have been flagged for follow-up investigation based on analytical results. Refer to **Attachment III** for the FRWA sampling data.*

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

2.1 Screening data

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

Each Annual Report will add on to the previous year's data showing a cumulative list of sampling data. You may also attach an excel spreadsheet with the same data rather than copying it into this table.

Outfall ID	Latitude / Longitude	Sample date	Parameter (Nitrogen, Phosphorus, Bacteria, or Other pollutant of concern)	Results	Name of Laboratory (if used)	Follow-up required? *
2023						
OF-3	41.77744/ -72.94899	9/15/2023	Bacteria	E. Coli 9,210 MPN/100mL T. Coli >24,200 MPN/100mL	Phoenix Laboratory	Yes
OF-6	41.78239/ -72.95268	9/15/2023	Bacteria	E. Coli 2,060 MPN/100mL T. Coli >24,200 MPN/100mL	Phoenix Laboratory	Yes
OF-8	41.78442/ -72.96703	9/15/2023	Bacteria	E. Coli 10,500 MPN/100mL T. Coli >24,200 MPN/100mL	Phoenix Laboratory	Yes
OF-9	41.78585/ -72.96555	9/15/2023	Bacteria	E. Coli >24,200 MPN/100mL T. Coli >24,200 MPN/100mL	Phoenix Laboratory	Yes
OF-11	41.7865/ -72.96411	9/15/2023	Bacteria	E. Coli >24,200 MPN/100mL T. Coli >24,200 MN/100mL	Phoenix Laboratory	Yes
OF-12	41.78191/ -72.97637	9/15/2023	Bacteria	E. Coli 309 MPN/100mL T. Coli >24,200 MPN/100mL	Phoenix Laboratory	Yes
OF-14	41.77699/ -72.98000	9/15/2023	Bacteria	E. Coli 345 MPN/100mL T. Coli 13,000 MPN/100mL	Phoenix Laboratory	Yes
OF-17	41.78437/ -72.92411	9/15/2023	Bacteria	E. Coli 399 MPN/100mL T. Coli >24,200 MPN/100mL	Phoenix Laboratory	Yes
OF-18	41.78013/ -72.94364	9/15/2023	Bacteria	E. Coli >24,200 MPN/100mL T. Coli >24,200 MPN/100mL	Phoenix Laboratory	Yes
OF-22	41.78302/ -72.94781	9/15/2023	Bacteria	E. Coli 1,420 MPN/100mL T. Coli >24,200 MPN/100mL	Phoenix Laboratory	Yes
OF-29	41.78380/ -72.96246	9/15/2023	Bacteria	E. Coli 63 MPN/100mL T. Coli >24,200 MPN/100mL	Phoenix Laboratory	Yes
BB-B1	41.783/ - 72.922	6/12/2023	Bacteria	E. Coli 1 MPN/100mL T. Coli 1299.7 MPN/100mL	Unknown (Sampling done by FRWA)	Yes
		6/26/2023		E. Coli 17.2 MPN/100mL		Yes

		7/12/2023		T. Coli 1986.3 MPN/100mL		Yes
		7/24/2023		E. Coli 69.1 MPN/100mL T. Coli 2419.6 MPN/100mL		Yes
		8/7/2023		E. Coli 39.3 MPN/100mL T. Coli 2419.6 MPN/100mL		Yes
		8/21/2023		E. Coli 1119.9 MPN/100mL T. Coli >2419.6 MPN/100mL		Yes
				E. Coli 14.8 MPN/100mL T. Coli 1553.1 MPN/100mL		Yes
FR-B1	41.783/ - 72.922	6/12/2023	Bacteria	E. Coli 6.3 MPN/100mL T. Coli 2419.6 MPN/100mL	Unknown (Sampling done by FRWA)	Yes
		6/26/2023		E. Coli 26.2 MPN/100mL T. Coli 1986.3 MPN/100mL		Yes
		7/12/2023		E. Coli 344.8 MPN/100mL T. Coli >2419.6 MPN/100mL		Yes
		7/24/2023		E. Coli 37.9 MPN/100mL T. Coli >2419.6 MPN/100mL		Yes
		8/7/2023		E. Coli 980.4 MPN/100mL T. Coli >2419.6 MPN/100mL		Yes
		8/21/2023		E. Coli 179.3 MPN/100mL T. Coli 2419.6 MPN/100mL		Yes

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

Pollutant of concern	Pollutant threshold
Nitrogen	Total N > 2.5 mg/l
Phosphorus	Total P > 0.3 mg/l
Bacteria (fresh waterbody)	<ul style="list-style-type: none"> E. coli > 235 col/100ml for swimming areas or 410 col/100ml for all others Total Coliform > 500 col/100ml
Bacteria (salt waterbody)	<ul style="list-style-type: none"> 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

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.

Outfall	Latitude / Longitude	Sample Date	Parameter(s)	Results	Name of Laboratory (if used)
2023					
OF-3	41.77744/ -72.94899	8/25/2023	Bacteria	E. Coli 9,210 MPN/100mL T. Coli >24,200 MPN/100mL	Phoenix Laboratory
OF-6	41.78239/ -72.95268	8/25/2023	Bacteria	E. Coli 2,060 MPN/100mL T. Coli >24,200 MPN/100mL	Phoenix Laboratory
OF-8	41.78442/ -72.96703	8/25/2023	Bacteria	E. Coli 10,500 MPN/100mL T. Coli >24,200 MPN/100mL	Phoenix Laboratory
OF-9	41.78585/ -72.96555	8/25/2023	Bacteria	E. Coli >24,200 MPN/100mL T. Coli >24,200 MPN/100mL	Phoenix Laboratory
OF-11	41.7865/ -72.96411	8/25/2023	Bacteria	E. Coli >24,200 MPN/100mL T. Coli >24,200 MN/100mL	Phoenix Laboratory
OF-12	41.78191/ -72.97637	8/25/2023	Bacteria	E. Coli 309 MPN/100mL T. Coli >24,200 MPN/100mL	Phoenix Laboratory
OF-14	41.77699/ -72.98000	8/25/2023	Bacteria	E. Coli 345 MPN/100mL T. Coli 13,000 MPN/100mL	Phoenix Laboratory
OF-17	41.78437/ -72.92411	8/25/2023	Bacteria	E. Coli 399 MPN/100mL T. Coli >24,200 MPN/100mL	Phoenix Laboratory
OF-18	41.78013/ -72.94364	8/25/2023	Bacteria	E. Coli >24,200 MPN/100mL T. Coli >24,200 MPN/100mL	Phoenix Laboratory
OF-22	41.78302/ -72.94781	8/25/2023	Bacteria	E. Coli 1,420 MPN/100mL T. Coli >24,200 MPN/100mL	Phoenix Laboratory
OF-29	41.78380/ -72.96246	8/25/2023	Bacteria	E. Coli 63 MPN/100mL T. Coli >24,200 MPN/100mL	Phoenix Laboratory
BB-1	41.78296/ - 72.9224	6/12/2023	Bacteria	E. Coli 1 MPN/100mL T. Coli 1299.7 MPN/100mL	Unknown – Sampled by FRWA
BB-1	41.78296/ - 72.9224	6/26/2023	Bacteria	E. Coli 17.2 MPN/100mL T. Coli 1986.3 MPN/100mL	Unknown – Sampled by FRWA
BB-1	41.78296/ - 72.9224	7/12/2023	Bacteria	E. Coli 69.1 MPN/100mL T. Coli 2419.6 MPN/100mL	Unknown – Sampled by FRWA
BB-1	41.78296/ - 72.9224	7/24/2023	Bacteria	E. Coli 39.3 MPN/100mL T. Coli 2419.6 MPN/100mL	Unknown – Sampled by FRWA
BB-1	41.78296/ - 72.9224	8/7/2023	Bacteria	E. Coli 1119.9 MPN/100mL T. Coli >2419.6 MPN/100mL	Unknown – Sampled by FRWA
BB-1	41.78296/ - 72.9224	8/21/2023	Bacteria	E. Coli 14.8 MPN/100mL T. Coli 1553.1 MPN/100mL	Unknown – Sampled by FRWA
FR-B1	41.78301/ - 72.9216	6/12/2023	Bacteria	E. Coli 6.3 MPN/100mL T. Coli 2419.6 MPN/100mL	Unknown – Sampled by FRWA

FR-B1	41.78301/ - 72.9216	6/26/2023	Bacteria	E. Coli 26.2 MPN/100mL T. Coli 1986.3 MPN/100mL	Unknown – Sampled by FRWA
FR-B1	41.78301/ - 72.9216	7/12/2023	Bacteria	E. Coli 344.8 MPN/100mL T. Coli >2419.6 MPN/100mL	Unknown – Sampled by FRWA
FR-B1	41.78301/ - 72.9216	7/24/2023	Bacteria	E. Coli 37.9 MPN/100mL T. Coli >2419.6 MPN/100mL	Unknown – Sampled by FRWA
FR-B1	41.78301/ - 72.9216	8/7/2023	Bacteria	E. Coli 980.4 MPN/100mL T. Coli >2419.6 MPN/100mL	Unknown – Sampled by FRWA
FR-B1	41.78301/ - 72.9216	8/21/2023	Bacteria	E. Coli 179.3 MPN/100mL T. Coli 2419.6 MPN/100mL	Unknown – Sampled by FRWA

Part III: Additional IDDE Program Data

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

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

1. Catchment ID (DEEP Basin ID)	2. Category	3. Rank

Refer to **Attachment IV** for catchment ranking results.

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 <https://nemo.uconn.edu/2020/02/26/monitoring-requirement-for-bacteria-impaired-waters/>. 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.

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
6-4A		3/20/17	0.3 mg/l	Not detected	400 uS/cm	0.4 ppt	<i>E. coli</i> 200 col/100ml	0.2 mg/l	15 C	n/a	No
6-4B		3/20/17	-	-	-	-	-	-	-	-	<i>Evidence of prior dry weather flow – raised priority of catchment investigation</i>
Illicit-1		5/12/2023	<0.05 mg/L	<0.02 mg/L	375 umhos/cm	<0.5 ppt	<i>E. coli</i> 10 col/100ml	-	-	-	No

							<i>T. Coliforms</i> 2,700 <i>col/100ml</i>				
IDDE-1		5/31/2023	<0.10 <i>mg/L</i>	<0.02 <i>mg/L</i>	139 <i>umhos/cm</i>	<0.5 ppt	<i>E. coli</i> <10 <i>col/100ml</i> <i>T. Coliforms</i> <10 <i>col/100ml</i>	-	-	-	No

2.2 Wet weather sample and inspection data

For details on this requirement, visit <https://nemo.uconn.edu/2020/02/26/monitoring-requirement-for-bacteria-impaired-waters/>. 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.

Outfall / Interconnection ID	Latitude / Longitude	Sample date	Ammonia	Chlorine	Conductivity	Salinity	E. coli or Enterococcus	Surfactants	Water Temp	Pollutant of concern
2023										
OF-3	41.77744/ -72.94899	9/15/2023	--	--	--	--	<i>E. coli</i> 9,210 <i>col/100ml</i> <i>T. coliforms</i> >24,200 <i>col/100ml</i>	--	--	Bacteria
OF-6	41.78239/ -72.95268	9/15/2023	--	--	--	--	<i>E. coli</i> 2,060 <i>col/100ml</i> <i>T. coliforms</i> >24,200 <i>col/100ml</i>	--	--	Bacteria
OF-8	41.78442/ -72.96703	9/15/2023	--	--	--	--	<i>E. coli</i> 10,500 <i>col/100ml</i> <i>T. coliforms</i> >24,200 <i>col/100ml</i>	--	--	Bacteria
OF-9	41.78585/ -72.96555	9/15/2023	--	--	--	--	<i>E. coli</i> >24,200 <i>col/100ml</i> <i>T. coliforms</i> >24,200 <i>col/100ml</i>	--	--	Bacteria

OF-11	41.7865/ -72.96411	9/15/2023	--	--	--	--	E. coli >24,200 col/100ml T. coliforms >24,200 col/100ml	--	--	Bacteria
OF-12	41.78191/ -72.97637	9/15/2023	--	--	--	--	E. coli 309 col/100ml T. coliforms >24,200 col/100ml	--	--	Bacteria
OF-14	41.77699/ -72.98000	9/15/2023	--	--	--	--	E. coli 345 col/100ml T. coliforms 13,000 col/100ml	--	--	Bacteria
OF-17	41.78437/ -72.92411	9/15/2023	--	--	--	--	E. coli 399 col/100ml T. coliforms >24,200 col/100ml	--	--	Bacteria
OF-18	41.78013/ -72.94364	9/15/2023	--	--	--	--	E. coli >24,200 col/100ml T. coliforms >24,200 col/100ml	--	--	Bacteria
OF-22	41.78302/ -72.94781	9/15/2023	--	--	--	--	E. coli 1,420 col/100ml T. coliforms >24,200 col/100ml	--	--	Bacteria
OF-29	41.78380/ -72.96246	9/15/2023	--	--	--	--	E. coli 63 col/100ml T. coliforms >24,200 col/100ml	--	--	Bacteria

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

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

3.1 System Vulnerability Factor Summary

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

Outfall ID	Receiving Water	System Vulnerability Factors
1-1C	Mill River	1, 3, 5, 6, 8

Where SVFs are:

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

3.2 Key junction manhole dry weather screening and sampling data

You may also attach an excel spreadsheet with the same data rather than copying it to this table.

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

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.

Outfall ID	Latitude / Longitude	Sample date	Ammonia	Chlorine	Surfactants

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

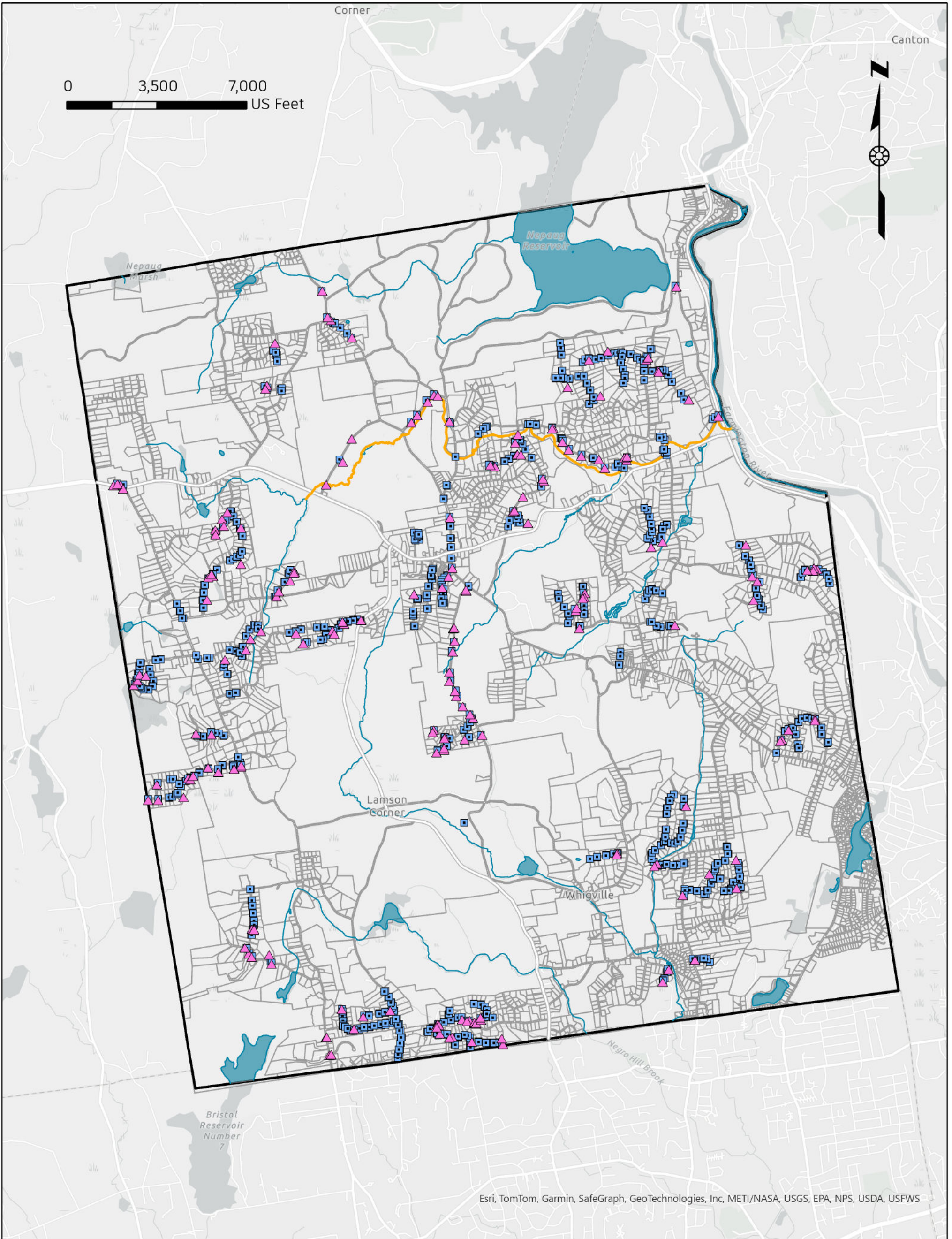
Discharge location	Source location	Discharge description	Method of discovery	Date of discovery	Date of elimination	Mitigation or enforcement action	Estimated volume of flow removed

Part IV: Certification

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








Chief Elected Official or Principal Executive Officer	Document Prepared by
Print name: Scott Tharau	Print name: Ron Severson
Signature / Date:	Signature / Date:
Email: tharau.s@burlingtonct.us	Email: ron.severson@oneatlas.com

FIGURES



Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA, USFWS

Legend

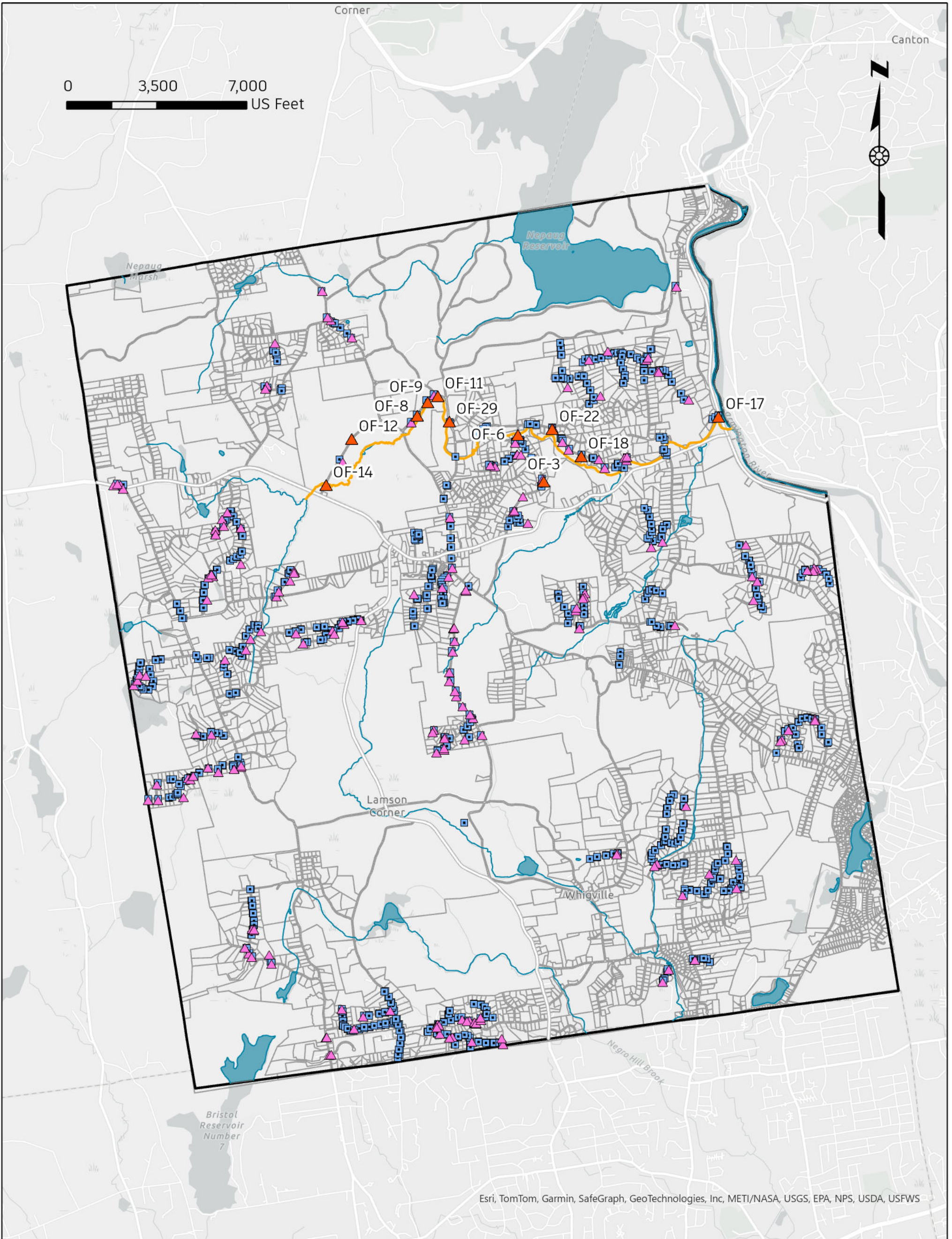
 Outfall	 State Road
 Catch Basin	 Parcel
 Impaired Waterbody	 Town Line
 Surface Water	

Town of Burlington

2023 Annual Report

MS4 System





Legend

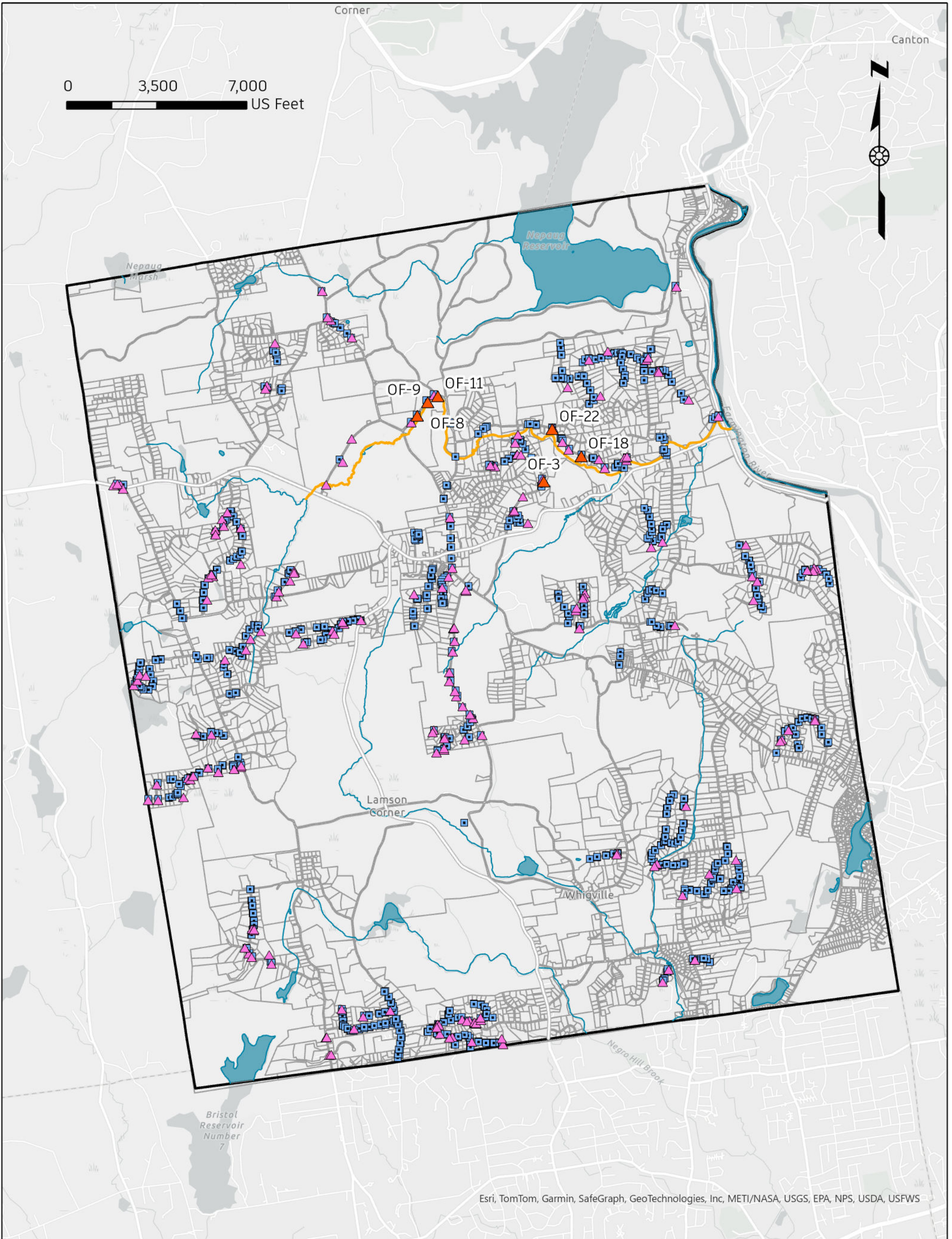
- ▲ Outfall to Impaired Waters
- ▲ Outfall
- Catch Basin
- Impaired Waterbody
- Surface Water
- State Road
- Parcel
- Town Line

Town of Burlington

2023 Annual Report

Outfalls to Impaired Waters





Legend

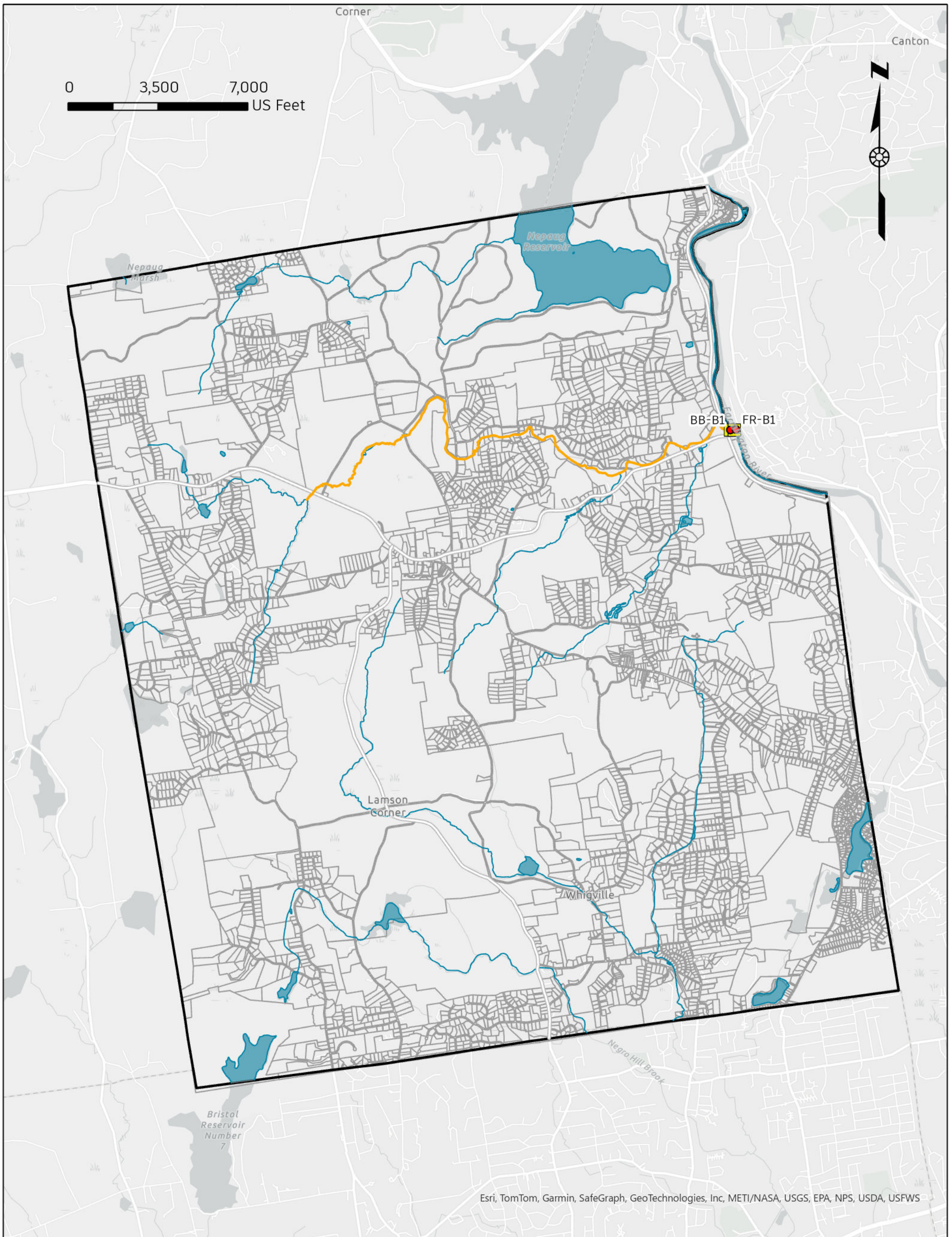
- ▲ Priority Outfall
- ▲ Outfall
- Catch Basin
- Impaired Waterbody
- Surface Water
- State Road
- Parcel
- Town Line

Town of Burlington

2023 Annual Report

Priority Outfalls





Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA, USFWS

Legend

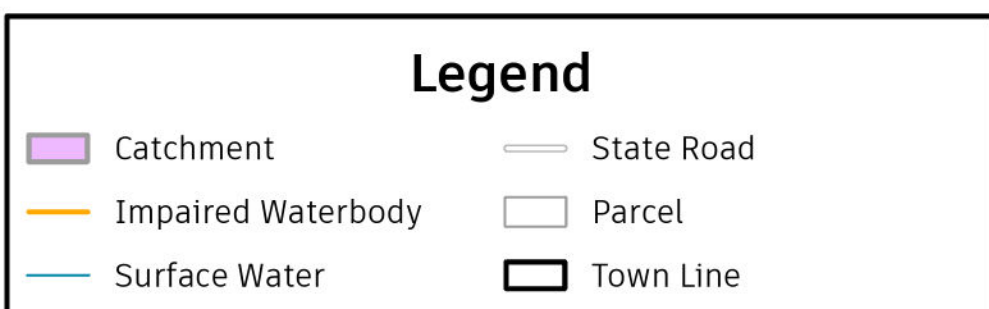
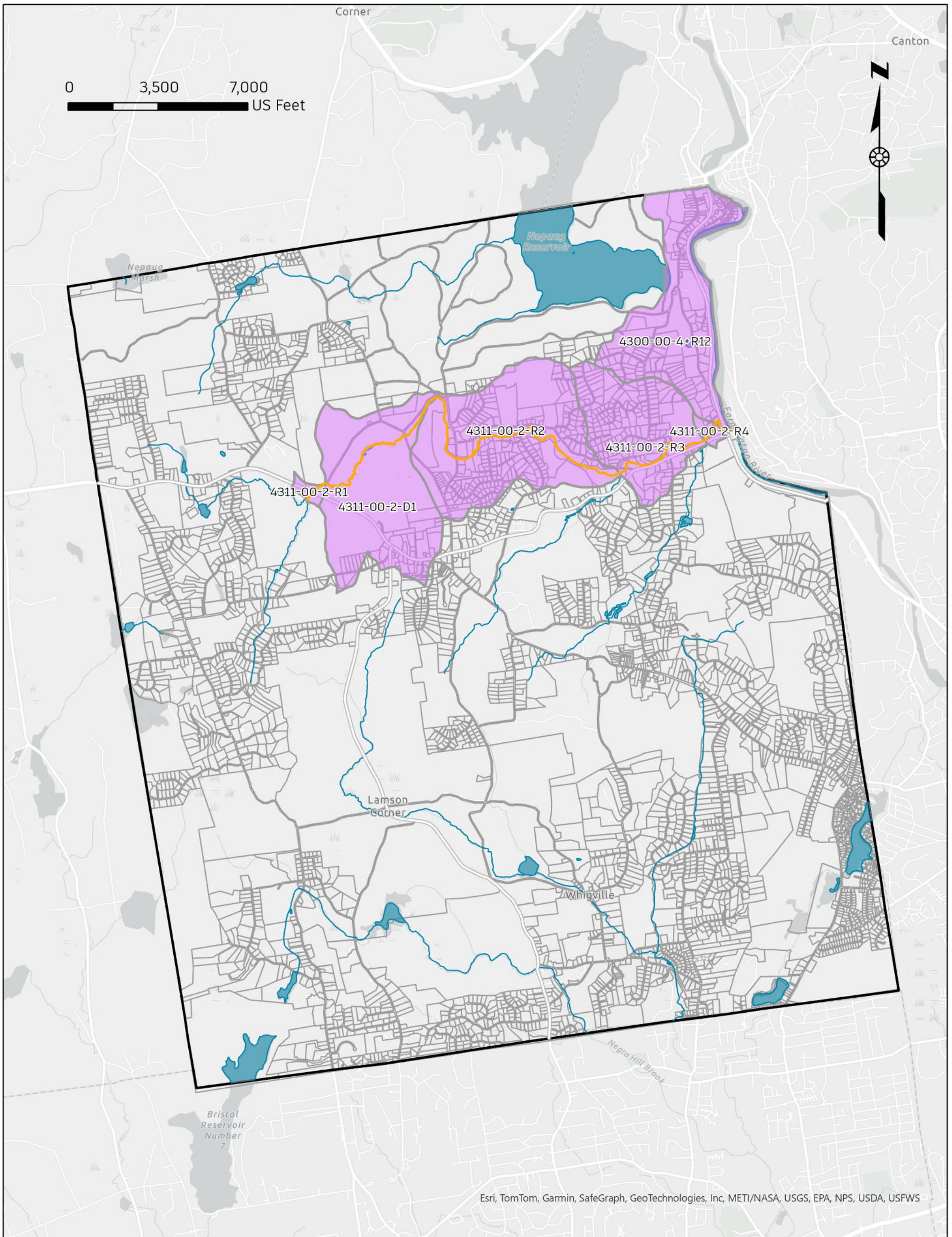
● Bacteria Sampling Point	State Road
 Chloride Sampling Point	Parcel
Impaired Waterbody	Town Line
Surface Water	

Town of Burlington

2023 Annual Report

FWRA Sampling Locations



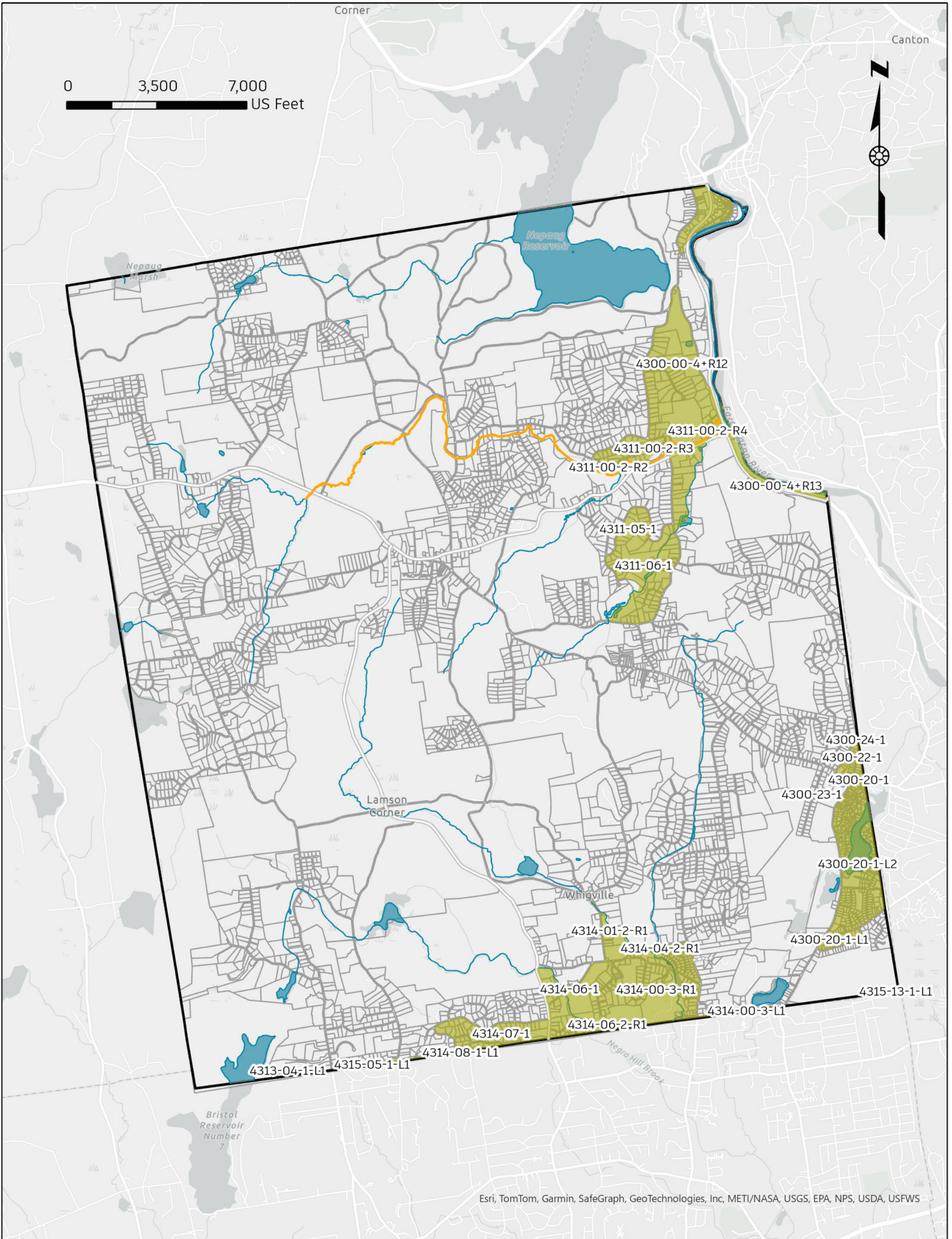


Town of Burlington

2023 Annual Report







Impaired Waters by Catchment





Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA, USFWS

Legend

 Urbanized Area	 State Road
 Impaired Waterbody	 Parcel
 Surface Water	 Town Line

Town of Burlington

2023 Annual Report

Urbanized Areas by Catchment



APPENDIX I
2023 WET WEATHER SAMPLING RESULTS

Town of Burlington
2023 Wet Weather Sampling

Outfall ID	Inspection Date	Condition	Discharge Description	General Parameters								Bacterial	
				Temperature (°C) ⁽³⁾	pH (SU) ⁽³⁾	Dissolved Oxygen (mg/L)	SPC (uS/cm)	ORP (mV)	Turbidity (NTU)	Odor	Escherichia Coli	Total Coliforms	
											MPN/100mL		
OF-3	9/15/2023	Excellent	Steady stream of clear water down riprap drainage swale; located in wooded area; minor black suspended particles and organic matter	19.6	7.09	6.93	323.6	--	46.14	Very slight petroleum odor	9,210	>24,200	
OF-6	9/15/2023	Excellent	Concrete flared end outfall pipe connected to small pond within wooded area adjacent to roadway; clear discharge with steady stream; minor suspended sediment	18.6	6.78	7.27	120.4	--	18.15	No	2,060	>24,200	
OF-8	9/15/2023	Poor	Half-buried outfall pipe in wooded area; discharges to sediment drainage swale; cloudy discharge with significant suspended sediment	18.8	6.58	6.05	15.2	--	286.5	No	10,500	>24,200	
OF-9	9/15/2023	Good	Outfall pipe discharges to wooded embankment along Burlington Brook; clear discharge with steady flow and minimal organic debris	19	6.6	6.04	20.3	--	17.28	No	>24,200	>24,200	
OF-11	9/15/2023	Excellent	Steady flow down to stream; clear discharge with little to no suspended sediment	19.4	6.55	6.13	7	--	4.78	No	>24,200	>24,200	
OF-12	9/15/2023	Good	Black plastic outfall pipe discharging to wooded swale along roadway; clear to cloudy, steady stream with minimal suspended sediment	18.8	6.34	4.98	23.6	--	28.84	No	309	>24,200	
OF-14	9/15/2023	Good	Concrete endwall with two outfall pipes discharging to small pond/stream; clear with minimal organic debris	18.4	6.73	7.44	161.8	--	15.88	No	345	13,000	
OF-17	9/15/2023	Excellent	Concrete flared end outfall pipe discharging to wooded swale at roadway intersection; discharge is clear with a steady stream into riprap	19.4	6.33	6.97	9.3	--	15.42	No	399	>24,200	
OF-18	9/15/2023	Excellent	Outfall pipe located on steep embankment along roadway; collected from catch basin; clear discharge with minimal organic debris	18.5	6.62	6.94	79.4	--	17.57	No	>24,200	>24,200	

Town of Burlington
2023 Wet Weather Sampling

OF-22	9/15/2023	Good	White plastic pipe discharging to wooded area along roadside; connected to catch basin on road; clear discharge with slight trickle and minimal organic debris	19.4	6.33	6.97	9.3	--	18.34	No	1,420	>24,200
OF-29	9/15/2023	Good	Concrete flared end outfall pipe discharging to wooded area adjacent to roadway intersection; discharge is clear with a slow trickle	19.9	6.8	6.86	35.2	--	3.77	No	63	>24,200

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.

APPENDIX II
2023 DRY WEATHER INSPECTIONS AND SAMPLING RESULTS

Town of Burlington - 2023 Dry Weather Inspections

Inspection Date	Outfall ID	Material	Subtype	Diameter (Inches)	Condition	Erosion Control	Notes	Illicit Discharge	Illicit Discharge Description	Longitude	Latitude
5/12/2023	OF-46	Concrete	other	18	Fair	N/A	Concrete pipe covered with leafy debris (clogged). Discharges to a swale, adjacent stream and stream-fed pond.	No	--	-72.9533555	41.774199
5/12/2023	OF-1	Concrete	flared end	18	Good	N/A	Outfall discharges to a swale off of Belden Road swale, and ultimately discharges into culvert and stream, which is fed by the adjacent pond.	No	--	-72.9531564	41.774287
5/12/2023	OF-2	Other	other		Good	Good	Sheetflow is directed to a asphalted downslope where it discharges into culverted stream.	No	--	-72.95195	41.775795
5/12/2023	OF-3	Corrugated Metal	other	14	Good	Good	OF pipe extends ~6-7 ft. off of embankment. Erosion controls consist of small concrete blocks. Discharges to lengthy, incised swale.	No	--	-72.9489904	41.777435
5/12/2023	OF-4	Other	other	13	Good	Good	Sheetflow from road asphalted, and connection to catch basin across road. Outfall to poorly riprapped, slightly sloped vegetated area.	No	--	-72.9491055	41.777687
5/12/2023	Illicit 1	Corrugated Metal	other		Fair	N/A	Three separate pipes heavily discharging into CB from unknown up-gradient sources.	Yes	Heavy. Clear, no odor, little foam		

Town of Burlington - 2023 Dry Weather Inspections

Inspection Date	Outfall ID	Material	Subtype	Diameter (Inches)	Condition	Erosion Control	Notes	Illicit Discharge	Illicit Discharge Description	Longitude	Latitude
5/12/2023	OF-6	Concrete	flared end	18	Good	Good	OF discharges ~20 ft from waterbody. Some large riprap.	No	--	-72.9526838	41.782391
5/12/2023	OF-7	Other	other	15	Good	Poor	Sheet flow from road travels over bare dirt to outfall. Discharges to depressed vegetated area with no significant erosion control.	No	--	-72.9678726	41.783657
5/12/2023	OF-8	Plastic	other	12	Excellent	Fair	Missing riprap in downslope channel, pipe clogged with organics; surrounded by riprap and discharges to vegetated area.	No	--	-72.9670391	41.784417
5/12/2023	OF-9	--	--	--	--	--	Not located. No visible wash out or discharge observed.	No	--	-72.9655543	41.785849
5/12/2023	OF-10	--	--	--	--	--	Not located. No visible wash out or discharge observed.	No	--	-72.9646587	41.786577
5/12/2023	OF-11	Concrete	Other		Good	Good	OF takes channelized flow from upgradient roadway and discharges to steep swale that is asphalted. A metal pipe is also in this area; likely a previous OF prior to road repaving.	No	--	-72.9641136	41.786502
5/12/2023	OF-12	Other	Other		Fair	Poor	OF discharges from channelized sheet flow into adjacent pond. High sediment/silt. No rip rap to slow sediment loading during runoff	No	--	-72.9763733	41.78191
5/12/2023	OF-13	Concrete	other	18	Good	Good	Discharges into grassy, mowed swale.	No	--	-72.9776427	41.779433

Town of Burlington - 2023 Dry Weather Inspections

Inspection Date	Outfall ID	Material	Subtype	Diameter (Inches)	Condition	Erosion Control	Notes	Illicit Discharge	Illicit Discharge Description	Longitude	Latitude
5/12/2023	OF-14	Stone	other		Good	Good	OF is channelized flow into very short swale to water. Surrounding area is wetlands and woods. Unpaved road. Large woody debris buildup likely from flooding.	No	--	-72.9800032	41.776996
6/1/2023	OF-15	Corrugated Metal			Poor	Poor	Dilapidated/rusted metal pipe from unknown source, about 8". Likely does not convey flow. Sheet flow from road above- bank partially eroded and deposit of sand/gravel/asphalt at base. Otherwise only leaves and woody debris present- no erosion controls.	No	--	-72.9403029	41.778849
6/1/2023	OF-16	Concrete	flared end	36	Good	Good	Boulders and riprap, minor washout. Located at base of steep hill below properties. Discharges into infiltration basin/wetland area.	No	--	-72.9411282	41.779778
6/1/2023	OF-17	Concrete	flared end	36	Excellent	Excellent	Small tiered silt fencing observed, potentially left from development of area. Discharges to riprap swale and infiltrates into ground.	No	--	-72.9241123	41.784378

Town of Burlington - 2023 Dry Weather Inspections

Inspection Date	Outfall ID	Material	Subtype	Diameter (Inches)	Condition	Erosion Control	Notes	Illicit Discharge	Illicit Discharge Description	Longitude	Latitude
6/1/2023	OF-18	Plastic	flared end	24	Excellent	Good	Robust riprap in immediate vicinity and slope above. Conveys small stream under road but connects to CB above.	No	--	-72.9436492	41.780138
6/1/2023	OF-19	Stone	endwall	24	Fair	Fair	Mortared stone headwall. Mortar crumbling and stones missing in places, earth eroding at top; pipe has a pile of leafy debris at opening. Discharges to hillside, leafy debris with no signs of recent sheetflow; no visible erosion controls.	No	--	-72.9454559	41.78079
6/1/2023	OF-20	Stone	endwall			Fair	Presumably where cb across the street discharges to, but pipe appears walled off. Stone mortar in good condition. New asphalt and wooden support beam placed around wall. Some riprap observed	No	--	-72.9463389	41.78162
6/1/2023	OF-21			18	Fair	N/A	Corrugated pvc pipe extends 4' from riprap stream bank, just upstream of culvert headwall. PVC degrading at end.	No	--	-72.9476809	41.783126

Town of Burlington - 2023 Dry Weather Inspections

Inspection Date	Outfall ID	Material	Subtype	Diameter (Inches)	Condition	Erosion Control	Notes	Illicit Discharge	Illicit Discharge Description	Longitude	Latitude
6/1/2023	OF-22	Plastic		8	Poor	Poor	Pipe extends 3 ft from hillside. Bare plastic pipe eroded. Highly vegetated slope, stream below. No visible erosion controls	No	--	-72.9478111	41.783022
6/2/2023	OF-23	Concrete	endwall	24	Excellent	Excellent	Discharges into wooded swale	No	--	-72.9619809	41.768151
6/2/2023	OF-24	Concrete	endwall	24	Excellent	N/A	High amounts of leaf litter and trash. Did not locate erosion controls.	No	--	-72.9623288	41.773528
6/2/2023	OF-25	Plastic	endwall	24	Excellent	Excellent	Discharges into wooded stream	No	--	-72.9763703	41.7927
6/2/2023	OF-26	Plastic		24	Poor	Fair	Discharges to a wooded drainage swale	No	--	-72.9793907	41.794533
6/2/2023	OF-27	Plastic	endwall	24	Excellent	Excellent	Second outfall from adjacent street	No	--	-72.9798497	41.794865
6/2/2023	OF-28	Stone	endwall	24	Excellent	Excellent	Discharges into wooded swale	No	--	-72.9806215	41.797649
6/2/2023	OF-29	Stone	flared end	24	Excellent	Excellent	Flared concrete pipe-discharges into wooded area	No	--	-72.9624615	41.783804
6/2/2023	OF-30	Other	other	24	Good	Poor	Asphalt, curbed inlet that discharges into gravel drainage swale in wooded area	No	--	-72.9343944	41.790386
6/2/2023	OF-31	Concrete	flared end	36	Excellent	Fair	Outfall connected to catch basin on road; discharges to drainage swale in wooded area with minimal medium sized riprap; no blockage at flared end; leaf litter observed	No	--	-72.9341452	41.790638

Town of Burlington - 2023 Dry Weather Inspections

Inspection Date	Outfall ID	Material	Subtype	Diameter (Inches)	Condition	Erosion Control	Notes	Illicit Discharge	Illicit Discharge Description	Longitude	Latitude
6/2/2023	OF-32	Concrete	endwall	24	Poor	Fair	Inputs across the street from catch basin. Heavily wooded-thick vegetation.	No	--	-72.9301316	41.798203
8/31/2023	OF-90	Concrete	--	18	Excellent	--	Outfall is located behind home. Pipe is an 18" concrete pipe discharging from catch basin to behind home.	No	--	-73.0040055	41.7449719
8/31/2023	OF-83	--	--	--	--	--	Outfall is located on private property. Cannot see the pipe inside the catch basin due to poor lighting.	--	--	-73.0052281	41.7433083
8/31/2023	OF-84	Concrete	Flared End	24	Excellent	Yes	24" concrete flared end discharges into wooded swale from catch basin.	No	--	-73.0038121	41.7433013
8/31/2023	OF-85	Plastic	--	6	Good	--	Cannot locate outfall as it is behind home. 6" plastic pipe discharges from catch basin to behind home.	No	--	-73.000188	41.7436323
8/31/2023	OF-86	Concrete	Endwall	36	Excellent	Yes	36" culvert. Could not find as this side of the road has heavy vegetation. Picture of culvert is of other side along with OF-87.	No	--	-72.9995439	41.745671
8/31/2023	OF-91	Concrete	--	12	Excellent	--	12" concrete pipe discharges from catch basin to behind fenced area of home.	No	--	-72.9214854	41.7370901

Town of Burlington - 2023 Dry Weather Inspections

Inspection Date	Outfall ID	Material	Subtype	Diameter (Inches)	Condition	Erosion Control	Notes	Illicit Discharge	Illicit Discharge Description	Longitude	Latitude
8/31/2023	OF-36	Concrete	Flared End	24	Excellent	No	24" concrete flared end discharges into wooded swale from catch basin. Only erosion control observed was a few pieces of riprap.	No	--	-72.9310315	41.7253749
8/31/2023	OF-37	Concrete	Flared End	12	Good	Yes	12" concrete flared end discharges from catch basin to small landscaped retention pond. Excellent erosion control observed.	No	--	-72.9318942	41.7240628
8/31/2023	OF-108	--	--	--	--	--	Discharges from catch basin to behind home in wooded area. Due to lighting, cannot see pipe characteristics.	No	--	-72.9547945	41.7179967
8/31/2023	OF-107	Concrete	--	18	Excellent	--	18" concrete pipe discharges from catch basin to behind home. No discharge observed in catch basin.	No	--	-72.9545974	41.7173831
8/31/2023	OF-115	Concrete	--	18	Excellent	--	18" concrete pipe discharges from catch basin to drainage swale that drains into retention pond. Tall grass prevents observation of erosion control and photo of outfall pipe itself.	No	--	-72.9969343	41.764696

Town of Burlington - 2023 Dry Weather Inspections

Inspection Date	Outfall ID	Material	Subtype	Diameter (Inches)	Condition	Erosion Control	Notes	Illicit Discharge	Illicit Discharge Description	Longitude	Latitude
8/31/2023	OF-113	Concrete	--	24	Fair	--	24" concrete pipe discharges from catch basin to fenced field. Catch basin visual of pipe shows signs of deterioration in the concrete of the pipe.	No	--	-72.996743	41.7670789
8/31/2023	OF-112	Concrete	--	18	Good	--	18" concrete pipe discharges from catch basin to fenced field/meadow.	No	--	-72.9962981	41.7674079
8/31/2023	OF-112	--	--	--	--	--	Catch basin only has one pipe that appears to be OF-114. If there is another outfall as indicated, it would be behind a fenced field/meadow.	--	--	-72.9963071	41.7673992
8/31/2023	OF-111	Plastic	Endwall	6	Good	--	Catch basin has no discharge pipe. There is a 6" black plastic pipe inside the catch basin that likely comes from uphill. Could not locate any possible linked drainage area.	No	--	-72.9960839	41.7672123
8/31/2023	OF-105	Concrete	Flared End	18	Excellent	Yes	18" concrete flares end located at the bottom of a drainage swale. Discharges into catch basin. Excellent erosion control.	No	--	-72.9957441	41.7716602
8/31/2023	OF-106	--	--	--	--	--	Likely located uphill of OF-105. Located by home and could not locate.	--	--	-72.9957281	41.7716528

Town of Burlington - 2023 Dry Weather Inspections

Inspection Date	Outfall ID	Material	Subtype	Diameter (Inches)	Condition	Erosion Control	Notes	Illicit Discharge	Illicit Discharge Description	Longitude	Latitude
8/31/2023	OF-104	--	--	--	--	--	Could not locate. Located in a densely wooded area. Discharges from catch basin, but cannot make pipe out to characterize. No water flowing on catch basin, so no discharge.	No	--	-72.9957794	41.7721591
8/31/2023	OF-103	Concrete	Flared End	12	Excellent	Yes	12" concrete flared end discharges to catch basin. Located at bottom of a drainage swale in a wooded area.	No	--	-72.9945539	41.7725611
8/31/2023	OF-102	Concrete	--	18	Excellent	--	18" concrete pipe discharges from catch basin to behind home. Catch basin is not discharging.	No	--	-72.99482	41.7732908
8/31/2023	OF-101	Concrete	--	18	Excellent	--	18" concrete pipe discharges from catch basin to behind fenced area.	No	--	-72.9940669	41.7740279
8/31/2023	OF-94	--	--	--	--	--	Could not find an outfall. Likely located in grassy area alongside a busy road (only area alongside side street was checked for outfall). Discharges into grassy area from catch basin.	--	--	-72.9749805	41.7625677
8/31/2023	OF-95	Concrete	Flared End	24	Excellent	Yes	24" concrete flared end discharges into riprap swale from catch basin. Excellent erosion control observed.	No	--	-72.977363	41.7621625

Town of Burlington - 2023 Dry Weather Inspections

Inspection Date	Outfall ID	Material	Subtype	Diameter (Inches)	Condition	Erosion Control	Notes	Illicit Discharge	Illicit Discharge Description	Longitude	Latitude
8/31/2023	OF-96	Concrete	Flared End	24	Excellent	Yes	24" concrete flared end located in a drainage basin. A 6" black plastic pipe and likely runoff from uphill drain into the basin. Concrete pipe discharges into catch basin. Excellent erosion control.	No	--	-72.9776164	41.7623893
8/31/2023	OF-97	Concrete	Flared End	30	Excellent	Yes	30" concrete flared end culvert discharging to catch basins and subsequent culvert on other side of the road (OF-98). Excellent erosion control observed.	No	--	-72.9790285	41.7614476
8/31/2023	OF-98	Concrete	Flared End	30	Excellent	Yes	30" concrete flared end culvert discharging into wooded stream from catch basin (linked to culvert OF-97). Excellent erosion control.	No	--	-72.9787747	41.7611017
8/31/2023	OF-88	--	--	--	--	--	No pipes discharging from either catch basin in area. Not outfall observed.		--	-72.9988249	41.745896
8/31/2023	OF-86	Concrete	Endwall	36	Excellent	--	Concrete endwall culvert located in the wooded area pictured. Could not locate.	No	--	-72.9995439	41.745671
8/31/2023	OF-87	Concrete	Endwall	12	Excellent	Yes	12" concrete endwall discharges into stream /wetland area from catch basin. There is also a 36" concrete culvert.	No	--	-72.9992251	41.7455309

Town of Burlington - 2023 Dry Weather Inspections

Inspection Date	Outfall ID	Material	Subtype	Diameter (Inches)	Condition	Erosion Control	Notes	Illicit Discharge	Illicit Discharge Description	Longitude	Latitude
8/31/2023	OF-89	Concrete	Flared End	18	Excellent	Yes	18" concrete flared end discharges into wooded swale from catch basin. Erosion control present but minimal.	No	--	-72.9967182	41.7467927
8/31/2023	OF-44	Concrete	--	12	Excellent	--	12" concrete pipe discharges from home to wetland area. Could not locate outfall itself due to dense vegetation.	No	--	-72.9952458	41.7463217
8/31/2023	OF-43	Plastic	Endwall	6	Good	No	6" black plastic pipe discharges from catch basin in front yard of house to grassy area. No erosion control present.	No	--	-72.9930005	41.746649
8/31/2023	OF-42	Concrete	Flared End	24	Excellent	Yes	24" concrete flared end discharges into grassy swale with minimal erosion control. Connected to street catch basin.	No	--	-72.9929804	41.7466866
8/31/2023	OF-41	--	--	--	--	--	Catch basin has a 12" black plastic pipe discharging from it. No outfall found in the direction of the pipe (towards closed road). Area where outfall is marked is mostly grassy front yard bordering a wooded area. No sign of an outfall in the area.	--	--	-72.9919899	41.7470182

Town of Burlington - 2023 Dry Weather Inspections

Inspection Date	Outfall ID	Material	Subtype	Diameter (Inches)	Condition	Erosion Control	Notes	Illicit Discharge	Illicit Discharge Description	Longitude	Latitude
8/31/2023	OF-40	--	--	--	--	--	Catch basin has a 12" black plastic pipe discharging from it. No outfall found in the direction of the pipe (towards closed road). Area where outfall is marked is mostly grassy front yard bordering a wooded area. No sign of an outfall in the area.	--	--	-72.9920245	41.7468747
8/31/2023	OF-92	Concrete	--	18	Excellent	--	Could not locate outfall. 18" concrete pipe discharges from catch basin to wooded area.	No	--	-72.9962425	41.7503142
8/31/2023	OF-93	Concrete	Flared End	24	Excellent	Yes	24" concrete flared end discharges into wooded swale from catch basin. Good erosion control observed.	No	--	-72.9984463	41.7504051
8/31/2023	OF-39	Concrete	--	18	Excellent	--	18" concrete pipe discharges from catch basin to grassy/meadow area. Could not locate outfall but likely in the area pictured.	No	--	-72.9943468	41.7583143
8/31/2023	OF-33	Concrete	--	18	Excellent	--	18" concrete pipe discharges from catch basin into densely wooded area. Could not locate outfall due to vegetation.	No	--	-72.9913637	41.7593635

Town of Burlington - 2023 Dry Weather Inspections

Inspection Date	Outfall ID	Material	Subtype	Diameter (Inches)	Condition	Erosion Control	Notes	Illicit Discharge	Illicit Discharge Description	Longitude	Latitude
8/31/2023	OF-34	Concrete	Flared End	24	Excellent	Yes	24" flared end discharges from catch basin into riprap swale/small retention pond. Erosion control is excellent.	No	--	-72.9907087	41.7605314
8/31/2023	OF-35	--	--	--	--	--	Could not locate due to being on private property and owner was not home	--	--	-72.9892281	41.7613468
8/31/2023	OF-99	Concrete	Flared End	24	Excellent	Yes	24" concrete flared end discharges into wooded swale. Outfall is located down an embankment on the side of the road. Erosion control is minimal.	No	--	-72.9842346	41.7611427
8/31/2023	OF-100	Concrete	Flared End	12	Excellent	Yes	12" concrete flared end discharging into wooded pond area from catch basin. Some erosion control observed. Pipe seems to be partially clogged / backed up with leaf litter	No	--	-72.9831905	41.7600496
9/1/2023	OF-32	Concrete	--	6	Good	--	6" concrete pipe discharges from catch basin to across the street in a wooded area. Could not locate outfall due to dense vegetation.	No	--	-72.9301316	41.7982035

Town of Burlington - 2023 Dry Weather Inspections

Inspection Date	Outfall ID	Material	Subtype	Diameter (Inches)	Condition	Erosion Control	Notes	Illicit Discharge	Illicit Discharge Description	Longitude	Latitude
9/1/2023	OF-17	Concrete	Flared End	24	Excellent	Yes	24" concrete flared end discharges from catch basin to wooded swale. Excellent erosion control and pipe condition.	No	--	-72.9241123	41.7843777
9/1/2023	OF-31	Concrete	Flared End	36	Excellent	Yes	36" concrete flared end discharges from catch basin to wooded swale. Pipe condition and erosion control are both excellent.	No	--	-72.9341452	41.7906384
9/1/2023	OF-30		Other	12	Good	No	Asphalt curb inlet discharges into wooded area. Asphalt is starting to crumble. Good erosion control.	No	--	-72.9343944	41.7903856
9/1/2023	OF-110	Concrete	--	24	Good	--	24" concrete pipe discharges from catch basin onto private property.	No	--	-72.9398975	41.7913008
9/1/2023	OF-109	Concrete	Flared End	24	Excellent	No	24" concrete flared end discharges from catch basin to wooded area. No erosion control present. Pipe condition is excellent.	No	--	-72.9425773	41.7903656
9/1/2023	OF-15	--	--	--	--	--	Located on sharp turn in road. No safe place to park or walk to look for outfall.	--	--	-72.9403029	41.7788491
9/1/2023	OF-16	--	--	--	--	--	Cannot see pipe in catch basin. Checked area across the street where outfall is indicated and could not find.	--	--	-72.9411282	41.7797775

Town of Burlington - 2023 Dry Weather Inspections

Inspection Date	Outfall ID	Material	Subtype	Diameter (Inches)	Condition	Erosion Control	Notes	Illicit Discharge	Illicit Discharge Description	Longitude	Latitude
9/1/2023	OF-18	Concrete	--	--	Excellent	Yes	Concrete pipe discharges from catch basin into wooded swale. Could not get close to pipe to see size or condition due to steep embankment. Erosion control is excellent.	No	--	-72.9436492	41.7801375
9/1/2023	OF-19	Precast	Endwall	12	Good	No	12" metal pipe discharges from catch basin to wooded swale. Poor erosion control observed. Pipe condition is good.	No	--	-72.9454559	41.7807898
9/1/2023	OF-20	Concrete	Endwall	--	Excellent	Yes	Concrete pipe discharges into wooded swale. Could not get to outfall to see pipe diameter and condition due to steep embankment. Erosion control is excellent.	No	--	-72.9463389	41.7816204
9/1/2023	OF-21	Plastic	Endwall	12	Fair	Yes	12" white plastic pipe discharges into wooded stream and into concrete culvert. Could not find a linked catch basin in the area. Pipe is in fair condition and showing signs of deterioration.	No	--	-72.9476809	41.7831257

Town of Burlington - 2023 Dry Weather Inspections

Inspection Date	Outfall ID	Material	Subtype	Diameter (Inches)	Condition	Erosion Control	Notes	Illicit Discharge	Illicit Discharge Description	Longitude	Latitude
9/1/2023	OF-22	Plastic	Endwall	12	Fair	--	12" white plastic pipe discharges from catch basin into wooded stream. Could not locate actual outfall due to dense vegetation and steep hill. Pipe in catch basin was in fair condition and showing signs of deterioration.	No	--	-72.9478111	41.7830218
9/1/2023	OF-38	--	--	--	--	--	Located in densely vegetated meadow area. Could not locate.	--	--	-72.9512312	41.7729603
9/1/2023	OF-24	Concrete	Endwall	12	Excellent	Yes	12" concrete endwall discharges into wooded swale from catch basin. Minimal erosion control present.	No	--	-72.9623288	41.7735275
9/1/2023	OF-23	Concrete	Endwall	18	Excellent	Yes	18" concrete endwall discharges from catch basin into drainage swale/retaining pond. Excellent erosion control.	No	--	-72.9619809	41.7681505
9/1/2023	OF-12	Concrete	Endwall	12	Excellent	Yes	12" concrete pipe discharges into wooded swale. On other side of the road, the pipe acts as an overflow for the nearby pond/wetland area. Overflow discharges to the outfall. Erosion control is fair. Pipe condition is excellent.	No	--	-72.9763733	41.7819102

Town of Burlington - 2023 Dry Weather Inspections

Inspection Date	Outfall ID	Material	Subtype	Diameter (Inches)	Condition	Erosion Control	Notes	Illicit Discharge	Illicit Discharge Description	Longitude	Latitude
9/1/2023	OF-13	Concrete	--	12	Excellent	--	12" concrete pipe discharges from catch basin to densely wooded area. Pipe is in excellent condition based on catch basin visual.	No	--	-72.9776427	41.7794331
9/1/2023	OF-14	Concrete	Endwall	48	Good	Yes	Two 48" concrete culverts present. Both in good condition.	No	--	-72.9800032	41.7769961
9/1/2023	OF-28	Plastic	Endwall	12	Excellent	Yes	12" black plastic pipe discharges from catch basin to wooded swale. Erosion control and pipe condition are excellent.	No	--	-72.9806215	41.7976489
9/1/2023	OF-27	Precast	Endwall	12	Excellent	Yes	12" steel pipe discharges from catch basin to wooded swale. Pipe condition is excellent and erosion control is good.	No	--	-72.9798497	41.7948647
9/1/2023	OF-26	Plastic	--	12	Excellent	Yes	12" black plastic pipe discharges from catch basin to wooded stream. Pipe condition and erosion control are excellent.	No	--	-72.9793907	41.7945327
9/1/2023	OF-25	Precast	Endwall	12	Good	Yes	12" steel pipe discharges from catch basin to wooded swale. Good erosion control.	No	--	-72.9763703	41.7927001

Town of Burlington - 2023 Dry Weather Inspections

Inspection Date	Outfall ID	Material	Subtype	Diameter (Inches)	Condition	Erosion Control	Notes	Illicit Discharge	Illicit Discharge Description	Longitude	Latitude
9/1/2023	OF-52	Precast	Endwall	12	Poor	No	12" steel pipe discharges from catch basin to wooded swale. No erosion control at outfall. Pipe is beginning to show signs of rusting and is partially blocked with leaf litter.	No	--	-72.9678726	41.7836567
9/1/2023	OF-53	Plastic	Endwall	12	Fair	Yes	12" black plastic pipe discharges from catch basin to wooded swale. Pipe is almost completely blocked with leaf litter and debris. Excellent erosion control in catch basin, but none at outfall.	No	--	-72.9670391	41.7844174
9/1/2023	OF-54	Concrete	Endwall	12	Good	Yes	12" concrete pipe discharging from catch basin to wooded swale leading to Burlington Brook. Outfall pipe is partially covered with leaf litter and soil. Minimal erosion control.	No	--	-72.9655543	41.7858495
9/1/2023	OF-10	Concrete	--	12	Poor	--	12" concrete pipe discharges from catch basin to wooded area. Pipe is almost completely blocked on catch basin end. Could not locate outfall, likely is buried under leaf litter or collapsed.	No	--	-72.9646587	41.7865774

Town of Burlington - 2023 Dry Weather Inspections

Inspection Date	Outfall ID	Material	Subtype	Diameter (Inches)	Condition	Erosion Control	Notes	Illicit Discharge	Illicit Discharge Description	Longitude	Latitude
9/1/2023	OF-11	Precast	Endwall	12	Fair	Yes	12" steel pipe discharges down asphalt swale and into the Burlington Brook. Pipe is exhibiting signs of rust. Excellent erosion control.	No	--	-72.9641136	41.7865024
9/1/2023	OF-29	Concrete	Flared End	24	Excellent	Yes	24" concrete flared end discharges into pond that discharges into the Burlington Brook. Connected to nearby catch basin.	No	--	-72.9624615	41.783804
9/1/2023	OF-51	Concrete	Flared End	18	Excellent	Yes	18" concrete flared end discharges into the Burlington Brook. Excellent erosion control observed.	No	--	-72.9526838	41.782391

Town of Burlington - 2023 Dry Weather Inspections

Inspection Date	Outfall ID	Material	Subtype	Diameter (Inches)	Condition	Erosion Control	Notes	Illicit Discharge	Illicit Discharge Description	Longitude	Latitude
9/1/2023	OF-5	Precast	Endwall	6	Poor	Yes	<p>A 6" silver steel pipe discharges into a stream that discharges into a 12" steel pipe that connects to a catch basin downhill. The silver steel pipe was observed detached and pulled out the the ground further into the wooded area. This pipe will need repair to function properly.</p> <p>There is a wooded swale that discharges into the stream. It is possible this large, eroded swale is the result of the damaged pipe that runs alongside it. Erosion control in the stream area is excellent.</p>	No	--	-72.95307	41.7815096
9/1/2023	OF-4	--	--	--	Poor	Yes	<p>Catch basin across the street is linked to pipe that has probably collapsed. Pipe is most likely underneath pile of riprap at the bottom of a roadside asphalt drainage swale. Discharges into wooded swale that leads to a larger drainage swale from OF-3.</p>	Yes	--	-72.9491055	41.7776874

Town of Burlington - 2023 Dry Weather Inspections

Inspection Date	Outfall ID	Material	Subtype	Diameter (Inches)	Condition	Erosion Control	Notes	Illicit Discharge	Illicit Discharge Description	Longitude	Latitude
9/1/2023	OF-3	Precast	Endwall	12	Good	No	12" silver steel pipe extends ~7ft from the hillside to discharge into a wooded swale. Erosion control is excellent at the beginning of swale, however the rest has signs of erosion. Pipe has a large dent in it	No	--	-72.9489904	41.777435
9/1/2023	OF-2	Precast	Endwall	12	Good	Yes	12" steel pipe discharges into wooded swale/stream. Connected to catch basin across the street. Catch basin has a pipe discharging into it that is currently carrying a stream. Pipe has some signs of rust.	No	--	-72.95195	41.7757954
9/1/2023	OF-1	Concrete	Flared End	24	Good	Yes	24" concrete flared end discharges from catch basin to wooded swale. Good erosion control present.	No	--	-72.9531564	41.7742875
9/1/2023	OF-45	Concrete	Flared End	18	Fair	No	18" concrete pipe discharges from catch basin to a shallow basin on the side of the road. Pipe is almost entirely buried by leaf litter. No erosion control observed, but could be underneath leaf litter.	No	--	-72.9533555	41.7741989

Town of Burlington MS4
Dry Weather Sampling
2023 Dry Weather Analytical Results

ID	Date	Discharge Description	Screening Indicators							Notes
			Chlorine Residual	Ammonia as Nitrogen mg/L	MBAS	Conductivity umhos/cm	Salinity ppt	Escherichia Coli MPN/100mL	Total Coliforms	
ILLCIT-1	5/12/23	Heavy flow. Clear, no odor, little foam.	<0.02	<0.05	0.05	375	<0.5	10	2,700	Potentially indicative of an illicit discharge. Further catchment investigation is necessary.
1DDE-1	5/31/23	Clear, no odor.	<0.02	<0.10	<0.05	139	<0.5	<10	<10	Not indicative of an illicit discharge. Indicative of groundwater influence.

Notes:
<p>* 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 10. Turbidity: >5 NTU</p>

APPENDIX III
2023 FARMINGTON RIVER WATERSHED ASSOCIATION SAMPLING
RESULTS

**Farmington River Watershed Association
(FRWA)**

**Town of Burlington:
2023 Bacteria Sampling**

ID	Sampling Date	Latitude	Longitude	Proximity to Location	Landmark/Facility Name	Bacterial	
						Escheriachia Coli	Total Coliforms
						MPN/100mL	
BB-B1	6/12/2023	41.783	-72.922	ds	Rte 179 Bridge	1.0	1,299.7
	6/26/2023					17.2	1,986.3
	7/12/2023					69.1	2,419.6
	7/24/2023					39.3	2,419.6
	8/7/2023					1119.9	>2,419.6
	8/21/2023					14.8	1,553.1
FR-B1	6/12/2023	41.783	-72.922	at	Confluence with Bunnell Brook	6.3	2419.6
	6/26/2023					26.2	1,986.3
	7/12/2023					344.8	>2,419.6
	7/24/2023					37.9	>2,419.6
	8/7/2023					980.4	>2,419.6
	8/21/2023					179.3	2,419.6

Notes:
<p>* All highlighted bacterial concentrations are required for follow-up investigations at associated outfall.</p> <p>*Highlighting is based on the following criteria;</p> <ol style="list-style-type: none"> 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. <p>*ds - downstream, us - upstream, at - At</p>

**Farmington River Watershed Association
(FRWA)**

**Town of Burlington:
2023 Chlorine Sampling**

ID	Sampling Date	Latitude	Longitude	Proximity to Location	Location Description	General Parameters							
						Chloride (ppm)	NaCL (%)	Conductivity (uS/cm)	Specific Conductivity	Salinity (psu)	Total Dissolved	Turbidity (NTU)	Chlorine (mV)
BB-B1	8/21/2023	41.78295	-72.92189	ds	Rte 179 Bridge	47	--	173.2	205.3	0.1	--	0.28	157.5
FR-B1	8/21/2023	41.783	-72.922	at	Confluence with Bunnell Brook	35	--	155.8	179.4	0.08	--	0.46	164.2

Notes:
<p>*All highlighted bacterial concentrations are required for follow-up investigation at assc</p> <p>*Highlighting is based on the following criteria;</p> <ol style="list-style-type: none"> 1. Ammonia: >0.5 mg/L 2. Surfactants (MBAS): >0.25 mg/L 3. Chlorine: detectable level 4. Conductivity: >1,500 uS 5. Salinity: ≥ 0.5 ppt 6. Turbidity: >5 NTU <p>*ds - downstream, us - upstream, at - At</p>

APPENDIX IV
2023 LABORATORY ANALYTICAL REPORTS



Tuesday, August 29, 2023

Attn: Ron Severson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Project ID: TOWN OF BURLINGTON
SDG ID: GCO82758
Sample ID#s: CO82758 - CO82768

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

A handwritten signature in black ink that reads "Phyllis Shiller". The signature is written in a cursive style.

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B

NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
VT Lab Registration #VT11301



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Sample Id Cross Reference

August 29, 2023

SDG I.D.: GCO82758

Project ID: TOWN OF BURLINGTON

Client Id	Lab Id	Matrix
OF-3	CO82758	SURFACE WATER
OF-6	CO82759	SURFACE WATER
OF-8	CO82760	SURFACE WATER
OF-9	CO82761	SURFACE WATER
OF-11	CO82762	SURFACE WATER
OF-12	CO82763	SURFACE WATER
OF-14	CO82764	SURFACE WATER
OF-17	CO82765	SURFACE WATER
OF-18	CO82766	SURFACE WATER
OF-22	CO82767	SURFACE WATER
OF-29	CO82768	SURFACE WATER



Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

August 29, 2023

FOR: Attn: Ron Severson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information

Matrix: SURFACE WATER
Location Code: ATC-EHDAS
Rush Request: Standard
P.O.#:

Custody Information

Collected by:
Received by: SR1
Analyzed by: see "By" below

Date

08/25/23
08/25/23

Time

8:20
10:00

Laboratory Data

SDG ID: GCO82758
Phoenix ID: CO82758

Project ID: TOWN OF BURLINGTON
Client ID: OF-3

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Escherichia Coli	9210	10	MPN/100 mls	10	08/25/23 13:50	RM/KDB	SM9223B-16
Total Coliforms	>24200	10	MPN/100 mls	10	08/25/23 13:50	RM/KDB	SW9223B-16

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

August 29, 2023

Reviewed and Released by: Ethan Lee, Project Manager



Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

August 29, 2023

FOR: Attn: Ron Severson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information

Matrix: SURFACE WATER
Location Code: ATC-EHDAS
Rush Request: Standard
P.O.#:

Custody Information

Collected by:
Received by: SR1
Analyzed by: see "By" below

Date

08/25/23
08/25/23

Time

8:00
10:00

Laboratory Data

SDG ID: GCO82758
Phoenix ID: CO82759

Project ID: TOWN OF BURLINGTON
Client ID: OF-6

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Escherichia Coli	2060	10	MPN/100 mls	10	08/25/23 13:50	RM/KDB	SM9223B-16
Total Coliforms	>24200	10	MPN/100 mls	10	08/25/23 13:50	RM/KDB	SW9223B-16

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

August 29, 2023

Reviewed and Released by: Ethan Lee, Project Manager



Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

August 29, 2023

FOR: Attn: Ron Severson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information

Matrix: SURFACE WATER
Location Code: ATC-EHDAS
Rush Request: Standard
P.O.#:

Custody Information

Collected by:
Received by: SR1
Analyzed by: see "By" below

Date

08/25/23
08/25/23

Time

7:45
10:00

Laboratory Data

SDG ID: GCO82758
Phoenix ID: CO82760

Project ID: TOWN OF BURLINGTON
Client ID: OF-8

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Escherichia Coli	10500	10	MPN/100 mls	10	08/25/23 13:50	RM/KDB	SM9223B-16
Total Coliforms	>24200	10	MPN/100 mls	10	08/25/23 13:50	RM/KDB	SW9223B-16

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

August 29, 2023

Reviewed and Released by: Ethan Lee, Project Manager



Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

August 29, 2023

FOR: Attn: Ron Severson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information

Matrix: SURFACE WATER
Location Code: ATC-EHDAS
Rush Request: Standard
P.O.#:

Custody Information

Collected by:
Received by: SR1
Analyzed by: see "By" below

Date

08/25/23
08/25/23

Time

7:40
10:00

Laboratory Data

SDG ID: GCO82758
Phoenix ID: CO82761

Project ID: TOWN OF BURLINGTON
Client ID: OF-9

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Escherichia Coli	>24200	10	MPN/100 mls	10	08/25/23 13:50	RM/KDB	SM9223B-16
Total Coliforms	>24200	10	MPN/100 mls	10	08/25/23 13:50	RM/KDB	SW9223B-16

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

August 29, 2023

Reviewed and Released by: Ethan Lee, Project Manager



Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

August 29, 2023

FOR: Attn: Ron Severson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information

Matrix: SURFACE WATER
Location Code: ATC-EHDAS
Rush Request: Standard
P.O.#:

Custody Information

Collected by:
Received by: SR1
Analyzed by: see "By" below

Date

08/25/23
08/25/23

Time

7:50
10:00

Laboratory Data

SDG ID: GCO82758
Phoenix ID: CO82762

Project ID: TOWN OF BURLINGTON
Client ID: OF-11

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Escherichia Coli	>24200	10	MPN/100 mls	10	08/25/23 13:50	RM/KDB	SM9223B-16
Total Coliforms	>24200	10	MPN/100 mls	10	08/25/23 13:50	RM/KDB	SW9223B-16

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

August 29, 2023

Reviewed and Released by: Ethan Lee, Project Manager



Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

August 29, 2023

FOR: Attn: Ron Severson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information

Matrix: SURFACE WATER
Location Code: ATC-EHDAS
Rush Request: Standard
P.O.#:

Custody Information

Collected by:
Received by: SR1
Analyzed by: see "By" below

Date

08/25/23
08/25/23

Time

7:20
10:00

Laboratory Data

SDG ID: GCO82758
Phoenix ID: CO82763

Project ID: TOWN OF BURLINGTON
Client ID: OF-12

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Escherichia Coli	309	10	MPN/100 mls	10	08/25/23 13:50	RM/KDB	SM9223B-16
Total Coliforms	>24200	10	MPN/100 mls	10	08/25/23 13:50	RM/KDB	SW9223B-16

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

August 29, 2023

Reviewed and Released by: Ethan Lee, Project Manager



Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

August 29, 2023

FOR: Attn: Ron Severson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information

Matrix: SURFACE WATER
Location Code: ATC-EHDAS
Rush Request: Standard
P.O.#:

Custody Information

Collected by:
Received by: SR1
Analyzed by: see "By" below

Date

08/25/23
08/25/23

Time

7:10
10:00

Laboratory Data

SDG ID: GCO82758
Phoenix ID: CO82764

Project ID: TOWN OF BURLINGTON
Client ID: OF-14

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Escherichia Coli	345	10	MPN/100 mls	10	08/25/23 13:50	RM/KDB	SM9223B-16
Total Coliforms	13000	10	MPN/100 mls	10	08/25/23 13:50	RM/KDB	SW9223B-16

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

August 29, 2023

Reviewed and Released by: Ethan Lee, Project Manager



Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

August 29, 2023

FOR: Attn: Ron Severson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information

Matrix: SURFACE WATER
Location Code: ATC-EHDAS
Rush Request: Standard
P.O.#:

Custody Information

Collected by:
Received by: SR1
Analyzed by: see "By" below

Date

08/25/23
08/25/23

Time

8:30
10:00

Laboratory Data

SDG ID: GCO82758
Phoenix ID: CO82765

Project ID: TOWN OF BURLINGTON
Client ID: OF-17

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Escherichia Coli	399	10	MPN/100 mls	10	08/25/23 13:50	RM/KDB	SM9223B-16
Total Coliforms	>24200	10	MPN/100 mls	10	08/25/23 13:50	RM/KDB	SW9223B-16

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

August 29, 2023

Reviewed and Released by: Ethan Lee, Project Manager



Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

August 29, 2023

FOR: Attn: Ron Severson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information

Matrix: SURFACE WATER
Location Code: ATC-EHDAS
Rush Request: Standard
P.O.#:

Custody Information

Collected by:
Received by: SR1
Analyzed by: see "By" below

Date

08/25/23
08/25/23

Time

8:10
10:00

Laboratory Data

SDG ID: GCO82758
Phoenix ID: CO82766

Project ID: TOWN OF BURLINGTON
Client ID: OF-18

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Escherichia Coli	>24200	10	MPN/100 mls	10	08/25/23 13:50	RM/KDB	SM9223B-16
Total Coliforms	>24200	10	MPN/100 mls	10	08/25/23 13:50	RM/KDB	SW9223B-16

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

August 29, 2023

Reviewed and Released by: Ethan Lee, Project Manager



Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

August 29, 2023

FOR: Attn: Ron Severson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information

Matrix: SURFACE WATER
Location Code: ATC-EHDAS
Rush Request: Standard
P.O.#:

Custody Information

Collected by:
Received by: SR1
Analyzed by: see "By" below

Date

08/25/23
08/25/23

Time

8:05
10:00

Laboratory Data

SDG ID: GCO82758
Phoenix ID: CO82767

Project ID: TOWN OF BURLINGTON
Client ID: OF-22

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Escherichia Coli	1420	10	MPN/100 mls	10	08/25/23 13:50	RM/KDB	SM9223B-16
Total Coliforms	>24200	10	MPN/100 mls	10	08/25/23 13:50	RM/KDB	SW9223B-16

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

August 29, 2023

Reviewed and Released by: Ethan Lee, Project Manager



Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

August 29, 2023

FOR: Attn: Ron Severson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information

Matrix: SURFACE WATER
Location Code: ATC-EHDAS
Rush Request: Standard
P.O.#:

Custody Information

Collected by:
Received by: SR1
Analyzed by: see "By" below

Date

08/25/23
08/25/23

Time

7:55
10:00

Laboratory Data

SDG ID: GCO82758
Phoenix ID: CO82768

Project ID: TOWN OF BURLINGTON
Client ID: OF-29

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Escherichia Coli	63	10	MPN/100 mls	10	08/25/23 13:50	RM/KDB	SM9223B-16
Total Coliforms	>24200	10	MPN/100 mls	10	08/25/23 13:50	RM/KDB	SW9223B-16

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

August 29, 2023

Reviewed and Released by: Ethan Lee, Project Manager

Tuesday, August 29, 2023

Criteria: CT: GWP, SWP

State: CT

Sample Criteria Exceedances Report

GCO82758 - ATC-EHDAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
--------	-------	-----------------	----------	--------	----	----------	----------------	-------------------

*** No Data to Display ***

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.



REASONABLE CONFIDENCE PROTOCOL LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

Laboratory Name: Phoenix Environmental Labs, Inc.

Client: ATC Associates

Project Location: TOWN OF BURLINGTON

Project Number:

Laboratory Sample ID(s): CO82758-CO82768

Sampling Date(s): 8/25/2023

List RCP Methods Used (e.g., 8260, 8270, et cetera) None

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP method-specific Reasonable Confidence Protocol documents?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1A	Were the method specified preservation and holding time requirements met?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1B	<u>YPH and EPH methods only:</u> Was the YPH or EPH method conducted without significant modifications (see section 11.3 of respective RCP methods)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
2	Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
3	Were samples received at an appropriate temperature (< 6 Degrees C)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA
4	Were all QA/QC performance criteria specified in the CTDEP Reasonable Confidence Protocol documents achieved?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
5	a) Were reporting limits specified or referenced on the chain-of-custody? b) Were these reporting limits met?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
7	Are project-specific matrix spikes and laboratory duplicates included in the data set?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence". This form may not be altered and all questions must be answered.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Authorized Signature: Ethan Lee **Position:** Project Manager

Printed Name: Ethan Lee **Date:** Tuesday, August 29, 2023

Name of Laboratory Phoenix Environmental Labs, Inc.

This certification form is to be used for RCP methods only.



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



RCP Certification Report

August 29, 2023

SDG I.D.: GCO82758

SDG Comments

Temperature above 6C:

The samples were received in a cooler with ice packs. The samples were delivered to the Laboratory within a short period of time after sample collection. Therefore no significant bias is suspected.

No RCP analyses are included with this report. The RCP narrative is provided at the request of the client.

Temperature Narration

The samples were received at 16.8C with cooling initiated.

(Note acceptance criteria for relevant matrices is above freezing up to 6°C)



CHAIN OF CUSTODY RECORD

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
 Email: info@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-8726

Cooler: Yes No
 Coolant: IPK ICE
 Temp 16.8 C Pg of

Data Delivery/Contact Options:
 Fax: _____
 Phone: _____
 Email: ron.severson@oneatlus.com

Customer: Atlas Technical Consultants Project: Town of Burlington
 Address: 290 Roberts Street Report to: Ron Severson
 East Hartford, CT 06108 Invoice to: Atlas
 QUOTE # _____

This section MUST be completed with Bottle Quantities.

Sampler's Signature: [Signature] Date: 8/25/23

Matrix Code: SW = Ground Water SW = Surface Water WW = Waste Water
RW = Raw Water SE = Sediment SL = Sludge S = Soil SD = Solid W = Wipe OIL = Oil
B = Bulk L = Liquid

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	Analysis Request
82750	OF-3	SW	8/25/23	8:20	X
82759	OF-6	SW		8:00	X
82760	OF-8	SW		7:45	X
82761	OF-9	SW		7:40	X
82762	OF-11	SW		7:50	X
82763	OF-12	SW		7:20	X
82764	OF-14	SW		7:10	X
82765	OF-17	SW		8:30	X
82766	OF-18	SW		8:10	X
82767	OF-22	SW		8:05	X
82768	OF-29	SW		7:55	X

Relinquished by: [Signature] Accepted by: H. Coleman

Date: 8/25/23 Time: 09:46

RI: Direct Exposure (Residential) GW Other

MA: MCP Certification GW-1 GW-2 GW-3 S-1 S-2 S-3 MWRA eSMART Other

CT: RCP Cert GW Protection SW Protection GA Mobility GB Mobility Residential DEC I/C DEC Other

Data Format: Excel PDF GIS/Key EQUIS Other

Data Package: Tier II Checklist Full Data Package* Phoenix Std Report Other

Turnaround: 1 Day* 2 Days* 3 Days* Standard Other

* SURCHARGE APPLIES

State where samples were collected: CT

* SURCHARGE APPLIES

Comments, Special Requirements or Regulations:

CT DAS Rates



Monday, May 22, 2023

Attn: Kay Lehoux
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Project ID: TOWN OF BURLINGTON DRY WEATHER
SDG ID: GCO05256
Sample ID#s: CO05256

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

A handwritten signature in black ink that reads "Phyllis Shiller". The signature is written in a cursive style.

Phyllis Shiller

Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B

NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
VT Lab Registration #VT11301



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



SDG Comments

May 22, 2023

SDG I.D.: GCO05256

The regulatory hold time for Chlorine is immediately. This Chlorine was performed in the laboratory and may be considered outside of hold-time.



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Sample Id Cross Reference

May 22, 2023

SDG I.D.: GCO05256

Project ID: TOWN OF BURLINGTON DRY WEATHER

Client Id	Lab Id	Matrix
ILLICIT-1	CO05256	WASTE WATER



Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

May 22, 2023

FOR: Attn:Kay Lehoux
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information

Matrix: WASTE WATER
Location Code: ATC-EHDAS
Rush Request: Standard
P.O.#: 4461022001

Custody Information

Collected by:
Received by: SR1
Analyzed by: see "By" below

Date

05/12/23
05/12/23

Time

11:25
17:37

Laboratory Data

SDG ID: GCO05256
Phoenix ID: CO05256

Project ID: TOWN OF BURLINGTON DRY WEATHER
Client ID: ILLICIT-1

Table with 8 columns: Parameter, Result, RL/PQL, Units, Dilution, Date/Time, By, Reference. Rows include Escherichia Coli, Total Coliforms, Chlorine Residual, Conductivity, MBAS, Ammonia as Nitrogen, and Salinity.

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

The regulatory hold time for Chlorine is immediately. This Chlorine was performed in the laboratory and may be considered outside of hold-time.

The LAS standard used for the MBAS analysis has a molecular weight of 342 g/mol.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Handwritten signature of Phyllis Shiller

Phyllis Shiller, Laboratory Director

May 22, 2023

Reviewed and Released by: Ethan Lee, Project Manager



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102

QA/QC Report

May 22, 2023


QA/QC Data

SDG I.D.: GCO05256

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 677636 (umhos/cm), QC Sample No: CO04882 (CO05256)													
Conductivity	BRL	5.00	295	293	0.70	97.6						85 - 115	20
Comment: Additional criteria matrix spike acceptance range is 75-125%.													
QA/QC Batch 677587 (mg/L), QC Sample No: CO04901 (CO05256)													
MBAS	BRL	0.05	0.09	0.09	NC	112			83.8			85 - 115	20
Comment: Additional criteria matrix spike acceptance range is 75-125%.													
QA/QC Batch 678359 (mg/L), QC Sample No: CO05149 (CO05256)													
Ammonia as Nitrogen	BRL	0.05	<0.10	<0.10	NC	102			102			90 - 110	20
QA/QC Batch 677615 (mg/L), QC Sample No: CO04551 (CO05256)													
Chlorine Residual	BRL	0.02	<0.01	<0.02	NC	109							

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

- RPD - Relative Percent Difference
- LCS - Laboratory Control Sample
- LCSD - Laboratory Control Sample Duplicate
- MS - Matrix Spike
- MS Dup - Matrix Spike Duplicate
- NC - No Criteria
- Intf - Interference


 Phyllis Shiller, Laboratory Director
 May 22, 2023

Monday, May 22, 2023

Criteria: CT: GWP, SWP

State: CT

Sample Criteria Exceedances Report

GCO05256 - ATC-EHDAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
--------	-------	-----------------	----------	--------	----	----------	----------------	-------------------

*** No Data to Display ***

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.



REASONABLE CONFIDENCE PROTOCOL LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

Laboratory Name: Phoenix Environmental Labs, Inc.

Client: ATC Associates

Project Location: TOWN OF BURLINGTON DRY WEAT

Project Number:

Laboratory Sample ID(s): CO05256

Sampling Date(s): 5/12/2023

List RCP Methods Used (e.g., 8260, 8270, et cetera) None

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP method-specific Reasonable Confidence Protocol documents?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1A	Were the method specified preservation and holding time requirements met?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1B	<u><i>YPH and EPH methods only:</i></u> Was the YPH or EPH method conducted without significant modifications (see section 11.3 of respective RCP methods)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
2	Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
3	Were samples received at an appropriate temperature (< 6 Degrees C)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
4	Were all QA/QC performance criteria specified in the CTDEP Reasonable Confidence Protocol documents achieved?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
5	a) Were reporting limits specified or referenced on the chain-of-custody? b) Were these reporting limits met?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
7	Are project-specific matrix spikes and laboratory duplicates included in the data set?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence". This form may not be altered and all questions must be answered.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Authorized Signature: Ethan Lee **Position:** Project Manager

Printed Name: Ethan Lee **Date:** Monday, May 22, 2023

Name of Laboratory Phoenix Environmental Labs, Inc.

This certification form is to be used for RCP methods only.



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



RCP Certification Report

May 22, 2023

SDG I.D.: GCO05256

SDG Comments

No RCP analyses are included with this report. The RCP narrative is provided at the request of the client.

Wet Chemistry Analysis

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

Instrument:

BECKMAN DU720 05/12/23-3 John Woodworth, Chemist 05/12/23
CO05256

The initial calibration met all criteria including a standard run at the reporting level.
All method verification standards and blanks met criteria.

QC (Batch Specific):

Batch 677587 (CO04901)

CO05256

All LCS recoveries were within 85 - 115 with the following exceptions: None.
Additional criteria matrix spike acceptance range is 75-125%.

Batch 677636 (CO04882)

CO05256

All LCS recoveries were within 85 - 115 with the following exceptions: None.
Additional criteria matrix spike acceptance range is 75-125%.

NITROGEN

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

Instrument:

LACHAT 05/19/23-1 Kandi Della Bella, Chemist 05/19/23
CO05256

The initial calibration met all criteria including a standard run at the reporting level.
All method verification standards and blanks met criteria.

QC (Batch Specific):

Batch 678359 (CO05149)

CO05256

All LCS recoveries were within 85 - 115 with the following exceptions: None.
Additional criteria: LCS acceptance range for waters is 85-115% and for soils is 75-125%. MS acceptance range is 75-125%.

Temperature Narration

The samples were received at 2.4C with cooling initiated.
(Note acceptance criteria for relevant matrices is above freezing up to 6°C)

CHAIN OF CUSTODY RECORD



587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
 Email: info@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-8726

Coolant: IPK ICE
 Cooler: Yes No

Temp: 19 °C Pg of

Data Delivery/Contact Options:

Fax:
 Phone:
 Email: kav.lehoux@oneatlus.com

Project P.O.: 4461022001

Town of Windsor Dry Weather

Project: Windsor

Kay Lenoux

Report to: Atlas

Atlas

Invoice to: Atlas

CTDAS

QUOTE # CTDAS

This section **MUST** be
 completed with
 Bottle Quantities.

Client Sample Information - Identification

Sampler's Signature: *[Signature]* Date: 5/12/13

Matrix Code: WW
 WW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water
 NW=New Water SE=Sediment SL=Sludge S=Soil SD=Solid W=Wipe Oil=Oil
 B=Bulk L=Liquid

Customer Sample Identification: WUCIT-1

Sample Matrix: WW Date Sampled: 5/12/13 Time Sampled: 11:25

Analysis Request: ammonia as N
Chlorine residual
Salinity
Conductivity
E.Coli & Total Coli

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	GL Amber 8 oz. with 304 GL Soil Container (8) oz.	GL Amber 100ml Jar (X) HCl GL Amber 250ml Jar (X) HCl	PL Amber 250ml Bacteria Colles with Bacteria Colles as is	PL Amber 250ml Bacteria Colles as is
05256	WUCIT-1	WW	5/12/13	11:25	3	1	1	1
					3	1	1	1
					3	1	1	1
					3	1	1	1
					3	1	1	1
					3	1	1	1
					3	1	1	1
					3	1	1	1
					3	1	1	1
					3	1	1	1
					3	1	1	1
					3	1	1	1
					3	1	1	1

Relinquished by: *[Signature]* Accepted by: *[Signature]*
 Date: 5/12/13 Time: 17:37

RI: Direct Exposure (Residential) GW Other
 MA: MCP Certification GW-1 GW-2 GW-3
 CT: RCP Cert GW Protection SW Protection GA Mobility GB Mobility Residential DEC I/C DEC Other

Data Format: Excel PDF GIS/Key EQUIS Other
 Data Package: Tier II Checklist Full Data Package* Phoenix Std Report Other
 State where samples were collected: CT
 * SURCHARGE APPLIES

Comments, Special Requirements or Regulations:

CTDAS rates: 1 Day* 2 Days* 3 Days* Standard Other
 * SURCHARGE APPLIES